

Becoming NEET in Europe: A Comparison of Predictors and Later-Life Outcomes

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Abstract

This paper examines the predictors of being economically inactive in youth and young adulthood, as well as later-life outcomes that are associated with this form of disengagement from society. Specifically, the phenomenon of being ‘NEET’ – not in employment, education, or training – is focused upon. Using longitudinal panel data from seven western European countries, the individual and household socioeconomic level predictors of NEET status are examined as are recurrent NEET status, and human and social capital outcomes in successive years after NEET status is observed. Country differences are hypothesized through the use of the youth transitions regime approach. Findings reveal no systematic differences by regime type in either the predictors or outcomes of NEET status, although surprising findings in the UK set it apart from the other countries. Having a child early in life predicted NEET status least in the subprotective countries and most in the employment-centered countries. Some evidence was found that outcomes for NEETs were the most severe in the sub-protective countries, particularly with regard to social capital outcomes, which may be due to the importance of the informal economy in such countries. Other interpretations of the findings are suggested by correlating the differences in recurrent NEET rates across country with national statistics on youth unemployment and human development measures of education.

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INTRODUCTION

In the last two to three years, the term ‘NEET’ has increasingly cropped up in policy discussions surrounding the transition from school to work for young people, particularly in the United Kingdom. This new ‘category’ of young people refers to those who are not in education, employment, or training (NEET) – not just *economically* inactive, but seemingly completely inactive and occupying an unconstructive (and potentially threatening) position in the social topography.

The NEET group became popularized in political discourse after the publication of the Social Exclusion Unit’s report in 1999 wherein the group was first defined and shortly thereafter became term used by civil servants and politicians to discuss this sub-group of young people. In 2005, a report from the UK Department for Education and Skills shed further publicity on the topic (DFES, 2005), indicating that numbers of NEETs in the UK remained ‘stubbornly’ at ten percent over the previous decade. This made further news when a report released by the Prince’s Trust (2007) published figures about the costs of NEETs to society, including benefits paid out and youth crime figures.

Understanding NEETs solely as a drain on society, however, understands NEET status as an active choice that young people are making about their lives – a ‘career choice’ of sorts. From a sociological perspective (and decades of social mobility and stratification research), there are structural roots in society and ascribed characteristics, like race, gender, and class, which all interplay to determine life chances. As Colley and Hodkinson (2001, cited by Pemberton, 2007:5) argue, there is little to be gained by “locating the causes of non-participation (solely) within individuals and their personal deficits” (p. 345). Similarly, Yates and Payne (2006) argue that NEET as a concept itself is problematic in that it defines young people why “what they are not” (p. 329) instead of recognizing that these young people come from varied difficulties and situations.

AN OVERVIEW OF THE LITERATURE

It should be mentioned that the category of NEET has virtually usurped discussions of ‘youth unemployment’ in the UK. Literature prior to the late-90s examined ‘early school leaving’ and ‘youth unemployment’, but for the most part, these problems have been collapsed into a larger category of disengaged youth, i.e. NEETs.

Becoming NEET

The transition between school and work has become increasingly diversified, such that the clear transition between school and work is no longer a standardized experience. As well as becoming prolonged (i.e. extended periods being spent in education) the school to work transition is characterized by having a remarkable person-specific trajectory. As social contexts change, each cohort experiences different sets of obstacles and opportunities which shape their futures (Bynner and Parsons, 2002). Other researchers

have referred to this de-standardized process as ‘yo-yo’ transitions (European Group for Integrated Social Research 2001; Walther et al. 2002), whereby the prolonged transition from youth to adulthood is fragmented with ‘uncertain perspectives’, where young people must make individual decisions about their futures (as opposed to previous generations which had more homogeneous status passages), and these decisions are of increased importance (i.e. the wrong decision may seriously jeopardize their future).

There is a common assumption in the UK, particular in policy arenas, that while NEETs come from diverse backgrounds, what they do have in common is “low levels of aspiration and little motivation” (Popham 2003:8) . However, Bynner et al (2000) and Bynner and Parsons (2002) have identified several ‘risk’ factors of becoming NEET in the UK. Using data from two British birth cohorts (the National Child Development Study of 1958 and the British Cohort Study of 1970), they have found that family socioeconomic background (i.e. class), parental education, 3) parental interest in the child’s education, 4) area of residence, and 5) children’s educational attainment were all strong predictors of later-life NEET status. Additionally, research undertaken by the UK Department for Education and Skills (now Department for Children, Schools, and Families) found ‘ten factors’ associated with being NEET: no educational qualifications, school exclusion, previous truancy, low skill occupation of parents, living in a household where neither parent worked full-time, having children at an early age, living outside the family home, having a health problem or disability, or having parents living in rented accommodation (undated: p.7). Clearly these ‘ten factors’ point to young people who have had negative experiences in their early education experiences and come from lower socioeconomic backgrounds.

Outcomes of being NEET

Through analysis of birth cohort data from the UK, Bynner and Parsons (2002) found that the later-life consequences of NEET varied according the sex. For males, the main consequences were poor labour market experiences. For females however, the vast majority of whom were teenage mothers, negative mental health outcomes (depression and low self esteem) were also observed.

Maguire and Rennison (2005) examined how a government scheme in the UK created to keep young people in full-time education (by paying them allowance) worked at preventing young people from becoming NEET. The scheme was found to have little impact on getting individuals who had entered NEET since the end of compulsory schooling to return to full-time education. The authors suggest that one possible reason for the perceived ineffectiveness of the government scheme may be that NEETs are usually people who were disengaged from school, whether due to exclusion, bullying, learning difficulties, or disinterest. It is therefore not so surprising that such people should either neglect to take up such schemes, if they had even been aware of them in the first place.

Neet in an International perspective

The NEET phenomena has drawn research and policy interest not only in the UK, but also in Japan (Inui 2005; Yuji 2005) and to some extent, by European policy makers (Walther and Pohl, 2005). As well, research in Sweden by Franzen and Kassman (2005) has found that economic inactivity in young adults (early 20s) was strongly associated with being economic inactivity seven years later, and was particularly strong for immigrants and those with low levels of education. The authors argue that early inactivity is the first step in a marginalization process

Of particular relevance to the current study is the work by Walther and Pohl who examined NEETs in a European context, using European data sources, particularly the European Labour Force Survey database. The note that there are no reliable data on this group of young people, as in labour force statistics, they are grouped into the economically inactive category. This is problematic because this group also includes those with domestic responsibilities and those who are in mandatory national service. To add to the complexity, many definitions of economic inactivity also include those who are in full-time education (Eurostat 2004).

Walther and Pohl (2005) divided countries into very high, high, medium, and low levels of NEET. The UK, Poland and Spain were categorized as high, with rates between six and ten percent, while medium rates (between three and six percent) were found in Finland, Austria, Greece, Slovakia and Italy. Denmark and Slovenia had low rates – less than three percent. The authors examined national policies that contributed to the NEET rates in each country, finding that in countries with very high and high NEET rates, ineligibility for benefits and a feeling of ‘abandonment’, as well as the presence of an informal economy and a lack of trust in government employment services, were the driving forces behind this phenomenon.

Other authors have found that the persistence of being in NEET status in OECD countries was particularly strong in Italy and Greece (Quintini, Martin and Martin 2007) and that low educational attainment was strongly associated with NEET status (Quintini, Martin and Martin 2007).¹

THEORETICAL FRAMEWORK

Forms of Capital

In a similar vein to the work on NEETs conducted by Bynner and associates (Bynner 2005; Bynner and Parsons 2002; Bynner et al. 2000), the route to adulthood is conceptualized here as one where various investments are made into the forms of capital. Bynner (2005) adopts Côté’s (1996) idea of “identity capital” where individuals succeed (or do not succeed) in the labour market due to their stocks of educational, social, and psychological characteristics and resources. In this particular analysis, the forms of

¹ It should be noted that Quintini, Martin and Martin (2007) conducted their analysis on the same data that will be analyzed in the estimations that follow. It is important to note, however, that Quintini, Martin and Martin include unemployed youth and those in military service in their estimations. It will be explained later in this paper that the operationalization of NEET used in the forthcoming estimations excludes these two groups.

capital as defined by Bourdieu (1986) are focused upon, particularly economic and social capital. According to Bourdieu, it is the possession of these forms of capital (and their combines) that defines a person's place in the social topography.

