The NEET trap:

A dynamic analysis for Mexico

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CONTENTS

LIST OF FIGURES

LIST OF TABLES

1. Introduction

1. The lack of decent work opportunities for youth is a growing concern worldwide. According to ILO estimates, about 81 million of the world's estimated 207 million unemployed people in 2009 were between 15 and 24 years of age. Unemployment, moreover, does not capture the full hardship faced by youth, as many of those who have left education do not even appear in labour market statistics. In addition to the unemployed, in many countries there is a large number of youth that are absent from both the labour force and education (including training)[2].

2. The youth not engaged in education, employment, or training, indicated with the acronym "NEET"[3], are being looked increasingly as an indicator of youth marginalisation and disengagement.

3. Albeit in several countries the share of NEET youth has remained constant or even decreased in the recent past[4], NEET youth constitute a growing policy concern in developing and industrialised economies alike. Youth disengaged from both formal learning and work miss the opportunity to develop and grow at an age that heavily influences future outcomes. NEET status can permanently impair youth's productive potential and therefore influence lifetime patterns of employment, pay, and job tenure. Young people who are absent from education and employment, and particularly male youth in this group, frequently find themselves at the margins of society and more vulnerable to risky and violent behaviour.

4. A growing literature has looked at the determinants and consequences of the NEET status, mainly focussing on high income countries.

5. Bynner et al. (2000) and Bynner and Parsons (2002) identify a number of 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): family socioeconomic background, parental education, parental interest in child's education, area of residence, and children's educational attainment are good predictors of later NEET status. Bynner and Parsons (2002) also find that the later-life consequences of NEET differ by gender. Boys have poor labour market experiences, whereas girls, most of them teenage mothers, additionally suffer from depression and low self-esteem.

6. Maguire and Rennison (2005) find that a UK government scheme (Education Maintenance Allowance) designed to keep young people in full-time education by paying an allowance had little effect on getting youth back to full-time education after they entered the NEET status at the end of

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2 In the 26 OECD countries in which data are available, youth not in education or in the labour force numbered 10 million in 2010.

3 The acronym NEET appeared for the first time in the late 1980s in the UK.

4 Cardenas et al. (2011) investigate the NEET phenomenon in Latin America and find that the share of NEET youth aged between 15 and 24 has decreased by 7 percentage points starting from 29.3 percent between 1989 and 2009. They find that household per capita income, education level and employment status of the household head are the main correlates of the youth NEET condition.

compulsory schooling. Evidence also suggests that paying young people to stay in education has a positive impact on preventing some youth entering the NEET status.

7. Franzen and Kassman (2005) use register data of the entire population born between 1969 and 1973 living in Sweden in 2003 and find that inactivity of youth (aged 20-24) is correlated with inactivity seven years later, and the relationship is particularly strong for foreign-born and low educated individuals.

8. Using data from the European Community Household Panel (1994-2000) and the European Union Labour Force Surveys, Quintini, Martin, and Martin (2007) investigate school-to-work transitions and find that the youth labour market is characterized by high turnover between the statuses of employment, unemployment, and inactivity. The transition from school to the first job can take up to two or more years. They also find that the persistence of being in NEET status in OECD countries is high in Italy and Greece and that low educational attainment is strongly associated with NEET status.

9. Robson (2009) uses data from the European Community Household Panel for UK, France, Germany, Spain, Portugal, Italy, and Greece to investigate the correlates of NEET status among youth between 16 and 24 years of age. The effect of individual and household level characteristics is very heterogeneous by country. They find strong state dependence of NEET status in all the countries, but the size of the year on year effect (the percentage decrease in the size of the coefficient) is smaller in countries where young people are not entitled to social benefits and the family is thus expected to be the provider of social security (Italy, Spain, and Portugal).

10. A series of studies of the NEET phenomenon in Japan show that youth with low education and poor families are more likely to end up in jobs with poor working conditions, and are thus more likely to quit their jobs. Such class structure, or social segmentation, evolved during the long recession, and the presence of so many NEETs in Japan today is one outcome of the changing social structure in the 1990s and 2000s (Inui, 2005; Yuji, 2005). In addition to socioeconomic characteristics, Yuji (2005) finds that a decrease in the demand for regular workers among youth, especially those with lower education, and a rise in mismatches between labour supply and demand, resulted not only in an increase in unemployment, but also an increase in number of NEETs.

11. As this brief review of the literature shows, the analysis of NEET youth has to date been limited largely to high income countries. Little is therefore known about the situation of NEET youth in the developing world. The current paper is aimed at beginning to fill this gap by looking at the situation of a middle income country like Mexico.

12. In Mexico the share of NEET in the youth population aged 15 – 24 remained constant at about 22 percent during the last decade, while the share of NEET youth in the working-age population slightly diminished from about 7 percent in 2000 to 6.4 percent in 2010. The number of NEET youth increased from about 3 millions in 2000 to almost 4.5 millions 10 years later, as consequence of the population growth.

13. After having analyzed the trends of the last decade, we assess whether NEET status is persistent and to what extent it affects future employment perspectives. In other words, we investigate whether being NEET represent just a transition phase in the youth's pathway from education to employment or it can be a condition in which youth can be trapped.

14. To this aim we first describe the patterns of movement across states utilizing transition matrices and duration analysis. We than identify typical transition paths and associated youth characteristics through sequence analysis. Finally we formally test for the existence and the extent of state dependence by separating out unobserved heterogeneity and genuine state dependence. Differently from the studies illustrated above that focus on the NEET status only, in our model we differentiate three initial and three destination states: employment only, education only, and not in education or in the labour force (NEET). Thus, we can model economic selection with respect to non-NEET status as a mutually exclusive state in a multinomial model.

15. Due to data limitation, we can only look at short/medium term transitions and impact. However, to our knowledge, this is the first paper that addresses the issues mentioned above in a middle income country. We also extend the previous literature on NEET by using sequence analysis to identify transition pathways and by extending the state dependence model to consider three alternative states.

16. The paper is structured as follows: section 2 describes the data used in the analysis, section 3 illustrates time trends of youth in different activity statuses, section 4 describes transition matrices across activity statuses, section 5 identifies a set of transitions starting from a common initial status (NEET), section 6 presents estimates of a dynamic panel data model with random effects to identify the correlates of each activity status and the impact of experiencing a certain status on subsequent activity status, and section 7 concludes.

2. Data

17. This study uses quarterly data from the Mexican labour force surveys: the *Encuesta Nacional de Empleo* (ENE) from 2000 to 2004 and the *Encuesta Nacional de Ocupacion y Empleo* (ENOE) from 2005 to 2010. ENOE, like ENE, is run every quarter, collects information on demographic, economic, and occupational characteristics of individuals aged 12 and above, and is nationally representative[5]. We will use this data to describe the trends in youth activities over the last decade.

18. The survey includes a 5 quarters rotating panel at the individual and household level. The quarterly sample of about 120,000 households is divided into five rotation groups, each containing about 24,000 households. The households in a rotation group are visited five times at three-month intervals.

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[5] The survey uses a multistage stratified sample to provide labour force and socioeconomic data for each of the 32 Mexican states, the large cities (*ciudad autorepresentada*), and additional strata subdivided by size of place for smaller areas.

Each quarter, one rotation group leaves the sample and is replaced by a new one that is subject of a new cycle of five visits[6]. This panel will be used to analyze the transitions of youth. Because of methodological differences between ENE and ENOE that could affect the comparability of panel data spanning over the two surveys, we will focus on the period 2005 1q to 2011 3q, i.e. we will use only ENOE data, to investigate youth's transition dynamics.

