

The Early Bird... Preventing Young People from becoming a NEET statistic

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Executive summary

Despite increasing concern about youth unemployment, there has been little work to date focused on identifying those at risk of becoming NEET (Not in employment, education or training) and the evidence base on intervention programs that can make a difference. This report documents the scale of the current problem, discussing the different definitions of youth unemployment and NEET that commonly arise and illustrating the group with the worst future trajectories. We identify a set of characteristics that can be measured at age 14 to help predict those most at risk of becoming a NEET statistic. A systematic review of previous interventions, both here in the UK and from around the world, gives a sense of the strengths and weaknesses of previous attempts to deal with those entering NEETHood. Based on the evidence presented, we offer a number of important key findings to be taken into consideration when designing programs to help tackle this increasingly important issue.

Defining NEETs

There is a degree of inconsistency in the way the labour market for young people is discussed. While government definitions generally focus on youth unemployment rates, much academic research focuses on all those who are not in full time education, whether they are searching for work, and hence unemployed, or not. There is also a lack of clarity about whether those in part time education or training should be treated as NEET. We start by defining six groups of individuals by combining information on employment status and education participation, and investigate the family backgrounds and outcomes one year on for each of the different groups. Based on these factors we conclude the most appropriate definition of NEET definition should include only the unemployed and economically inactive who are not in any form of education or training.

- Some 8% of 16 year olds, 10% of 17 year olds and 15% of 18 year olds in the UK are NEET at a point in time and about half of these will stay NEET one year on. We describe these as core NEETs
- The NEET group are from poorer socio-economic backgrounds and have worse GCSE attainment than all other groups.
- Even amongst those from affluent families, the incidence of NEET is high for those with poor GCSEs.
- The destination outcomes for NEETs one year later are consistently poor; around half of the unemployed or inactive remain so, and relatively few return to education, particularly for 17 and 18 year olds.
- Of the NEET group, those who move out of the category one year on have better qualifications and are from better socio-economic backgrounds than those who stay. GCSE attainment appears is a stronger predictor of leaving the NEET category than socio-economic background.
- There is a significant group of individuals with good qualifications and from more affluent family backgrounds that are NEET, particularly at 18, who return to education suggesting a group of young people are taking breaks in between education phases.

- The equivalent destinations for those in employment with training are also largely positive.
- Outcomes for the marginal groups (i.e. those in part time education or training or in employment without training) are found to be far more positive than for those in our NEET category.

Identifying a target population

The important contribution of this work is to identify early characteristics that may be markers of a young person disengaging on completion of compulsory education. This potentially enables programs to intervene to prevent NEETHood rather than reaching out to individuals already out of the system. Interventions targeted from 13 and 14 year olds (year 9) appear to represent the best compromise in the trade off between the poor targeting associated with intervening too young, and the lack of responsiveness amongst elder teens who have already started to make key decisions about their future.

- We identify 14 key characteristics that could be collected from young people to assess their likelihood of becoming NEET.
- These include the young persons' Key Stage 2 scores, whether English is the child's first language, living in social housing, having parents in low class occupations or out of work, the young person working in a part-time job while at school, and the young persons' aspirations for staying on at school, teen smoking, truancing and exclusion.
- There is a trade-off however between the precision of the targeting and the share of the total NEET population covered– for the precision of the targeting to increase, the population considered decreases.
- Basing an intervention on low KS2 scores (measured at age 11) alone, 1 in 10 of the individuals' targeted would likely become a core NEET after leaving school
- Increasing the number of key characteristics that the young person has to 5 or more improves this targeting to 1 in 5 individuals likely to become core NEET and 2 in 5 are NEET at some point after leaving school.

Reviewing previous interventions

There have been a broad range of interventions aimed in various different ways at tackling the issue of youth unemployment and NEETs. The most striking finding is how poor evaluations of these interventions are when it comes to attempting to judge successful programs. More needs to be done in this setting to ensure that we are able to identify which interventions are most effective in terms of outcomes and cost-effectiveness. As we move towards a system likely to be based on outcome-related funding, this becomes ever more important and programs will have to be designed with evaluation at the heart of all decisions.

- We have identified six broad categories of previous interventions into the prevention and treatment of the causes and symptoms of NEETHood; financial payments, vocational education and training, remedial classes, careers guidance and counselling, recovery training programs and community programs.
- The *financial payments schemes* offer the most rigorous evaluations and therefore allow us to apply heavy weighting to their mostly positive results and state with relative confidence

that programs of financial payments tied to participation, attendance and performance are an effective way of improving educational outcomes.

- The availability of rigorously analysed data is not as apparent for other interventions. In the case of *vocational education and training*, developments are often too recent for thorough analysis, particularly of long term impacts. One exception is the Career Academies program in the US which finds significant long-run effects on employment and earnings. The rationale behind these new training opportunities is persuasive and suggests long-term rigorous analysis of impacts is needed here.
- The impact of *remedial classes* was poorly evaluated in many cases. The fact that these programs cater to students often with multiple social, behavioural and physiological problems, means that identifying and measuring outcomes for such an unconventional and varied pool of individuals can be difficult.
- Evidence from schemes focused on *careers advice and counselling* faced significant problems and in general found weak and short-lived impacts where available.
- The *recovery training programs* evidence was more positive, finding improved educational achievement and the higher attainment of qualifications. Furthermore this was found to translate into higher earnings in two of the surveys. It is, however, very expensive.
- Some of the most innovative and engaging interventions in the review are those run by *community organisations*. Such organisations usually take a more holistic approach, trying numerous different initiatives to address the multidimensional causes of social problems in an area. The real effectiveness of these organisations is hard to gauge however since with just one exception, none of the examples included in this review have been evaluated. The exception is the Harlem Children's Zone (HCZ) which found impressive results on educational outcomes.

Key recommendations

The increasing number of NEETs appears to have both a structural and a cyclical dimension. One of the main issues is the lack of ownership that exists in the current setting, with many NEETs, particularly for 16/17 year olds, having little or no contact with existing institutions as they do not qualify for any support. This creates a serious risk of disconnection and by the time they enter the formal benefit system, the damage may already be done. Creating an outcome related intervention with a focus on prevention rather than recovery thus appears essential. Outcomes primarily should be based on preventing NEETHood but should also be concerned with skills. The types of interventions that have worked in the past in terms of reducing NEETHood vary by the group of interest. While those who are shorter-term NEETs may benefit from more effective sign-posting, for the core NEET group this appears to have little benefit. With this in mind we suggest four important considerations when designing an intervention to prevent NEETHood.

- Financial incentives appear to be the most effective way of engaging at-risk individuals. These can take the form of both participation incentives, reducing the level of truanting for example, and outcome based incentives, rewarding achievement.
- Any attachment to the labour market, both in the form of work experience but perhaps more importantly through part-time work whilst still at school, is strongly associated with the individual remaining attached to the labour market on completion of formal education.

Help creating this connection and sustained attachment could be a key area in which interventions could be successful.

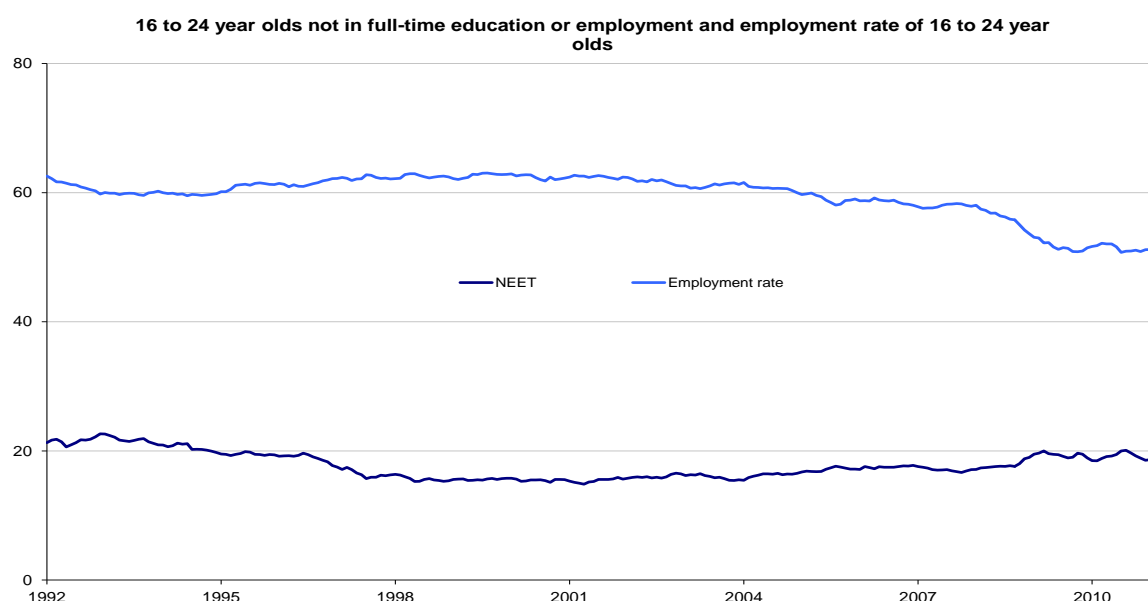
- The group who become NEET are often missing the key basic numeracy and literacy skills needed to succeed in further education, training or the world of work. Classes that focus on getting the basics right first would provide those most at risk with the necessary skills needed for future advancement.
- Alternative options to the basic academic route are fundamental in terms of giving those most at risk a clear pathway with achievable goals. Programs that force individuals to stay in formal academic education may lead to more harm than good as lower-grade academic qualifications such as NVQs are not highly regarded by potential future employers. Formal apprenticeships with key on-the-job training and a proper connection to the world of work could play a fundamental role on increasing engagement for this group of people.

Introduction

This report is aimed at describing and identifying important groups of youths aged 16-19 who experience early spells of youth unemployment. The group described by the shorthand name of NEETs, those 'Not in Education, Employment or Training', are individuals' struggling to make this transition through periods of unemployment and perhaps deeper disconnection in the form of economic inactivity. Whilst for some this amounts to only temporary interruptions as people seek jobs and career opportunities' that suit them, for others this involves prolonged or repeated periods of worklessness that are associated with longer term scarring effects on their labour market outcomes and wellbeing for much of their working lives (Gregg, 2001; Macmillan, 2011).

Recent data from the government suggests that 1 million young people aged 16-24 are not in employment, education or training, and the number is continuing to rise. In total just under 20% of all 16 to 24 year olds are NEET (defined as not in employment or full-time education or training). These are the highest reported figures for youths struggling outside the worlds of work or education since 1996 (see Figure 1). However, perhaps contrary to common perceptions, Britton (2011) observes a limited impact of the 2008 recession on the NEET population over and above a small upward trend since 2004. Whilst employment rates among young people fell by around 8%, far more than the 2% or so in the rest of the working age population, education acted as a strong buffer against the recession. In Figure 1 the strong and long running decline in employment among young people is illustrated, down more than 12% from 2001. This was substantially absorbed by increased educational participation so that NEETHood rates rose from 15.5% in 2001 to 17% just before the 2008 economic crisis and by just a further 3ppts to 20% during the recession.

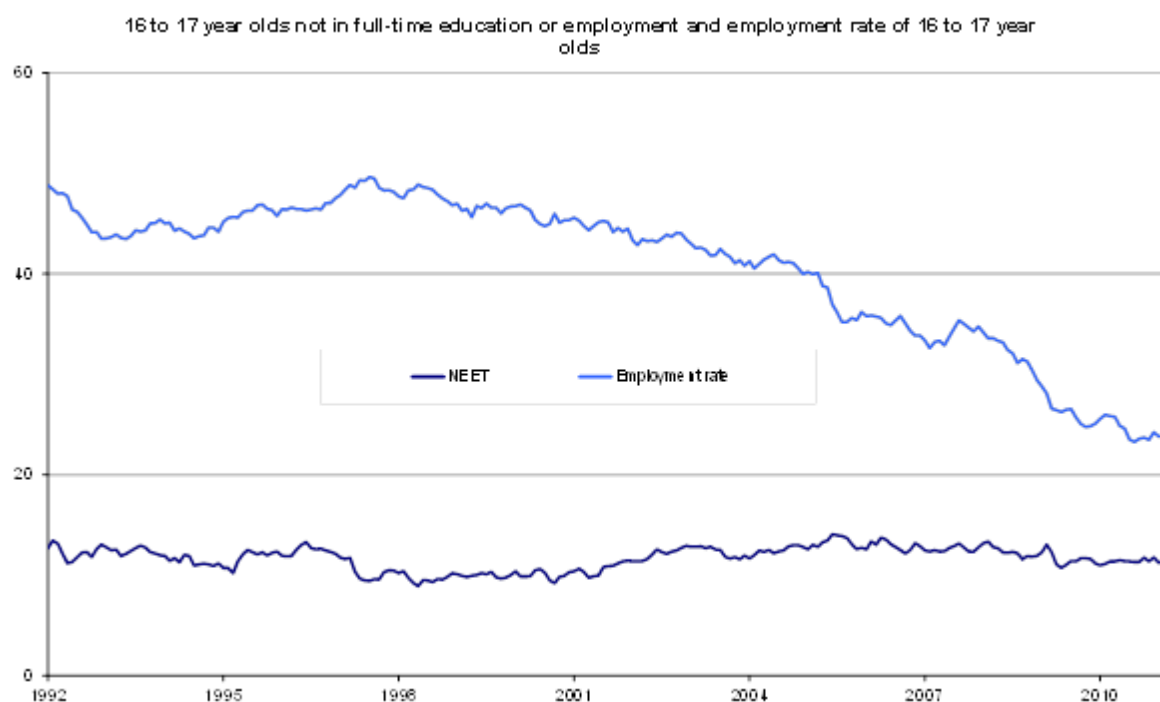
Figure 1 Proportion of Young Age Group who are NEET (including those in part-time education without work in the NEET group)



These patterns are even more marked among 16 to 17 year olds (see Figure 2) where employment has fallen from just under 50% in 1997 to only 23% in the latest data. The proportion not in education or employment, however, has been broadly flat at just over 10%. This relative stability through the recession was driven by young people staying on in education as job opportunities dried up and was a process actively supported by the governments 'September Guarantee' which guaranteed a place in education or training for all 16 to 18 year olds that wanted it through the recession period.

This stability should not divert attention from the very high levels of Neethood in the year(s) after young people leave full-time education. For a minority this disconnection from work or schooling extends for longer than a year and this more severely affected group are a key policy concern associated with long-term prospects of low wages, frequent worklessness and low levels of well-being, based on the experiences of those previously in this position. In addition, prospects for the youth labour market look bleak over the next year or so, with a weak economy still failing to provide jobs, the ending of the 'Youth Guarantee' and with weaker incentives to participate in education due to the abolition of the Education Maintenance Allowance.

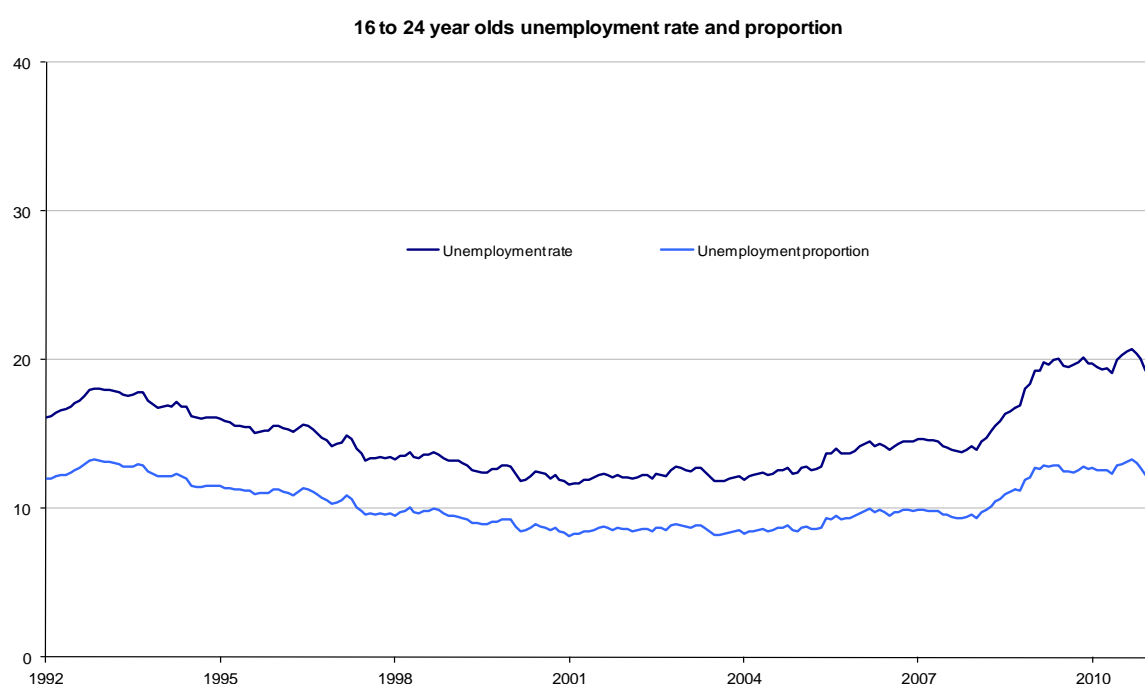
Figure 2 Proportion of 16 to 17 Year olds who are NEET (including those in part-time education without work in the NEET group)



Of the NEET group, just over half are unemployed (i.e. currently actively seeking work), and the proportion has risen somewhat through the recession. Over time a near constant 12% of 16 to 17 year olds have been unemployed but this translates into a high and rising unemployment rate because more young people are in education. The unemployment rate is not defined as a share of the whole age group but only a share of those who are economically active i.e. in work or actively seeking it. Therefore as educational participation increases, fewer people are defined as economically active and hence the unemployment rate for 16 and 17 year olds rises. This now stands

at nearly 40%, whilst only 12% of all 16/17 year olds are actually unemployed. Likewise for all young people some 13% of the age group are unemployed but the unemployment rate is 20%. As the numbers in full-time education have risen and the numbers in work have fallen the unemployment rate has risen above that seen in the last recession. Thus patterns for the unemployment rate can be misleading and measures which focus on the whole population such as the NEET rate or unemployed as a proportion of the age group are more useful.

Figure 3 Youth Unemployment Rates and Proportion of Young People Unemployed



As we shall see in section 1, those NEETs who are unemployed tend to move into work in due course, though typically work without training, whilst those NEETs who are inactive are more likely to return to education. For some of these with decent GCSEs, this is a short interruption in education and probably far less worrying than for those for whom NEETHood is more sustained. But for around 5% of the cohort this separation from work or education is extended and lasts for two years or more.

The long-term impact of youth unemployment and broader worklessness has been documented in the UK in the scarring literature. Gregg (2001) finds evidence of scarring, where those who experience unemployment spells in early adulthood go on to experience far more unemployment in later adulthood. Approximately half of the correlation is found to be due to personal characteristics – such as low education – that are associated with unemployment at any age, but around half is found to be a causal link between youth unemployment and adult worklessness. In a similar vein, Gregg and Tominey (2005) also show that early unemployment causally impacts wages later in life with individuals experiencing workless spells in early adulthood experiencing lower wages as a result of this unemployment.

Analysis from the British Cohort Study (BCS), (which tracks a cohort born in 1970 over an extended time period), indicates that there is also a sizeable correlation between early spells out of work and average wages at 30/34 when controlling for a wide array of different background characteristics.