There are various mechanisms that can hinder the acquisition of the forms of capital, and NEET status is understood here a status characteristic that acts to inhibit further economic and social capital acquisition. Of course, it is recognized that other factors play a role in getting a young person to the NEET status in the first place. According to previous literature, young people in the UK come disproportionately from disadvantaged backgrounds, and therefore have hampered economic and social capital 'stocks' from the outset. But the objective in this paper is to examine whether NEET status impacts not only on later-life economic correlates (to which previous research has already pointed), but also to the social domain. In a similar vein, Raffo and Reeves (2000) in particular, theorize about the role of social capital in the social exclusion of young people in the transition from school to work. Through qualitative research on marginalized British youth, these researchers have provided evidence of how limited or culturally inappropriate social resources limit the later-life chances of at-risk young people.

Cross National Comparisons

When undertaking multi-country analyses, it is the case that most researchers anticipate some sort of differences to emerge between their countries of interest. It is also the case, therefore, that these differences must be interpreted. A popular way of contextualizing country differences is to use Esping-Andersen's (1999) framework, which defines various country regime types that are groupable according to their type of welfare capitalism. As cross-national (social) research has grown over the last decade, largely due to the increased availability of large-scale cross-national data sets, a growing number of alternative frameworks are being suggested in order to account for country differences that emerge in data. While the Esping-Andersen framework may be the most widely used, much cross national research has found that the country differences that they have discovered do not fit neatly into the regime types he described (for an overview, see Bamba 2007). It is of great importance that any framework that is used to interpret country differences takes the culture, history, and political context of the countries under analysis into consideration, as the differences that young people experience from country to country surely are driven by a variety of conditions.

Youth transition regimes. An interesting variant of 'regime theory' has been offered by Walther and associates (Walther 2006; Pohl and Walther 2007) that is of particular relevance to the topic addressed in this paper. Walther and associates suggest a typology to group countries into 'youth transition regimes' which take the economic, institutional and cultural specificities of young people's school to work transitions (in each country) into account. Walther and associates start first with Gallie and Paugam's (2000) modification of Esping-Andersen's model in order to make the model more conducive to studying unemployment in Europe.

<Table 1 about here>

The four different transition regimes and their characteristics are displayed in Table 1. The column labeled “school” breaks the regimes into ‘selective’ and ‘not selective’. ‘Not selective’ here refers to the extent of a fairly standardized delivery of a comprehensive curriculum until the end of compulsory schooling, and characterizes three of the four regime types. It is only in the employment-centered regime that schooling is classified as selective, which serves to ‘allocate the younger generation occupational careers and social positions in different segments’ (Walther 2002).

In terms of ‘training’, each regime is characterized by its own specific training characteristics. Flexible standards are those that have been implemented by national frameworks, but are flexible enough to allow for individualized routes, while in the employment-centered regime, the standardized training is highly formalized and regulated. In the liberal regime, ‘flexible, low standards’ refers to a highly differentiated training phase, with a large number of vocational and academic options. For the sub-protective regimes, low standards and coverage of training refer to vocational and training programs that are only weakly developed and limited in delivery.

Each transition regime is also characterized by its social security, employment regime, and rates of female employment. Where young people are not entitled to social benefits, the family is thus expected to be the provider of social security (i.e. sub-protective regime and to some extent, the liberal and employment-centered regimes). On the other end of this spectrum is the collective orientation towards social responsibility (i.e. universalistic regime). An open employment regime with low risks is characterized by an extended public sector with broad access, while an open employment regime with high risks is one that is fluid with many access options, but also potentially precarious. Closed employment regimes are those which are highly regulated. In the case of the sub-protective regime, much employment is also found in the ‘informal’ sector as well.

The final four columns focus on the regimes’ orientation towards youth and the resulting youth transition policies that are found in each. As indicated in Table 1, each regime has a distinct ‘concept of youth’. In the universalistic regime, youth is regarded as a time for young people to develop themselves as individuals and as citizens, while in the liberal regime, young people are expected to focus on carving out their own independence as a matter of priority. In the employment-centered regime, youth is considered a time of adapting to their social positions, while in the sub-protective regimes, this youth does not hold a particular status. This concept of youth is associated with concepts of youth unemployment, ranging from ‘not foreseen’ in the universalistic regime (i.e. young people who are not working are expected to be in training) to a deficit model (employment-centered regime) which regards youth unemployment as an indicator of some short-coming (i.e. in training or preparation) of the individual. The culture of dependency approach in the liberal regime is associated with a focus on getting youth back into the labour market as quickly as possible, often with unreliable standards of quality in training and preparation. In the sub-protective regime, lack of training and a segmented labour market fuel a high rate of youth unemployment. The concept of

disadvantage in these regimes varies from blaming the individual (employment-centered and liberal), the structure (sub-protective), or a combination of both (universalistic).

How countries create policies which address youth transition issues clearly arises from their various orientations that have been addressed above (as well as others). In a general sense, universalistic regimes focus on education programs and the concept of supportive 'activation' – that is, young people are entitled to a variety of entitlements that will train and prepare them for the labour market. The employment-centered model focuses on pre-vocational training to give young people the necessary skills required for entrance into the highly regulated workforce. In liberal regimes, the focus of transition policies is to oversee job search activity in order to maximize the employability of the individual, while in sub-protective regimes, the policies surround youth transitions, according to Walther (2006) "can be characterized by the discrepancy between comprehensive reform plans the heritage of structural deficits in implementing these reforms" (p. 129).

Clearly, these regime types overlook the details specific to every country in the desire to achieve parsimony; this is the case with any 'regime theory'. It does, however, give a framework around which to begin understanding what types of country differences to expect in terms of NEET outcomes, and how the findings in some countries should be expected to be rather similar.

RATIONALE OF CURRENT STUDY AND HYPOTHESES

The overview of the previous literature has pointed to a lack of understanding about how individuals become NEET and the later-life outcomes associated with this labour market status. While some UK research has been interested in these topics, the issue of measurement has been controversial. A lack of consensus about what NEETs are and how they should be defined makes the results difficult to compare. The research by Bynner and associates, while taking a longitudinal approach, can only really tell us about NEETs from a certain birth cohort (notably 1970). As the previous literature review has argued, the transitions from school to work have increased in their complexity and the experiences of new cohorts of young people are certainly different from those born in 1970. A related concern is that prevalence of the focus of NEETs in the UK policy arena and the seeming lack of discussion about this group of young people in other countries. Is it the case that there are more NEETs in the UK, or that being NEET in the UK is more detrimental than in other countries?

The existence of longitudinal panel data from a variety of different countries allows for a cross-national comparison of predictors and outcome of NEET status. It is expected that NEET status will be particularly high in the UK, and that the southern European countries (particularly Greece and Italy, as identified by Quintini, Martin and Martin; 2007) will also have high rates. In terms of the predictors of NEET status, previous UK research has suggested that background family and socioeconomic characteristics are associated with NEET status. It is not possible from previous literature to clearly draw

hypotheses about how these factors will vary by country, however and therefore the examination of predictors will be exploratory in nature.

Transition regime theory suggests that different countries have different ways of dealing with youth transition polities. It is hypothesized that risk associated with recurrent NEET status would be highest in the sub-protective countries, where there are fewer safety nets. In the liberal countries, it is expected that extended spells would be curtailed by policies designed to get young people back in the labour force. Universalistic nations should have the least problem with NEET recurrence. It is less clear how recurrent NEET status should be hypothesized to act under employment-centered regime if the orientation towards unemployment is that it lies within deficits of the individual.

In terms of human capital outcomes, given the orientations to benefits systems and the focus of ‘blame’ on youth disadvantage, it is expected that NEET would impact on human capital outcomes the most in the sub-protective regimes (with the least protective forces and interventions in place), followed by the liberal and employment-centered regimes, and the least in universalistic regimes.

With regard to social capital outcomes, the importance of the ‘informal’ sector in the sub-protective regimes suggests that NEET status may more greatly impact on social capital development in cultures where social networks may be of greater importance to successful youth transitions.

DATA, METHODS, AND ANALYTIC STRATEGY

Data

Data for the analyses come from the European Community Household Panel (ECHP), which is a harmonized sample survey organized and largely funded by Eurostat, covering most member countries of the European Union during its data collection phases (1994-2001). In each country, an initial sample of households was selected, with all adults in each selected household being interviewed. Respondents aged 17 and over were interviewed (although in some cases, 16 year olds were interviewed as well). Data were also collected about the children in each household. In each subsequent year, original sample members were re-interviewed, and thus making it possible to study changes in individuals and their families over time.