19. We retain in our sample the population of youth aged between 15 and 24 who is found in the dwelling where they were interviewed the first time. The survey does not track individuals who no longer reside in the original dwelling. The attrition rate ranges between 5.9 percent after 1 quarter and 12.3 percent after 4 quarters[7].

20. We consider 5 activity statuses for youth: employment only, education only, employment and education, not in the labour force or education (NLFE), and unemployment. The latter two categories constitute the NEET group. Employment refers to all persons engaged in the production of goods and services, for at least one hour, during the week preceding the interview, and to all persons who have a job from which they are absent but in which they normally work. It is an extensive concept that encompasses all types of employment situations, including all forms of irregular employment (both inside and outside family settings, both farm and non-farm business). Unemployment covers all persons who are not in employment, but who are available to work and seek work. The economically inactive are a residual category, comprising persons who are neither employed nor unemployed. School attendance is based on a question asking whether a respondent is attending school at the time of the interview.[8]

21. Therefore, *youth in employment only* are defined as youth who are employed and are not engaged in education, *youth in education only* are youth who are not employed or unemployed and only attend school, *youth in both employment and education* are those who can be defined as employed according to the definition reported above and at the same time declare to be attending school, *youth not in the labour force or education* (NLFE) are those who can be classified as inactive and do not attend school, finally *youth unemployed* are classified following the definition reported above regardless of school attendance.[9]

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6 Changes in household structure occurred from interview 2 through 5 are noted. If a person is missing from the household after the first interview, the interviewer asks if the person has moved and where, and by the same token if a new household member appears after the first interview, the interviewer asks whether he has moved into the household and, if so, from where.

7 Additional information on panel attrition is available from the authors upon request.

8 ENE, unlike ENOE, does not include a separate question on school attendance. Individuals are asked whether, among other activities, they devoted some time to study over the last week. We considered as attending school any individual who declared to have spent some time in school during the week preceding the interview.

9 Youth who are unemployed and attend school are a very small share of the pool of unemployed youth.

3. Trends in NEET youth: 2000 - 2010

22. Over most of the decade beginning in 2000 Mexico managed a moderate average annual growth. GDP grew by an average of 3 percent between 2000 and 2008, and by 3.8 percent between 2004 and 2007. Mexico's GDP dropped by over 6 percent in 2009, however, as world demand for exports dropped, asset prices tumbled, and remittances and investment declined. The economy rebounded in 2010, when GDP grew by 6 percent.

23. During this period of moderate economic growth, the share of NEET in the youth population did not change substantially. The share of NEET youth was stable between 2000 and 2010 at about 22 percent of the youth population (Figure 1)[10]. However, in absolute terms the NEET youth increased from about 3 millions in 2000 to almost 4.5 millions 10 years later.

24. NEET youth can be divided into two groups: unemployed youth and youth not in the labour force or in education ("NFLE youth" for the remainder of this paper). The overall trend for NEET youth disguised different trends for this two components. The share of unemployed youth (or unemployment ratio) increased over the decade from 2.6 to 4.7 percent. The share of NLFE youth fell slightly to 17.2 percent in 2010 from 19.3 percent 10 years earlier.

25. Figure 2 depicts changes in overall NEET status and in the two NEET components disaggregated by sex and residence. Overall NEET incidence is higher in rural relative to urban areas and the urban-rural gap remained stable over the decade beginning in 2000. The gender divide in NEET status narrowed slightly over the 2000-2010 period, but remained substantial: in 2010, the share of female youth in the NEET category was roughly three times that of male youth.

26. While the unemployment ratio shows the expected cyclical behaviour, the NLFE youth looks independent of the short term evolution of the economy indicating that structural factor lay behind the decision to leave both the labour market and education (Figure 2 and Figure 3).

27. The gender differential in NLFE youth is large with the female NLFE rate 5 time larger than that of men. The large gender differential in NLFE youth reflects, of course, the different gender specialization patterns. In fact virtually all the girls in NLFE are engaged in household chores as opposed to 65 percent of the boys (average over the period 2005-2010). Breaking down household chores by task reveals that NLFE girls are more likely to devote their time to care-taking activities relative to boys. Between 2005 and 2010, some 52 percent of NLFE girls were engaged in care-taking activities compared with only 6.6 percent among NLFE boys (i.e., a difference of 45.4 percentage points). The gender gap with reference to other chores, including cleaning, washing, ironing, etc., was 34.7 percentage points, with NLFE girls at 97.7 percent.

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[10] NEET youth as a share of the working-age population diminished from about 7 percent in 2000 to 6.4 percent in 2010 mainly because of the drop in the share of youth in the working-age population.

4. Youth transitions

28. While long term trends are useful to assess the overall dynamics of youth activities, they tell us little in terms of the individual transitions and, in particular, about the role that the NEET status plays in such transitions. In this section we address this question by looking at patterns of transitions of youth across the five statuses described in section 2. We exploit, as mentioned, the longitudinal dimension of the data and make use of the 5-quarter rotating panel for the period 2005-q1 - 2011-q3.

29. A simple way to describe mobility is through a transition matrix where each cell indicates the conditional probability of finding an individual in status $y, (y = 1, ..., 5)$ at time *t+1* conditional on the individual being in status $x, (x = 1, ..., 5)$ at time *t*. We computed the conditional probability P_{xy} of transition from x to y as the ratio between the number of individuals who were in status x and moved to status y between t and *t+1* and the number of individuals who were in status x in period *t*.[11] Formally,

$$P_{xy} = P(S_{t+1} = y | S_t = x) = P(S_t = x \cap S_{t+1} = y)/P(S_t = x) \quad \text{(1)}$$

where S_t indicates the status at time *t*. The marginal probabilities are measured by the share of youth in each status at time *t* and at time *t+1*. By construction the sum of the elements in each row of a transition matrix equals one.

30. Tables 1 to 5 present annual[12] individual transitions of youth aged between 15 and 24 across the 5 statuses described above. Each cell in the matrices shows the 2005-q1 - 2011-q3 average of the probability of transition from status x at time *t* to status y one year later (at time *t+1*).

31. Table 1 shows conditional probabilities for the sample of all youth aged between 15 and 24. There is a high degree of persistence in the status of employment only and education only: about 80 percent of the youth in each of these two statuses are found in the same status after one year. Persistence is lower in the employment and education status (40 percent).

32. For NEET youth the situation is substantially different depending on the subgroup they belong to. NLFE youth show a high degree of persistence (60 percent of them remain in the same status after one year), on the other hand, transition away from unemployment appears to be relatively fast, as only 14 percent of youth remain in that same status one year later. The majority of inflow into the NEFL status originates from youth employed or unemployed. While the majority of youth leaving the NEFL status enter employment.

33. Transitions differ significantly by gender (Table 2). Persistence in NLFE status for female is more than double that for males, reaching about 70 per cent. Moreover, while men reach the NLFE status transiting from all other

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[11] Panel data contains a sequence of observation on individual status at discrete interval of time. Thus, equation (1) can be interpreted as expressing transition probabilities if we assume that the discrete-time mobility process observed is generated by a continuous t-time homogenous Markov process (Bosch and Maloney, 2007), i.e. that transitions between statuses occur at random points in time within each discrete interval.

[12] Quarterly transitions do not show substantial differences relative to annual transitions.

status, female found neither in education nor in the labour force are mainly former employed or unemployed.

34. Persistence in unemployment is low for both males and females. However, the majority of the unemployed males (53 percent) are found in employment after one year, while a substantial part of the unemployed females (24 percent) leave the labour force without re-entering education.

35. There are no large differentials in transition probabilities by poverty status[13] (Table 3), with the exception of the lower persistence in NLFE status for youth belonging to non-poor households (58 versus 66 percent).