This effect translates into around a 0.7% wage penalty per month spent out of work between 16 and 24. There is also evidence that this effect is broadly linear leading to a 14.4% wage penalty for 12 months out of work, a 25.9% wage penalty for 24 months out of work and a 34.6% wage penalty for 36 months out of work (Macmillan, 2011). Machin and Manning (1999) emphasise the impact of long durations spent out of work in these regards, finding that the longer individuals spend out of work, the harder it is for these individuals to re-engage with the labour force. All of this evidence suggests that spells out of work have lasting damaging effects for people's lives and the UK economy as a result.

The impact of spells out of work is not constrained to the individual however. Work by Macmillan (2011) shows that sons with workless fathers are likely to spend 10% more time out of work themselves in adulthood and are 25% more likely to spend a year or more in concurrent spells of worklessness. Although cognition and educational attainment play a role in this intergenerational transmission, personality traits such as extroversion and agreeableness are important drivers in repeated workless spells across generations. Sons with workless fathers score lower in personality measures and these personality measures are associated with future workless experiences. When considering the likelihood of experiencing a year or more out of work in adulthood, these personality traits dominate the role of cognition, behavioural and educational outcomes. Further evidence shows that children from workless families struggle to move into work more when times are hard. So in areas with high unemployment or in recession periods, the children from workless families are far more likely to be out of work than those from working families. Hence these are the most marginal workers and struggle more in hard times. The evidence therefore suggests that spells out of work impact both within and across generations, causing further unemployment later in life and being associated with workless spells in the next generation.

The report contains four main components; the first defines the population of NEETs, identifying the key target group of young adults who are genuinely struggling to make successful school to work transitions and distinguishing these individuals from those currently between courses or on gap years. The target group might not be immediately obvious, as many are temporarily in employment, or in temporary education that they will not persist with. In many cases these individuals will likely be more at risk than individuals observed in the NEET group at a point in time who are taking a break from education or employment. The second section then utilises this analysis to identify the markers of individuals at risk of entering this core NEET group at younger ages when they are still in school, so that an intervention scheme may pick up the most appropriate population. The third section will review previous interventions, analysing which policies have been tried in the UK and other countries to address this issue. Finally, from this literature survey and data analysis, some key recommendations will be put forward for implementing a pilot scheme.

Section 1: Defining NEETs

This section provides an overview of the youth labour market in Britain, finding that on average between 2003 and 2010, approximately 8% of 16 year olds, 10% of 17 year olds and 15%¹ of 18 year olds were either unemployed or economically inactive, and not in any form of employment, education or training. The definition of NEET is also discussed, and certain marginal groups are examined, with the specific investigation of individuals in employment without training, and individuals in part time education or training without employment. It is noted that entry to the NEET category can be transitory, and the outcomes for many who do temporarily become NEET – particularly those with good GCSE qualifications and people from higher socio-economic backgrounds – are often good. Finally, potentially important long-run characteristics that might be good young-age predictors of individuals becoming NEET in later life are identified to supplement Section II.

Whilst the literal definition of ‘NEET’ is straightforward – Not in Education Employment or Training – there is not in fact a strict classification for all individuals. To address this we define the following six groups:

- 1) Inactive with no participation in education or training
- 2) Unemployed with no participation in education or training
- 3) Training/Part Time education with no employment
- 4) Employed with no training
- 5) Employed with training/Part Time education
- 6) Full Time education

Groups (1) and (2) are unambiguously NEETs, yet the appropriate way to treat people in the marginal groups, particularly those in part time education or training without employment – group (3) – is unclear. We look particularly at this group and at young people in employment without training to investigate how they should be treated by looking at how the Socio-Economic backgrounds and prior attainment of these groups compare with those of people in unemployment or inactivity. We also consider slightly longer term outcomes, comparing the economic activities of those in the marginal groups with those in the groups (1) and (2) one year after initially being surveyed.

The differences in the family background characteristics between the groups and between individuals who move between groups are revealing about potential predictors of NEETHood at young ages. The individual’s family socio-economic background is defined using information on their parent’s occupational class, their parent’s highest qualification, whether or not they are in social housing, and whether or not they are in a lone parent family. Many of these characteristics do not change over time. In the same vein, differences in prior GCSE attainment are revealing about the importance of GCSE attainment in engaging with the labour market.

¹ These are weighted population estimates.

Data

We use the Labour Force Survey (LFS), a representative quarterly sample survey of 60,000 households in the UK. This section uses data from England, Scotland and Wales². It is a rolling panel, meaning that in each quarter 20% of households drop out of the survey, and 20% enter. Households are thus tracked for five quarters, which we exploit to investigate what young people are doing one year after their initial survey response. Every quarter from October-December 2003 to April-June 2010 is included for the overall statistics, with the exception of the summer quarters, which are excluded because this is the time when most transitions between education phases occur, which might skew the results³. For tables which include statistics on GCSE qualifications, only the quarters from October-December 2005 to April-June 2010 are used due to restricted data on GCSE results in the earlier years. Person weights are used to allow for under-representation of some minority groups, which should improve population estimates.

Individuals are allocated to one of the six categories defined above based on their responses to the 'current education', 'highest qualification currently studying for' and 'economic activity' questions in the LFS. The 'Full-Time Education' category includes people at school, university⁴, college or on a sandwich course, whilst the 'Part-Time Education' category includes people part-time at school, university or college, people at open colleges or the Open University and people on 'other correspondence courses'. Part-Time Education is initially classified as separate to 'Training', but due to the clear overlap between the two groups they are clustered together after the initial set of summary statistics. People are said to be not in education if they answer that they are enrolled but not attending, not enrolled on a course, or have said that current education question does not apply to them.

Throughout, statistics are provided separately for different age cohorts. The given age in any section is actually defined as the age on August 31, the beginning of the academic year in the UK. Thus the '16 year old' cohort will consist of 16 year olds and 17 year olds in their first year of non-compulsory schooling (usually the first year of A-Level study). The '17 year old' cohort will consist of 17 and 18 year olds in their second year beyond compulsory schooling (usually the A-Level year), and the '18 year old' cohort will consist of 18 and 19 year olds; this definition of age cohorts will be used henceforth. Often A-Level study will be completed by this stage, and many go into work or university courses. A considerably proportion also take gap years after A-Levels.

There are approximately 1500 people of each age per quarter, and therefore approximately 13000 different individuals in each age cohort in the pooled dataset. Due to attrition from the survey, there are approximately 6000 individuals observed for the maximum of five quarters.

Individuals are also classified by Socio-Economic Background, and by prior GCSE attainment. Socio-Economic Background is determined by the decile of a continuous Family Background index in which an individual lies. The index is generated using a linear combination of background characteristics

² Northern Ireland is excluded due to difficulties associated with tracking people for multiple observations.

³ People waiting between education phases may respond in the survey that they are unemployed, employed or inactive, when in fact they are simply waiting three months for their new course to begin. Including the summer quarter might therefore underestimate the numbers of people in education and overestimate the numbers in other categories.

⁴ Including polytechnic universities.

including Parent's Occupational Class, Parent's Economic Activity, Parent's Highest Qualification, a Lone Parent indicator, and a Social Housing indicator. Individuals in the first decile are considered the most deprived ten percent, individuals in the second decile the second most deprived ten percent and so on. Given our focus on the lower end of the SES distribution, the top 50% of people are clustered together to make one group. The split on prior GCSE attainment is based on the number of A*-C GCSE grades a young person obtained⁵.

Summary Statistics

- **8% of 16 year olds, 10% of 17 year olds and 15% of 18 year olds are unambiguously defined as NEET for the period of interest.**
- **77% of 16 year olds, 67% of 17 year olds and 44% of 18 year olds are in full time education.**
- **The proportion of young people in employment and having left education increases from around 12% at 16 to nearly 40% at 18**
- **Only a very small number of individuals are in PT Education or Training without Employment.**

Summary statistics showing the distribution of economic activities of 16, 17 and 18 year olds are given in Tables 1.1, 1.2 and 1.3 respectively. It is from these tables that the six groups given above are defined; the first, 'Full-Time Education', includes anybody in full-time education, regardless of their employment status⁶. The second, 'Employed with training' includes both training and part time education and the third, 'Employment without training' includes people in employment but not any form of education (the bottom left hand box). The fourth, comprised of the lightly shaded boxes, includes people in PT education or training who are unemployed or inactive. As discussed, this group is of interest as individuals within it are often classified as NEET (for example in Van Reenan et al (2011)⁷). The fifth group includes individuals who are not in employment or education but seeking work and therefore officially unemployed, and the sixth includes those not in employment or education, but not seeking work. These latter two groups are unambiguously NEET.

In the three tables, we observe a decrease in the number of people in full time education – from around 77% at age 16 (the first year of non-compulsory schooling) to around 44% at 18 (the third year) – and an increase in the number of people in employment (with or without training) but having left full-time education, from less than 12% at 16 to around 38% at 18. The number of unambiguous NEETs is approximately 8% at 16, 10% at 17 and 15% at 18, with the ratio of unemployed to inactive increasing with age. The fraction of individuals in the marginal part time education or training but no employment group is consistently small but not trivial at less than 3% of the population.

⁵ This does not necessarily include English and Mathematics.

⁶ People in FT education are categorised as in unemployment if they state they have looked for work in the previous four weeks. However, this will often be part-time evening or weekend work, and we deem it unnecessary to draw a distinction between these groups. (To test this assumption we investigate the backgrounds and year-on destinations of people who are in FT education but unemployment, finding the group to look extremely similar to the rest of the FT education group).

⁷ 'The Labour Market in Winter' edited by Paul Gregg and Jonathan Wadsworth; Chapter 3 'The Labour Market for Young People' by Antoine Goujard, Barbara Petrongolo & John Van Reenan.

TABLE 1.1: Population descriptive statistics of 16 Year Olds by Education and Employment Status

16 Year Olds	Employed	Unemployed	Inactive	Row Total
FT Education	24.46	6.96	45.76	77.18
PT Education	3.30	0.49	1.17	4.97
Training	2.29	0.20	0.74	3.24
Not in Education or Training	6.31	4.89	3.42	14.62
<i>Column Total</i>	<i>36.36</i>	<i>12.54</i>	<i>51.10</i>	<i>100</i>

Figures show the estimated population averages for England, Scotland and Wales for the years 2003-2010.

TABLE 1.2: Population descriptive statistics of 17 Year Olds by Education and Employment Status

17 Year Olds	Employed	Unemployed	Inactive	Row Total
FT Education	29.47	4.43	33.26	67.17
PT Education	4.87	0.47	0.85	6.19
Training	3.38	0.21	0.72	4.31
Not in Education or Training	12.35	6.04	3.95	22.33
<i>Column Total</i>	<i>50.07</i>	<i>11.15</i>	<i>38.78</i>	<i>100</i>

TABLE 1.3: Population descriptive statistics of 18 Year Olds by Education and Employment Status

18 Year Olds	Employed	Unemployed	Inactive	Row Total
FT Education	15.89	3.10	25.27	44.25
PT Education	5.69	0.51	0.97	7.17
Training	5.07	0.38	1.33	6.78
Not in Education or Training	27.24	8.23	6.33	41.80
<i>Column Total</i>	<i>53.89</i>	<i>12.21</i>	<i>33.90</i>	<i>100</i>

Socio-Economic Background and Prior GCSE Attainment

- The ‘unambiguous NEETs’ – those who are unemployed or inactive without participating in education or training are from poorer socio-economic backgrounds and have worse GCSE attainment than all other groups.
- The relative backgrounds of individuals improves as we move from group 6 to group 1 with those in full time education consistently coming from the best circumstances
- GCSE attainment appears to be a stronger indicator of economic activity than Socio-Economic Background.
- There are a group of individuals with good qualifications and with good family backgrounds that are NEET, particularly at 18, suggesting a portion of young people take gaps in between education phases, or in between finishing education and starting work.

This section illustrates how different family background characteristics and prior GCSE attainment are distributed amongst the six groups. The breakdown of groups by Socio-Economic Background are given in Table 1.4 (a), Table 1.5 (a) and Table 1.6 (a)⁸, and the breakdown by prior GCSE attainment are then given in Table 1.4 (b), Table 1.5 (b) and Table 1.6 (b) for 16, 17 and 18 year olds respectively. Individuals are split by Socio-Economic Background based on the decile of a continuous family background index that they are in and by their prior GCSE attainment. Decile 1 is the most economically deprived – individuals in this category are more likely to have parents with low qualifications, in routine manual work, or unemployment, to live in social housing and to have a lone parent – while Decile ‘6+’ represents the most advantaged 50% of the distribution.

The first observation from these tables is the relatively even Socio-Economic Background distribution for those individuals in Full Time Education at 16, 17 and 18. Those individuals who stay on in full time education appear to come from a wide-range of family backgrounds. Although the percentages in Full Time Education are slightly smaller than the total percentage in that group for the lowest deciles, and slightly higher in the highest deciles, this differential is small, and does not appear to increase moving through to 17 and 18 year olds. This is less true when focusing on prior attainment, as much participation is attributable to those with good GCSE attainment – at 18, 75% of the population of people in full time education come from the 60% of people who have 5 or more GCSEs.

This picture changes as we move to consider the group with Employment with Training, the group in Employment without training, and the group in Part Time Education or Training with no employment. As we move from group to group people come more from deprived backgrounds and less from better-off backgrounds, illustrated by the increasing proportions in deciles 1-5 as we move across the columns. These patterns are fairly consistent for all three age cohorts, and are similar for the prior GCSE attainment distributions.

The ‘unambiguous NEETs’ – those in the unemployment or inactive groups – are predominantly from more deprived backgrounds. This is particularly true for 16 year olds, where 46% of the inactive and 50% of the unemployed are from the bottom 24% of the sample in terms of family background. While this is also true for 17 and 18 year olds, it is less pronounced as there is an interesting shift

⁸ The total column shows that it is not possible to split perfectly by decile; the numbers should be 10% for each of the first five columns, and 60% for the sixth row; they are slightly different to this case due to discontinuities in the distribution caused by large numbers of people having identical background characteristics.

towards the more advantaged, particularly amongst the inactive group. For example, at 18, 64% of the inactive group come from the top 50% of family backgrounds. It is likely that a significant proportion of this group become temporarily inactive in 'gap years' before moving on to university. It should also be noted that the overall sizes of the unemployed and inactive groups become much larger (as seen in Tables 1.1, 1.2 and 1.3) moving through from 16 to 18 year olds, meaning the drop in percentages coming from more deprived backgrounds does not necessarily imply that those people who are NEET at 16/17 are moving out of the category into employment or education. Rather there are more people from less deprived backgrounds that have entered this category as well.

GCSE attainment appears to be a much stronger predictor of economic activity. The vast majority of the unambiguous NEETs have poor GCSE qualifications – for example amongst 16 year olds, 70% of the inactive group are from the 22% in the whole population with no GCSEs. As with socio-economic background, the number of people in the unambiguous NEET categories with good qualifications again increases moving through from 16 to 18 year olds, and more than 30% of the inactive and unemployed have five or more good GCSE at 18.

Overall these tables show that – particularly at 18 – there are significant numbers of people in the 'unambiguous NEET' category from good family backgrounds, and with good GCSE attainment. It is also clear that the people in the potentially marginal NEET category – those in Employment without training or Part Time Education or training with no employment – frequently have poor attainment and are from more deprived backgrounds. The distribution of this latter group looks very similar in terms of family background and prior attainment to the distribution of people in the unambiguous NEET categories. In the next section we utilize the panel feature of the LFS to investigate the group compositions further by looking at what people are doing one year on from their initial observation.

TABLE 1.4 (a): Social Economic Background by Group 16 Year Olds

Decile	FT Education (77.18%)	Employment with Training (5.59%)	Employment no Training (6.31%)	Training/PT Education (2.6%)	Unemployed (4.89%)	Inactive (3.42%)	Total
1	10.24	7.49	13.76	23.50	29.96	31.22	12.33
2	10.36	10.18	15.01	16.56	19.23	15.12	11.40
3	9.95	13.21	14.64	15.30	12.74	10.32	10.71
4	11.90	15.77	15.08	10.34	10.87	9.21	12.13
5	9.68	16.29	10.32	7.40	7.24	5.41	9.76
6+	47.88	37.06	31.20	26.89	19.96	28.73	43.66

All columns add to 100% - the percentages are the percentage of the population in each respective decile conditional on being in the given group. The percentage of the overall population in each group is given in brackets. These are the average figures for England, Scotland and Wales for the years 2003-2010

TABLE 1.4 (b): Prior GCSE attainment by Group 16 Year Olds

GCSEs	FT Education (77.18%)	Employment with Training (5.59%)	Employment no Training (6.31%)	Training/PT Education (2.6%)	Unemployed (4.89%)	Inactive (3.42%)	Total
None	16.79	21.47	38.27	54.61	52.45	70.56	22.67
One to Two	6.07	15.91	12.96	9.46	15.17	9.71	7.55
Three to Four	8.34	17.37	15.27	12.50	10.17	5.79	9.26
Five Plus	68.80	45.25	33.50	23.43	22.21	13.94	60.52

All columns add to 100% - the percentages are the percentage of the population with the respective GCSE qualifications, conditional on being in the given group. The percentage of overall population in each group is given in brackets. These are the average figures for England Scotland and Wales for the years 2005-2010

TABLE 1.5 (a): Social Economic Background by Group 17 Year Olds

Decile	FT Education (67.17%)	Employment with Training (8.25%)	Employment no Training (12.35%)	Training/PT Education (2.25%)	Unemployed (6.04%)	Inactive (3.95%)	Total
1	9.11	7.79	10.67	19.92	24.74	19.83	10.81
2	8.99	9.39	12.46	16.49	16.39	11.34	10.16
3	9.74	13.53	15.31	11.08	13.66	8.18	10.95
4	6.38	8.35	6.42	5.29	6.08	4.41	6.43
5	14.65	21.41	17.90	10.30	11.68	6.80	15.02
6+	51.12	39.53	37.25	36.92	27.42	49.44	46.64

TABLE 1.4 (b): Prior GCSE attainment by Group 17 Year Olds

GCSEs	FT Education (67.17%)	Employment with Training (8.25%)	Employment no Training (12.35%)	Training/PT Education (2.25%)	Unemployed (6.04%)	Inactive (3.95%)	Total
None	12.34	21.05	32.92	37.35	51.29	59.68	20.14
One to Two	5.33	12.62	12.06	10.79	14.37	13.80	7.65
Three to Four	7.63	14.38	14.35	13.81	13.11	6.51	9.33
Five Plus	74.70	51.96	40.68	38.06	21.23	20.01	62.88

TABLE 1.6 (a): Social Economic Background by Group 18 Year Olds

Decile	FT Education (44.25%)	Employment with Training (10.76%)	Employment no Training (27.24%)	Training/PT Education (3.19%)	Unemployed (8.23%)	Inactive (6.33%)	Total
1	8.60	5.65	7.51	13.42	19.47	12.12	9.26
2	8.36	7.49	9.93	9.27	13.26	8.35	9.13
3	9.01	10.71	12.46	8.39	12.52	5.41	10.17
4	5.99	7.46	7.26	5.74	6.41	3.36	6.36
5	12.55	20.20	17.22	11.54	12.21	7.15	14.24
6+	55.48	48.49	45.61	51.65	36.12	63.61	50.84

TABLE 1.4 (b): Prior GCSE attainment by Group 18 Year Olds

GCSEs	FT Education (44.25%)	Employment with Training (10.76%)	Employment no Training (27.24%)	Training/PT Education (3.19%)	Unemployed (8.23%)	Inactive (6.33%)	Total
None	13.48	20.41	25.47	32.05	46.81	48.46	23.04
One to Two	4.59	8.96	9.33	5.31	11.40	10.32	7.24
Three to Four	6.50	13.99	11.26	7.11	9.49	7.15	8.81
Five Plus	75.42	56.64	53.94	55.54	32.29	34.07	60.90

Investigating One Year On

- **One-year-on destinations for the unambiguous NEETs are consistently poor; around half of the unemployed or inactive remain so one year on, and relatively few return to education, particularly for 17 and 18 year olds.**
- **The outcomes for those in full time education are positive – the vast majority in full time education in wave 1 are still in full time education a year later.**
- **The equivalent destinations for those in employment with training are also largely positive.**
- **Things are less positive for those in employment without training, particularly for 16 and 17 year olds, although they are still far better than the outcomes for the unambiguous NEETs.**
- **Destinations for the other marginal group – PT education or training without employment – are good compared to the unambiguous NEET group as many return to full time education.**

In this section we investigate what happens to individuals in each of the six highlighted groups one year after they were originally surveyed. The findings are presented using transition matrices, which are labelled Tables 1.7, 1.8 and 1.9. The matrices show the destinations of individuals across the six different groups in Wave Five, given an individual's origin group in Wave One. So for example, the top row of Table 1.7 shows that of the 16 year olds who were in full time education in Wave One of the survey, 84.9% were still in full time education one year later, 3.87% had moved into employment with training, 6.25% had moved into employment without training and 3.5% had become NEET⁹.