Due to the nature of the subsample of interest, in the analyses that follow, data are restricted to individuals in who were between 16 and 24 during the survey years. The countries included in the analyses reflect those subsamples of young people were large enough to facilitate panel analysis of the predictors and outcomes of inactivity in the labour force over time (and unfortunately do not reflect any country illustrative of the universalistic regime). Although fifteen countries were included in the final years of the sample, the analyses here are limited to the UK, France, Germany, Spain, Portugal, Italy, and Greece. In all countries apart from the UK and Germany, the sample was selected and first interviewed in 1994. In the UK and Germany, data from existing household panel surveys (the British Household Panel Study and the German Socioeconomic Panel

respectively) were transcribed into the common ECHP format so that they could be analysed alongside the new surveys.

Not in employment, education, or training: measurement considerations

The main objective of this paper is to identify and analyse the covariates of a particular form of economic inactivity. It should be noted that there is no agreed labour market definition of NEET (in terms of measurement) neither within the UK nor internationally (Furlong, 2006). As such, the measurement of economic inactivity in the way that it is intended for the 'NEET' group is of core concern. Quentini, Martin and Martin (2007) have also examined the NEET group within the ECHP, but have included the unemployed among the economically inactive. According to the ILO and other sources, one of the criteria for being unemployed is that the respondent is actively seeking work. This runs contrary to the discourse around the NEET literature (and media hype) which in no uncertain terms labels this group as not looking for work.

It should be noted that the ECHP collected a variety of methods for recording economic activity. There are two general ways of assessing main economic activity: self-defined status and the official ILO definition. Although there is a high correlation between the measures, there is noticeable incongruence between self-reports of unemployment and ILO classification of unemployment. The official ILO definition of unemployed requires that the person be actively seeking work and be available to start a potential job within two weeks. This incongruency between self-definition and official measures in the ECHP has been reported by (Richiardi 2002). One possible explanation for this discrepancy is social desirability, with people preferring to be viewed as unemployed rather than 'inactive'. For the purposes of this paper, the ILO definitions of labour market activity have been preferred, although exceptions have been made in the case of the UK where reporting systems were slightly different than the other countries.

Individuals were classified as 'working' if their ILO status was defined as 'currently working' or 'normally working'. The category of 'training or education' was created for those whose ILO status was 'inactive' but their self-reported status was 'education or training' or 'spec train scheme 15+ hrs'. Unemployed were denoted by the ILO classification of unemployed, except in the case of the UK where it was measured by self defined as 'unemployed' and ILO as inactive (due to the absence of an ILO defined measure of unemployed in the dataset). The final category of 'inactive other' was created for all others who were inactive according to the ILO definition of inactive (including those who self-defined as unemployed), but were not in education or training. Due to the slightly different coding scheme in the UK, this last category was assigned to those who self-defined as 'other inactive', which excluded those who were in education or employment for less than 15 hours a week or in family care roles. People in countries with military service were included in a separate category.

While the reporting differences for the UK versus other countries do possibly call into question the direct comparability of the categories created here, it should be noticed that the 'inactive' category here was created to be as 'conservative' as possible – that is, to

only include people who were most likely to fit the commonly understood definition of NEETS. The restrictions imposed here, particularly the elimination of ‘unemployed’ young people from the analyses, allow the focus of the forthcoming analyses to be on the truly inactive segment of the youth population. Using the techniques described above, a sizeable group of young people were left to analyze. Table 2 displays the number of NEET identified per year and by country. The minimum cell size observed here is 31 (France in 2000), with rather large numbers (i.e. in excess of 200) observed in Italy. Table 3 reports the percentage of NEETs by the 16 to 24 age group per country. The OECD has not collected official ‘NEET’ figures until quite recently, so it is not possible to compare these figures against official numbers. It should be noted, however, that as expected, the UK rate is consistently the highest of all countries considered here.

<Table 2 about here>

<Table 3 about here>

Predictors

Sex was dummy coded so that male was equal to one. Age was measured in years and a squared term was added into selected estimations. A variable measuring quintile of household income was created separately for each country, which was equalised by household size, and standardized by purchasing power parity of each country.

Household composition was measured using a modified variable that was already presented in the ECHP (sociological household typology). The original categories of this variable were: 1 person aged less than 30 years of age, single parent kids under 16, couple (both under 65) with no kids, couple with one child less than 16, couple with 1 or more children aged over 16, and other households. As this subgroup of the analyses in this paper is young people between 16 and 24, these groups were reclassified into young person living alone, couple without children, couple with at least one child, living with one’s parents, and other households. As there were too few single parents in the sample to constitute an analyzable group, they were grouped into ‘other households’. While the previous literature suggests that disadvantaged young people disproportionately originate from economically deprived households, particularly those headed by single mothers, there was no particularly reliable way of modeling this with these data. We have no information, for example, about the households in which the young people grew up. If they are living outside the family home on the first observation, we cannot know what their situation was previous to this, for example.

Outcomes of interest

In addition to being a predictor, NEET status was also examined to see how it influenced NEET status in successive years and how this differed by country. Thus, NEET status in $t+1$, $t+2$, and $t+3$ were examined in the forthcoming analyses.

Human capital outcomes were measured by whether or not young people had low educational attainment and whether or not they were in households that were in the lowest quintile of household income. Low education was measured with a dichotomous

indicator denoting the highest qualification as the International Standard Classification of Education (ISCED) was level two or below. In all countries in the analysis, ISCED level two refers to the end of compulsory education. Individuals with qualifications higher than level two were coded zero. The measurement of the quintile of household income was described above.

Social capital outcomes were measured using two indicators: whether or not the respondent was a member of a club and how often the respondent met friends. Club membership was measured in the questionnaire by the question “Are you a member of any club, such as a sport or entertainment club, a local or neighbourhood group, a party etc.?” to which the respondent was able to answer yes or no. A dichotomous indicator where 1 was equal to yes and 0 was equal to no was created. The extent to which individuals met friends was tapped through the questionnaire item “How often do you meet friends or relatives not living with you, whether here at home or elsewhere?” the response categories were “On most days”, “once or twice a week”, “once or twice a month”, “less often than once a month” and “never”. The categories were reverse coded so that higher numbers were associated with greater frequency of contact with friends.

Analytic strategy

As described above, the ECHP was an annual longitudinal panel study where data are available for a range of up to 8 years for several countries – indeed all the countries that were included in the forthcoming analyses. The analyses that follow pool all waves of the data, although the analyses are carried out separately for each country (to aid in the interpretation of the results of country differences). As such, it is the case that several observations per case are included in the analysis. As well, the observations themselves are not independent in the sense that there are repeat individuals over the waves of the data. This presents a problem with various regression techniques which assume the independence of both the observations and the error terms. There are various solutions to this type of problem (see, for example, Wooldridge 2002). I have chosen to use random effects models (both logit and regression) which are couched in the assumption there are no correlations between the unobserved effect and all independent variables (Green 2003; Rabe-Hesketh and Everett, 2004).

To model the assumption that there are causal effects between the variables examined here, particularly for the long-term associations between NEET status and later-life outcomes, time series indicators were used in the estimations. Thus, when estimation all of the outcomes examined here, their status at $t+1$ and $t+2$ were the dependent variables of interest. In addition, baseline characteristics at previous years were controlled for such that the effects of being NEET were not overstated. For example, when examining the association between being NEET in t and low education in year $t+2$, education in year t and $t+1$ were included in the estimations, as well as controls for age, sex, household structure, household income, and wave of survey.

It should also be noted that in the estimates of the outcomes considered here, results are always presented as two models. The first model conditions only on NEET status in the survey previous year(s), while the second model adds various controls to the estimation.

This is so that the effect of being NEET on later-life outcomes is not overstated and so that the processes that mediate this effect (i.e. socioeconomic background, gender, age, etc) can be taken into account.

RESULTS

Predictors of NEET

Table 4 presents the results of seven random effects logistic regression models predicting NEET status using sex, age and age squared, household structure in *t-1*, household income in *t-1* and year of survey. Gender interactions were also created with included with all the predictors apart from year of survey.

In Italy, Portugal, and the UK, males are significantly less likely to be NEETs compared to females, with the effect strongest in Portugal. Age was significantly associated with NEET status in all countries except Portugal, although the effect was positive in France, Italy, Spain and Germany and negative in the UK and Greece. The overall effect of age was strongest in the UK ($b=-0.333$), while the strongest positive effect was found in France ($b=0.166$).

In terms of household structure, individuals living in couples were more likely to be NEET in France, compared to young people that lived with parents. Individuals living in a couple with at least one child were more likely to be NEET in all countries except Italy, Greece, and Spain, with the effect by far the largest in Germany ($b=2.529$). Those living in 'other households' were also at greater risk of being NEET in all countries apart from Greece and the UK.