Panel 1. **Yearly transition matrices**

In this panel we present yearly transition matrices in order to unveil any time-specific trend in the characteristics of transitions (tables are reported in Appendix 1).

The main difference we observe is in the movement in and out of unemployment and employment only. Because of the global economic downturn, persistence in unemployment has increased starting from 2008 (it has reached 16.4 percent between 2010 and 2011), and transitions out of unemployment into employment only have slowed down from 49.4 percent to 44.8 percent over the last years.

Persistence in employment only has dropped in the last couple of years: it was above 80 percent in years of strong economic growth, and it has decreased by about 4 percentage points at the outset of the economic recession in 2008.

On the contrary, movements out of employment only into unemployment increased from 3.8 percent in 2005/06 to 5.8 percent in 2008/09, and afterwards they have stayed at about 5 percent.

In 2008/09, NLFE youth had a lower probability of moving into employment only, and, on the contrary, they were more likely to move to education only.

Finally, in the more recent years (2010/11) we observe a higher probability of youth involved in employment and education to move to education only (40 percent) and a lower probability of moving to employment only (16 percent) compared with previous years.

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36. The probability of transition varies also according to the educational level of the youth. The degree of persistence of NLFE youth decreases substantially with the level of education. For higher-educated youth, in other words, absence from both the labour force and education is more likely to be a transitory state. This pattern is observed not only among males, but also among females. Among the former, the degree of persistence in NLFE status goes from 48 percent for males with up to completed primary education to 14 percent for males with upper secondary or higher education. The difference in the persistence in NLFE status between females with up to completed primary and females with higher secondary and above education is 23 points.[14]

37. We also compute the average duration of stay in each status as the inverse of the conditional probability of staying in that status. Formally,

$$D_x = 1/(1 - n_{xx}) \ (2)$$

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[13] Poverty is computed by using household level labour income. Households belonging to the first quintile of the labour income distribution are categorized as poor.

[14] Transition matrices by gender and educational level are available upon request from the authors.

where n_{xx} is the number of stayers in status x between time t and time $t+1$.

38. Figure 4 plots the mean duration of stay in each status by individual and household characteristics (gender, poverty status, and educational level). The average duration in employment only is higher than the average duration in any other status for males. It is 6.3 years for males, which means about the double of the average duration in the same status for females. The difference in average duration in employment only by poverty status and educational level is smaller than the difference observed by gender.

39. NLFE status shows a large differential in average duration by gender and educational level. Females stay on average 3.1 years in NLFE status against 1.4 years for males. Youth with up to complete primary education spend on average 3.3 years in NLFE status, almost one year more than youth with lower secondary education, and almost 2 years more than youth with upper secondary education or above.

40. There are no significant differences in the average duration of unemployment, whereas the time spent in employment and education differs only by educational level with higher educated youth spending more time in that status.

41. Females, youth living in non-poor households, and youth with up to primary education have a longer duration in education only status relative to their male, poor, and highly educated counterparts.

42. In conclusion, it appears that the two components of NEET, unemployment and NLFE, show different characteristics in terms of transitions. The degree of persistence in unemployment is rather low, while transitions out of the NLFE status occur with much lower frequency. Persistence in the NLFE status and in unemployment is substantially higher for girls. They are also more likely to leave the labour force following an unemployment spell.

Finally, youth from poor households show a substantially higher rate of persistence in the NEET status.

5. Transition paths

43. The transition matrices provide information about the mobility across statuses, but youth can follow different pathways in the transition between status x at time t and status y one year later. In this section we identify such pathways using the approach of "sequence analysis". This technique essentially compares sequences of statuses and identifies "similar" transition paths, leading to the identification of typical transition patterns.

44. The analysis requires individual sequences, or trajectories, experienced over a period of time (5 consecutive quarters in our case), a measure of the distance between individual trajectories, and a rule to identify similar trajectories.

45. We look at transitions of youth who are initially in NEET status, i.e. NLFE or unemployed, and who are interviewed for 5 consecutive quarters. We focus

on transitions from the NEET status[15] since the evidence provided in section 4 has highlighted heterogeneous patterns in the transitions to/from this status.

46. The first step consists in identifying similar trajectories by assessing the degree of similarity among individual trajectories. We use optimal matching[16] (OM) which is an explorative method of sequence analysis. The procedure consists in computing the distance between each pairwise combination of sequences. The distance between two sequences is the number of steps one must take in order to make both sequences identical. The process is called alignment and there are three possible operations: an item of a sequence can be substituted by another item, an item can be inserted into a sequence, an item can be deleted from a sequence. The latter two operations are known as *indel* operations, i.e. insert and delete.

47. Following Brzinsky-Fay (2007), we set *indel* costs equal to one and substitution costs equal to two. Since there is more than one possible alignment of two random sequences, OM algorithm chooses the alignment with the minimum distance between the two sequences that is found via the Needleman-Wunsch algorithm.

48. On the basis of the distances calculated by OM, similar sequences need to be grouped together. In order to do so, the pairwise distances are used to construct a distance matrix on which we perform cluster analysis. We use Ward's hierarchical agglomerative algorithm to group individual trajectories into clusters. The algorithm chooses the groupings that minimizes the increase in the within cluster error-sum-of-squares. We compare two stopping rule, which are conventional in cluster analysis, in order to determine the appropriate number of clusters.[17]

49. Cluster analysis supports the existence of two groups, which can be interpreted as separate pathways starting from NEET status (Figure 5). The first cluster is characterized by a very rapid transition to employment only and with only about 40 per cent of the youth remaining in NEET status after 5 quarters. The second cluster identifies an almost symmetrical path: a slow transition out of NEET status which starts in the second quarter and that leaves after five quarters most of youth in the same status, with only a minority transiting to employment.

50. The analysis of the characteristics of the individuals in the two pathways reveals that youth in the second cluster are mainly females (about 78 percent), with relatively low education levels (32 percent have up to primary education, 42 percent have lower secondary and the rest has higher education). They experience a small number of episodes (53 percent experience just one, i.e. NEET).

51. In the first cluster that shows rapid transition to employment, the proportion of females is about 52 percent, with higher education levels with respect to the other cluster (25 percent have up to primary education, some

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[15] We consider the five statuses defined in section 2 (NLFE youth and youth in unemployment are lumped together).

[16] The analysis is carried out by exploiting sequence analysis commands developed by Brzinsky-Fay et al. (2006) for Stata.

[17] Duda-Hurt and Clinski-Harabasz rule.

45 percent have lower secondary, and the remaining 30 percent has upper secondary and above). In this group, youth experience on average 3 episodes which compares to 1.8 episodes among youth in the second cluster.

52. Thus, sequence analysis has allowed us to identify two different types of pathways starting from the status of NEET. The first entails youth rapidly transiting from NEET to employment only with some youth going back to the initial status after one or two quarters in employment only. This group is equally split between boys and girls and on average youth therein experience three episodes. The second group mainly consists of girls with up to primary or lower secondary education who hardly leave the NEET status even after a year since they were first observed. The few of them who leave NEET status are likely to enter education only or employment only.

6. Econometric analysis

6.1 Empirical model

53. The evidence presented in section 4 suggests considerable persistence of youth in the NFLE status, the main component of the broader NEET group. It is not clear, however, whether this persistence is due to *individual heterogeneity,* i.e. the fact that those who are in NEET status in period *t* have certain persistent attributes that make it likely they will be in NEET status in every period, or to genuine *state dependence*, i.e. the experience of NEET *per se* substantially increases the probability of being NEET in future. In this case, NEET status can be argued to have a "scarring" effect on the labour market and educational prospects of the youth.

