

School-to-work transitions in the European Union: evidence from the ECHP

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1 INTRODUCTION

This paper describes certain aspects of “school-to-work” transition by analysing the employment situation of individuals as a function of the time elapsed since the completion of education or training. Our perspective is comparative and dynamic.

There have been a number of studies analysing school-to-work transition at the EU level. A series of *Statistics in Focus* published by Eurostat, for instance, summarise the main results of some research, covering issues such as general indicators on school-to-work transition, association between social origin and educational attainment, and labour market effects of job mismatches. The basic approach in these studies has been to construct various indicators based on *retrospective information* on the time of first leaving continuous education, and *current information* on status and characteristics of economic activity – expressing the status of activity as a function of the time elapsed since leaving continuous education. In this approach, essentially cross-sectional (though in part retrospective) information is interpreted as if it pertains to real cohorts.

Much of this comparative analysis of school-to-work transitions in EU countries has been based on the EU Labour Force Survey, the 2000 round of which incorporated a special module to collect information on the subject. By contrast, the analysis presented here is based on the European Community Household Panel. This work, we believe, is unique in the sense that the ECHP data have not been used before in this way for the study of school-to-work transition. We also propose some new (and hopefully interesting) ways of analysing and presenting the results.

Our basic approach is to use the longitudinal data to identify, at the time of each wave, the person’s level and timing of completing education and training, and study this in relation to the person’s current employment situation and other characteristics. Hence, in form at least, our approach is similar to that of earlier studies based on the LFS referred to above, though there are considerable differences in substantive content and statistical methodology resulting from the use of different types of data.

2. METHODOLOGY

2.1 DATA SOURCE

As noted, hitherto most analysis of school-to-work transitions at the EU level has relied on the Labour Force Survey, specifically the special module on the subject incorporated into a round of the LFS. As microdata for the EU/European countries are not available to us for the LFS, this analysis uses the European Community Household Panel (ECHP) data, available for 7 waves, with reference years 1993-1999. Because of differences in the nature and scope of the LFS and ECHP datasets, both the actual measures and the statistical methodology in the proposed analysis differ from those

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of previous studies, in particular the *Statistics in Focus* published by Eurostat. These data and methodological may have both positive and negative consequences for our analysis.

On the positive side, we may note the following. (1) The ECHP provides a truly longitudinal data set, in principle ideally suited for dynamic analysis of school-to-work transition at the micro level. By contrast, the LFS data are actually obtained with a cross-sectional structure (albeit with some retrospective information), which have then been treated as if they represent longitudinal experience of real cohorts. (2) ECHP data are complex and comprehensive, covering many variables for the same units. (3) The data cover most EU countries, and are believed to be quite (though not perfectly) comparable across countries and time. (4) The data are well-known, well-documented and widely used by researchers. (5) And above all, the data are available for research.

There are however limitations to which we have sought to find solutions in this research. (1) The basic variables for the study of school-to-work transition are of a different type than, for instance, those coming from the LFS. A major difference is that while the latter provides information on age at first leaving continuous education, the basic variable in ECHP is *age at (or time of) completing the highest educational level achieved*, supplemented by information on the completion of any education and vocational training course completed during each survey reference year. Entry into the labour market following such education/training is therefore not necessarily a first-time entry. (2) The comprehensive longitudinal data are necessarily complex. Furthermore, it is our view that data relating to education and training have not been as thoroughly checked, tested and used as other parts of the ECHP dataset. Problems of incompleteness and inconsistency – and also lack of international comparability – are more likely to be present in these data. (3) As indeed noted in Eurostat documentation on ECHP-UDB, certain problems and inter-wave inconsistencies remain in the manner in which the basic data on type, incidence and timing of education and training have been coded in the available data sets. These will be described in the next subsection, with further details given in Annex 1. (4) There are also some limitations to the set of countries and waves covered: Austria, Finland and Sweden enter only from waves 2, 3 and 4 respectively; the data sources changed from wave 4 onwards in the case of the UK, Germany and Luxembourg; and data for wave 8 are not yet available to us. (5) Most importantly, the sizes of the longitudinal samples available are rather small. This is a critical limitation in the analysis of a phenomenon like school-to-work transition where the interest is focussed on the relative small subpopulation of younger persons experiencing such a transition.

2.2 SOLUTIONS

Defining appropriate study variables

1. Level of qualification: Rather than continuous formal education, we take most recently completed education, supplemented by any “substantial” course of vocational training completed, as defining the person’s level of qualification. By “substantial” we simply mean any course of vocational training of *at least one year duration*, irrespective of its type. Vocational courses need to be converted to the equivalent “primary”, “secondary” or “tertiary” levels, a task which is country-specific and requires much careful work.