In terms of household income, the general finding in each country demonstrates that as quintile of household income increases, the likelihood of being NEET is reduced. The notable exception is the UK where only those in the third quintile of household income were less likely to be NEET than those in the lowest quintile of household income.

In terms of the assumptions of the model, the rho statistics that are displayed at the bottom of Table 4 confirm the appropriateness of the use of a random effects model. If the value of rho was zero, the level of panel variance would be insignificant and the pooled estimate component would be equal to the panel estimator (StataCorp, 2005). The likelihood ratio tests (reported here with a Chi Squared) compares the pooled estimator with the panel estimator, with a significant Chi Square demonstrating the preferred suitability of the pooled estimator (which is observed in all countries considered here).

<Table 4 about here>

Outcomes associated with NEET

As described above, numerous outcomes were considered here which have been grouped generally into the three categories of NEET persistence, human capital outcomes and social capital outcomes.

NEET persistence. Table 5 displays the results of six separate estimations of later-life NEET status. In the first model, NEET status in $t+1$ is predicted using only NEET status in year t as an independent variable. In the next model, various controls are added to observe if the effect of NEET status in year t on NEET status in year $t+1$ is mediated by any of these factors. The NEET predictor is statistically significant for all countries in both models, although its size is reduced after the addition of the controls. This is particularly the case in Germany and the UK, where the coefficient shrinks by around 20 percent, suggesting that some of the effect of NEET status in t on NEET status in $t+1$ is mediated by sex, age, household income and structure.

<Table 5 about here>

The next sets of regression perform similar estimations. In predicting the effect of NEET in t on NEET in year $t+2$, the first model controls for $t+1$. The next model then adds the large set of background controls. Again, the coefficients of interest are all statistically significant in all countries for both models. There is a decrease in the size of the effect from the simple model to the model including the various controls, except in Greece where the coefficient actually increases (suggesting improved model specification). The decrease of the coefficient size is greatest again in Germany and the UK. The last set of regressions perform similar estimations, except with NEET in $t+3$ as the outcome of interest. In both sets of estimations, the coefficient is statistically significant for all countries apart from France. We also see some evidence of the controls mediating the effect of NEET in year t on NEET in $t+3$ as the size of the coefficients decreases from the simple to complex model in Spain, Portugal, Germany, and the UK. The strength of the effect of NEET in t on NEET in $t+3$ actually increases from the simple to the complex model in Italy and Greece, however.

In terms of how the effect of NEET status in year t impacts on being NEET in successive years, the coefficients from each of the full models (i.e. with controls) are illustrated in Figure 1. It can be seen that the impact of NEET status is strongest in all countries from t to $t+1$, however, that this drops off dramatically in $t+2$ for all countries with the exception of Spain. Similarly, the drop of the coefficient size drops again in almost all countries in $t+3$, with the notable exception of the UK.

<Figure 1 about here>

Human capital outcomes. In terms of low education in the year after the first observed NEET status, being NEET in year t was found to be significant predictor in all countries, even when controls were added, except in UK (see Table 6). Unlike the countries, being NEET in year t was found to be negatively associated with low education in $t+1$, although this dropped from statistical significance where controls were added. In terms of year $t+2$, a similar pattern is observed in the simple model, where NEET in year t is a

significant and positive predictor for all countries, except the UK where it is significant and negative. When controls are added, coefficients for France and Greece drop from statistical significance.

<Table 6 about here>

<Figure 2 about here>

Figure 2 visually depicts how the impact of NEET status in year t on low education in varies in successive years and by country. In three countries, for example (Spain, Germany, and Italy), the risk of low education at $t+2$ is stronger than in the year immediately following the observed NEET status, suggesting the that lagged effect is actually greater than the more immediate one. In Greece and France, NEET at year t is not a statistically significant predictor of low education at year $t+2$, while in the UK, the effect of NEET status in year t is significantly and negatively associated with low education at $t+2$.

<Table 7 about here>

Table 7 displays the results of the estimations predicting being in the lowest quintile of household income in $t+1$ and $t+2$. At $t+1$, having been NEET in year t was a significant predictor in all countries apart from France and Italy in the bivariate models. In the full models, the UK fell from statistical significance. At $t+2$, having been NEET at t predicted being in the lowest quintile of household income in both the simple and full models for all countries except for France and Italy. Figure 3 illustrates how the size of the coefficients varies across countries for the different time points under consideration. In the UK, for example, NEET status in year t has no impact on being in the lowest quintile of household income; however, in the successive year, the impact is the strongest of all countries considered. For the remaining countries where there is a statistically significant impact of NEET status in year t and being in the lowest quintile of household income (Germany, Spain, Portugal and Italy), the effects from $t+1$ to $t+2$ diminish in size, particularly in Portugal.

<Figure 3 about here>

Social capital outcomes. Table 8 reports the results of the random effects logits predicting club membership in $t+1$ and $t+2$. In $t+1$, having been NEET in year t was negatively associated with club membership in all countries except Italy and the UK. Addition of the control variables resulted in France and Portugal dropping from statistical significance, suggesting that the relationship between NEET status and club membership was mediated by the controls that were introduced into the models. NEET status in year t was significantly and negatively associated with club membership in Greece, Spain, and Germany. In $t+2$, the restricted model revealed significant results in only France, Italy and Spain, with France dropping from significance once controls were added.

<Table 8 here>

Table 9 reports the results of the last set of estimations in these analyses. The frequency with which respondents reported meeting friends was regressed on NEET status in t , with controls added in a successive step. In $t+1$ a negative effect between NEET status in year t and the frequency of meeting friends was observed in all countries except Spain and Portugal. As hypothesized, the effect was negative for France, Italy, Greece, and Germany. In the UK, however, the effect was positive. When controls were added, the coefficients weakened somewhat, but all remained significant. In $t+2$, only the simple model revealed any statistically significant results – in Italy (negative) and the UK (positive). The associated coefficients dropped from significance when the set of controls was added, however.

<Table 9 here>

DISCUSSION

Predicting NEET status

The estimations used to predict what characteristics were associated with NEET status across the countries considered here did not reveal any systematic differences. It is perhaps interesting that only four predictors were statistically significant in the UK (sex, age, and the middle quintile of income). It is indeed the case that many of the factors that previous researchers have found to be related to NEET status were not found in the data set, however. There were no measures of parental education, education-related experiences like truancy, bullying and learning difficulties, or indeed any concrete characteristics of the conditions under which the young person grew up. The model was even less predictive for Greece, which had only three significant predictors (age and two of the income dummies). However, for France and Portugal, seven covariates were significant, and indeed for Spain, Italy, and Germany, six achieved statistical significance, suggesting that the factors examined here are better predictors of NEET status in these countries than Greece and the UK.

It is interesting to note that living with a partner and a child was significantly associated with NET status in France, Germany, the UK and Portugal. These findings are consistent with previous work by Robson and Berthoud (2003) who found that young motherhood least associated with socioeconomic disadvantage in southern European countries, where the age of first birth and stronger family relations mitigate the stigma and resulting social alienation attached to early births.

It is also noteworthy that background household income was associated with predicting NEET the least in the UK, with only the third quintile income being less likely to be in NEET status than the lowest quintile. This raises questions about the validity of the NEET measure used in the UK, and previous work by Furlong (2006) has raised. As pointed out by Furlong, the definitions of NEET used by the UK government (and here) are flawed in that they include those who are taking a 'break' from education or work, as well as those developing artistic or musical abilities. The reasons we observe these findings in the UK may be due to Yates and Payne's (2006) assertion that those in the NEET category are a

heterogeneous group and may have included young people in transitional states and those who are NEET because they made a conscious and often positive decision to not be EET.

These data cannot distinguish between voluntary and involuntary NEET status. Previous qualitative research on NEET youth in the UK found that voluntary NEET status is not associated with being from either disadvantaged or more privileged backgrounds: their current status is a product of a range of structural and institutional influences that have shaped their decision-making” (Pemberton 2007:15).

The measurement of NEET here therefore combines people who are very disadvantaged with those who are working to develop skills through unpaid means, traveling for leisure, engaged in voluntary work, or simply taking a break (Furlong 2006). As argued by Furlong (2006)

“[t]he usefulness of NEET as a category is therefore compromised through the ways in which disadvantaged people who may lack the resources to navigate transitions or exercise choice are combined with more privileged young people who are able to exercise a significant degree of choice regarding the ways in which they manage their lives” (p. 557)

There is clearly a difference between those who choose to become NEET and those who arrive in the status through an interplay of institutional, structural, and individual factors (Bynner 2005). It may be most problematic in the UK due to the popularization of the ‘gap year’ that many young people take between finishing secondary school and starting post-secondary education. Clearly, ‘NEET’ is culturally specific phenomena.