54. In order to address this issue, we estimate a dynamic multinomial logit panel data model with random effects. In particular we estimate the probability of an individual $i, (i = 1, …, N)$, being in status $j, (j = 1,2,3)$ at time *t* given that the same individual *i* was in status *j* at time *t-1,* taking into account individual heterogeneity and controlling for a number of individual and household characteristics.

55. We consider the mobility among employment only *(j=1)*, education only *(j=2)*, and NEET status *(j=3)*, in other words we lump together youth not in the labour force or in education and unemployed youth[18]. Table 7 presents the shares of youth aged 15-24 by activity status and individual characteristics in 2005 for the panel sample used for the estimates.

56. Assuming a first-order Markov process, we can separate out true state dependence and unobserved heterogeneity by conditioning on lagged status (through two dummies as explanatory variables) and individual effects to control for unobserved characteristics. The utility an individual *i* derives from being in state *j* at time *t* can be written as follows:

$$V(i, j, t) = X'_{it}\beta_j + Z'_{it-1}\gamma_j + Z'_{it-4}\delta_j + \alpha_{ij} + \varepsilon_{ijt}, \text{ (3)}$$

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[18] We exclude from our sample youth in employment and education at the same time.

X_{it} is a vector of individual and household observed characteristics, which includes age, gender, family composition, youth marital status, household head's educational level, household poverty status, geographical location (urban vs. rural), and time dummies, Z_{it-1} and Z_{it-4} are vectors of lagged labour market statuses. We include a 1-quarter and 1-year (4 quarters) lag of labour market status to investigate how state dependence builds up over time. The parameters of interest are β_j, γ_j, and δ_j, while α_{ij} are random effects capturing time invariant unobserved heterogeneity, and ε_{ijt} are i.i.d. error terms. They are assumed to be independent of observable and unobservable characteristics and to follow a Type-I extreme value distribution.

57. The state j with the highest utility for individual i at time t is realized. The probability of an individual i of being in state j at time t, given characteristics X_{it}, lagged status Z_{it-1} and Z_{it-4}, and random effects α_{ij}, can be written as:

$$P(j|X_{it}, Z_{it-1}, \alpha_i) = \frac{exp(X_{it}\beta_j + Z_{it-1}\gamma_j + Z_{it-4}\delta_j + \alpha_{ij})}{\sum_{k=1}^{3} exp(X_{it}\beta_k + Z_{it-1}\gamma_k + Z_{it-4}\delta_k + \alpha_{ik})} \quad (4)$$

58. To identify the model, β_1, γ_1, δ_1, and α_1 are normalized to zero. Since the choice probabilities are conditioned on α_i, and the individual specific random intercepts follow a multivariate normal distribution, we must integrate over the distribution of the unobserved heterogeneity. The individual likelihood contribution has the following form:

$$L_i = \int_{-\infty}^{+\infty} \prod_{t=1}^{T} \frac{exp(X_{it}\beta_2 + Z_{it-1}\gamma_2 + Z_{it-4}\delta_2 + \alpha_2)^{s_t} * exp(X_{it}\beta_3 + Z_{it-1}\gamma_3 + Z_{it-4}\delta_3 + \alpha_3)^{n_t}}{1 + \sum_{k=2}^{3} exp(X_{it}\beta_k + Z_{it-1}\gamma_k + Z_{it-4}\delta_k + \alpha_k)} f(\alpha) d\alpha \quad (5)$$

59. with $s_t = 1, (n_t = 0)$ if the individual is in education only at time t, and $s_t = 0, (n_t = 1)$ if the individual is in NEET status at time t. The likelihood contribution involves a 3-dimensional integration, and no analytical solution exists. We estimate the model with a maximum simulated likelihood approach (MSL). MSL draws R values from the distribution of the unobserved heterogeneity with variance-covariance matrix W. For each draw, the likelihood is calculated and then averaged over the R draws. Therefore, the simulated sample likelihood is maximized instead of exact likelihood, using a Gauss-Hermite quadrature using 4 quadrature points for integration[19].

Eq. 6 is replaced by the following equation:

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[19] The model is estimated in Stata 12 using gllamm. Estimates using Gauss-Hermite quadrature and 8 quadrature points or using adaptive quadrature do not differ from the estimates presented in the paper and are available from the authors upon request.

$$L_i = \frac{1}{R} \sum_{r=1}^{R} \prod_{t=1}^{T} \left(\frac{exp(X_{it}\beta_2 + Z_{it-1}\gamma_2 + Z_{it-4}\delta_2 + \alpha_2^r)^{st} * exp(X_{it}\beta_3 + Z_{it-1}\gamma_3 + Z_{it-4}\delta_3 + \alpha_3^r)^{nt}}{1 + \sum_{k=2}^{3} exp(X_{it}\beta_k + Z_{it-1}\gamma_k + Z_{it-4}\delta_k + \alpha_k^r)} \right) \quad \textbf{(6)}$$

60. The presence of lagged labour market statuses would require the specification of an initial condition equation since we do not observe the process determining youth status from the very beginning, but from a point in time and the initial values could be non-exogenous with respect to the other covariates and the unobserved individual effects. One solution to this problem is the Heckman (1981) procedure in which for *t=1* a static multinomial logit model replaces equation (4). The practical implementation of these procedures has proved difficult. The estimation of an additional selection equation is affected by limitation in our data since no convincing exclusion restriction is available in the survey. As a poor initial equation specification may generate an unknown bias, we have decided not to implement the correction.

6.2 Results

61. The estimates presented in Table 8 are based on the sample of youth[20] interviewed five times between the first quarter of 2005 and the first quarter of 2006, a period of economic growth[21].

62. The results show a substantial degree of state dependence in all activities considered. This is not surprising, to a certain extent, given the relatively short time horizon considered. However, the presence of state dependence also after one year is an indication that this is not a transitory phenomenon.

63. In particular having been in NEET status one year before increase the probability of remaining NEET by 10 percentage points or of about 50 per cent, as the 2005 average is 23 per cent. NEET status has also negative impact on the probability of finding employment in the following year, as it reduces the probability of being employed by 10 percentage points. Again state dependence is substantial as the 2005 mean is around 40 per cent.

64. As a reflection of the transition path described above, being in full time education in the previous year reduces the probability of being employed today and increases that of being NEET.

65. Consistently with the findings in previous literature (for Europe and Japan), we observe that individual and household characteristics affect the probability of being in NEET status.

66. Our estimates indicate that females are more likely to be in NEET status and less likely to be in employment with respect to males. Education level appears to be negatively correlated with the NEET status: a youth with at least higher secondary education is three percentage point less likely to be NEET.

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[20] Separate estimates by gender might capture better the effect of different forces at play, but the equation for females failed to converge.

[21] Estimates on a sample of youth over a period of economic downturn do not show significant differences with respect to the estimates presented here.

67. Youth living in larger households are less likely to be in employment only and in education only, and more likely to be in NEET status. The presence of young children (aged between 0 and 4) increases the likelihood of being in NEET status (and it decreases the probability of being in employment only or in education only). We must stress once more that household chores are excluded from the analysis, therefore NEET youth might actually be engaged in household chores, including care-taking of younger siblings as illustrated in section 3.

68. Being the eldest child in the household negatively affects the probability of being in NEET status and increases the probability of being in employment only. Finally, youth in urban areas are less likely to be in employment only, and they are more likely to be in education only or in NEET status.

7. Conclusions

69. A growing body of literature has addressed the issues of NEET youth in developed countries, trying to assess its determinants and the risk that such a status implies for youth. In the present paper, we have extended the analysis by focusing on a middle income country like Mexico and by employing a variety of approaches to address the question.

70. Albeit limited by the data available, that allow to focus only on short term transition (5 quarters at most) the analysis provides relevant results.