For all three age cohorts, the destination groups for people in full time education in Wave One are good. The majority remain in education; of those who were in full time education at 16, 85% were still in education one year on. The equivalent figures for 17 and 18 year olds are 66% and 72% respectively¹⁰. Of those that do leave education, most enter full time employment, with relatively few becoming inactive or unemployed. Of those going into employment from education, a consistently larger number enter employment without training rather than employment with training. This could be due to people wanting to move away from any form of education upon leaving school, but could alternatively be because there are simply fewer opportunities for employment with training for people leaving school without university degrees.

As with education, the destination outcomes for people in employment with training are generally good, as a relatively small percentage tend to enter the unambiguous NEET category of being unemployed or inactive. Most remain in employment with training, although considerable numbers enter education or employment without training.

For employment without training the outlook is less positive, particularly for 16 and 17 year olds, as a larger proportion of this group enter the core NEET category compared to those in employment with training or FT education. By age 18 this group appears to be more similar to groups 5) and 6)

⁹ Results here should be treated with caution due to the high rate of potentially not unbiased attrition from the survey, reducing the number of people present in both Wave One and Wave Five of the survey.

¹⁰ The rise from 17 to 18 is unsurprising since many in education at 17 will be in the final year of their A Level courses, whilst courses that start at 18 are frequently longer than one year.

suggesting that 16 and 17 year olds entering employment without training are typically obtaining jobs involving a great deal of churning, whereas 18 year olds entering employment without training may be capturing a higher calibre of employment.

For the other key marginal category of interest – Training or Part Time education without employment – the destination groupings are perhaps surprisingly positive given the similarity of this group to the core NEET group in terms of background characteristics. The majority either re-enter full time education or employment with or without training, suggesting it might be a mistake to classify this group in the NEET category. Consistently across all three ages however, around 15-20% enter the core NEET category.

For the chronic NEET categories, as expected, outcomes are poor. At 16, around 50% of the inactive or unemployed are still inactive or unemployed one year on. These numbers do not improve for the older cohorts – at 18, more than 53% of the inactive are still inactive or unemployed one year on. Although the overall picture is bad, there are some interesting differences between the unemployed and the inactive groups. Most notably, the inactive are far more likely to move back into education than the unemployed, whilst the unemployed are far more likely to move into employment (usually employment without training). More people move from inactivity to unemployment than the other way around (which is unsurprising, as unemployment is often supplemented with Job Seeker's Allowance), although it is concerning that as many as 9% of unemployed 18 year olds slip into inactivity. In the final section, we break down these movements by SES and prior attainment. This should give a clearer overview of our target populations.

TABLE 1.7: Transition Matrix giving destination twelve months on by starting group **16 Year Olds**

16 Year Olds		WAVE 5					
		FT Education	Employment with Training	Employment without Training	Training/PT Education	Unemployed	Inactive
WAVE 1	FT Education	84.90	3.87	6.25	1.49	2.18	1.31
	Employment with Training	16.27	58.36	18.67	0.95	4.93	0.81
	Employment without Training	9.50	17.11	55.85	1.70	14.44	1.40
	Training/PT Education	51.24	9.97	12.11	7.00	10.59	9.08
	Unemployed	16.15	8.13	24.31	1.69	41.16	8.56
	Inactive	29.69	4.13	14.21	4.49	16.76	30.72

TABLE 1.8: Transition Matrix giving destination twelve months on by starting group **17 Year Olds**

17 Year Olds		WAVE 5					
		FT Education	Employment with Training	Employment without Training	Training/PT Education	Unemployed	Inactive
WAVE 1	FT Education	66.06	6.35	18.43	1.80	4.92	2.45
	Employment with Training	12.89	51.16	25.34	1.29	5.87	3.44
	Employment without Training	5.83	10.15	69.13	1.32	11.64	1.92
	Training/PT Education	44.42	5.71	23.41	16.19	8.47	1.79
	Unemployed	7.53	5.53	41.05	1.75	36.44	7.69
	Inactive	19.70	3.70	16.08	6.29	13.27	40.97

TABLE 1.9: Transition Matrix giving destination twelve months on by starting group **18 Year Olds**

18 Year Olds		WAVE 5					
		FT Education	Employment with Training	Employment without Training	Training/PT Education	Unemployed	Inactive
WAVE 1	FT Education	71.81	4.85	14.77	2.26	4.00	2.32
	Employment with Training	10.61	45.14	35.99	1.04	5.14	2.09
	Employment without Training	11.55	11.91	68.43	1.15	5.02	1.93
	Training/PT Education	39.92	6.85	23.86	12.36	8.08	8.93
	Unemployed	8.65	5.04	40.14	1.93	34.79	9.46
	Inactive	25.33	0.70	16.91	4.11	11.06	41.89

The Movers and the Stayers

- **Of the unambiguous NEET group, those who move out of the category one year on have better qualifications and are from better socio-economic backgrounds than those who stay.**
- **GCSE attainment appears to be a stronger predictor of leaving the NEET category than socio-economic background.**
- **Even amongst the affluent, the incidence of NEET is high for those with poor GCSEs.**
- **Those in employment without training from poor socio-economic backgrounds and with low prior attainment are highly at risk of slipping into the NEET category one year on, particularly at 16 and 17.**

This section extends on the previous by investigating the socio economic background and prior attainment distributions of individuals who move between groups as well as individuals who stay in the same group one year on. This enables us to identify the types of people who move from one group to another, and the types of people who stay within a given group.

We focus in on a sub-sample of all possible movements between groups for simplicity, based on evidence from the previous section. We therefore consider the background and prior attainment of those who stay in FT Education, those who move from education to the unambiguous NEET group, those who stay NEET one year on, those who move from the unambiguous NEET group to education, and finally those who move from Employment Without Training to the NEET group. In this context NEET includes both the unemployed and inactive¹¹. The socio economic and prior attainment distributions for each of these sets of individuals are given in Tables 1.10(a), 1.10(b), 1.11(a), 1.11(b), 1.12(a) and 1.12(b). The initial distribution is provided as a benchmark to identify the type of people who move and stay within groups.

From Table 1.10(a) column 3, it is clear that the people who are in the NEET category in both waves of the survey come disproportionately from lower SES backgrounds than those who are observed in the NEET category at the beginning. This indicates that the people leaving the NEET category are generally from better-off families and that those who stay in the NEET category are the most deprived. Columns 3, 4 and 5 of Table 1.10(a) show that the majority of the people moving into education or employment from the NEET group come from more advantaged backgrounds. The difference is more extreme amongst the people moving into employment than for the people moving into education, which is perhaps surprising. This latter observation holds true for 17 and 18 year olds.

We can also see that the people who have good GCSE grades find it easier to move out of the NEET category – notably prior GCSE qualifications appear to be a much stronger predictor than socio-economic background. The evidence suggests that even for those from better off families, having bad GCSE results increases the chance of staying in the NEET category a year on. Again it seems that people who entered the NEET category with good grades tend more towards employment than

¹¹ Part Time Education and Training is excluded from this section, as the group is too small to break down into deciles.

education. This suggests that people from the more advantaged end of the SES distribution and people with good grades are often making a more permanent decision when leaving school.

When considering full time education, the evidence suggests that people who stay on are generally from better-off backgrounds in terms of SES. Those entering the NEET group from FT education look nothing like those who are initially in the NEET group at 16 both in terms of family background and prior attainment. 45% of those who drop out of education into the NEET group from 16 to 17 have at least 5 good GCSEs. Of those entering the NEET group from FT education at age 17 to 18, 65% have at least five good GCSEs. This suggests that these individuals are indeed likely to be from more privileged backgrounds, taking time off from studies in a gap year for example. There is further evidence of this trend when considering the prior attainment of the NEET group entering FT education at age 18 to 19; 80% of this group have five or more good GCSEs.

The final column shows that the people who become NEET having started in employment with no training at age 16 are disproportionately from the most disadvantaged and the less well educated groups. This pattern becomes less intense for older cohorts, supporting the idea that at younger ages people with poor qualifications struggle to stay in work with this group representing people in less secure employment with individuals churning in and out of the labour force.

TABLE 1.10 (a): Distributions by SES of the Movers and Stayers 16 Year Olds

Quintile	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
1	31.31	42.77	15.64	11.45	10.77	18.34	8.78	16.18	21.33
2	17.60	18.57	14.95	13.68	10.15	18.56	9.01	16.05	27.05
3	13.82	10.87	18.17	13.85	10.01	15.54	9.81	16.72	13.90
4	7.93	7.01	10.64	21.96	12.75	10.26	10.94	13.41	10.82
5	5.64	4.61	9.33	11.32	9.20	5.92	10.31	8.09	9.27
6+	23.69	16.16	31.27	27.74	47.12	31.38	51.14	29.54	17.64

TABLE 1.10 (b): Distributions by Prior Attainment of the Movers and Stayers 16 Year Olds

GCSEs	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
None	60.73	62.61	29.07	28.08	16.34	26.99	9.25	44.23	53.64
1 or 2	8.47	17.05	10.79	14.23	5.41	11.20	6.62	9.28	14.48
3 or 4	9.84	6.96	20.84	7.84	8.94	16.89	8.63	13.85	17.16
5 +	20.96	13.38	39.30	49.85	69.30	44.92	75.50	32.64	14.72

TABLE 1.11 (a): Distributions by Prior Attainment of the Movers and Stayers 17 Year Olds

Quintile	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
1	23.35	32.53	17.29	20.82	9.25	15.80	8.22	10.99	13.08
2	12.55	17.70	10.61	15.14	9.16	9.64	8.55	12.09	23.23
3	9.17	3.71	10.64	11.55	9.55	12.98	9.43	15.18	11.23
4	6.32	6.05	0.00	8.82	6.66	7.23	6.26	6.40	8.64
5	10.48	3.58	23.85	11.45	14.20	10.67	13.29	17.45	21.79
6+	38.14	36.42	37.61	32.22	51.17	43.68	54.25	37.89	22.04

TABLE 1.11 (b): Distributions by Prior Attainment of the Movers and Stayers 17 Year Olds

GCSEs	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
None	51.48	57.49	20.43	39.20	15.07	19.43	9.57	37.50	48.48
1 or 2	12.01	12.94	6.60	25.05	4.98	10.19	5.29	9.70	13.53
3 or 4	10.69	10.40	13.51	8.85	7.52	6.61	6.66	13.91	12.21
5 +	25.82	19.17	59.46	26.90	72.43	63.77	78.49	38.89	25.78

TABLE 1.12 (a): Distributions by Prior Attainment of the Movers and Stayers 18 Year Olds

Quintile	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
1	15.66	26.62	3.83	12.47	8.77	15.86	10.26	8.27	18.08
2	12.29	11.61	3.53	14.47	8.45	9.89	8.40	10.86	15.25
3	9.89	12.34	3.08	10.10	9.11	13.35	10.07	12.05	10.11
4	4.35	5.01	3.94	4.52	6.50	5.39	5.55	7.91	7.67
5	9.74	8.46	10.39	18.58	13.20	19.42	16.11	16.38	17.34
6+	48.08	35.97	75.23	39.86	53.97	36.09	49.61	44.52	31.56

TABLE 1.12 (b): Distributions by Prior Attainment of the Movers and Stayers 18 Year Olds

GCSEs	Neet in Wave 1	Neet in Wave 1 Neet in Wave 5	Neet in Wave 1 Ed in Wave 5	Neet in Wave 1 EmpNT in Wave 5	Education in Wave 1	Education in Wave 1 Neet in Wave 5	Education in Wave 1 Ed in Wave 5	EmployedNT in Wave 1	EmpNT in Wave 1 Neet in Wave 5
None	47.95	55.22	10.13	32.35	17.34	25.10	10.04	29.77	32.19
1 or 2	7.98	18.23	6.69	5.57	4.19	10.62	7.38	8.70	9.67
3 or 4	8.25	10.33	2.50	16.70	5.89	6.75	9.01	11.64	15.03
5 +	35.81	16.21	80.68	45.38	72.57	57.53	73.57	49.89	43.11

Conclusions

On average between 2003 and 2010, a significant proportion of the youth population were NEET, even under the strictest possible definition, which includes only those who are unemployed or inactive and not in any form of education, employment or training. Outcomes one year on for the NEET population at 16, 17 and 18 are found to be poor, with often more than 50% of the inactive or unemployed group found to still be inactive or unemployed one year on. This is deeply concerning given the existing literature highlighting the long term impact of prolonged periods of youth unemployment.

Although individuals in part time education or training but not employment look relatively similar to individuals in the NEET categories in terms of background characteristics and prior GCSE attainment, their outcomes one year on appear to be far better, implying they should not be included in the NEET category. For individuals in employment without training, while a clear distinction in outcomes between 16/17 year olds and 18 year olds does exist, those outcomes are still far more positive than the outcomes for people in the NEET category. However, outcomes amongst this group are far worse for people from more deprived socio-economic backgrounds and with poor prior GCSE attainment, suggesting people with these characteristics in employment without training prior to age 18 are highly at risk of experiencing longer term problems in the labour market.

People with good qualifications and from more advantaged backgrounds frequently take time out from education, or take time finding work, perhaps due to having more flexibility in selecting their type of work. Thus many of the individuals who are observed in the cross-section as being NEET will often not be in danger of experiencing long-term labour market problems. Indeed, whilst having good GCSE qualification does not act as a complete immunisation against longer periods of inactivity or unemployment, people with good GCSE qualification do become economically active again far more frequently than those without. In the next section, we use this information to define our target outcome groups to include both groups of individuals who are only observed as being NEET for two or more of the first three years of post compulsory schooling, and groups of individuals who are observed for just one of the three periods, but with low GCSE qualifications. Other groups – while not completely devoid of risks – are excluded from further analysis.

Section II: Identifying a Target Population

This section aims to identify a target population of young people who are high risk of becoming NEET. The LSYPE, a longitudinal dataset which tracked a cohort of approximately 15000 young people from English secondary schools from ages 13 and 14 onwards is used; the latest wave has information on cohort at ages 18 and 19, meaning there are three waves post compulsory schooling. We observe 16.69% of the survey population as NEET for any one of the three post-compulsory education waves, 3.84% as NEET for any two of the three waves and just 0.95% NEET for all three of post-compulsory education waves¹². Characteristics observed at ages 13 and 14 are then used to predict the probability of NEET incidence to try to identify a target population for intervention.

The LSYPE is a rich data source with a wide range of individual and family characteristics observed in the first wave of the survey. We suggest that age 14 is the key age for an intervention of this type; earlier interventions would lead to less precision and focus of key characteristics as individuals' would still be developing, whilst later interventions would miss the point at which important decisions are starting to be made about future paths and outcomes, leaving little time for intervention whilst individuals are still connected to the formal schooling system. We use results from the previous section as well as work by Chowdry et al (2010)¹³ as guidance for the variables that might be important predictors of becoming NEET. The previous section shows that the majority of persistent NEETs and the majority of the people who slip into the NEET category from other categories are from the lower deciles of our Socio-Economic Background distribution. Since many of the characteristics used to determine this distribution are stable across time, they are likely to be good predictors of becoming NEET at later ages. We therefore include family background variables including parental occupational status, parent's highest qualification, parental employment status, a lone parent indicator and a social housing indicator. Income is also included, as – unlike the LFS data – the LSYPE income data are good.

Chowdry et al (2010) found that aspirations and behaviours account for approximately a quarter of the rich poor divide in attainment at age 16. Given the link between attainment at 16 and becoming NEET (we saw in the previous section that people with poor GCSE qualifications are far more likely to become NEET, and are far more likely to be persistent NEETs), it seems reasonable that such factors will also be important predictors of becoming NEET, and so are included. We also include attainment at age 11, which is strongly correlated with attainment at 16, and is therefore a likely predictor of NEETHood at later ages.

From our analysis we provide a set of 14 key characteristics which are our main predictors of becoming NEET. These variables could be easily obtained by combining prior attainment data from the school with a direct survey of the child, and exclude potentially sensitive questions. We conclude

¹² Note that these are the survey population figures, not the weight population estimates.

¹³ Chowdry, Crawford and Goodman (2010) "The role of attitudes and behaviours in explain socio-economic differences in attainment at age 16" Institute of Fiscal Studies, Nov. 2010.

that if the child has low Key Stage 2 attainment and at least five of the remaining key characteristics, they should be targeted for intervention.

Data

We use the Longitudinal Survey of Young People in England (LSYPE), a survey which began tracking a sample of young people from ages 13 and 14 in 2004. The latest wave of the survey we have is of the same cohort at ages 18 and 19 in 2009. Unlike the previous section, Scotland and Wales are now excluded as the data is only collected in England. Despite this, however, the population estimates of the number of people in each of the six groups are similar, as seen in Table 2.1:

TABLE 2.1: Population Percentages in Each Group, Comparison of Surveys

LFS	Age 16	Age 17	Age 18	LSYPE	Age 16	Age 17	Age 18
FT Education	80.77	67.40	45.55	FT Education	65.86	61.91	52.53
Employed With Training	4.87	10.61	24.09	Employed With Training	5.09	16.00	22.80
Employed No Training	4.06	8.29	10.33	Employed No Training	7.16	8.53	9.40
PT Education or Training	2.55	2.41	3.87	PT Education or Training	13.64	0.74	1.02
NEET	7.76	11.29	16.17	NEET	8.25	12.82	14.25

The LFS figures are averages from 2003 to 2010 and include England, Scotland and Wales. The figures are taken from Tables 1.1, 1.3 and 1.3. The LSYPE tracks just one cohort in England only from age 13 and 14 in 2004 to 18 and 19 in 2009. The '16 Year Old' figures are therefore the population estimates in England for 2007, the '17 year old' figures for 2008 and the '18 year old' figures for 2009. The Inactive and Unemployed clustered together in the NEET category, unlike in Section I as the distinction between the two is less clear in the LSYPE.

Although there are clearly some differences between the two sets of statistics, they are certainly comparable. There are a number of reasons the statistics will differ; first, the LFS figures represent average figures from 2003 to 2010, while the LSYPE figures are for just one cohort at one cross sectional observation. Second, the surveys are conducted at different times in the academic year – while we selected LFS data for the three non-summer quarters of each year, the majority of the LSYPE interviews are conducted in the spring and summer months – this could be a reason for the discrepancy between part time and full time education. Third, the LFS include Scotland and Wales, while the LSYPE figures are just for England. Finally, the framing of the questions might be slightly different between the two surveys – for example many of the people classified as being in FT Education in the LFS might have been classified as being in PT Education or Training in the LSYPE.