Outcomes of NEET Status

A transition regimes theory developed by Walther and associates was proposed as a framework for developing hypotheses about the later-life outcomes associated with having been NEET. Table 10 summarizes the statistically significant findings of the full estimations organized by regime type.

<Table 10 here>

It was hypothesized that the risks associated with recurrent NEET spells would be highest in the sub-protective countries. Indeed, in all four of the sub-protective countries, NEET in year t was a statistically significant predictor of NEET in years $t+1$, $t+2$, and $t+3$, but this result was found also in the UK and Germany. But if we look at the size of effects year on year, the percentage decrease in the size of the coefficients is the least in all the sub-protective countries. From $t+1$ to $t+3$, for example, the coefficient for Spain is still 74.5% of its original size, with corresponding figures of 48% for Italy and 44.3% for Greece. Portugal, as above, still behaves slightly differently, with a bigger decrease in the coefficient than Germany. The hypothesis that recurrent NEET status would be least pronounced in the UK was partially supported by the large drop in the coefficient from $t+1$ to $t+2$ (the largest decrease overall). The effects for Germany and France were rather different from one another, with the $t+3$ statistic failing to reach statistical significance in

France, although the $t+1$ coefficients were, on average, in a middle position between the other two regimes.

In terms of human capital outcomes, it was hypothesized that NEET would impact strongest on human capital outcomes in the sub-protective regimes. Some support is found for this hypothesis in Table 10 where NEET status predicts low education and low household income in $t+1$ and $t+2$ in both Spain and Portugal. Similarly, for Greece, low education in the year following NEET status was observed, as well as low household income in both years. For Italy, household income was not affected, but low education in both years was. It should be noted, however, that similar results were also found in Germany, while the results for France were rather different from those of its regime-mate. The results for the UK were surprising, with low education being negatively associated with NEET status, the reverse relationship that was expected, suggesting that there are some validity issues with the NEET definition. However, the substantial increase in the coefficients for low household income from $t+1$ to $t+2$ suggest that there is a negative lagged effect of NEET on some human capital correlates.

Due to the importance of the informal section in the sub-protective regimes, it was hypothesized that NEET status may impact more greatly on social networks and the sorts of benefits associated with 'knowing people'. There is support for this hypothesis, with club membership being negatively effect in $t+1$ in Spain and Greece, and in $t+2$ in Italy and Spain. Further, the frequency of meeting friends in $t+1$ was negatively associated with NEET status in Greece and Italy. Meeting friends in $t+1$ was also negatively associated with NEET status in both employment-centered countries (France and German) suggesting the NEET does not impact of civic engagement, but may limit the extent to which one socializes. Interestingly, the coefficient for meeting friends was positive in the UK, suggesting that NEET status adds to the socializing potential of young people. In the context of the British policy understanding of the NEET phenomenon however, this is probably to be expected as young people may be engaging in development of 'negative social capital' by fraternizing with individuals who reinforce their NEET identity (Wacquant 1998).

Alternative explanations

While there has been support of the transitions regime framework, it has been far from perfect, particularly in the case of the rather large discrepancies between predictors and outcomes in France and Germany. It is perhaps useful then to think about what other macro features of countries may be driving the differences that have been observed between countries.

Focusing on the outcome of recurrent NEET status, it is possible that these coefficients are related to macro-economic phenomena occurring within each country. There are many possible correlates that may be driving the difference between the coefficients observed between the countries, such as local youth unemployment rates, literacy rates, and opportunities for training and postsecondary education.

If attention is turned to the reduction in NEET rates from $t+1$ to $t+2$, then $1-(t+2/t+1)$ can be considered the *percentage decrease in the coefficients between $t+1$ and $t+2$* . The larger the number, the more effective the country in question has been in reducing long-term NEET status. These figures can then be crosstabulated with macro figures in each country to observe if there are any associations. Figure 4 displays the scatterplots between the decrease in risk of being NEET from t_1 to t_2 with the youth unemployment rate in each country in 1997. Figure 5 uses the education index as the variable on the x axis. The education index is a component of the Human Development Index is based on adult literacy and school enrolment data (see <http://hdr.undp.org/en/>).

Figure 4 illustrates a negative trend between the change in $1-(t+2/t+1)$ and youth unemployment rates in 1997, showing that the large decreases in the coefficients observed the UK, Germany, and Portugal, were associated with the lower youth unemployment rates. Conversely, the small changes observed in Spain are associated with the high rates of youth unemployment.

<Figure 4 here>

<Figure 5 here>

In Figure 5, a similar trend, albeit not as strong, is observed when the $1-(t+2/t+1)$ measure is scatter-plotted against the Education Index. Countries where the change is the greatest are generally associated with higher education index values. Examined from this perspective, there is also some clustering by 'regime type' among Greece, Portugal, and Italy, as well as Germany and France.

CONCLUSION

To summarize, some support was found for the notion that recurrent NEET status would be differentiated by regime type, with the strongest incidence of recurrence found in the sub-protective countries. Additional analyses using macro data found that to some extent, the youth unemployment rates and education indices of the countries were of additional assistance when interpreting the differences among countries.

With regard to human capital outcomes, some support was also found for the prediction that human capital outcomes would be most impacted in the sub-protective regime. However, there was little similarity in outcomes between the employment-centered regime countries (France and Germany) in terms of the human capital outcomes. And in the UK, NEET status was found to be negatively associated with later-life low education and positively with a social capital outcome – the opposite of what was predicted. The hypothesis that predicted that social capital outcomes would be the strongest in the sub-protective countries was also observed.

The transition regime framework has been a useful tool for establishing a prior hypotheses and theorizing about what the differences observed in these analyses point towards. However, there were rather notable deviations how the individual countries

performed, particular between the regime-mates of France and Germany. It is thus necessary to examine other factors, like macro-level indicators, to understand how this form of youth social exclusion is situated within the country's individual context.

The validity of the measurement of NEET has been called into question by other authors mentioned earlier in this paper, and with regards to the counter-intuitive findings that were discussed earlier in this paper. If it is the case that NEETs are such a heterogeneous group (at least in the UK), more appropriate definitions and measures must be created to capture this economic status. While these data stopped being collected in 2001, they do provide a historical snapshot of how NEETs have fared in terms of human and social capital outcomes over a part of the life course. More current data, particularly the EU-Statistics on Income and Living Conditions (the predecessor of the ECHP, currently only released in two waves and with limited countries) will allow researchers to examine this research question with a more recent European samples.

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Table 1: Transition Regimes

<i>Regime Type</i>	Countries	School	Training	Social Security	Employment Regime	Female Employment	Concept of Youth	Concept of Youth Employment	Concept of disadvantage	Focus of transition policies
Universalistic	Denmark, Sweden	Not selective	Flexible standards	State	Open, low risks	High	Personal development and citizenship	'not foreseen'	Mixed (individualized/structure-related)	Education, activation
Employment-Centred	Germany, France, Netherlands	Selective	Standardized	State/family	Closed, risks at the margins	Medium	Adaptation to social positions	Disadvantage (deficit model)	Individualized	(pre-) vocational training
Liberal	UK, Ireland	Not selective	Flexible, low-standards	State/family	Open, high risks	High	Early economic independence	Culture of dependency	Individualized	employability
Sub-protective	Italy, Spain, Portugal	Not selective	Low standards and coverage	Family	Closed, high risks, informal work	Low	Without distinct status	Segmented labour market, lack of training	Structure-related	'some' status: work, education or training

Source: Walther (2006: 126)

Table 2: NEET Observations Per Year, by Country

	France	Germany	UK	Italy	Greece	Spain	Portugal
1994	34	50	125	122	43	121	93
1995	100	75	129	231	85	152	104
1996	87	75	119	223	66	126	131
1997	52	68	109	175	52	91	93
1998	32	62	117	121	94	74	106
1999	32	56	111	118	112	50	95
2000	31	68	105	105	82	44	80
2001	35	58	107	101	68	57	64