71. As we have seen, persistence in the NEET status is high, especially for youth who is neither in the labour force nor in education (NLFE). Transition from unemployment is, on the contrary, relatively fast. Moreover, the degree of persistence shows substantial heterogeneity by gender, income and education.

72. In fact, the analysis of the pathways of transition has identified two different groups: one that shows a fast and large transition from NEET to employment and another where transition is very slow and leave the majority of individuals still in NEET status after one year. Women of poor background and with low education are largely overrepresented in the latter group.

73. Finally, the econometric analysis has confirmed that there is a substantial degree of state dependence. Being a NEET youth today increases the probability to remain in the NEET status after one year and decreases the probability of being in employment of roughly the same amount.

74. Being NEET, and especially being out of the labour force and not in education, appears therefore to represent a trap for youth at least in the medium run especially for poorer, less educated youth, and for women.

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Figures

Figure 1. **NEET youth trends, by components, 2000-2010 period**
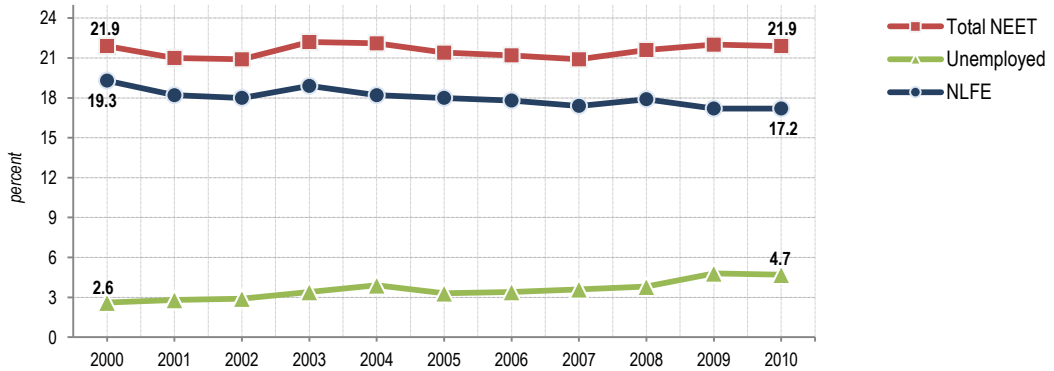
Source: UCW calculations based on Mexico ENE 2000-2004 and ENOE 2005-2010.

Figure 2. **Trends in NEET youth, by components, sex and residence**

(a1) NEET, by sex
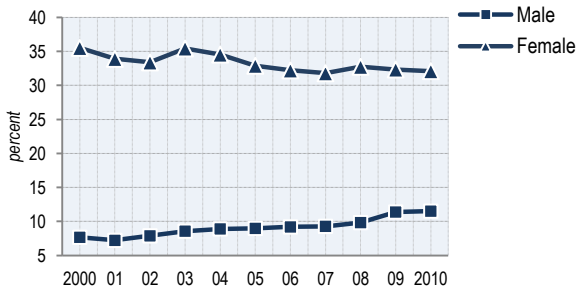
(a2) NEET, by residence
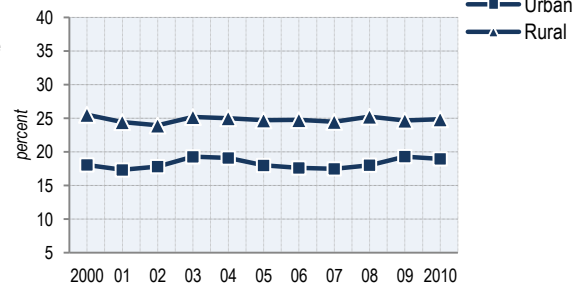
(b1) Unemployment, by sex
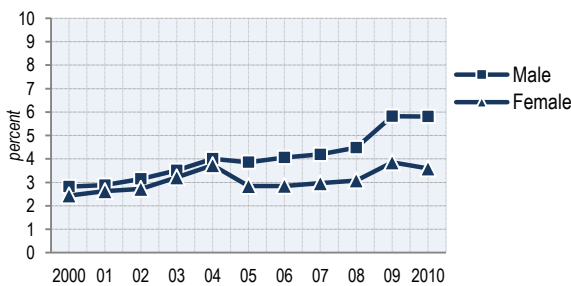
(b2) Unemployment, by residence
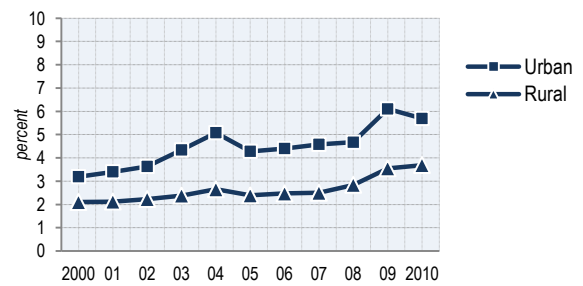
(c1) Not in education or the labour force, by sex
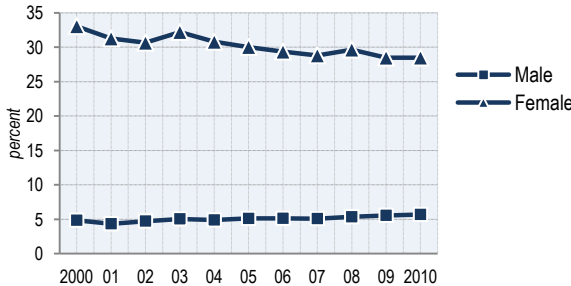
(c2) Not in education or the labour force, by residence
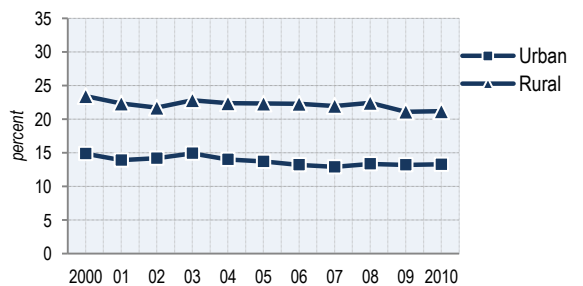
Source: UCW calculations based on Mexico ENE 2000-2004 and ENOE 2005-2010.

Figure 3. **Unemployed youth as % of youth population and per capita GDP growth, 2000-2010 period**
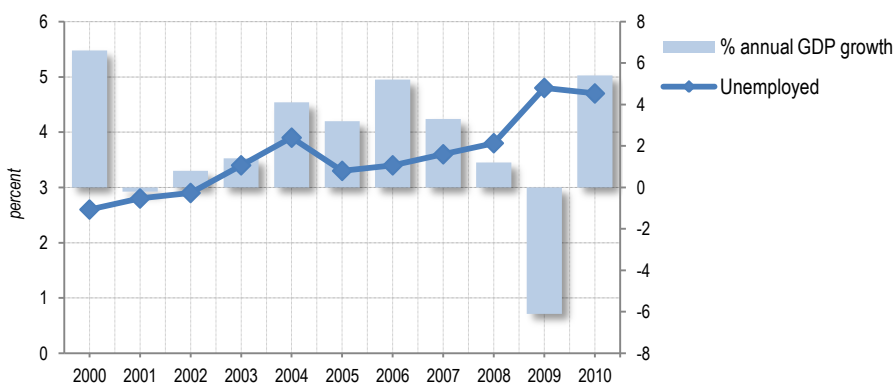
Source: UCW calculations based on Mexico ENE 2000-2004 and ENOE 2005-2010.