All predicting variables (see box 2.1) come from the LSYPE, including attainment data which are matched from the National Pupil Database (NPD). The outcome variables – Core NEET, Core NEET with Low GCSEs and Ever NEET with Low GCSEs are derived from the same individual data as the figures in Table 2.1.

Outcome Variables

The LSYPE provides data on the GCSE results young people obtained, and has three post-compulsory school waves. We use this to investigate three outcome variables of interest:

- 'Core NEET' – those who are NEET (as defined in section 1) in two or more of the three post-compulsory school periods.

- ‘Core NEET with Low GCSE’s’ – those who are NEET in two or more of the three periods post compulsory schooling with no A*-C grade GCSE’s.
- ‘Ever NEET with Low GCSE’s’ – people who are NEET in one or more of the three post-compulsory school periods with no A*-C grade GCSE’s.

In the LSYPE, 6.0% of the population are Core NEET, 3.49% are Core NEET with low GCSE’s and 8.98% are Ever NEET with low GCSE’s¹⁴. In the previous section we showed that people with no GCSE’s are far more likely to fall into unemployment or inactivity from Education or Employment, and are far less likely to exit unemployment or inactivity than those with better qualifications. The Ever NEET group without any restrictions on GCSE attainment are not included –as discussed in the previous section, a lot of people with good qualifications take time off school, particularly before University, and we deem them to be not a high-risk population.

Predicting Variables

The aim of this section is to identify a target population of young people who are high risk of becoming NEET at later ages. This is done by estimating the probability of an individual becoming NEET given a set of characteristics at a young age. Those with high probabilities of becoming NEET are our target population.

BOX 2.1: Summary of Variables in Final Specifications

Variable	Description	Weighted Mean
KS2	Contextualised Key Stage 2 exam score (taken at age 11), averaged across subjects	27.13 [SD=4.09]
English First Language	Dummy set equal to 1 if English is the first language or bilingual	0.970
Private Tuition	Dummy set equal to one if child has not ever had private tuition paid for by the parent	0.877
Social Housing	Dummy set equal to one if child lives in social housing	0.227
Child Benefits	Dummy set equal to one if parents receive child benefit	0.006
Income	Banded income, grouping together £36000 and above.	23.23 [SD=7.29]
Parents GCSE	Dummy set equal to one if highest qualification held by either parent is GCSE grades a-c, qualifications at level 1 or below or other equivalent	0.539
Parents Routine	Dummy set equal to one if highest occupational class of either parent is ‘semi-routine or routine occupations’.	0.211
Parents LT Unemp.	Dummy set equal to one if highest occupational class of either parent is ‘never worked/long term unemployed’.	0.042
No Comp with Internet	Dummy set equal to one if there is no computer with internet access in the household	0.095
No Car	Dummy set equal to 1 no one in household owns a motor vehicle.	0.143
Black Caribbean	Dummy set equal to one if black Caribbean	0.037
Black African	Dummy set equal to one if black African	0.040
Leave School Yes	Dummy set equal to one if child answers ‘leave school’ to question asking about post year 11 plans	0.149
Leave School DK	Dummy set equal to one if child answers ‘don’t know’ to question asking about post year 11 plans	0.060
Cigarettes	Dummy set equal to one if person says yes, they smoke cigarettes now (not just have ever).	0.112
Work	Dummy set equal to one if have a paid job during term time	0.231
Truant	Dummy set equal to one if child has played truant in last 12 months	0.152
Excluded	Dummy set equal to one if child has ever been excluded	0.110
Behaviour	Dummy set equal to one if parent has ever been in contact with social services, or other similar service about young person’s behaviour	0.098

Means are weighted using the given population weights to estimate population averages. KS2 scores are averaged across English, Science and Mathematics, and are contextualised, rather than raw scores; we therefore discuss KS2 scores in terms of scores relative to the mean, rather than in terms of raw results.

¹⁴ based on the weighted sample means

We therefore require a set of variables that are strong predictors of individuals becoming NEET. We then outline predictions of the likelihood of becoming NEET given a combination of the key characteristics.

The final variables found to be important are listed with means and descriptions in Box 2.1. Results from our regression analysis are presented in Box 2.2.

From the analysis we identify fourteen characteristics, which are observable at ages 13 and 14, and can be used to identify a target, population. These variables are:

- Key Stage 2 scores
- Whether English is the child's first language
- Whether the child has had private tuition
- Whether the child lives in social housing
- Whether occupational class of either parent is 'routine or semi-routine'.
- Whether occupational class of either parent is 'unemployed or never employed'.
- Whether the child has access to a computer with internet in the home
- Whether a car is owned by the household
- In response to the question 'will you stay in school after GCSE's?' whether the response is 'No'.
- In response to the question 'will you stay in school after GCSE's?' whether the response is 'Don't Know'.
- Whether smokes cigarettes
- Whether has had any paid work of any form
- Whether has played truant in the past 12 months
- Whether has ever been excluded

We aim to identify an at risk population suitable for intervention, and do this using the fourteen characteristics listed above, separating the thirteen zero-one 'key' variables from KS2 scores. An individual is said to possess one of the key characteristics if the variable representing that characteristic is set equal to one¹⁵. Because some of the variables are interrelated¹⁶, the maximum number of characteristics any individual can possess is eleven.

The distribution of the number of characteristics people possess is given in Figure 2.1, which shows the characteristics for the whole population (darker bars) and restricted for people with low KS2 scores¹⁷ (lighter bars). There is a clear difference between the two; people with low KS2 attainment tend to have more of the key characteristics than rest of the population. Only very small numbers of the population are estimated to have none or eleven of the key characteristics.

¹⁵ In this context the 'work' variable is flipped around so it is set equal to one if the individual has never worked. Note that this is the other way round to how it is in the regression analysis given in Box 2.2.

¹⁶ Some of the variables are not independent of one another; for example of the occupational class variables, only one can be set equal to one at any one time. (If both are set equal to zero, the highest occupational class of the parent must be one of the remaining two classifications: higher/lower managerial or professional, or intermediate.)

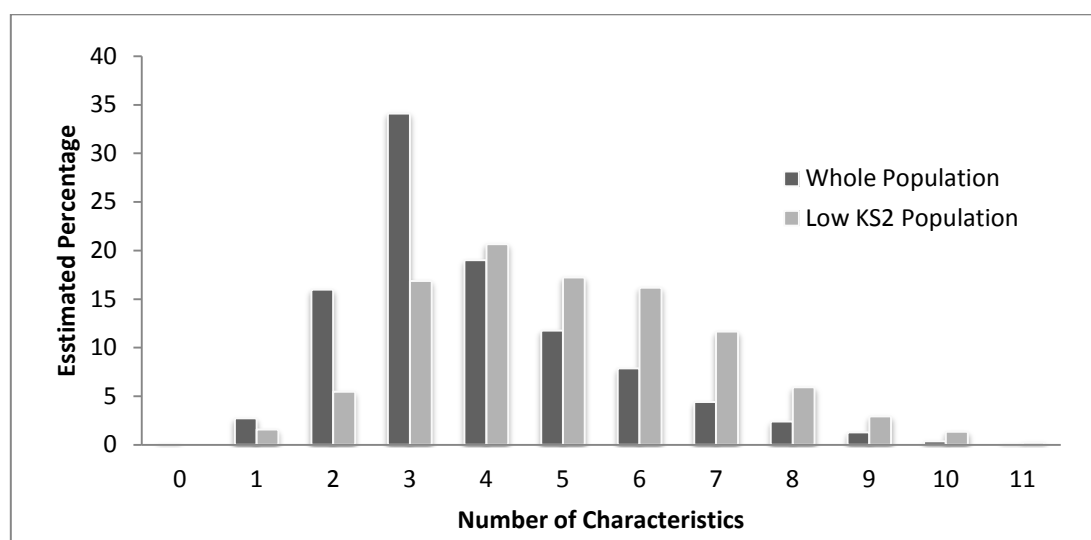
¹⁷ where a 'low' KS2 score is a score lower than one standard deviation below the mean

BOX 2.2: Predicting Core NEETs			
Variable	(1)	(2)	(3)
	All Variables	No Ethnicities	No Sensitive Questions
KS2	-0.097*** (0.012)	-0.098*** (0.012)	-0.095*** (0.012)
English First Language	-	0.558* (0.322)	0.754** (0.323)
Private Tuition	0.401* (0.216)	0.440** (0.216)	0.427* (0.222)
Social Housing	0.343*** (0.129)	0.317** (0.129)	0.289** (0.134)
Income	-0.017** (0.007)	-0.017** (0.007)	-
Parents GCSE	0.273** (0.131)	0.255* (0.134)	-
Parents Routine	-	-	0.380** (0.149)
Parents LT Unemp	-	-	0.597** (0.266)
No Comp with Internet	0.509*** (0.159)	0.513*** (0.159)	0.502*** (0.163)
No Car	0.381*** (0.143)	0.374** (0.144)	0.327** (0.145)
Black Caribbean	-0.670** (0.061)	-	-
Black African	-1.646*** (0.136)	-	-
Leave School: Yes	0.646*** (0.136)	0.661*** (0.137)	0.683*** (0.133)
Leave School: Don't Know	0.333* (0.178)	0.345* (0.177)	0.383** (0.183)
Cigarettes	0.417** (0.167)	0.425** (0.168)	0.522*** (0.167)
Work	-0.443*** (0.14)	-0.439*** (0.139)	-0.438*** (0.134)
Truant	0.384*** (0.14)	0.390*** (0.14)	0.438*** (0.132)
Excluded	0.337** (0.17)	0.325** (0.17)	0.462*** (0.167)
Behaviour	0.633*** (0.162)	0.639*** (0.16)	-
Pseudo R ²	0.1504	0.1486	0.1423
N	10827	10827	10827

***, ** and * indicate variable is significant at the 1% level, 5% level and 10% level respectively. Standard errors are given in the parenthesis and are clustered at local authority level. The dependent variable in all sets of regressions is a Core NEET, a zero one dummy. A logistic regression model is used, with probability weights included, and missing observations are replaced with mean values for all of the key variables (not for the Core NEET indicator or the KS2 score) to restrict losses to the sample size.

The previous section and Chowdry et al (2010) provide guidance for potentially important characteristics. We start by including all variables that could possibly be important, and identifying a subset of strong predictors from those. We then restrict the set of starting variables to exclude characteristics that cannot realistically be selected on, or are difficult to obtain reliably. The final set of variables in each case is obtained from an initially larger set of variables by stepwise exclusion of the least powerful predictors. The initial specification for Column (1) includes all variables possible, the initial specification for Column (2) excludes all ethnicity questions, and the initial specification for Column (3) excludes ethnicity questions, potentially sensitive questions, or questions that are unlikely to be answered accurately by young people about their parents. The final sets of Key Predictors are very similar for the three different sets of starting variables, and where they do differ, it seems that other variables proxy for the excluded variables. For example, the parental occupational class variables appear to be good proxies for income and the highest qualification of the parent. One variable that is not included in the final specification that may not be well proxied for is the behavioural variable, and we experiment with including it in our model in the Extensions, in Box 2.3.

FIGURE 2.1: Distribution of Key Characteristics



Figures are population estimates based on the weighted sample. The ‘number of characteristics’ come from a sum of the number of ‘key characteristics’ any individual has, as defined above. A Low KS2 score is a KS2 score less than one standard deviation below the estimated population mean.

Accuracy of Prediction

The target population is selected based on individuals’ KS2 scores and the number of key characteristics they possess. Given these characteristics are all observed at ages 13 and 14 (except KS2 scores, which are observed earlier), there will inevitably be some degree of uncertainty associated with the selection process. As the number of characteristics required for an individual to be selected for intervention is increased, that uncertainty decreases, but at the expense of a good-sized target population (there are simply fewer people with high numbers of the ‘key characteristics’). Our aim is to minimize that uncertainty whilst maintaining a good size target population.

Using our estimates from the regression model from Column (3) in Box 2.2., we are able to estimate the probability of an individual with a given set of characteristics entering the Core NEET category. We do the same with the other NEET categories – Core NEET with Low GCSEs, Ever NEET and the Ever NEET with Low GCSEs. The probabilities are given in Table 2.2.

TABLE 2.2: Projected Probability of NEET hood

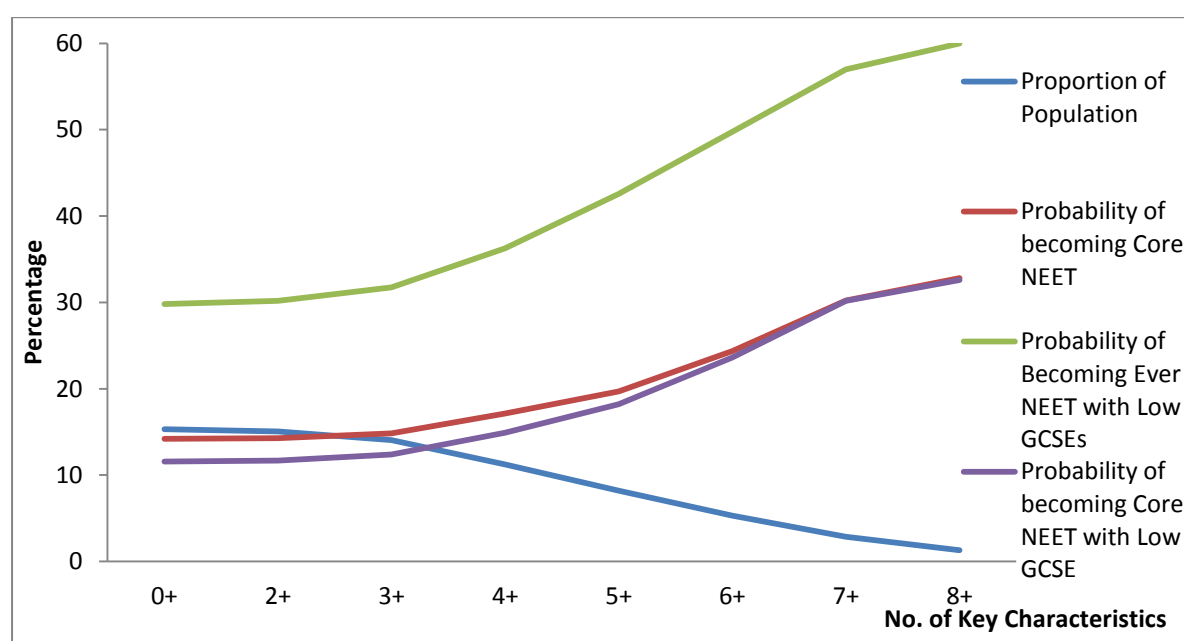
Number of Key Chars	KS2 Score	Estimated Proportion of the Population (%)	Expected Probability of Core NEET with Low GCSEs (%)	Expected Probability of Core NEET (%)	Expected Probability of Ever NEET with Low GCSEs (%)
0+	Any	100.0	3.49	6.00	8.98
0+	Low	15.30	11.57	14.19	29.81
2+	Low	15.04	11.70	14.28	30.18
3+	Low	14.05	12.39	14.86	31.74
4+	Low	11.22	14.89	17.13	36.27
5+	Low	8.19	18.22	19.68	42.55
6+	Low	5.30	23.63	24.37	49.76
7+	Low	2.85	30.18	30.24	56.98
8+	Low	1.31	32.60	32.83	59.99

The 'Expected Probability' is the estimated probability of someone with the given set of characteristics entering the specified category upon leaving school. In the first row, we see that if a person is selected with no restrictions on their KS2 score or number of characteristics, the probability of that person becoming a Core NEET with Low GCSEs is 3.49%, the probability of that person becoming a Core NEET is 6.00% and the probability of that person becoming Ever NEET with Low GCSEs is 8.98%. These baseline probabilities indicate the likelihood of a person entering the given category if they are picked at random from the population, regardless of their characteristics.

Restricting the selection criteria so that only people with low KS2 scores are considered increases the Expected Probability of an individual entering one the three categories considerably; for example the probability of an individual becoming a Core NEET given that they have a low KS2 score is 14.19%, an increase of 8ppts from the baseline estimate. As requirements on the number of key characteristics an individual must possess in order to qualify for selection increase, the probability of any selected individual becoming NEET increases. An individual selected on the basis of low KS2 scores and having 5 or more key characteristics has a 20% chance of becoming a Core NEET, and a 43% chance of becoming and Ever NEET with low GCSEs. The final row shows that if people are only selected if they have a low KS2 score and 8 or more of the key characteristics, the probability of any selected individual entering the Core NEET with Low GCSEs, the Core NEET, or the Ever NEET with Low GCSEs categories are 33%, 33% and 60% respectively.

As the prediction accuracy increases, however, the pool of people eligible for selection will diminish – this is shown in the 'Estimated Proportion of the Population' column. If there are no restrictions on KS2 scores or number of characteristics, we are selecting from the entire population; if we restrict our selection to having low KS2 scores we are selecting from just 15.3% of the population. As the restrictions increase, the proportion of the population we select from diminishes until the final restriction for people with low KS2 scores and 8 or more of the key characteristics, where we are then selecting on just 1.31% of the population.

FIGURE 2.2: Target Population and Prediction Accuracy



BOX 2.3: Extensions

Here we discuss the possibilities of improving prediction accuracy with the inclusion of further key characteristics. To begin, we include a behavioural measure, which as discussed above was found to be an important predictor of NEETHood, but was excluded from the final analysis due to it requiring the interviewing of the parent. Repeating the analysis for Table 2.6, but with the inclusion of the behaviour variable does improve the probability of accurate selection, but only slightly at each level. The same is true when parental qualification or household income (which is included via a low household income dummy) variables are included. However, despite the prediction accuracy not increasing, the size of the population eligible for selection does. Including parental qualifications, a low income dummy and a behavioural variable¹ into the model increases the proportion of population with a low KS2 score and five or more key characteristics from 8.19% to 10.98%. Although the prediction accuracy does not rise particularly, this should be worth considering.

We also consider including a dummy variable set equal to one for any individual who attends school within a deprived Local Authority (i.e. in the lowest 20% of LAs when ranked by average Index of Multilevel Deprivation score). However this found to neither add to prediction accuracy, nor the pool of people eligible for selection. The dummy is also not found to be an important predictor in the regression analysis.

The figures in Table (2.4) are alternatively presented in Figure (2.2). This highlights the trade off between accuracy of prediction and the size of pool of people eligible for selection. There is some critical point where the gain in prediction accuracy associated with increasing the number of characteristics required is not worth the loss in the number of people being targeted – it might be that restricting so 8 or more characteristics are required might be excessive, as 1.31% is a very small target population. We suggest that this critical point is low KS2 scores with 5+ characteristics.

Of the three outcome groups, Ever NEET with Low GCSEs is always the most likely – however this group are less likely to experience long term problems; a greater proportion will return to work than the Core NEETs as seen in section 1.

Note also the convergence of the Core NEET with the Core NEET with Low GCSEs groups as the number of required key characteristics is increased. This is likely to be because many of the Core NEETs with large numbers of the key characteristics will also have low GCSEs.

Conclusion

We have provided a key set of characteristics which can be used for selecting a target population at ages 13 and 14 who we deem to be high risk of becoming NEET. The next step is a judgement call for how many should be included, due to the trade-off between increasing the accuracy of prediction and maintaining a good size target population. We recommend that only people with low KS2 scores (where a low score is a score lower than one standard deviation below the population average) and with five or more of the key characteristics should be selected for intervention. Our estimates suggest that approximately 1 in 10 people would qualify for the study, of whom 1 in 5 would enter the Core NEET category. As seen from the previous section people in this category are highly likely to experience long term disengagement from the labour market.