Table 3: NEETs as a % of the 16-24 Age Group, by Country

	France	Germany	UK	Italy	Greece	Spain	Portugal
1994	0.016	0.032	0.098	0.042	0.028	0.041	0.052
1995	0.049	0.047	0.103	0.082	0.052	0.055	0.055
1996	0.044	0.049	0.093	0.081	0.042	0.048	0.069
1997	0.030	0.047	0.086	0.072	0.035	0.034	0.049
1998	0.024	0.044	0.098	0.055	0.070	0.032	0.058
1999	0.027	0.039	0.100	0.058	0.088	0.024	0.054
2000	0.023	0.049	0.097	0.056	0.067	0.023	0.049
2001	0.027	0.045	0.104	0.063	0.056	0.033	0.042

Table 4: Predictors of NEET Status: Results of Random Effects Logistic Regression
Random Effects Logistic Regression Coefficients

	France	Germany	UK	Italy	Greece	Spain	Portugal
Male	-0.237 (0.140)	-0.061 (0.155)	-0.561*** (0.141)	-0.307** (0.103)	-0.197 (0.147)	0.146 (0.123)	-0.686*** (0.151)
Age	0.166*** (0.037)	0.0969* (0.038)	-0.333*** (0.036)	0.067** (0.022)	-0.153*** (0.033)	0.0719** (0.027)	-0.045 (0.033)
<i>Household Structure t-1</i>							
Living Alone ^a	0.194 (0.182)	0.052 (0.221)	-0.052 (0.183)	-0.028 (0.180)	-0.422 (0.267)	0.038 (0.205)	0.353 (0.225)
Couple with no kids ^a	0.620** (0.207)	0.074 (0.266)	-0.501 (0.284)	0.733 (0.377)	0.377 (0.543)	0.249 (0.436)	0.083 (0.422)
Couple with at least one kid ^a	1.034** (0.315)	2.529*** (0.269)	0.967** (0.297)	-0.442 (0.507)	0.228 (0.531)	0.537 (0.460)	0.667* (0.323)
Other ^a	0.553* (0.251)	0.677* (0.289)	-0.432 (0.236)	0.373* (0.161)	-0.155 (0.185)	0.447** (0.152)	0.531** (0.171)
<i>Household Income t-1</i>							
Quintile 2 ^b	-0.130 (0.177)	-0.111 (0.184)	0.089 (0.187)	-0.198 (0.119)	0.103 (0.174)	-0.290* (0.144)	-0.467** (0.167)
Quintile 3 ^b	-0.558** (0.200)	-0.474* (0.204)	-0.435* (0.202)	-0.353** (0.127)	-0.227 (0.187)	-0.637*** (0.161)	-0.683*** (0.181)
Quintile 4 ^b	-0.444* (0.204)	-0.761** (0.232)	-0.316 (0.211)	-0.761*** (0.141)	-0.498* (0.201)	-0.867*** (0.178)	-1.182*** (0.212)
Quintile 5 ^b	-0.828*** (0.238)	-1.086*** (0.258)	-0.243 (0.224)	-1.470*** (0.173)	-0.921*** (0.229)	-1.245*** (0.210)	-1.381*** (0.240)
N	8505	7999	5877	13161	7673	13138	10064
Rho	1.222	1.544	1.43	1.592	1.772	1.545	1.987
Likelihood Ratio Chi-Square	108.1	192.7	153.3	123.7	88.24	106	99.95

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

a. Reference is living with parents.

b. Reference is the first quintile of household income.

Controlling for year of observation.

Table 5: Being NEET in Successive Years: Results of Random Effects Logistic Regression
Random Effects Logistic Regression Coefficients

	France	Germany	UK	Italy	Greece	Spain	Portugal
NEET in t+1							
<i>Bivariate model</i>							
NEET in year <i>t</i>	2.285*** (0.282)	2.466*** (0.156)	2.057*** (0.108)	1.889*** (0.097)	2.180*** (0.140)	2.036*** (0.134)	2.889*** (0.126)
N	8426	7951	5968	13387	7623	13248	10051
Rho	0.0372	0.0845	0.0143	0.0903	0.0804	0.0906	0.0758
Likelihood Ratio Chi-Square	65.49	250.4	362.7	378.9	243.6	229.5	526.2
<i>Controlling for NEET in t+1, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	2.021*** (0.262)	2.008*** (0.170)	1.713*** (0.126)	1.790*** (0.101)	2.164*** (0.142)	1.884*** (0.136)	2.762*** (0.128)
N	8276	7788	5790	13058	7465	13055	9940
Rho	0.043	0.085	0.069	0.087	0.084	0.094	0.079
Likelihood Ratio Chi-Square	202.2	328.7	364.9	479.5	323.7	321.3	570.5
NEET in t+2							
<i>Controlling for NEET in t+1</i>							
NEET in year <i>t</i>	1.367*** (0.281)	1.215*** (0.235)	0.656*** (0.174)	1.132*** (0.120)	1.212*** (0.192)	1.642*** (0.178)	1.586*** (0.180)
N	5251	5181	3911	9229	4931	8975	6859
Rho	0.0168	0.0149	0.0226	0.015	0.0192	0.0162	0.0149
Likelihood Ratio Chi-Square	130.6	230.5	161.4	493.1	259.6	283.9	512.8
<i>Controlling for NEET in t+1, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	1.274*** (0.290)	0.949*** (0.254)	0.449* (0.184)	1.126*** (0.129)	1.258*** (0.197)	1.608*** (0.188)	1.523*** (0.183)
N	5139	5081	3806	9002	4831	8846	6785
Rho	0.0214	0.0154	0.072	0.0223	0.0162	0.0325	0.0153
Likelihood Ratio Chi-Square	160.8	245.2	182.2	415.2	310.6	269.8	505.7
NEET in t+3							
<i>Controlling for NEET in t+1, t+2</i>							
NEET in year <i>t</i>	-0.0535 (0.575)	0.978** (0.345)	0.634** (0.228)	0.820*** (0.169)	0.867** (0.302)	1.437*** (0.248)	0.960*** (0.287)

N	3119	3209	2497	5957	3012	5778	4456
Rho	0.0716	0.0148	0.0148	0.018	0.0727	0.0359	0.0148
Likelihood Ratio Chi-Square	62.03	147.4	128.7	333.8	150.6	180.9	324.8
<i>Controlling for NEET in t+1 and t+2, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	-0.364	0.831*	0.482*	0.858***	0.959**	1.401***	0.898**
	(0.641)	(0.365)	(0.237)	(0.180)	(0.312)	(0.252)	(0.294)
N	3049	3148	2434	5811	2948	5693	4404
Rho	0.068	0.0147	0.0154	0.0627	0.0783	0.0455	0.0147
Likelihood Ratio Chi-Square	92.59	148.1	138.7	304.2	174.1	205.3	321.3

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

Figure 1. Effect of Neet Status in Year t on Successive Year Neet Status

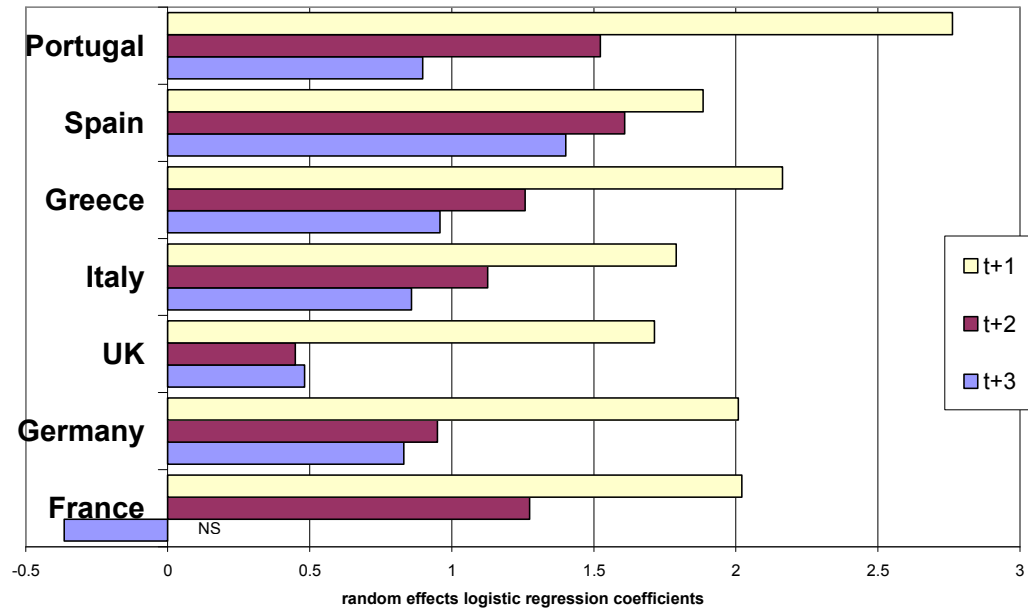


Table 6: Having Low Education in Successive Years: Results of Random Effects Logistic Regression