Figure 4. **Mean duration in years in each status, by sex, poverty status and education level[a]**
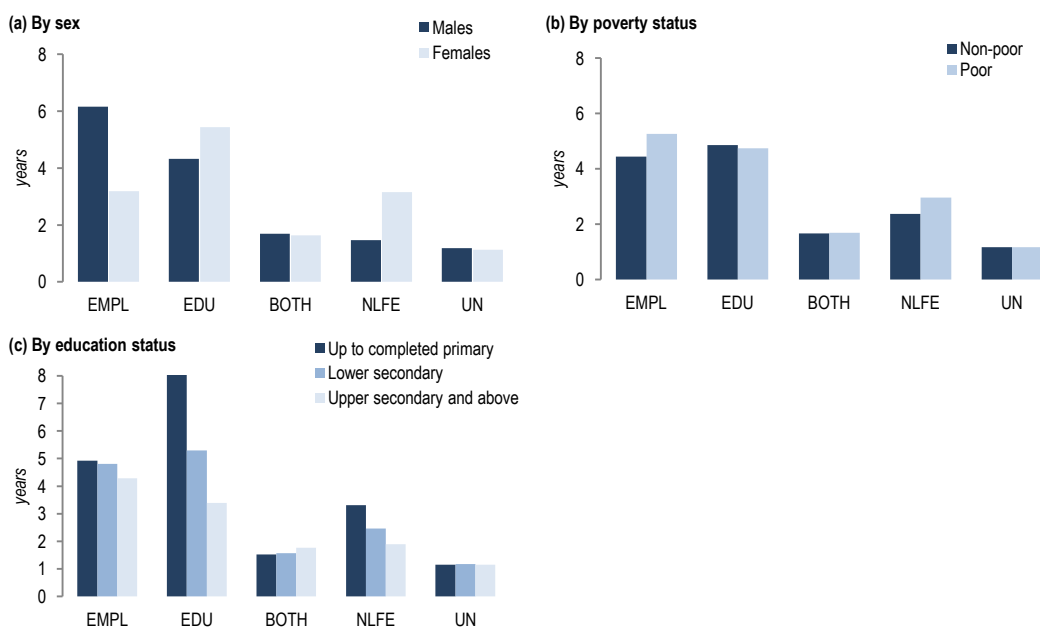
Notes: (a) NFLE=not in labour force or education; EMP=employment only; EDU=education only; BOTH=employment and education; and UN=unemployment.
Source: UCW calculations on ENOE 2005-2011 data.

Figure 5. **Monthly proportion of youth (initially in NEET status) in each activity status, by cluster**

Source: ENOE, 2005-2011
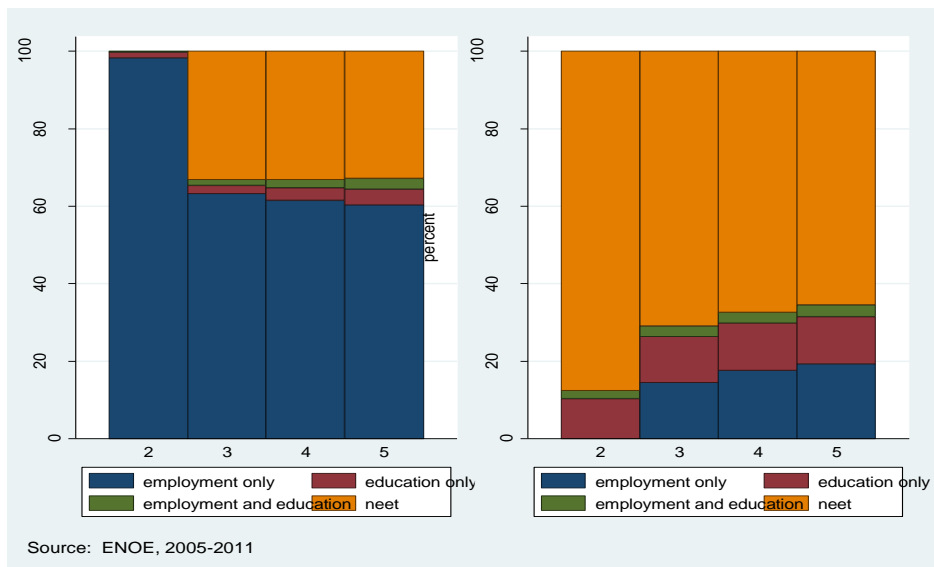
Tables

Table 1. **Transition matrix, all youth**

ALL	1	2	3	4	5	Px.
1. Employment only	**0.78**	0.03	0.04	0.10	0.05	**0.21**
2. Education only	0.05	**0.79**	0.10	0.04	0.02	**0.54**
3. Employment and education	0.17	0.37	**0.40**	0.03	0.03	**0.10**
4. Not in education or labour force	0.25	0.09	0.02	**0.60**	0.04	**0.12**
5. Unemployment	0.47	0.17	0.08	0.15	**0.14**	**0.03**
P.y	**0.25**	**0.49**	**0.11**	**0.12**	**0.03**	340,869

Note: unweighted data
Source: UCW calculations based on ENOE 2005-2011 data.

Table 2. **Transition matrix, male and female youth**

Male	1	2	3	4	5	Px.
1. Employment only	**0.84**	0.02	0.04	0.05	0.05	**0.28**
2. Education only	0.06	**0.77**	0.12	0.03	0.02	**0.52**
3. Employment and education	0.19	0.36	**0.41**	0.02	0.03	**0.13**
4. Not in labour force or education (NFLE)	0.41	0.15	0.04	**0.32**	0.08	**0.05**
5. Unemployment	0.53	0.15	0.08	0.08	**0.16**	**0.03**
P.y	**0.32**	**0.46**	**0.13**	**0.05**	**0.04**	171,903
Female	1	2	3	4	5	Px.
1. Employment only	**0.69**	0.03	0.04	0.20	0.04	**0.15**
2. Education only	0.04	**0.82**	0.08	0.05	0.02	**0.56**
3. Employment and education	0.15	0.40	**0.39**	0.04	0.02	**0.08**
4. Not in labour force or education (NFLE)	0.21	0.07	0.01	**0.68**	0.03	**0.19**
5. Unemployment	0.39	0.19	0.07	0.24	**0.11**	**0.02**
P.y	**0.18**	**0.51**	**0.08**	**0.20**	**0.03**	168,962

Note: unweighted data
Source: UCW calculations based on ENOE 2005-2011 data.

Table 3. **Transition matrix, by poverty status**

Poor	1	2	3	4	5	Px.
1. Employment only	**0.78**	0.03	0.03	0.13	0.04	**0.05**
2. Education only	0.05	**0.76**	0.12	0.05	0.02	**0.13**
3. Employment and education	0.16	0.41	**0.38**	0.03	0.02	**0.03**
4. Not in labour force or education (NFLE)	0.23	0.06	0.01	**0.66**	0.03	**0.04**
5. Unemployment	0.50	0.13	0.07	**0.16**	0.13	**0.01**
P.y	**0.24**	**0.45**	**0.11**	**0.16**	**0.03**	58,675

Non poor	1	2	3	4	5	Px.
1. Employment only	**0.79**	0.03	0.04	0.10	0.05	**0.24**
2. Education only	0.04	**0.80**	0.10	0.04	0.02	**0.52**
3. Employment and education	0.18	0.36	**0.40**	0.03	0.03	**0.11**
4. Not in labour force or education (NFLE)	0.25	0.10	0.02	**0.58**	0.05	**0.10**
5. Unemployment	0.46	0.18	0.08	0.14	**0.14**	**0.03**
P.y	**0.27**	**0.48**	**0.11**	**0.11**	**0.03**	237,331

Note: unweighted data. Household belonging to the first household labour income quintile are defined poor. Household labor income is the sum of members' labour income.
Source: UCW calculations based on ENOE 2005-2011 data.