Section III: A Literature Review of Interventions Aimed at NEET Youth

This literature review concerns itself with interventions that have been used to try to address problems associated with NEET youth. It identifies each intervention's target population, aims and objectives and the techniques and modes of delivery used to try and achieve these aims. It then displays the results from relevant evaluations whilst trying to put some weighting on the quality/reliability of the evaluation results, where there are any.

Evaluation Methodology

The interventions in this review have been evaluated to varying degrees of depth and use an assortment of qualitative and quantitative methods. Some use rigorous experimental approaches with powerful results. Others are more superficial and leave much of the extent of the intervention's impact unclear.

The fundamental feature of a reliable evaluation is its effective measurement of the 'value added' by the intervention. This is the change in relevant outcomes from that would have otherwise been observed in the absence of the intervention. It is the desire to establish the magnitude of the value added by an intervention that motivates the notion of a 'control group'. A control group is the set of individuals that *do not* receive treatment by the intervention. The 'study group' or 'treatment group' is then the sub-set that does. The closer the characteristics of the control group to the study group the better, so that when the outcomes of the two groups are compared post-treatment, more change can be attributed to the intervention only and not simply to an inherent variation between the two populations. This is the basic logic of an experimental study.

The techniques for measuring outcomes can be quantitative e.g. data on attendance or grade scores, or qualitative e.g. surveys on a small number student attitudes or the impressions of providers about what is working well. But for the results of the evaluation to be useful, some form of control group must be used. Otherwise it is impossible to establish how much of any observed change was caused by the intervention and how much would have occurred anyway. Control group outcomes are sometimes formulated implicitly. So for example a teacher's opinion of what they thought would be the most likely situation of their student had it not been for the intervention does provide some sense of a control. The most rigorous evaluations however are those with explicit control groups whose outcomes are measured alongside and then compared to those of the study group.

An experimental method that is widely trusted by social policy researchers is that of 'random assignment'. In such a method, as the name would suggest, individuals are randomly assigned by way of a lottery to the control or study group. This randomisation process should eliminate variation in the characteristics of the two groups before treatment and produce a fair test. Random assignment analysis is often described as the 'gold standard' of social policy research methods and has been used to evaluate several of the interventions in this literature review. When considering group interventions such as community or school based initiatives such randomisation becomes

more difficult. So control groups here are usually formed by considering similar schools or communities some of whom are running the initiative and some not, before or after an intervention.

The extent to which the evaluations' in this review establish 'value added' through a rigorous experimental methodology will influence how sure we can be that any claims made as to the success or failure of the intervention are valid. Whilst some interventions will have good quality evidence others may thus look promising but as yet unproven as the evaluation strategy is not robust to concerns outlined above.

Interventions Aimed at NEET Youth

The following section lists examples of programs aimed at the prevention and treatment of the causes and symptoms of NEETHood. A summary is given for each intervention and where possible the results of evaluations are included.

We have grouped the interventions included in this review into some broad categories of typology with regards to the underlying philosophy of approach/technique used. There is of course a degree of overlap in many cases where programs take influences from several approaches, but some key groupings persist through the literature. These being: schemes of ***financial payments*** (direct incentive payments made to individual participants to stay in education and raise attendance and effort), ***vocational educational and training*** (targeted places on vocational training programs for at risk groups), ***remedial classes*** (educational recovery programs for pupils struggling with regular education classes), ***careers guidance and counselling, recovery training programs*** (these usually take the young person away from their neighbourhood whilst engaging in training and other support services), and ***community organisations*** (initiatives driven by or heavily involving local community groups and parents to support at risk young adults). The summaries of each intervention have been grouped accordingly under these titles.

The confidence with which we can judge the effectiveness of an intervention approach fundamentally depends of the quality of available evaluations. All of the *financial payment* interventions included in this review have been evaluated with some form of experimental methodology. This allows us to put a heavy weighting on their mostly positive results and state with relative confidence that programs of tied financial payments are an effective way of improving educational outcomes such as attendance and exam scores. The theoretical rationale behind why monetary incentives might be effective in changing student behaviour is also powerful, and a brief discussion is included in the relevant section.

Rigorously analysed data is not as abundant amongst the other types of intervention. In the case of *vocational education and training*, developments are often too recent for thorough analysis - particularly of long term impacts - to have taken place (with the exception of the Career Academies in the US that find significant long-term impacts on earnings). The rationale behind these new training opportunities is persuasive with results from the Career Academies suggesting that even if short-term impacts are not visible, longer-term impacts may be positive. The greater emphasis that most education systems place on academic subjects over vocational ones is undeniable and is likely to be biased against certain sections of the student population. A diverse and flexible curriculum must be a key feature of an inclusive education system. Yet until the raft of new measures that have

been introduced in many education systems have had time to mature and be properly evaluated, a complete verdict is still pending.

The impact of *remedial classes* was poorly evaluated in many cases. The fact that these programs cater to students often with multiple social, behavioural and physiological problems, means that identifying and measuring outcomes for such an unconventional and varied pool of individuals can be difficult. For this reason many of the evaluations of remedial classes tend to rely on qualitative method such as surveys of staff and student attitudes. These can be insightful, but they paint a much more nuanced picture and lack clear outcome data. There is an exception to this, however; the Opening Doors demonstrations included in the remedial section of this review were evaluated with random assignment methodologies which produce robust results on educational outcomes. The innovative 'Learning Communities' intervention seemed to produce the most promising results and should would be of interest for anyone designing an intervention for remedial students. Much of the debate around the effectiveness of remedial classes is akin to that of streaming in general. On the one hand separating students out according to their ability or other observed problems should allow for more attentive, targeted teaching. On the other, less able kids can suffer as their aspirations are lowered and the scope of the material they are exposed to is narrowed. For this reason an accurate selection process is essential for any remedial program.

The evaluation of one scheme of *careers advice and counselling* in this review - Aimhigher - has significant limitations which are detailed in its summary. The other careers advice and counselling intervention - Enhanced Student Services (Ohio) - was evaluated using a random assignment, yet was found to have weak impacts that were not sustained.

Three residential *recovery training programs*; the Jobs Corps, JOBSTART and ChalleNGe were evaluated using a random assignment. All three were effective at improving educational achievement and the attainment of qualifications. Furthermore this was found to translate into higher earnings in the case of the Jobs Corps and ChalleNGe. (Although this was not true for JOBSTART, it may be that impacts were not measured over a long enough period for this effect to be observed). The notable fall in arrest rates for participants of the residential Jobs Corps supports that idea that residential courses can facilitate a long term change in behaviours by providing an individual with an alternative secure learning environment although evidence for crime rates from ChalleNGE was more mixed. The Second Chance Schools training program was not well evaluated and did not include a controlled study. Dropout rates were impressively low however and student opinion of the scheme seemed to be high. Such training programs appear to be a powerful way of reengaging those who have already left mainstream education and find themselves unable to properly access the job market. In particular, it may offer a way of supporting those at risk of engaging in criminal activity or gang culture.

Some of the most innovative and engaging interventions in this review are those run by *community organisations*. This is perhaps due to their structure where by many different relevant interest groups, including families, businesses, government, and charities are included in the funding and management process. This arguably makes these organisations more responsive to local needs and concerns and fosters good-will through its inclusive stance. It also provides a channel which automatically encourages more trust and engagement as it is not being provided directly by

statutory benefit providers. The inclusion of locals as volunteers and staff members bring with it local experience and expertise that can be invaluable.

Such organisations usually take a more holistic approach, trying numerous different initiatives to address the multidimensional causes of social problems. The real effectiveness of these organisations is hard to gauge however since in all but one case, none of the examples included in this review have been evaluated. The Harlem Children’s Zone (HCZ) was evaluated using an experimental technique and found impressive results on educational outcomes. It appeared to have managed to completely close the racial educational attainment gap, an achievement virtually unheard of in the US. It has received widespread acclamation and is a promising example of an effective community initiative.

Table 3.1 below lists all of the interventions included in this literature review categorised by approach type. Each column briefly lists the key features of the interventions. The following sections include summaries of each intervention along with a detailed discussion of each approach type.

Table 3.1: Summary of interventions aimed at NEET youth

Intervention	Target Population	Aims/objectives	Method of Delivery	Method of Evaluation	Results
FINANCIAL PAYMENTS					
Educational Maintenance Allowance UK, national	<ul style="list-style-type: none"> 16-19 year olds In post-16 education Low family incomes 	<ul style="list-style-type: none"> Improve post-compulsory attendance & attainment 	<ul style="list-style-type: none"> Weekly payments up to £30 Tied to income level Conditional on attendance & achievement goals Further bonuses available 	<ul style="list-style-type: none"> Chowdry et al. (2008) Quantitative Comparison of outcomes in pilot areas with control groups & rest of England Sub-group stratification across ethnicity, gender, deprivation 	<ul style="list-style-type: none"> Positive impact on participation & attainment Largest amongst black females Smallest amongst black males Larger for those from more, but not most, deprived areas
Opening Doors Performance Based Scholarships New Orleans, USA	<ul style="list-style-type: none"> Community college students Low income Parents of young (<19yrs) children 	<ul style="list-style-type: none"> Improve attainment, enrolment & attendance rates at colleges 	<ul style="list-style-type: none"> Payments of \$1000 per semester Tied to income level Conditional on enrolment & achievement goals Duration: 2 semesters 	<ul style="list-style-type: none"> Random assignment Recorded outcomes during program Some record of post-program outcomes Disrupted by hurricane Katrina however 	<ul style="list-style-type: none"> Improved enrolment and attendance rates Higher grades/more credits earned Some evidence of effects lasting beyond program end
PROMISE West Virginia, USA	<ul style="list-style-type: none"> First time, full-time freshmen college students Decent academic record 	<ul style="list-style-type: none"> Improve enrolment and completion rates Reduce time taken to complete degree 	<ul style="list-style-type: none"> Fees paid at any state college or private college for equivalent amount Must maintain minimum GPA and enrol on minimum number of credits 	<ul style="list-style-type: none"> Regression-discontinuity Longitudinal cohort study 	<ul style="list-style-type: none"> Little/no impact on persistence or in-school earnings Significant increase in credits earned, GPA and completion rates
VOCATIONAL EDUCATION AND TRAINING					
Young Apprenticeships UK, national	<ul style="list-style-type: none"> 14 year olds Those with the aim of starting full-time apprenticeship at 16 	<ul style="list-style-type: none"> Provide more robust vocational options for young people Facilitate smoother transition from school to work 	<ul style="list-style-type: none"> Teaching partnerships with colleges & employers Core curriculum 3 days a week Apprenticeships 2 days a week at FE college 	<ul style="list-style-type: none"> Ferguson & Mattick (2006) Studied first cohort (2004-2005) No control group Ofsted (2007) Studied YA from 2004-2007 Qualitative No control group 	<ul style="list-style-type: none"> F & M: 92% completion rate Only 27% went on to full-time apprenticeships Lack of value to employers Ofsted: Improved employer value Student achievement also improved
Diplomas UK, national	<ul style="list-style-type: none"> 14-19 year olds with tendency to vocational learning 	<ul style="list-style-type: none"> Provide more robust vocational options for young people 	<ul style="list-style-type: none"> 14 new level 1,2 & 3 qualifications 	<ul style="list-style-type: none"> Qualitative evaluation of first cohort 2010 	<ul style="list-style-type: none"> High level of student enjoyment

		<ul style="list-style-type: none"> Achieve 'parity of esteem' between vocational & academic qualifications 	<ul style="list-style-type: none"> Consortia of schools, colleges employers 	<ul style="list-style-type: none"> Interviews, case studies, surveys No control group No measurement of long-term impacts 	<ul style="list-style-type: none"> Particularly applied aspects Apparent increase in HE aspiration
VET Australia Australia, national	<ul style="list-style-type: none"> Full-time education/training/employment entitlement for 15-24 year olds With vocational leanings 	<ul style="list-style-type: none"> Provide more robust vocational options for young people Gain national recognition Valued by employers Increase secondarily education retention rates Facilitate smoother transition from school further VET 	<ul style="list-style-type: none"> School/employer partnerships Classroom and on-the-job training Internships/traineeships 	<ul style="list-style-type: none"> Limited Some preliminary quantitative analysis 	<ul style="list-style-type: none"> Decent pass rates Increased chances of employment and retention
Career Academies USA, national	<ul style="list-style-type: none"> Full-time education year 9/10 through 12 high school students With vocational leanings 	<ul style="list-style-type: none"> Combine academic and technical curricula around a career theme Career options were wide, not focused on lower class occupations Remove stigmatism of typical 'vocational education' programs 	<ul style="list-style-type: none"> School/employer partnerships Classroom and on-the-job training All training including academic geared towards specific career 	<ul style="list-style-type: none"> Kemple et. al. (2000, 2004, 2008) Random assignment Short term and long term follow-up 	<ul style="list-style-type: none"> No short run education effects Significant long run wage impacts at both 4 and 8 year follow ups
REMEDIAL CLASSES					
Foundation Tier Learning UK, national	<ul style="list-style-type: none"> 14-19 year olds Unlikely to be successful in GCSE framework 	<ul style="list-style-type: none"> Provide basic qualifications Improve social/work skills Support progression onto further training/employment 	<ul style="list-style-type: none"> Entry & Level 1 qualifications 'Individualised pathways' Credit system Gain units through small steps 	<ul style="list-style-type: none"> Qualitative evaluation (GHK, 2007) 20 of 44 FTL trials No control group 	<ul style="list-style-type: none"> Mostly positive support from staff & students Poor progress post qualification Lack of careers guidance However potential for improvements in social engagement, confidence etc hard to quantify
Entry to Employment UK, national	<ul style="list-style-type: none"> Low skill level Learning disabilities 	<ul style="list-style-type: none"> Provide skills/qualifications to allow for progression to post-16 education 	<ul style="list-style-type: none"> Covers much of the core curriculum Flexible 'Individualised pathways' Not necessarily 	<ul style="list-style-type: none"> Limited as of yet 	

			qualifications based		
Key Stage 4 Engagement Program UK, national	<ul style="list-style-type: none"> 14-16 year olds Those 'at-risk' Disadvantage, learning difficulties, social problems 	<ul style="list-style-type: none"> Provide alternative to conventional education system Prepare for formal work environment 	<ul style="list-style-type: none"> School/employer partnerships Teaches core curriculum Work experience two days a week Personal & social skills, self-esteem development Careers guidance Holistic approach 	<ul style="list-style-type: none"> Cowen and Burgess (2009) Studied 15 of 71 partnerships Mostly qualitative Interviews with students, teachers, partners Only studied one cohort of year 11s in first year Effect of whole two years not measured No control group 	<ul style="list-style-type: none"> Improvement in student attitude to school Teachers saw improvements in problematic students However cases of inaccurate targeting leading to underachievement
Opening Doors Learning Communities Kingsborough Community College, Brooklyn, New York, USA	<ul style="list-style-type: none"> Mostly low achievers Those in remedial classes 	<ul style="list-style-type: none"> Improve progression rates on to higher level courses 	<ul style="list-style-type: none"> Groups of up to 25 students English class Standard course Orientation class Group coordinator Text book vouchers Duration: 1 semester 	<ul style="list-style-type: none"> Random assignment Recorded post-program outcomes 	<ul style="list-style-type: none"> During program: Passed more courses Gained more credits Increase in GPA More passed English skills assessment Greater engagement No effect on attendance Effects did not last much beyond program end
Opening Doors Enhanced Student Services for Probationary Students (reformed) Chaffey College, Southern California, USA	<ul style="list-style-type: none"> 18-34 year olds On academic probation Poor academic performance 	<ul style="list-style-type: none"> Move students off probation Improve attainment, enrolment & attendance rates at colleges 	<ul style="list-style-type: none"> Student success course – time management, study skills... Success centres – additional tutoring in reading, writing and maths Counselling Students were 'required' to attend Duration: 2 semesters 	<ul style="list-style-type: none"> Random assignment 	<ul style="list-style-type: none"> GPA scores increased No significant reduction in number of students on probation
CAREERS GUIDANCE AND COUNSELLING					
Aimhigher UK, national	<ul style="list-style-type: none"> Able youth Groups underrepresented in HE 	<ul style="list-style-type: none"> Improve aspiration to & awareness of HE Close gap in HE participation between social classes Achieve more 	<ul style="list-style-type: none"> Partnerships between schools, colleges, universities Events, conferences, career advice, visits Techniques vary across 	<ul style="list-style-type: none"> Evaluation of Aimhigher South West 'Multi-strand approach' GCSE results Post-16 participation rates HE applications 	<ul style="list-style-type: none"> Immediate positive effect on perceived awareness at events Lack of information around HE vocational routes

		representative HE student population	<ul style="list-style-type: none"> regions Individual approach 	<ul style="list-style-type: none"> Questionnaires/surveys at Aimhigher events Tracking study of 580 students No control group 	<ul style="list-style-type: none"> More representative HE population achieved since 2000 Impact of Aimhigher unclear
Opening Doors Enhanced Student Services Loraine County and Owens Community Colleges, Ohio, USA	<ul style="list-style-type: none"> 18-34 year olds Low family income Low achievers 	<ul style="list-style-type: none"> Improve attainment, enrolment & attendance rates at colleges Provide better student services 	<ul style="list-style-type: none"> Students assigned to counsellors At least two meetings per semester \$150 stipend per meeting Smaller student : counsellor ratio Duration: 2 semesters 	<ul style="list-style-type: none"> Random assignment Recorded post-program outcomes 	<ul style="list-style-type: none"> Not impact in first semester Modest impacts on attainment and registration in second semester Effects quickly dissipated post-program
RECOVERY TRAINING PROGRAMS					
The Jobs Corps USA, national	<ul style="list-style-type: none"> 16-24 year olds Low income Lack of training/education From crime ridden/depressed neighbourhoods 	<ul style="list-style-type: none"> Improve employability Increase access to further education 	<ul style="list-style-type: none"> Mostly residential centres Provide academic and vocational training Counselling Careers/placement services Employer and union involvement 	<ul style="list-style-type: none"> Schochet et al. Random assignment Survey data Tax data 	<ul style="list-style-type: none"> Significant positive effects on academic attainment, later earnings and involvement in crime No significant effect on college participation
JOBSTART USA, national	<ul style="list-style-type: none"> 17-21 year olds School dropouts Few qualifications Low skill level Low income 	<ul style="list-style-type: none"> Improve qualifications/skill level Increase employability Higher future earnings 	<ul style="list-style-type: none"> Academic and vocational training Job placements Independent learning Variation in courses between centres 	<ul style="list-style-type: none"> Random assignment Outcomes at 12, 24 and 48 months 	<ul style="list-style-type: none"> Significant increase in hours in education and qualifications gained No significant impact on employment, earnings or involvement in crime
ChalleNGe USA, national	<ul style="list-style-type: none"> 16-18 year old School dropouts 	<ul style="list-style-type: none"> Provide skills and values for at-risk youths to succeed as adults 	<ul style="list-style-type: none"> Three stage program Two-week initial orientation phase 20 week residential phase 1 year post-residential phase Quasi-military style 	<ul style="list-style-type: none"> Bloom et. al. (2009) Millenky et. al. (2010, 2011) Random assignment 9 month, 21 month and three year follow-up 	<ul style="list-style-type: none"> More education and employment at 9 mths Mixed results at 21 mth follow up More employment and earnings at 3 year follow up
Second Chance Schools Europe-wide	<ul style="list-style-type: none"> 18 to 25 year olds No qualifications 	<ul style="list-style-type: none"> Provide skills/qualifications Promote social inclusion Improve confidence/self- 	<ul style="list-style-type: none"> Schools located in deprived areas Partnerships with local businesses 	<ul style="list-style-type: none"> European Commission (2001) Aricò and Lasselle (2010) Qualitative 	<ul style="list-style-type: none"> Low dropout rate Positive student feedback Growing numbers of E2Cs