<i>Random Effects Logistic Regression Coefficients</i>							
	France	Germany	UK	Italy	Greece	Spain	Portugal
Low Education in t+1							
<i>Bivariate model</i>							
NEET in year <i>t</i>	0.756** (0.230)	0.856*** (0.255)	-0.472** (0.167)	0.437** (0.135)	0.587** (0.201)	0.724*** (0.171)	0.870*** (0.226)
N	8623	7955	5930	13228	7695	13179	10065
Rho	0.0134	0.0126	0.0149	0.0126	0.0125	0.0117	0.0129
Likelihood Ratio Chi-Square	2397.2	1821.5	1235.3	3648.8	2202.9	4607.4	2306.8
<i>Controlling for sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	0.785*** (0.219)	0.742** (0.228)	-0.261 (0.134)	0.425*** (0.126)	0.559** (0.176)	0.893*** (0.169)	0.994*** (0.219)
N	8623	7955	5930	13228	7695	13179	10065
Rho	0.0124	0.0114	0.0123	0.0117	0.0137	0.0117	0.013
Likelihood Ratio Chi-Square	3002.1	2038.2	1325.7	4148.9	2354.4	5059.4	2593.4
Low Education in t+2							
<i>Controlling for education in t+1</i>							
NEET in year <i>t</i>	0.731** (0.261)	0.967*** (0.252)	-0.616*** (0.155)	0.935*** (0.146)	0.440* (0.217)	1.220*** (0.205)	0.912*** (0.243)
N	5710	5401	4105	9450	5212	9124	7010
Rho	0.0135	0.0112	0.0128	0.0135	0.0288	0.0129	0.014
Likelihood Ratio Chi-Square	1813.7	1366.4	736.6	2523.1	1326.6	3069.5	1815.2
<i>Controlling for NEET in t+1, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	0.49 (0.257)	1.100*** (0.280)	-0.773*** (0.219)	0.917*** (0.159)	0.441 (0.239)	1.090*** (0.205)	0.782*** (0.236)
N	5596	5293	3994	9214	5103	8990	6929
Rho	0.0144	0.0123	0.017	0.0147	0.0133	0.0128	0.0139
Likelihood Ratio Chi-Square	1570.1	1263.8	787.3	2341.9	1448.8	2791.8	1651.2

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

Figure 2. NEET in Year t on Successive Years of Low Education

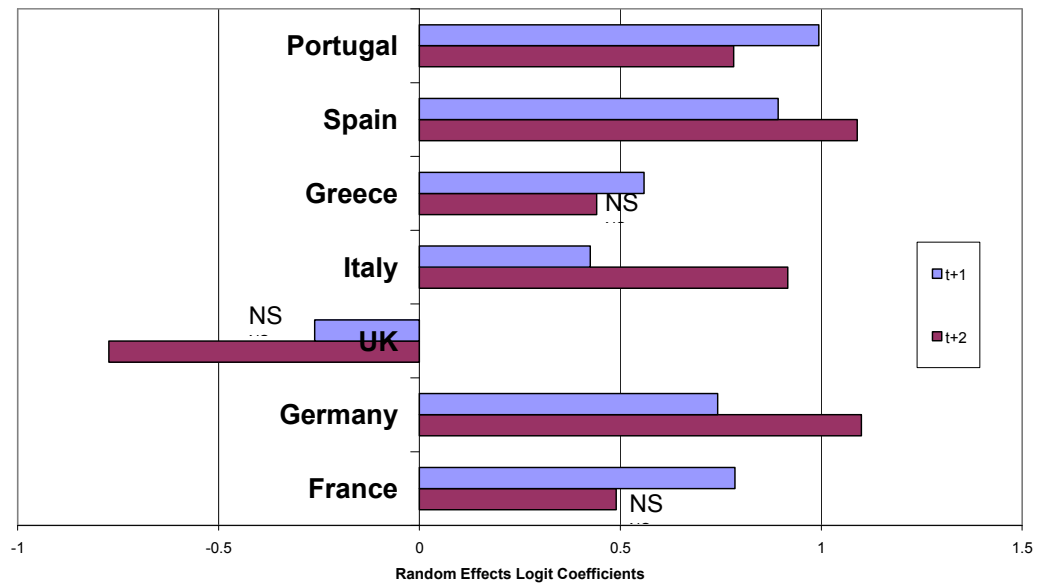


Table 7: Being in the Lowest Quintile of Household Income in Successive Years: Results of Random Effects Logistic Regression

Random Effects Logistic Regression Coefficients

	France	Germany	UK	Italy	Greece	Spain	Portugal
Low Quintile in t+1							
<i>Bivariate model</i>							
NEET in year <i>t</i>	0.242 (0.176)	0.600*** (0.151)	0.297* (0.126)	0.176 (0.103)	0.385** (0.139)	0.574*** (0.121)	0.673*** (0.126)
N	8590	8010	5979	13167	7698	13192	10121
Rho	0.0153	0.0136	0.0374	0.014	0.0139	0.0136	0.0126
Likelihood Ratio Chi-Square	1494.2	1576.4	636.5	2893.2	1197.2	2184.1	2236.3
<i>Controlling for sex, age, lagged household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	0.297 (0.179)	0.538*** (0.159)	0.0763 (0.134)	0.195 (0.106)	0.481*** (0.144)	0.570*** (0.125)	0.703*** (0.128)
N	8590	7895	5862	13071	7617	13090	10046
Rho	0.0149	0.0144	0.0588	0.0276	0.0522	0.0366	0.0143
Likelihood Ratio Chi-Square	1521.8	1545	768.6	2502.1	1061.1	1858.4	2197.4
Low Quintile in t+2							
<i>Controlling for hh income in t+1</i>							
NEET in year <i>t</i>	-0.169 (0.241)	0.520** (0.194)	0.699*** (0.141)	0.0132 (0.133)	0.381* (0.180)	0.471** (0.158)	0.546*** (0.158)
N	5554	5307	3979	9075	5062	8939	6956
Rho	0.0133	0.0135	0.015	0.013	0.013	0.0126	0.013
Likelihood Ratio Chi-Square	915.3	1024.2	469	2013.6	816.4	1514.9	1436.4
<i>Controlling for NEET in t+1, sex, age, lagged household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	-0.148 (0.248)	0.416* (0.205)	0.546*** (0.150)	0.0406 (0.136)	0.429* (0.184)	0.482** (0.161)	0.518** (0.161)
N	5554	5229	3909	9001	5010	8869	6904
Rho	0.0133	0.014	0.0397	0.0136	0.0137	0.0133	0.0138
Likelihood Ratio Chi-Square	925.4	1009.6	476.8	1980.8	818.1	1519.5	1410

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

Figure 3. NEET as a Predictor of Lowest Quintile of HH Income

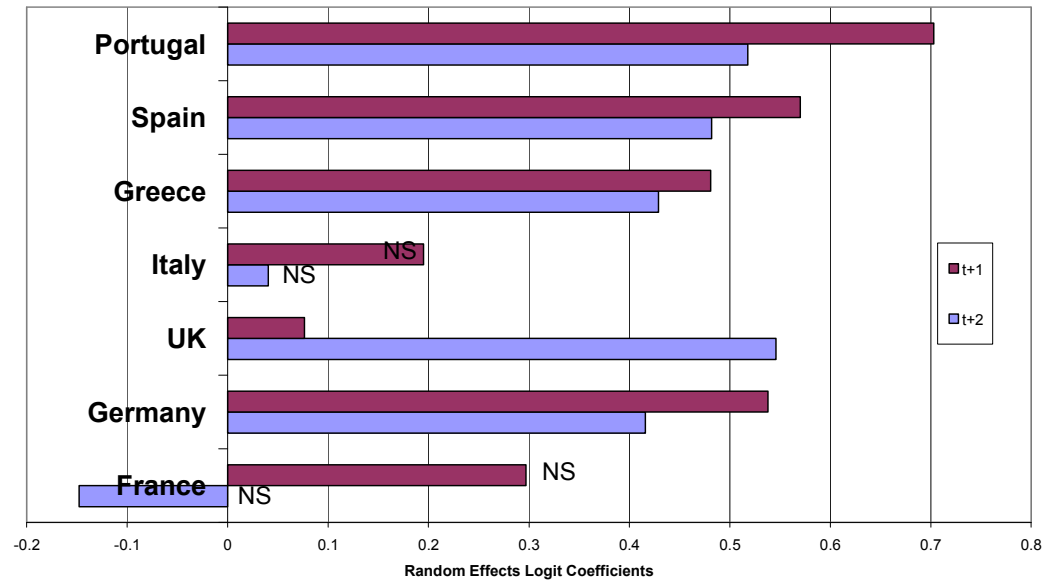


Table 8: Being in a Club in Successive Years: Results of Random Effects Logistic Regression