Table 4. **Transition matrix, by poverty status and gender**

Non-poor Male	1	2	3	4	5	Px.
1. Employment only	**0.83**	0.03	0.04	0.05	0.06	**0.30**
2. Education only	0.05	**0.78**	0.12	0.03	0.02	**0.49**
3. Employment and education	0.19	0.35	**0.41**	0.02	0.03	**0.13**
4. Not in labour force or education (NFLE)	0.40	0.16	0.04	**0.31**	0.09	**0.05**
5. Unemployment	0.51	0.16	0.08	0.08	**0.16**	**0.03**
P.y	**0.34**	**0.45**	**0.12**	**0.05**	**0.04**	121,480

Non-poor Female	1	2	3	4	5	Px.
1. Employment only	**0.70**	0.03	0.04	0.19	0.04	**0.17**
2. Education only	0.04	**0.82**	0.08	0.05	0.02	**0.52**
3. Employment and education	0.15	0.39	**0.39**	0.04	0.03	**0.08**
4. Not in labour force or education (NFLE)	0.21	0.08	0.01	**0.66**	0.03	**0.16**
5. Unemployment	0.38	0.20	0.08	0.24	**0.11**	**0.02**
P.y	**0.20**	**0.51**	**0.09**	**0.18**	**0.03**	115,851

Poor Male	1	2	3	4	5	Px.
1. Employment only	**0.85**	0.02	0.03	0.06	0.04	**0.06**
2. Education only	0.07	**0.72**	0.16	0.04	0.02	**0.12**
3. Employment and education	0.18	0.39	**0.39**	0.02	0.02	**0.04**
4. Not in labour force or education (NFLE)	0.44	0.11	0.03	**0.35**	0.08	**0.01**
5. Unemployment	0.57	0.12	0.07	0.09	**0.15**	**0.01**
P.y	**0.33**	**0.43**	**0.15**	**0.06**	**0.03**	28,512

Poor Female	1	2	3	4	5	Px.
1. Employment only	**0.63**	0.04	0.03	0.27	0.03	**0.03**
2. Education only	0.04	**0.80**	0.09	0.06	0.02	**0.13**
3. Employment and education	0.12	0.45	**0.36**	0.05	0.02	**0.02**
4. Not in labour force or education (NFLE)	0.19	0.05	0.01	**0.73**	0.02	**0.06**
5. Unemployment	0.41	0.16	0.06	0.26	**0.11**	**0.01**
P.y	**0.16**	**0.47**	**0.08**	**0.26**	**0.02**	30,163

Note: unweighted data

Source: UCW calculations based on ENOE 2005-2011 data.

Table 5. **Transition matrix, by education level**

Up to completed primary education	1	2	3	4	5	Px.
1. Employment only	**0.8**	0.01	0.02	0.13	0.04	**0.2**
2. Education only	0.02	**0.88**	0.07	0.03	0	**0.57**
3. Employment and education	0.13	0.48	**0.35**	0.03	0.01	**0.05**
4. Not in labour force or education (NFLE)	0.21	0.06	0.01	**0.7**	0.02	**0.17**
5. Unemployment	0.59	0.05	0.03	0.21	**0.13**	**0.01**
P.y	**0.22**	**0.54**	**0.06**	**0.17**	**0.02**	83,016

Lower secondary education	1	2	3	4	5	Px.
1. Employment only	**0.79**	0.02	0.03	0.11	0.05	**0.23**
2. Education only	0.04	**0.81**	0.09	0.05	0.01	**0.54**
3. Employment and education	0.16	0.42	**0.37**	0.03	0.02	**0.08**
4. Not in labour force or education (NFLE)	0.26	0.08	0.02	**0.59**	0.04	**0.13**
5. Unemployment	0.51	0.12	0.05	0.18	**0.15**	**0.03**
P.y	**0.26**	**0.49**	**0.09**	**0.13**	**0.03**	139,025

Upper secondary and above	1	2	3	4	5	Px.
1. Employment only	**0.77**	0.04	0.06	0.08	0.05	**0.21**
2. Education only	0.07	**0.7**	0.14	0.04	0.04	**0.52**
3. Employment and education	0.19	0.32	**0.43**	0.03	0.03	**0.16**
4. Not in labour force or education (NFLE)	0.29	0.14	0.03	**0.47**	0.07	**0.07**
5. Unemployment	0.42	0.23	0.11	0.11	**0.13**	**0.04**
P.y	**0.27**	**0.44**	**0.16**	**0.08**	**0.05**	118,803

Note: unweighted data.
Source: UCW calculations based on ENOE 2005-2011 data.

Table 6. **Propensity matrix, all youth**

ALL	1	2	3	4	5	N. obs.
1. Employment only		0.13	0.17	0.48	0.22	15,668
2. Education only	0.22		0.48	0.20	0.10	175,114
3. Employment and education	0.29	0.62		0.05	0.04	29,086
4. Not in labour force or education (NFLE)	0.63	0.22	0.05		0.10	30,120
5. Unemployment	0.55	0.20	0.09	0.17		4,942

Note: unweighted data
Source: UCW calculations based on ENOE 2005-2011 data.

Table 7. **Labour market status, by individual characteristics 2005 (panel sample)**

	Activity Status	Employment exclusively	Education exclusively	NEET
Sex	Male	58.0	31.4	10.7
	Female	30.2	34.7	35.1
Household labour income	Poor	36.1	30.0	33.9
	Non-poor	45.8	34.1	20.1
Area of residence	Urban	38.1	41.0	20.9
	Rural	47.9	26.6	25.6
Education	Up to complete primary	58.2	4.6	37.2
	Lower secondary	44.1	33.1	22.8
	Higher secondary and above	34.1	49.6	16.3
Total		43.5	33.1	23.4

Source: UCW computations on ENOE data.

Table 8. **Dynamic multinomial logit, 2005-Q1 - 2006-Q1**

	Employment only		Education only		NEET	
	M.E.	s.e.	M.E.	s.e.	M.E.	s.e.
Education only, 1 quarter lag	**-0.4072**	**0.0020**	**0.3684**	**0.0017**	**0.0388**	**0.0029**
Education only, 1 year lag	**-0.1278**	**0.0010**	**0.0449**	**0.0006**	**0.0830**	**0.0013**
NEET, 1 quarter lag	**-0.2630**	**0.0025**	**0.0187**	**0.0004**	**0.2444**	**0.0024**
NEET, 1 year lag	**-0.1092**	**0.0011**	**-0.0039**	**0.0001**	**0.1131**	**0.0011**
Female	-0.0816	0.0008	0.0012	0.0001	0.0804	0.0008
Age	0.0109	0.0001	0.0051	0.0001	-0.0160	0.0002
Age squared	-0.0001	0.0000	-0.0004	0.0000	0.0005	0.0000
Lower secondary education	-0.0020	0.0001	0.0100	0.0002	-0.0080	0.0002
Higher secondary education and above	0.0045	0.0002	0.0328	0.0006	-0.0373	0.0005
Married	-0.0061	0.0002	-0.0215	0.0004	0.0275	0.0003
Eldest child in the household	0.0048	0.0001	-0.0017	0.0000	-0.0031	0.0001
N. children aged 0-4	-0.0011	0.0000	-0.0023	0.0000	0.0035	0.0000
N. children aged 5-14	0.0153	0.0002	0.0026	0.0001	-0.0179	0.0002
Household size	-0.0072	0.0001	-0.0032	0.0001	0.0104	0.0001
Urban	-0.0110	0.0001	0.0093	0.0002	0.0018	0.0002
Poor household[a]	-0.0916	0.0010	-0.0021	0.0001	0.0937	0.0009
$\sigma 1$	8.843	4.223				
$\sigma 2$	0.124	0.235				
cov(2,1)	1.047	1.054				
cor(2,1)	1.000					
Log likelihood			-2,605.57			
N. obs.			6,867			

Note: (a) Lowest quintile of the labour income distribution. Household labour income is the sum of all members labour income. Standard errors are bootstrapped using 200 replications.