		esteem	<ul style="list-style-type: none"> Mix of class room and vocational training 	<ul style="list-style-type: none"> Surveys/interviews 	
COMMUNITY ORGANISATIONS					
<i>Working It Out,</i> At 8 Project locations in England and Scotland	<ul style="list-style-type: none"> NEET young people with a range of complex needs, often focussing on groups other agencies find hardest to help Participation is voluntary so a mix of young NEETs take part 	<ul style="list-style-type: none"> Improve confidence/self-esteem Help young people make good, sound future decisions Provide a clear focus on progression to employment 	<ul style="list-style-type: none"> Group activities One-to-one interventions Community challenges 	<ul style="list-style-type: none"> Qualitative research from Tank Consulting including interviews/surveys with project managers, stakeholders and young people. Quantitative Social Return on Investment (SROI) Analysis from FTI Consulting 	<ul style="list-style-type: none"> 80% completion of the program Of those around 80% move into employment, education or training (so around two-thirds of starters) Estimated SROI of £2.90 for each pound spent. Estimated cost per 'successful' outcome of £5600
<i>Youth Challenge Fund</i> Ontario, Canada	<ul style="list-style-type: none"> Youth in 'priority areas' 	<ul style="list-style-type: none"> Wide range of aims Promote youth engagement, employment training Tackle crime and gang culture Improve/widen youth opportunities 	<ul style="list-style-type: none"> Funds large number of separate projects that are: <ul style="list-style-type: none"> Community based Youth led Bursaries, sports facilities, after school classes, music/media workshops... 	<ul style="list-style-type: none"> None as of yet 	
<i>Keystone Development Trust</i> East England, UK	<ul style="list-style-type: none"> Local, often young, people 	<ul style="list-style-type: none"> Tackle social and economic exclusion Protect the environment Generate wealth through social enterprise 	Varied schemes: <ul style="list-style-type: none"> Small community grants Training community organisers Safe relaxation and socialising space Music club Culture and arts program 	<ul style="list-style-type: none"> None as of yet 	
<i>Vital Regeneration</i> London, UK	<ul style="list-style-type: none"> Local, often young, people 	<ul style="list-style-type: none"> Improve the resources and services available to local people 	<ul style="list-style-type: none"> Divides its work into <ul style="list-style-type: none"> Learning and skills Employability Enterprise Careers advice Music production courses 	<ul style="list-style-type: none"> None as of yet 	
<i>Harlem Children's Zone</i>	<ul style="list-style-type: none"> Local (in Harlem) young people 	<ul style="list-style-type: none"> Improve educational outcomes 	<ul style="list-style-type: none"> Promise Academies with elementary, middle and high 	<ul style="list-style-type: none"> Dobbie and Fryer (2009) (approximately) random 	<ul style="list-style-type: none"> Closed racial attainment gap in maths scores

Harlem, New York, US		<ul style="list-style-type: none"> • Tackle criminality • Promote college attendance • Social and personal development and confidence • Build 'critical mass' of positive young adults 	schools <ul style="list-style-type: none"> • Kindergarten • Parenting classes • After-school programs • Employment and technology centre • Free healthcare 	assignment	<ul style="list-style-type: none"> • Significant improvements in English scores • Evidence for need of both community and school programs
OTHER					
GO Create Sunderland, UK	<ul style="list-style-type: none"> • NEET youth • Referred by Connexions 	<ul style="list-style-type: none"> • Improve skills/employability • Raise self esteem/engagement 	<ul style="list-style-type: none"> • Access to media technology • Teaching and guidance • Produce multimedia CV 	<ul style="list-style-type: none"> • Qualitative 	<ul style="list-style-type: none"> • Mostly positive feedback from participants

Financial Payments

There are an increasing number of examples of policy makers using financial payments as a tool for improving educational outcomes. These schemes use monetary payments to motivate better attainment, attendance and course completion and progression amongst students. Receipt of these payments is centrally conditional on some combination of the student maintaining some minimum standard, regular attendance or final grades achieved. Programs of financial payments aim to change student behaviour by adjusting the costs and benefits of education to incentivise engagement, as pupil effort has frequently been found to be important for attainment. Financial payments also aim to alleviate some of the costs associated with education (travel etc.) and thus make education a more accessible option. For example providing students with an allowance should reduce the need to work a part-time job and thus increase the amount of time available for study and expand the potential for improved attainment.

Financial payments can also be used to overcome informational failures driven by the deferred nature of the benefits of education. Time and money spent by individuals in education is a long term investment with pay offs that may not accrue until many years later in the students career. Sacrificing what can seem like long periods of time, particularly for young people, to education and forgoing what may be feels at the time to be relatively high earnings may lead to education being too often rejected by prospective students. This may be especially true of students whose parents do not have a history of high educational achievement and thus to whom the benefits of education are less obvious. Financial payments can retain young people in education at a key point in their life where a choice one way or the other can fundamentally shape the course of their future career.

Next we discuss three examples of financial payments being used to improve educational outcomes; the *Educational Maintenance Allowance* (EMA), the *Opening Doors: Performance Based Scholarships* and the West Virginia *PROMISE* scheme.

The Education Maintenance Allowance

The Education Maintenance Allowance (EMA) is a program of financial aid for UK students aged 16-19 years old participating in post-compulsory education. Payments of a maximum of £30 are made weekly into a bank account of the student's choice. The size of the payment is tied to the student's household income and receipt is conditional on the fulfilment of attendance and attainment targets specified in 'learning agreements'; a contract between the student and their school/college. Bonuses are also paid for further retention and attainment. The EMA was first piloted in 1999 and then, as a result of positive evaluations, rolled out nationally in September 2004. Roughly one third of students were eligible for some level of financial support. The scheme has now been closed to new applicants, as of January 2011.

An evaluation of the effect of the EMA on participation and attainment was carried out by Chowdry *et al* (2007) using administrative data from the pilot scheme and its later extension. Outcomes of the students in areas for which the EMA was available were compared both with that of a set of control areas and with the rest of England. Results were also stratified across student's characteristics such as their gender, ethnicity and the level of deprivation of their local neighbourhood. The study found positive impacts on participation and attainment.

Average participation rates of all female students in areas where EMA was available (not just among those eligible) were found to increase by just over 2% when compared to female participation in control areas. The effect on participation rates for males was also positive, but slightly smaller and not statistically significant. Participation effects seemed to be greatest on those from deprived areas, but not the *most* deprived areas, and on females who received free school meals (FSM). These impacts are underestimates of the effects on those eligible, as they represent the impact of offering EMA in an area on the average outcomes of the entire student population in that area, not just those students that received the payments. Dividing the total impact by the rate of receipt of EMA, which amounted to multiplying these figures by a factor of 2-3, was developed by the researchers as a rule of thumb for finding the effect on recipients of EMA only. This suggested that among eligible students education participation rose by around 6%.

The EMA was also found to improve attainment, as average performance in Level 2 and 3 qualifications increased by around 2.5% for females and by just under 2% for males in areas where EMA available (again this is for all, not just eligible students in the area). Average Key Stage 5 grades saw an even greater increase of around 5% for females and 4% for males. Positive impacts on attainment were concentrated amongst black and Asian students, and impacts were greatest for females from most deprived areas. The trend for males was similar but less significant.

This is a fairly rigorous evaluation of the EMA using a statistically reliable control group. It has the advantage of investigating the effect on ethnic minorities and those from deprived backgrounds, a stated objective of the program. In this respect the results seem to be encouraging. The greatest impact on both attainment and attendance was observed for those from more deprived backgrounds and attainment gains were greatest amongst minority groups. However there was a persistent lack of responsiveness to the EMA amongst male students, particularly black males and particularly those from the most deprived areas. Whilst the scheme raised the prospects of poorer students, there was a persistently hard-to-reach demographic for which educational success and inclusion remained elusive.

The Opening Doors Demonstration: Performance Based Scholarships

‘Opening Doors’ was a group of US trial interventions which were aimed to raise participation in 2 year community college for those finishing high school but not pursuing full degrees; the program was initiated in the face of persistently poor levels of attainment and completion rates at community colleges across the US. Here we discuss Performance Based Scholarships, which were designed and tested by the MDRC (an American education and social policy research organisation) and introduced as part of the Opening Doors program in 2003. Alternative interventions were trialled in different parts of the US and are discussed later.

Programs of increased financial aid, or ‘performance-based scholarships’, were tested in two community colleges in New Orleans between 2004 and 2005. Targeted students had low family income¹⁸ and were all parents of at least one dependent child under 19 years old. Participants were offered up to \$1000 each semester for two semesters (\$2000 in total) conditional on fulfilment of attainment and attendance goals. Payments of \$250 were made if students enrolled at least half the time, payments of \$250 after midterms and \$500 upon completion of the course with a “C” (2.0)

¹⁸ Where ‘low’ is a family income below twice the US Federal poverty line.

grade point average. Counsellors were assigned to participants to play a monitoring roll. 1,019 students were randomly assigned to either a study group and received the scholarship or a control group and did not. Those in the control groups did however have access to the limited standard financial support already provided by their college.

The evaluation of these scholarships found significant positive effects. Those in the study group were 5.3 percentage points more likely to register for a course in the first semester and 15 percentage points more likely to persist with the course into the second semester. This translates into a study group registration rate of over 30 percentage points higher than that of the control group. Those offered the financial aid also gained higher grades and more credits than those in the control group. Those in the study group were on average around 11% more likely to maintain a GPA of 2.0 or higher over the two semesters of the program. Disruption from hurricane Katrina meant that post-program outcomes could only be collected for the first two cohorts. The long-term impact is therefore harder to gauge but there is evidence that these positive effects continued into the first and second semesters after the course had finished and when payments were no longer available.

PROMISE

The US state of West Virginia introduced its PROMISE (Providing Real Opportunities to Maximise In-state Student Excellence) program in 2002, which provided up to four years of free tuition at any West Virginia state public institution or a West Virginia private institution for the 'equivalent amount' for all qualified full-time first year freshmen. Criteria for participation were based on student's prior academic attainment rather than income, and approximately 23% of the West Virginia high school graduates qualified. There were additional criteria students were required to meet to retain the grants (students were required to maintain a GPA of at least 3.0 (2.75 in the first year) and undertake no fewer than 30 credits per year).

A quasi-experimental evaluation of the impact of PROMISE on student outcomes was done by Scott-Clayton (2010), which used two quantitative methods. The first was a regression-discontinuity design (RDD) method that estimated the effect of being just above as opposed to being just below the threshold for eligibility. The disadvantage of the approach is that it only examines impacts for those 'close' to the threshold, which in this case was only about 20% of the whole sample, and cannot identify the impact on those at the higher end of the grade distribution. (There is also a risk of 'differential selection' since those that would have otherwise attained a grade just below the threshold have an increased incentive to gain those few extra points and become eligible for the program). The RDD found that receipt of PROMISE funds had no impact on persistence (the number of semesters enrolled over four years), nor average weekly school-year earnings, but found significant positive effects on courses studied and on attainment; the number of credits studied were found to be increased by approximately 1 – 1.5 additional courses per student, and average GPA scores were found to be increased by 0.1 points per student (about a tenth of a letter grade) over the same period. There was also a large positive impact on four-year BA completion rates - which rose by approximately 9.4 percentage points from a baseline of 16% - and five year BA completion rates, which rose by 4.5 percentage points from a baseline of 37%. Little evidence of

heterogeneous effects by student income was found, suggesting the impacts may not occur simply through the lowered cost of college.

The second method was a longitudinal cohort study based on the discontinuous nature of the program implementation. The relevant outcomes of a total of 12,911 students from the two cohorts before (2000-2001 and 2001-2002) and the two cohorts after (2002-2003 and 2003-2004) the start of PROMISE were collected and compared. All students sampled had the required high school GPA and ACT scores to make them eligible for PROMISE funds. This method has the advantage that it measures impacts over the whole sample and is less susceptible to differential selection. However, there is more scope for variation in other relevant factors over the time period of the study, making any impacts observed harder to attribute to the program. Students in receipt of PROMISE funds gained on average 6 more credits (about a 6% increase) over four years, had small but statistically significantly larger first year GPA scores (there was no significant difference in later years), had lower weekly in-school earnings (about 10% lower), and had higher four-year BA completion rates (up 7 percentage points from a baseline of 27%) than comparable students from previous cohorts which did not have access to the program.

The results here are programs strongly suggestive that a well designed system of financial incentives can significantly affect student outcomes. The most substantial impact seems to be on attendance, grades achieved and course completion rates suggesting the strength of programs of financial aid lie in their ability to raise student effort and to dissuade students from failing their course or dropping out.

Vocational Education and Training

For those who have struggled academically at school and may have become disenchanted with schooling increasing the risk of dropping out of formal education, more vocational education or training may offer better prospects for engagement. Many education systems, including that of the UK, have introduced a string of new qualifications in recent years aimed at widening educational access through the increased provision of vocational options. It is essential that prospective employers view the vocational training positively if attaining these qualifications is to translate into higher earnings and better job market outcomes. For this reason curricula and methods of delivery are almost universally designed by partnerships which include representatives from the relevant industry and often trade unions as well.

We next discuss four examples of programs of vocational education and training for young people; *Young Apprenticeships* (YAs), *Diplomas*, Australia's national VET (vocational education and training) system and the *Career Academies* program in the USA.

Young Apprenticeships

Pilot schemes for the Youth Apprenticeships (YAs) were run from 2004, (although applications have now been closed due to "the current economic climate"). They were designed for 14 year olds with the intension of starting full internships at 16, in order to allow for a smoother transition between

school and work. Students on the scheme follow a core curriculum three days a week but spend two days a week at FE College, receiving teaching delivered in partnership with prospective employers. Partnerships are required to provide 50 days' work experience to each young apprentice.

Ferguson and Mattick (2006) studied the first cohort of young apprentices (2004-2005), finding that 92% completed the course and of these 72% achieved a Level 2 vocational qualification. However only 27% went on to enter a full-time apprenticeship. This fact highlights a possible failure to offer pre-courses that are fully recognised in the vocational education system.

An Ofsted report (2007) evaluated the YA scheme from 2004 to 2007 and was broadly positive. It found that in later years employers began to appreciate the benefits of such courses. Attainment also significantly improved. The report cites "no under-achievement" in all but two partnerships in the 2006/07 cohort. Students were observed to have a very high opinion of the scheme and were regularly quoted as valuing the practical experience and independence they gained. But there was no counterfactual to suggest if participant had higher or lower participation in continued vocational learning or employment.

Diplomas

The Tomlinson Report (2004) gave the view that parity of esteem between vocational and academic qualifications would best be achieved by replacing the current GCSE/A-level system with a single framework of Diplomas that encompasses all subjects and provides students with the option of pursuing a curriculum with a significant vocational content. Although the idea was not implemented in entirety, fourteen Diplomas are now on offer in a range of vocational subjects providing Level 1, 2 and 3 qualifications for 14-19 year olds. The diplomas are designed and offered by consortia of schools, colleges, employers and HE institutions.

A qualitative national evaluation of the first cohort to take part in the program was carried out in 2010 by The National Foundation for Educational Research and The University of Exeter. Feedback from students and staff was broadly positive; approximately three quarters of year 10 and 11 students claimed to enjoy the course to some degree, with the applied nature of the course regularly cited as a positive feature. Satisfaction was higher in courses with a significant work placement component. Diplomas appear to be associated with positive aspirations to continue into HE; 71% of year 12 students taking a Level 3 Diploma said they intended to continue to higher education. This study was qualitative, and does not include data on student outcomes following completion of the course, largely because Diplomas are still relatively new, meaning their effect on student outcomes in higher education and the job market are not yet clear. They do however seem to be amongst the most promising schemes aimed at introducing vocational options for young people currently running in the UK.

VET Australia

Australia has been developing and reforming its vocational education and training framework since the 1990's. VET is designed as a system of nationally recognised, high-standard, quality assured

qualifications that have real value in the job market. Industry involvement is encouraged and many courses are provided by a partnership between government and employers. It is this characteristic that is Australia's VET system's great strength. Both structural and informal links between government and employers allow for an accurate and flexible design of curricula that provide relevant and portable skills to young people. The flexibility of VET is evident in the great number of qualifications it offers through a variety of providers in a many different industries.

The Council of Australian Governments introduced its 'Compact with Young Australians' in 2009. This included a legal requirement for all young Australians to participate in some combination of full-time education, training and employment until the age of 17 along with a guarantee of a place on a government subsidised educational or training placement for all those between 15 and 24 years old. Much of this increased entitlement was intended to be provided through VET.

VET in schools (VETis), launched in 1997, gave Australian students the opportunity to study a vocational subject as part of their senior secondary school studies and receive a nationally recognised qualification. The program started out on a small scale but grew significantly; in Western Australia the number of students participating now accounts for more than 40% of the Year 11 and 12 students.

VETis is in fact a collection of five programs offering apprenticeships, traineeships and in-school and on-the-job training and qualifications. These programs vary in size, length and complexity and by teaching methods and institutions used for delivery. The stated objective of VETis is to increase retention in education and training and make for an easier transition between secondary education and further VET training.

Unfortunately there are very few evaluations of student outcomes in VET programs, although an evaluation of VETis in Western Australia by the Australian Department for Education and Training (2009) reported a 64% pass rate for students in government schools and 82% for those in non-government schools. It also found that within 6 months of completion of a VETis course, students were more likely to be undertaking an apprenticeship or traineeship and were more likely to be employed than equivalent non-VETis students.

The extent of the success of such programs is not yet clear, but there appears to be a serious commitment in Australia to the development of a high-quality, functional vocational stream for young people. Programs such as VETis have the potential to significantly widen the options available for students and improve the outcomes of young Australians. For these reasons Australia is an area to watch for coming developments in the near future.

Career Academies

The Career Academies program was established over 30 years ago in the United States to attempt to improve the transitions of students from school to further education or employment. The idea behind the scheme is to implement schools within schools that focus specifically on particular careers. Career options available range from engineering to aviation with an aim to not stigmatise those participating on the course by providing a wide choice of career options. Once the career

choice is made, grade 9 or 10 through to grade 12 all academic subjects are geared toward learning for the specific career choice. Strong employer partnerships encourage interaction and work experience alongside academic learning.

Early evidence from the randomised control trials run by MDRC suggested no general short term impact for test scores and varied impacts in dropout rates and graduating on time from high school by the intensity of the program implemented. For those with increased interpersonal support from teachers and peers as a result of the program, dropout rates did fall. However for those with little or no enhancement in interpersonal support, dropout rates actually increased and school engagement decreased for some student. (Kemple and Snipes, 2000)

Following up the trial for the same individuals four years later did indicate some significant program effects. The program significantly improved the labour market prospects of young men, through both increased employment, hours worked and earnings. The treated group earned \$10,000 more than the control group across the four year period. There was no significant impact however for women (Kemple and Scott-Clayton, 2004). For the eight year follow-up, young men from the treatment group were earning \$3,731 per year more than the control group; nearly \$30,000 more over the eight year period (Kemple and Willner, 2008).