<i>Random Effects Logistic Regression Coefficients</i>							
	France	Germany	UK	Italy	Greece	Spain	Portugal
Club in t+1							
<i>Bivariate model</i>							
NEET in year <i>t</i>	-0.451*	-0.486*	-0.0981	-0.201	-0.674*	-0.531***	-0.487*
	(0.229)	(0.191)	(0.102)	(0.108)	(0.262)	(0.152)	(0.190)
N	8774	8122	6114	13564	7859	13376	10183
Rho	0.130	0.014	0.012	0.146	0.175	0.183	0.088
Likelihood Ratio Chi-Square	1009.3	992.3	743.5	802.3	345.3	633.6	1522.8
<i>Controlling for sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	-0.413	-0.448*	-0.0107	-0.0765	-0.687**	-0.477**	-0.324
	(0.237)	(0.218)	(0.155)	(0.109)	(0.265)	(0.153)	(0.195)
N	8623	7955	5930	13228	7695	13179	10065
Rho	0.126	0.082	0.208	0.096	0.095	0.170	0.094
Likelihood Ratio Chi-Square	1158.5	705.2	667.3	1489.9	502.7	903.4	1575.6
Club in t+2							
<i>Controlling for clubs in t+1</i>							
NEET in year <i>t</i>	-0.674*	-0.080	-0.104	-0.355**	-0.0369	-0.657***	-0.414
	(0.309)	(0.233)	(0.128)	(0.125)	(0.260)	(0.192)	(0.218)
N	5710	5401	4105	9450	5212	9124	7010
Rho	0.016	0.012	0.010	0.014	0.089	0.013	0.014
Likelihood Ratio Chi-Square	1258.6	763.9	617.7	1615.3	407.1	1457.3	1415.3
<i>Controlling for NEET in t+1, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year <i>t</i>	-0.544	-0.038	-0.0841	-0.309*	0.0142	-0.651***	-0.271
	(0.316)	(0.245)	(0.133)	(0.130)	(0.263)	(0.194)	(0.229)
N	5596	5293	3994	9214	5103	8990	6929
Rho	0.017	0.012	0.011	0.015	0.089	0.013	0.015
Likelihood Ratio Chi-Square	1252.7	763.1	592.3	1596.3	408	1468.9	1398.6

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

Table 9: How Often Meet Friends: Results of Random Effects Logistic Regression

<i>Random Effects OLS Regression Coefficients</i>							
	France	Germany	UK	Italy	Greece	Spain	Portugal
Meet Friends in t+1							
<i>Bivariate model</i>							
NEET in year t	-0.112*** (0.029)	-0.115* (0.048)	0.090*** (0.023)	-0.167*** (0.024)	-0.072* (0.033)	-0.025 (0.025)	-0.052 (0.035)
N	8732	5856	5786	13535	6236	12630	9899
Rho	0.074	0.096	0	0	0.166	0	0.078
Likelihood Ratio Chi-Square	657.3	28.4	652.9	1490	272	162.9	2790.7
<i>Controlling for sex, age, household income, household structure, and wave of survey.</i>							
NEET in year t	-0.083** (0.029)	-0.098* (0.050)	0.064** (0.024)	-0.136*** (0.025)	-0.069* (0.034)	-0.017 (0.025)	-0.056 (0.036)
N	8582	5724	5614	13200	6089	12441	9783
Rho	0.086	0.095	0.049	0	0.185	0	0.083
Likelihood Ratio Chi-Square	685.6	86.86	492.5	1511.2	284.8	220.8	2718.9
Meet Friends in t+2							
<i>Controlling for meeting friends in t+1</i>							
NEET in year t	-0.048 (0.038)	0.023 (0.061)	0.079** (0.029)	-0.085** (0.029)	-0.031 (0.042)	-0.031 (0.032)	-0.057 (0.040)
N	5675	3604	3849	9422	3673	8414	6727
Rho	0.151	0.126	0.1	0.0328	0.196	0.0687	0.135
Likelihood Ratio Chi-Square	338.1	95.2	147.7	1038.1	257.9	48.68	2214.4
<i>Controlling for NEET in t+1, sex, age, household income, household structure, and wave of survey.</i>							
NEET in year t	-0.031 (0.039)	0.034 (0.059)	0.049 (0.030)	-0.055 (0.030)	-0.038 (0.042)	-0.029 (0.032)	-0.056 (0.041)
N	5563	3524	3753	9187	3588	8287	6650
Rho	0.122	0.144	0.111	0.0434	0.221	0.0832	0.13
Likelihood Ratio Chi-Square	417.2	556.7	207.7	981.9	272.7	85.84	2290.9

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses.

Table 10: Outcomes by Transition Regimes

<i>Regime Type</i>	Countries	NEET $t+1$	NEET $t+2$	NEET $t+3$	Low Education $t+1$	Low Education $t+2$	Low HH Inc $t+1$	Low HH Inc $t+2$	Club $t+1$	Club $t+2$	Meet friends $t+1$
Employment-Centred	France	2.021	1.274		0.785						-0.083
	Germany	2.008	0.949	0.831	0.742	1.100	0.538	0.416	-0.488		-0.098
Liberal	UK	1.713	0.449	0.482		-0.773	0.076	0.546			0.064
Sub-protective	Italy	1.790	1.126	0.858	0.425	0.917				-0.309	-0.136
	Greece	2.164	1.258	0.959	0.559		0.481	0.429	-0.687		-0.069
	Spain	1.884	1.608	1.401	0.893	1.090	0.570	0.482	-0.477	-0.651	
	Portugal	2.762	1.523	0.898	0.994	0.782	0.703	0.518			

Figure 4. Change in Neet Coefficients by Youth Unemployment Rate

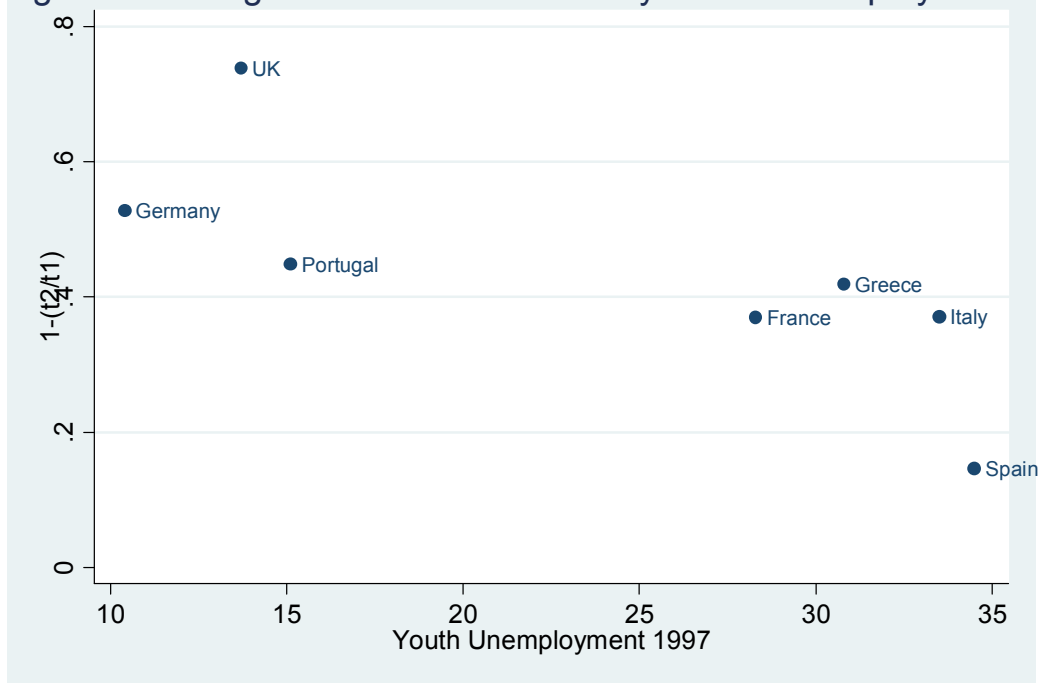


Figure 5. Change in Neet Coefficients by Education Index