Reference education category: up to completed primary education.

Source: UCW computations on ENOE data.

A. Appendix: Annual Transition Matrices

Table A1. **Annual transition matrices, youth aged 15-24**

Year 2005-2006

	1	2	3	4	5	Px.
1. Employment only	**0.81**	0.03	0.04	0.09	0.04	0.21
2. Education only	0.05	**0.79**	0.10	0.04	0.02	0.55
3. Employment and education	0.18	0.36	**0.40**	0.03	0.02	0.10
4. Not in the labour force or in education	0.25	0.09	0.02	**0.61**	0.04	0.12
5. Unemployment	0.49	0.17	0.09	0.14	**0.11**	0.02
P.y	0.26	0.49	0.11	0.12	0.03	60,947

Year 2006-2007

	1	2	3	4	5	Px.
1. Employment only	**0.79**	0.03	0.04	0.10	0.04	0.21
2. Education only	0.05	**0.79**	0.11	0.04	0.02	0.54
3. Employment and education	0.18	0.37	**0.40**	0.03	0.02	0.10
4. Not in the labour force or in education	0.26	0.08	0.02	**0.61**	0.04	0.12
5. Unemployment	0.48	0.17	0.08	0.14	**0.13**	0.02
P.y	0.25	0.49	0.11	0.12	0.03	61,331

Year 2007-2008

	1	2	3	4	5	Px.
1. Employment only	**0.78**	0.03	0.04	0.10	0.04	0.21
2. Education only	0.05	**0.78**	0.11	0.04	0.02	0.54
3. Employment and education	0.17	0.36	**0.41**	0.03	0.03	0.11
4. Not in the labour force or in education	0.25	0.09	0.02	**0.61**	0.04	0.12
5. Unemployment	0.49	0.16	0.08	0.15	**0.11**	0.02
P.y	0.25	0.48	0.11	0.12	0.03	59,021

Year 2008-2009

	1	2	3	4	5	Px.
1. Employment only	**0.77**	0.03	0.04	0.11	0.06	0.22
2. Education only	0.04	**0.80**	0.10	0.04	0.02	0.53
3. Employment and education	0.17	0.37	**0.40**	0.03	0.03	0.11
4. Not in the labour force or in education	0.24	0.09	0.02	**0.60**	0.05	0.12
5. Unemployment	0.43	0.18	0.07	0.16	**0.15**	0.03
P.y	0.25	0.49	0.11	0.12	0.04	58,450

*Table A1.***Cont'd**

Year 2009-2010

	1	2	3	4	5	Px.
1. Employment only	**0.78**	0.03	0.03	0.11	0.06	0.21
2. Education only	0.04	**0.79**	0.10	0.04	0.02	0.53
3. Employment and education	0.17	0.37	**0.40**	0.03	0.03	0.10
4. Not in the labour force or in education	0.26	0.08	0.02	**0.59**	0.05	0.12
5. Unemployment	0.47	0.16	0.08	0.14	**0.16**	0.03
P.y	0.25	0.48	0.10	0.13	0.04	57,907

Year 2010-2011

	1	2	3	4	5	Px.
1. Employment only	**0.77**	0.03	0.04	0.11	0.05	0.21
2. Education only	0.04	**0.81**	0.09	0.04	0.02	0.53
3. Employment and education	0.16	0.40	**0.39**	0.03	0.03	0.10
4. Not in the labour force or in education	0.25	0.09	0.02	**0.60**	0.04	0.12
5. Unemployment	0.45	0.17	0.07	0.15	**0.16**	0.03
P.y	0.24	0.50	0.10	0.12	0.04	43,211

Note: unweighted data.

Source: UCS computations on ENOE data 2005-2011.

Table A2. **Transition matrices by educational attainment, males aged 15-24**

MALES

Up to completed primary

	1	2	3	4	5	Px.
1. Employment only	**0.85**	0.01	0.02	0.07	0.05	0.28
2. Education only	0.03	**0.85**	0.09	0.03	0.00	0.55
3. Employment and education	0.14	0.46	**0.36**	0.03	0.01	0.07
4. Not in the labour force or in education	0.37	0.09	0.02	**0.48**	0.05	0.08
5. Unemployment	0.64	0.04	0.03	0.15	**0.14**	0.02
P.y	0.30	0.51	0.08	0.08	0.02	43,476

Lower secondary

	1	2	3	4	5	Px.
1. Employment only	**0.85**	0.02	0.03	0.05	0.05	0.50
2. Education only	0.05	**0.78**	0.12	0.03	0.02	0.83
3. Employment and education	0.19	0.39	**0.37**	0.02	0.02	0.17
4. Not in the labour force or in education	0.47	0.15	0.04	**0.23**	0.10	0.08
5. Unemployment	0.57	0.11	0.05	0.10	**0.17**	0.05
P.y	0.35	0.45	0.11	0.05	0.04	71,418

Upper secondary and above

	1	2	3	4	5	Px.
1. Employment only	**0.81**	0.04	0.06	0.03	0.06	0.31
2. Education only	0.08	**0.69**	0.16	0.02	0.04	0.65
3. Employment and education	0.20	0.30	**0.45**	0.02	0.04	0.26
4. Not in the labour force or in education	0.38	0.27	0.08	**0.14**	0.13	0.04
5. Unemployment	0.45	0.23	0.12	0.05	**0.15**	0.06
P.y	0.30	0.43	0.19	0.03	0.05	56,997

Note: unweighted data.

Source: UCS computations on ENOE data 2005-2011.

Table A3. **Transition matrices by educational attainment, females aged 15-24**

FEMALES

Up to completed primary

	1	2	3	4	5	Px.
1. Employment only	**0.65**	0.02	0.02	0.29	0.02	0.10
2. Education only	0.01	**0.91**	0.04	0.04	0.00	0.54
3. Employment and education	0.09	0.55	**0.30**	0.05	0.01	0.03
4. Not in the labour force or in education	0.16	0.05	0.01	**0.77**	0.01	0.23
5. Unemployment	0.44	0.06	0.04	0.37	**0.10**	0.01
P.y	0.13	0.57	0.04	0.26	0.01	39,540

Lower secondary

	1	2	3	4	5	Px.
1. Employment only	**0.67**	0.03	0.03	0.24	0.04	0.23
2. Education only	0.02	**0.84**	0.07	0.06	0.01	0.89
3. Employment and education	0.12	0.48	**0.35**	0.05	0.01	0.09
4. Not in the labour force or in education	0.21	0.06	0.01	**0.69**	0.03	0.32
5. Unemployment	0.38	0.15	0.04	0.33	**0.10**	0.03
P.y	0.17	0.53	0.06	0.22	0.02	67,604

Upper secondary and above

	1	2	3	4	5	Px.
1. Employment only	**0.72**	0.05	0.06	0.13	0.05	0.25
2. Education only	0.07	**0.72**	0.12	0.05	0.04	0.76
3. Employment and education	0.17	0.34	**0.42**	0.04	0.03	0.19
4. Not in the labour force or in education	0.27	0.12	0.02	**0.54**	0.05	0.16
5. Unemployment	0.39	0.22	0.10	0.18	**0.12**	0.05
P.y	0.23	0.46	0.14	0.13	0.04	61,805

Note: unweighted data.

Source: UCS computations on ENOE data 2005-2011.