Remedial Classes

Remedial classes are designed to provide intensive, targeted help for students with extremely low academic attainment. By taking them out of the conventional classroom setting and grouping them together, their specific problems can be addressed more effectively. The main aim of these programs is to provide participants with the basic level of academic proficiency needed to re-enter formal education and later employment. Key maths, reading and writing skills are a universal feature of such programs, although there is also often a significant focus on building 'soft skills' such as self-esteem and confidence and working in teams. Remedial classes usually follow a different structure to those of the mainstream, as teaching tends to be more focused on the individual problems and aspirations of each student. Class sizes are generally smaller to allow for more intensive attention.

We discuss five examples of remedial education programs for young people; *Foundation Tier Learning* (FTL), *Entry to Employment* (E2E), the *Key Stage 4 Engagement Program* (KS4EP), the *Opening Doors: Learning Communities* and *Opening Doors: Enhanced Student Services for Probationary Students*.

Foundation Tier Learning

Foundation Tier Learning (FTL) describes a collection of Entry Level and Level 1 qualifications that follow a structure of 'individualised pathways'. FTL is aimed at 14-19 year olds who are unlikely to achieve their potential through the conventional GCSE framework. By awarding credits to units of these qualifications, it allows students to work in small steps at their own pace. A stated key aim of

the FTL's 'personalised learning programs' is that they should provide space for progression on to Level 2 courses or other destinations.

A qualitative evaluation (GHK, 2007) of 20 out of 44 FTL trials was carried out in 2006 and 2007. It found general support for the program with both staff and students believing it had value. However the report highlighted a lack of clear progression paths and a weak link between FTL and future training and employment, with insufficient careers information and guidance as well as confusion as to how FTL fits into other qualification streams such as Diplomas cited as possible causes. Given the multiple personal disadvantages that many of the students faced, even attaining an entry level qualification was often considered a major achievement. The potential value of likely improvements in self-esteem, communication skills and the propensity to participate in wider society may also have unmeasured benefits. The qualitative nature of the report and the lack of concrete data on progression and future outcomes of students who have completed the program make the true effectiveness of FTL difficult to gauge.

Entry to Employment

Entry to Employment (E2E) is a program that falls under the FTL umbrella and was launched nationwide in 2003. Although the scheme claims not to be aimed at any specific group other than 16-18 year olds, it concedes that participants are predominantly those at-risk/disengaged students often with learning difficulties and insufficient skills and qualifications to enter work or post-compulsory education.

E2E students must study core aspects of the national curriculum, but much of what the students spend their time doing is flexible and specified in 'individualised learning plans'. E2E is not qualifications based, although many leave the program with external qualifications. Neither is it time constrained, apart from a minimum participation requirement of 16 hours per week. Most take between one and two years to complete the course. There was also an emphasis on developing personal and social skills such as self-esteem and confidence, team-work and organisational skills.

There has not been a rigorous evaluation of E2E as of yet, but initial performance data indicates that at the end of the 2003/2004 program 21% entered employment, 5% returned to full time education and 13% became unemployed. However the destination of over 50% of students is unknown. Again the lack of rigorous quantitative evaluation makes the effectiveness of E2E difficult to assess.

The Key Stage 4 Engagement Program

The Key Stage 4 Engagement Program (KS4EP) is a national program of locally based schemes implemented by 71 partnerships between schools/colleges, employers, youth organisations etc. It targets 14-16 year olds at risk of becoming disaffected with the conventional education system. Characteristics of participants include disadvantaged backgrounds, learning difficulties or social and behavioural problems such as ADHD or Asperger's syndrome, a history of weak academic progress, substance abuse, a history of violence, family instability and low aspirations or motivation.

Program design varies between partnerships delivering the service, but there are central themes that run throughout; all aspects of the statutory Key Stage 4 curriculum are taught, yet there is a strong focus on work, as a realistic work experience is expected for two days a week. There is an

emphasis on development of personal and social skills, the building of self-esteem and confidence, and a career guidance service. KS4EP therefore follows a holistic approach to try and develop both formal and informal skills and qualifications.

An evaluation of the KS4EP by Cowen and Burgess (2009) used mostly qualitative methods to establish the impact of the program on attainment, attendance and personal development outcomes. Interviews and surveys of pupils, staff, employers' from the 15 partnerships were carried out, but there were limited data on student outcomes. Timing limitations meant that only short term data on one cohort of year 11 students in the first year of the course was collected, meaning there were no observations of individuals who had completed the entire course, or indeed any long term results. The report cited the complex and often unquantifiable nature of the factors affecting participants as making constructing a control group very difficult and as such no comparative study was conducted.

Opinion of the program was broadly positive. Most students found it engaging, with 70% saying they felt it had improved their attitudes to learning and school. A similar number said they felt more confident as a result of participation on the course. Some measure of the value-added from the program was gauged from case studies and teacher interviews, which suggested evidence of higher attainment and attendance amongst those who participated in the program.

There were however examples of students being wrongfully selected and in fact gaining fewer, lower level qualifications than they would likely have done in the mainstream system. Given that remedial programs, by definition, offer lower entry/foundation level courses, if a student is assigned to the program but is in fact capable of achieving a higher level qualification the result on attainment can actually be negative. The report cites an example of a student with a language barrier, but who was otherwise perfectly able, who was assigned to the program. They faced more limited options as a result, when perhaps all they needed was some intensive language tutoring. This issue highlights the importance of ensuring an accurate targeting process when designing any remedial program. There was also a minority of students who dropped out of the program altogether.

Some 83% of those sampled progressed to a 'positive destination' (to full-time-education, training, or employment, or some mixture of the three) in the year immediately after completion. 15% were 'not settled' and the destination of 2% was unknown. This demonstrates broadly positive outcomes, particularly given the composition of the group which participated in the study, but of course without a control group how much of this result can be attributed to KS4EP is unknown.

The Opening Doors Demonstration: Learning Communities

A further Opening Doors demonstration involved testing so-called 'learning communities' which were piloted in Kingsborough Community College, New York. This program was mainly targeted at low achievers and those in remedial classes, a group from which a minority achieve a university degree. Prior to enrolment students took the City University of New York skills assessment test. Groups of up to 25 students studying similar topics and with similar interests took three classes together during their first semester; an English class, a standard college course and a freshman orientation class teaching topics such as time management and study skills. 31 of the 40 learning

communities operated a developmental English course the remaining 9 took the standard freshman English course. This distribution reflected the scores on the skills assessment test. The groups met regularly with coordinators who provided extra tutoring and counselling as well as vouchers for text books. Students were randomly assigned between study groups that had access to the learning communities and control groups that did not.

Student outcomes were tracked for two years. During the semester that the program was on offer, program students passed more courses and gained more credits. The proportion of students gaining an A/B grade for their GPA was 6.8 percentage points higher in the study group than that of the control. There were also significant effects on the results of the English skill assessment, as those in the study group were on average six percentage points more likely to pass the test. A greater feeling of integration and involvement in the school was also reported amongst the program group. However there were no effects observed on registration, and the positive effects did not appear to be lasting, as no significant effects were observed amongst the study group once the program had ended.. Kingsborough has since scaled up its provision of learning communities and they are now on offer to most incoming students.

The Opening Doors Demonstration: Enhanced Student Services for Probationary Students

The Opening Doors program also included two schemes designed to improve student services at community colleges. The first was targeted at students between the age of 18 and 34 who were on academic probation (i.e. those who had not maintained an adequate academic performance).. Topics covered include reading and writing skills, accessing the library, study skills, time management, personal motivation and emotional awareness. The course was delivered through a mixture of lectures and practical workshops by Chaffey College, near Los Angeles. 'Success centres' were also led by college counsellors typically during the summer to give additional tutoring in reading, writing and maths and prepare student for their courses the following year, and one-to-one counselling was provided outside of class. Control groups where not offered any of the new services but did have access to those already put in place by the college. The second is scheme is discussed later.

Initially the program was run for only one semester and was optional. Turnout was low, and the program had no observable effects on student performance, The program was then reformed and offered over two semesters and students were told they were 'required' to attend. Turnout rose to about three-quarters of the study group, and significant improvements in performance were observed; the number of students with a minimum GPA score of 2.0 increased by 12.5 percentage points. Although there was no statistically significant change in the number of students on probation as result of the program, the number of students deemed to have 'good academic standing' in the study groups at the end of each semester was around 10 percentage points larger than that of the control group. There was also a modest positive impact on registration. These successes lead Chaffey to go on to expand the program to many more probationary students.

Careers Guidance and Counselling

A lack of knowledge of the options available upon leaving school and a lack of the 'soft skills' that are required to access these options are potentially important factors that influence early school leaving and poor connections with the labour market. Even for those with a high level of proficiency and good qualifications, finding a relevant and enjoyable employment or educational option with prospects for career development can be difficult. Careers guidance programs offer options advice, interview training, CV writing, financial planning and legal advice. Many programs also include training of the transferable skills needed in the formal work place such as study skills, time management and team work that young people without work experience may otherwise lack. In this respect such counselling takes a broad approach to preparing individuals for their later career placements.

As job opportunities often require previous work experience, getting onto the first rung on the job ladder is often cited as one of the greatest difficulties for young people in the job market. Careers libraries can be a great source to those seeking first time employment or experience through an internship or voluntary work. The knowledge of and application to, many job placements is still facilitated through informal relationships. For those without the benefit of parents or friends in high places, access to advice from a well informed and well-connected careers counsellor can be invaluable in levelling the playing field. Poorly informed career decisions are often responsible for a low level of engagement in college when they lead to students choosing courses that are poorly suited to their ability and/or interests and can result in failure to complete the course. Advice from someone with knowledge of the requirements and content of a course and the potential benefits and pathways that follow from it is also crucial if students are expected undertake education that provides relevant and applicable skills. Careers advice can also be an important resource for young people seeking to select an appropriate course at college or university, which can improve attendance and attainment as young people select a course more suited to their skills and interests. Through such impacts careers guidance can be effective at improving educational attainment and retention, reducing unemployment, raising potential earnings and providing for a smoother process of career progression.

We now discuss two examples of programs of careers guidance and counselling; *Aimhigher*, and the second of the Opening Doors schemes, *Enhanced Student Services* (Ohio).

Aimhigher

The Aimhigher partnerships were developed to raise awareness of and aspiration to study at HE institutions and were specifically targeted at groups currently underrepresented in the HE student population in the UK such as those from lower income families. The programs were partnerships between institutions such as schools, universities and HE colleges and local authorities. The programs usually included events or conferences at schools and colleges, careers counselling, trips and visits to universities and residential courses, and have been described as 'following an individual rather than structural approach'. Pilots were conducted between 2000 and 2002 and then rolled out nationally in 2003 (it was closed in July 2011).

A regional evaluation of Aimhigher in the South West between 2003 and 2006 was carried out by the University of West England using a 'multi-strand approach'. Secondary data on indicators such as GCSE results, participation in post-compulsory education and applications to HE institutions were gathered from sources such as UCAS and the Department for Education. Questionnaires and surveys were carried out before and after Aimhigher events to try and gauge the impact of the interventions on its participants. A tracking study of 580 year 10 school students who had taken part in at least one Aimhigher event was started in 2000, where participants were asked questions aimed to investigate . changes in awareness following an event, as well as the educational and occupational history of parents/carers. These were supplemented with interviews with teachers, mentors, connexions advisers etc. Quantitative data on the students GCSE grades and progression post-16 were also collected.

Event surveys suggested an immediate positive impact on the awareness and aspiration of those participating. The number of participants that felt "they had enough information to decide about HE" rose from 54% to 88% following the Aimhigher summer schools. Later questionnaires suggest this awareness was sustained for long periods after events. However the tracking study found significant and persistent gaps in the provision of information specific to the under-represented groups that Aimhigher is targeted at. A greater tendency towards vocational courses characterise this group, yet awareness surrounding Foundation Degrees and courses in FE colleges as well as routes of progression into a vocational labour market were poorly understood, suggesting an area for improvement for future events.

Data on the makeup of the HE student population has shown a significant increase in the proportion applying from lower social groups programs but it is impossible to identify how much of this change can be attributed to the Aimhigher programs without additional data. Unfortunately the tracking study included no control cohort. The wide-based, integrated approach of working with multiple institutions and schemes as well as the local variation in combinations of techniques used also prevents evaluation from showing which methods and institutions used in the partnerships were effective and which were not. Some weight can however be attached to the fact that the post-compulsory participation rate amongst the tracked sample was higher than the local and national average.

Initial survey results are encouraging in many ways, but the effect on measurable outcomes such as HE attendance and attainment is not clear.

The Opening Doors Demonstration: Enhanced Student Services (Ohio)

The second of the two Opening Doors programs focused on enhanced student counselling and was run at two Community Colleges in Ohio over two semesters. Eligible students were aged between 18 and 34, had a family income below 250% of the federal poverty line and exhibited a low level of academic achievement. Participants were then assigned to a team of trained counsellors with whom they were expected to meet at least twice a semester. Meetings were one-to-one sessions in which staff and students would talk about a wide variety of topics such as course choices, career development, financial issues, time management and social and personal issues. (Although it should be noted that the counsellors were not trained therapists and therefore did not engage deeply in

physiological problems). Participants were paid a \$150 stipend for each meeting (totalling \$300) as an incentive to attend. Counsellors were responsible for far fewer students than regularly found; around 160 as opposed to the more typical number of more than 1000, which facilitated more intensive, regular contact. Participants were randomly assigned between study control groups, the latter of which had no access to the enhanced counselling or stipend.

Student outcomes were tracked over a three year period, and although there was no notable impact on educational outcomes observed in the first semester of the program, a modest but significant impact was observed the second semester, as the average registration rate and number of credits attempted were 7 and 0.7 percentage points higher in the study group respectively. These impacts quickly dissipated beyond the first post-program semester however.

Recovery Training Programs

Some students still leave school with very low levels of achievement and find themselves unready for the job market or further education options. This is a point in a young person's life when they can easily settle into NEETHood and perhaps wider social behaviours which, without outside help, have longer term costs to themselves and society.

Recovery training programs aim to provide help to those who are towards the end of their mainstream education who are most at-risk or have already dropped out of school. They often operate through self-contained campuses, away from the participants' own neighbourhood. In this environment, services can be delivered more intensively to address participants' specific needs. Residential recovery programs which take young people out of destructive environments, such as violent homes or gangs allow them to develop and work in a safe and secure location. Centrally, academic and vocational training is offered, often alongside a wider set of support services such as careers advice, counselling and placement services. As in remedial classes, learning is often targeted at the individual level, with independent learning encouraged. Curricula are flexible with a variety of courses and qualifications on offer. This allows students to tailor their learning to address their specific development needs. The following are four examples of recovery training programs; the *Jobs Corps*, *JOBSTART*, *ChalleNGe* and *Second Chance Schools (E2C)*.

The Jobs Corps

The Jobs Corps is the largest federal US training program for disadvantage youth. It accepts over 60,000 new participants per year at a total cost of \$1.5bn. The large scale and longevity (it was first established in the 1960s) of the program alone warrant attention. Criteria for eligibility focus around economic disadvantage. Applicants must be between 16 and 24 years old, have an income less than 70% of the US Department of Labour's (DOL) 'lower living standard income level', live in an environment characterised by high crime and unemployment rates and must lack training, education or job skills. They must also be free of serious behavioural problems. Although careers counselling and mentoring is provided, the Jobs Corps focus is on formal training for employment rather than treating social or emotional issues.

Participants are typically referred by agencies working in schools, courts, employment or welfare sectors. Most Job Corps services are then provided at one of 110 residential centres across the US. Here participants receive academic and vocational training, counselling and healthcare training, usually from private contractors. Placement services are also often provided during the program and for six months subsequently to help participants find employment or further training. Employers and unions are often involved in the design and implementation of the curricula. Time spent at the Jobs Corps varies but the typical length is about eight months.

An evaluation of the Jobs Corps program between 1994 and 1996 was carried out by Schochet *et al.* (2008). 81,000 eligible youth were randomly assigned between treatment and control groups. Outcomes were measured using survey data and tax records measured at four and nine years after random assignment respectively.

The study found the Jobs Corps to have significant effects on academic attainment, later earnings and involvement in crime. Students in the treatment group spent on average one academic year more in education or training than those in the control group. Most time was spent in vocational training. Those in the Jobs Corps also received more certificates and qualifications than those in the control group. However, college attendance and completion were not significantly affected. For the first two years after random assignment, earnings by the treatment group were less than that of the control group (mainly because most were still in the program). By the fourth year after assignment, those that had attended the Jobs Corps were earning on average 12% more than their control group counterparts. About 33% of control participants were arrested during the follow up period compared with 29% of the treatment group.

The use of a randomised control trial in this study allows the above results to be interpreted with confidence. These strong positive outcomes suggest that this program has significant value.

JOBSTART

JOBSTART was another program run and tested by the MDRC that employed similar techniques to the Jobs Corps to improve the educational and employment prospects for at risk young people. To be eligible, candidates had to be 17 to 21 years old, high-school dropouts, with a reading age below the eighth grade (aged 13-14 years) level and economically disadvantaged (though this criterion was flexible). Being homeless, having a family income on or below the federal poverty line or receiving public assistance are examples of characteristics that were used to qualify someone as economically disadvantaged. Participants were typically black or Hispanic. The program was carried out at 13 sites that included adult schools, community colleges and non-residential Jobs Corps centres. The demonstration ran from 1985 to 1989.

The program aimed at providing the opportunity to acquire skills and qualifications such as the General Education Diploma (GED) assessment. These new skills were expected to lead to better job and educational opportunities. To this end JOBSTART offered basic but intensive academic and occupational training as well as job placement services. Academic learning was done in a piece meal way with students working at their own pace and often with computer access where possible. Many students gained on-the-job training placements in a broad range of industries. There was a

noticeable variation in how these services were delivered between different sites in terms of course duration, who delivered the courses, and the level of support for childcare and transport provided.

A total of 2312 eligible youths were randomly assigned between study groups, who received JOBSTART services and control groups who did not. Surveys on outcomes were conducted one, two and four years after assignment. 88% of participants had left the program by 12 months after assignment. 12 months random assignment the average number of hours of education or training received by a student in the study group was 416 hours compared with that of 115 hours of the control group. By 48 months after assignment those figures had risen to 800 and 432, for a total difference of around 370 hours (though it is notable that this impact occurred almost entirely in the treatment period). Subgroup data show that men participated less than custodial mothers who in turn participated less than other women in the sample. 42% of the study group gained a GED or high school diploma by the end of the four year period after assignment and 33.1% had achieved a trade certificate or license over the same period, both about 15 percentage points higher than for the control group. There was no statistically significant impact on earnings, crime or employment rates over the same 48 month period (although this may be the result of the relatively short observation period).

These results suggest that JOBSTART was effective in promoting participation in education and the achievement of qualifications, although not as effective as the Jobs Corps, which achieved an impact of around a year. Impacts on earnings and involvement in crime were negligible for the JOBSTART program but significant for the Jobs Corps. A key difference between the two programs was that the Jobs Corps, was primarily residential, JOBSTART was not. These results indicate that the costly residential element of a course may be a significant factor in its success. Regardless of this, a rigorous, quantitative, random assignment study has shown that JOBSTART can significantly improve the skill level of previously untrained youth.

ChalleNGe

ChalleNGe has been run by the National Guard Bureau since 1993 again employing similar techniques to the Jobs Corps and JOBSTART to improve the educational and employment prospects for at risk young people. Eligibility criteria included high school drop outs aged 16 to 18 who were unemployed, drug-free and not heavily involved in the justice system. Whilst open to both males and females 80% of those who participate are males.

The aim of the program was to identify young adults at risk of social exclusion and help them to address the underlying causes as well as the symptoms of their disadvantaged status. The goal was to provide the skills and experiences needed to find a way back to 'mainstream society' (Millenky et. al. 2011). The program consisted of three phases; The first was the pre-ChalleNGe assessment phase for orientation into the program over two weeks where the rules and expectations of the program were explained. This was followed by a 20-week Residential Phase structured around 8 core components that reflect thinking on how to promote positive youth development such as leadership, services to the community, life-coping skills, physical fitness etc. The final phase consisted of a post-residential placement into education, employment or military service with a structured mentoring program for one year.

Although outcomes were collected by the National Guard from the beginning of the program, there was a lack of systematic evidence of the actual impact of the program through the lack of control group. In 2005 a random assignment evaluation began, run by MDRC, that followed both a treatment and control group at 12 of the existing ChalleNGe programs. The programs were not randomly chosen – effort was made to identify those with stable staffing and where demand outstripped supply to provide a feasible control group. Follow ups were carried out at 9 months, 21 months and 3 years after the program began.

There were positive education results at each of the three follow-up periods with treated individuals' receiving more college credits and more likely to have a GED or High School Certificate than the control groups. Evidence from the second follow up on the number of people arrested were not significantly different between the treatment and control groups although the treatment group were less likely to have been convicted of a crime. The third follow up found significant impacts of the program on employment rates and earnings with treated individuals earning 20% more than their control group counterparts in the year before the three-year follow up. (Bloom et. al., 2009, Millneky et. al., 2010, Millenky et. al. 2011)

Second Chance Schools

The E2C initiative was set up following a European Commission white paper entitled “Teaching and Learning: towards a learning society” (1995). It was piloted in 1997 and then fully established as a Europe-wide framework in 2000. E2Cs are programs for 18 to 25 year olds who have left the education system without an upper-secondary diploma. They are therefore part of the group of young people ‘at-risk’ of unemployment and social exclusion. E2Cs use a mixed curriculum of classroom and on-the-job learning to re-engage and improve the employability of disaffected youth and aim to improve their confidence and aspirations. There is an emphasis on the employment of local staff and contact with local business to provide work experience, and on learning through ICT. Each student is paired with a coach or teacher who is responsible for no more than 12 students. A report by the European Commission (2001) found that of almost 4000 students that attended 13 E2C pilots across Europe over the first four years of the project, more than half were still in school and over a quarter had found a job. It found a dropout rate of just 6%; remarkably low considering the characteristics of the student intake of the schools.

An evaluation of two French E2Cs based in Marseille and Nancy was done by Aricò and Lasselle (2010). It used questionnaires to assess the attitudes of E2C student. Just over 77% of those sampled thought attending an E2C would facilitate their access to the job market. 75% cited confidence building as a motivation for enrolling in an E2C said they had made progress towards this goal.

Feedback from this project has been mostly positive and number of E2Cs has steadily grown since its initiation as more and more European countries express interest, suggesting a high degree of success. The quality of evaluations so far has been insufficient to draw any confident conclusions, but E2Cs look like a promising example of a Europe-wide program for NEETs.

Community Organisations

NEETHood is frequently a serious problem in urban areas with high unemployment and crime rates. In such cases problem associated with NEETHood can be felt across whole communities. For these reasons an inclusive and community based approach is often taken by charities and philanthropic organisations when working to promote positive youth outcomes. Funding is drawn from local businesses and individuals, central and local government, and other charitable donors. A varied source of donors can be a positive feature as it limits the extent to which policy direction can be monopolised by one interest group. Staff members include local volunteers and business people. This inclusion of local groups makes for a greater sense of communal responsibility and achievement and also involves individuals with local expertise and experience.

These community organisations generally appreciate that the causes of NEETHood are numerous, complex and interconnected and often require a holistic approach. Sports and leisure facilities are important in ensuring young people have constructive ways to spend their free time. Extra tuition and after school classes help struggling students achieve their potential. Community workshops address crime and gang problems. Music and arts clubs give kids a sense of cultural involvement. Social enterprise can provide jobs and work experience to the unemployed. Community organisations have invaluable knowledge of what the specific problems are that affect their local area as well as the connections and relationships to motivate the collective engagement needed to work towards solving them.

Below we discuss five examples of community organisations; *Working It Out*, the *Youth Challenge Fund (YCF)*, the *Keystone Development Trust (KDT)*, *Vital Regeneration (VR)* and the *Harlem Children's Zone*.

Working It Out

Working It Out aims to improve prospects for young people by offering a 16-week program which aims to improve confidence, self-esteem and encourage a wider sense of responsibility amongst young people. The program provides young people with a wide range of opportunities to demonstrate to themselves, their families, members of the community and employers that they can succeed at given tasks, whilst making a real difference to their community. The program is voluntary and young people attend 20 hours a week. Staff offer continued support after the official program ends.

There is a clear focus on progression to employment throughout. The delivery of the program is distinctly different to classroom based provision by being less formal while maintaining professionalism. Community challenges are central to the program design and aim to provide young people with practical work experience. They also aim to raise young people's expectations of what they are capable of, and for them to give something back to the community; this in turn is intended to improve communities' perceptions of young people.

Tank Consulting provides a qualitative review of the program, finding feedback from staff members, program participants and funders to be extremely positive. They estimate that around 80% of

participants complete the program which is impressive given its longevity – however, it should be noted that ‘travel and subsistence costs’ amount to approximately £900 per individual, which is more than £50 per week; more than EMA, for example. An estimated 80% find employment, or end up in education or training, and a follow-up survey found 77% of people in employment, education or training six months after completion.

FTI Consulting provides a quantitative analysis of WIO by estimating the Social Return of Investment (SROI) of the program. Returns include tax revenues, benefit expenditure savings and reduced healthcare and crime-related costs. The analysis accounts for both the possibility that young people who find work after the program may have found work anyway and the fact that the program does not create jobs and therefore an individual finding work as a consequence of the program will be displacing somebody else. In spite of this, FTI estimate a SROI for WIO of £2.90 for every pound spent, and a cost of £5600 per successful outcome (i.e. somebody finding employment, or entering education or training). While the cost per successful outcome is relatively high, the return for each pound spent is very high compared to similar programs; this is because WIO typically targets those who are the most difficult to reach. This is therefore a strong endorsement of the merits of the program.

Overall the holistic approach to attaining employable skills, the proactive focus on gaining employment, and the accessibility of the staff are extremely positive features of the program, and it seems to be achieving strong success in some of the most deprived areas of the UK.

The Youth Challenge Fund

The Youth Challenge Fund (YCF), based in Ontario, Canada has used donated funds from the private sector and individuals which were then matched by the Government of Ontario to invest in 111 youth based initiatives. (Since the government’s initial investment in 2006, the fund has raised almost \$50 million). The YCF project is focused on 13 ‘priority areas’ in Ontario and is collaborative, community based and youth led. The projects address a range of problems from crime and gang culture to youth unemployment to a lack of training and education opportunities and recreation and sport facilities. YCF cash has been used to fund media, film and music internships, build outdoor sports pads, pay for after school tuition, provide bursaries for those studying for their high school diplomas and employ youth workers to initiate reconciliatory workshops for rival gang members.

No serious evaluation of the effectiveness of the YCF has been carried out to date, possibly because of the wide variation in the type for projects that it funds, making disaggregation of its impacts difficult. The YCF’s 2009-2010 annual report was, perhaps unsurprisingly, very positive about the potential effect of its work, citing examples of successes such as the 12 young people who passed their final GED exams with YCF bursaries or the 83 youth who volunteered under another YCF backed initiative.

The fact that many of YCF’s projects are initiated and led by young people themselves is a testament to young people’s willingness and ability to engage and work to promote their own success and that of others when they are given the opportunity. Despite the lack of empirical evidence in support of the YCF the theory behind its model is innovative and promising.

The Keystone Development Trust

The Keystone Development Trust (KDT) claims to be one of the biggest development trusts in England. It was established in April 2003 and operates in the counties of Suffolk and Norfolk in the east of England. The KDT's stated objectives are to tackle social and economic exclusion, to protect the environment and to generate wealth through social enterprise. It pursues these goals through a wide variety of initiatives, although the consistent defining feature of KDT projects is that they are rooted in the local community, as there is concerted effort to include local business, government, community groups, families and individuals to fund, design and implement its schemes. Staff are both permanent and volunteers. The KDT describes the local area that it serves as having a higher proportion of young people than average, poor leisure and youth facilities, low educational achievement, high unemployment and problems of rural isolation of young people. KDT funds are used for a number of youth orientated programs.

Keystone Community Grants is a program of small grants to local groups working with young people up to the age of 18. The KDT also runs a training scheme of Community Organisers funded by the central government. These community organisers are trained using techniques such as 'Listening Matters-Root Solutions' based on mutual respect and engagement. Once trained, organisers work to build trusting relationships and networks between and across communities to encourage community action and cohesion. The KDT particularly encourages applications for training from young people to help improve their sense of social engagement and responsibility.

Examples of projects include The Big Sitting Room project - which provides safe space for its young members outside of the home or school to socialise and relax (usually a church or neighbourhood centre) - and The Keystone Kollektive, a music project which provides space and support for young musicians to practise, perform, produce and record music. The project runs once a month at a Connexions youth venue. Gigs are held twice a year and a CD of the projects music is recorded annually.

The fact that the KDT invests in a large number of small scale projects that vary greatly in approach means that identifying their effect is difficult. However, as with the YCF in Canada, although there is no empirical evidence of the success of the KDT, the community based, holistic approach to solving local problems gives a refreshing alternative approach to the problem.

Vital Regeneration

Vital Regeneration (VR) is a charity that works in some of London's most deprived areas. It uses community partnership techniques to improve the resources and services available to local people. VR divides its projects into those involving learning and skills, employability and enterprise. Although the charity has no age specific target group, a lot of its work involves young people particularly those who are NEET. The following are examples of VR's projects aimed at young people.

The Apprenticeship Advice Service gives careers advice and guidance and job brokerage services to people aged between 14 and 24. Participants are given one-to-one counselling to discuss options

and make career plans. VR report a recent increase in demand for these services given the national plans to expand the number of apprenticeship placements. In 2009 the Apprenticeship Advice Service team helped 28 young people find an apprenticeship or job and 49 people enter training, work experience or voluntary work.

Create+ is a course provided by VR aimed at NEET youth between the ages of 14 and 19. It teaches music production and event management through access to industry standard technology. Numeracy and literacy skills are embedded to facilitate progression onto further education or employment. Participants receive a formal qualification; the Bronze Arts Award, for completing the course. In 2009 80% of those on the course achieved this award.

No evaluation of any VR work has been done as of yet so its effectiveness is unclear. Many of its programs are expanding however and it seems to regularly establish new innovative ideas. This suggests there is a demand for its services. It also receives funding from a wide base of notable public, private and charitable funds such as the Learning and Skills Council, BNP Paribas and the Princes Trust suggesting many organisations value its work.

Harlem Children's Zone

The Harlem Children Zone (HCZ) is a non-profit community organisation based in the neighbourhood of Harlem, New York. The HCZ was first set up as a small pilot scheme in the 1990's to address the area's history of violence, drug abuse, crime and poverty. It has since repeatedly expanded and now covers nearly 100 city blocks. By investing heavily in children's education and social and cultural development it aimed to create a critical mass of positive adults that can in turn support the next generation, breaking the poverty cycle.

The organisation runs programs for children of all ages, from birth through to college. It holds parenting classes and operates a kindergarten for preschool children. The HCZ's Promise Academies I and II include elementary, middle and high schools. They have longer school days and terms and offer a broad range of extracurricular activities. Promise schools are not selective and entrants are local children allocated a place by way of a lottery. Teacher to student ratios are high with most classes having two or even three staff members present. Academic achievement is high; over 98% of Promise II's student performed on or above grade level in their maths exam, outperforming both their black and white counterparts in New York State.

Promise I's middle school was opened in 2004. It has impressive 'wrap around services' such as a dedicated medical clinic with a doctor, dentist and a psychiatrist. There are also two full time social workers on staff. Two examples of the after school schemes run by the middle school are Boys to Men and Girl Power. These are gender specific social and personal development programs to promote and support the growth of young people to become productive men and women who contribute to their community by discouraging drug use and gang involvement and violence. Sessions use reading materials, group discussions, trips, films and team building activities to work towards these goals.

The Promise Academy High School was opened in 2008 and is currently filling up as new grades of children enter each year. As with the middle school, every student in the high school is assigned to a

Student Advocate to work with to create an 'individualised action plan' to facilitate enriched academic learning and support the student's readiness for college. Preparation for college is stated as a key goal for the Promise Academy. 90% of Promise School students who attended after school programs went on to at least 2 year college.

The Employment and Technology Centre is run by the HCZ and provides careers advice, job search help and an array of additional academic tutoring. Job placement services are provided during the summer months. Arts and technology are heavily used to engage the young people and get them to think creatively and independently. Workshops involving sound and film editing software, dance and poetry also make for a community centre environment. Staff cite a strong feeling of good will amongst participants who consider the centre a "second home".

These are just some of the main services that the HCZ provides. Central to the organisation's strategy is the tactic of saturation of a specific neighbourhood. By operating in depth programs addressing all aspects of the lives of the young people of all ages in a community it seeks to build a "safety net woven so tightly that children just can't slip through".

Dobbie and Fryer (2009) evaluated the impact of HCZ schools and programs on educational outcomes, taking advantage of the use of the lottery to select students. They find large, significant effects in HCZ middle schools; over the three years of 'treatment', the 2005 lottery winners made considerable gains in educational outcomes over the control group. By the end of middle school the lottery winners had completely closed the racial attainment gap in maths. In fact by the end of the third year the math score of the average student in a Promise Academy middle school was greater than the average white student in a state school in New York City. The impact was not as large for English Language Arts scores but still notable.

The report also compared the impact of the HCZ on individuals only eligible for their community projects with that of those eligible for both school and community programs, finding impacts to be larger for those who participated in both community programs and attended a Promise School. This suggests that the community programs alone cannot account for the observed improvements in achievement and builds support for the HCZ's holistic approach.

The HCZ is an ambitious attempt to alleviate child poverty and deprivation which seems to have generated hugely impressive results. Its success has been praised by notable figures including America's president Barack Obama who has made funding available for the trial of further projects based on a similar model to the HCZ around the country. It is one of the most promising programs of its kind and warrants attention for anyone interested in the education and development of deprived inner city youth.

GO Create

In Sunderland in the north-east of England, unemployment and drug and alcohol abuse are well above the national average. The city has been described by the government as a 'NEET hotspot'. Go Create was a small scale intervention run by the Sunderland Local Authority between November 2008 and September 2009. It had the aim of providing NEET youth with media and information

technology skills that could then go on to help improve employment and educational outcomes. Participants were NEET youth referred through Connexions Sunderland.

The program involved the making of multi-media CVs using videos and pictures. The inclusion of a personal passion or interest was encouraged as a way of getting the young people to talk and think about what their motivations and ambitions were with respect to possible future career/life paths. The use of the hardware such as digital video cameras and software such as MS MovieMaker was intended to raise familiarity with media technology that. A GO Create website was made for the purpose of sharing work and ideas.

A report by the University of Lancaster (2010) evaluated GO Create qualitatively. The multi-media aspect of the CVs was often cited by participants as being a motivational feature. It provided an alternative approach to teaching and helped create good will from many of those with preconceptions following bad experiences of more formal educational and employment environments. By the end of the program, 27 people had posted material on the GO Create site. All but two were classified as NEET, and many had never produced material in this multimedia form. Of the 24 who provided feedback on the course all but one said they would recommend it to others. Positive comments on the creativity of the projects and helpfulness of staff were also common in feedback from participants.

The small scale and very limited evaluation means making any concrete conclusions from this intervention impossible. But the idea that you can promote engagement in youth through simple access to technology such as cameras and computers along with basic guidance and supervision is powerful. In so far as deprivation is a contributing factor to NEETHood, equal access to such resources can, one would imagine, make a significant difference to not only a young person's practical skills and employability but perhaps more importantly their own feeling of engagement and aptitude in the modern world.

Key recommendations

The rise in the number of NEETs in the UK over the past decade began well before the current economic crisis, suggesting that this is a structural problem rather than cyclical. Unfortunately for those entering NEETHood, at 16 and 17 in particular, there is a distinct lack of ownership for this group within government. Older NEETs can reconnect with formal providers when they become entitled to welfare benefit whereas younger NEETs often living at home with parents have no connection with the state. There is therefore no means of incentivising or encouraging engagement. This poses a serious risk of disconnection for this group and they may experience up to two years or more out of work, education or training before any recovery program begins.

Programs to prevent this disconnection are key to improving the future life chances of these individuals, reducing the risk of future spells out of work and improving employability or skills for this group of people. We have identified two broad groups of NEETs for policy focus; a narrow group of longer-term, or core NEETs, and a wider group containing both the core NEETs and those who are ever NEET with poor GCSEs. Those with shorter term spells who have good GCSE grades often return to education indicating a break between courses or a move into work. These are probably not a major concern for policy makers.

The effectiveness of using characteristics to predict potential outcomes and the potential programs that may be most effective varies by the specific group of interest. Whilst we are able to predict the larger ever NEET group relatively accurately, they also may not be the main focus of any intervention as the evidence suggests that their outcomes are generally better than the core NEET group. For the core NEET group it is harder to predict correctly whether those exhibiting the key characteristics will in fact end up in this group and whether those that end up as NEET will be captured by the suggested list. There will therefore be a fair amount of deadweight loss in implementing any kind of scheme that attempts to identify those most at risk earlier in life. However, many of those wrongly identified as at risk of becoming core NEET do experience shorter spells as NEETs.

Given that the aim is to prevent NEETHood, outcome related funding for an intervention, based on the economic activity of these individuals at age 18, would be a sensible design. Where possible the emphasis should be on longer-term outcomes such as sustained employment or training to ensure that the goals are constructive ensuring a meaningful progression for those individuals most at risk of becoming NEET. Given the likely deadweight loss from targeting, it is sensible to base any program design on rewarding outcomes cumulatively; that is paying more for the last person who makes a successful transition from any group than would be paid for the first, not just an average effect across the whole program. This is because many would have made it anyway and the payment for these individuals' is therefore a deadweight loss. The focus on those left behind needs to be more acute and this incentive structure would emphasise this.

For shorter term NEETs with good qualifications, more effective sign-posting and information flows about potential options may be sufficient in ensuring progression. However for the more at risk group it is likely that simple sign-posting in the form of careers advice will not be sufficient. For this group, there are four key recommendations for consideration when designing a program for early intervention to prevent future NEETHood

- Financial incentives appear to be the most effective way of incentivising individuals who might otherwise be disengaged. These can take the form of both participation incentives, reducing the level of truanting for example, and outcome based incentives, rewarding achievement.
- Any attachment to the labour market, both in the form of work experience but perhaps more importantly through part-time work whilst still at school, is strongly associated with the individual remaining attached to the labour market on completion of formal education. Help creating this connection and sustained attachment could be a key area in which interventions could be successful.
- The group who become NEET are often missing the key basic numeracy and literacy skills needed to succeed in further education, training or the world of work. Classes that focus on getting the basics right first would provide those most at risk with the necessary skills needed for future advancement.
- Alternative options to the basic academic route are fundamental in terms of giving those most at risk a clear pathway with achievable goals. Programs that force individuals to stay in formal academic education may lead to more harm than good as lower-grade academic qualifications such as NVQs are not highly regarded by potential future employers. Formal apprenticeships with key on-the-job training and a proper connection to the world of work could play a fundamental role on increasing engagement for this group of people.

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