2. Exit from education/training: This is a critical variable in identifying the event of “school-to-work” transition. We take it as the time of completion of the level of qualification defined above. Any earlier school-to-work or work-to-school transitions are therefore ignored.

3. Observation time: This is taken to be the moment of the survey interview, one observation for each wave. The difference between the observation and exit time define the time interval, which is the primary determinant of the school-to-work transition. For much of the analysis, we divide the population into two segments: persons with exit-to-observation interval of up to 5 years (“younger persons”), and the majority of the population with intervals longer than 5 years. The analysis excludes persons for whom this interval cannot be defined, i.e. those still in education/training at the observation time. Persons outside the working ages (taken as 16-59) are also excluded throughout.

4. Current employment situation: This refers to the employment situation at the observation time.

The ECHP contains detailed information on current activity status and job characteristics. In fact, the ECHP encompasses two related measures of the individual's economic activity: (i) the conventional (ILO) current activity status, and (ii) a self-declared measure of the individual's main activity status. Analysis of economic activity according to the more robust latter concept is a special feature of the survey: it has been introduced to focus on significant changes in employment status, which are more amenable for measurement in a longitudinal enquiry aimed at cumulating information on activity status and changes therein over time, and constructing activity histories. We have used both these concepts in defining the current employment situation of individuals, but presented results mostly using the ILO concept; mostly the two give similar results in any case. For practical reasons, we have been quite selective in incorporating the employment situation variables into the present analysis. These are confined to simple cross-sectional variables defining activity status, self-employment, unemployment, part-time work and the type of contract if in employment. The rich information on many other characteristics of work and in particular temporal information (job histories, activity status calendar, previous employment ...) available in ECHP has not been used.

5. Background characteristics: Basic characteristics such as household income are assumed to be relevant for the whole exit-to-observation interval, even though their reference period in ECHP is different.

Construction of analysis variables from UDB

Variables on the type and timing of education and training as recorded in the UDB need considerable work to be transformed into a consistent set of analysis variables as defined above. The basic problem arises from the fact that in waves 1-4 the question on "the highest level of general or higher education completed" was asked only to people at their *first appearance in the panel*, and the data for these waves (and also for wave 5 to some extent) have not been updated with information obtained in each wave on education and training completed during the preceding year. Consequently, longitudinal linking (and some checking and correction of inconsistencies) has been necessary in constructing the required "level" and "exit" analysis variables. We have summarised the procedures in Annex 1, as they may be of general interest to fellow researchers.

Coverage of countries

Three of the 15 EU countries could not be covered in the present study because of the lack of necessary variables: the Netherlands, Luxembourg and Sweden. In Germany and the UK, two panels surveys are available for the first 3 waves – the national panels (SOEP and BHPS) and the parallel ECHP samples. One or the other or both could be used for that period, but for various reasons, the original ECHP surveys did not prove to be suitable for inclusion.²

Analysis units or "event"

Even though the creation of the analysis variables described above requires the construction of a longitudinal data set (more complete and consistent than UDB in certain respects), the proposed methodology permits treating the result like a cross-sectional data set. *Each pair of "exit" and "observation" times defines a unit or event of analysis of school-to-work transition*, linking the level of education/training at the moment of "exit" with the employment situation at the moment of "observation, connected in terms of the duration between the two events. We use time since most recent exit from education/training as the reference variable, and study characteristics of employment situation as a functions of the interval since that time. No other time or longitudinal dimension need appear, thus greatly simplifying data treatment and analysis. Over the limited time-span of interest (up to seven ECHP waves), an individual's information on (a) highest level of education/training completed, (b) current economic activity, and (c) any covariates of interest at each wave can be seen as a separate data point in this analysis - thus increasing the number of observations available. This information is treated as if it reflected the experience of real cohorts defined solely by the time interval (b-a), irrespective of the particular wave from which it comes.

² BHPS missed an important variable used in our analysis concerning ILO labour force status. We have estimated this on the basis of the corresponding variables in BHPS based on the self-declared concept, and the two types of variables both recorded in the UK-ECHP survey.

2.3 EVALUATION AND CHARACTERISTICS OF THE SAMPLE

Table 2.1 reports the number of individuals present at least in one wave in the sample, the number of individuals with “consistent” information utilised in the analysis of this paper, and the percentage of “lost” individuals. Germany (SOEP sample), Finland and United Kingdom (BHPS sample) are those with a loss higher than 10 percent. Moreover, in the German sample a large proportion of individuals in the first wave do not have information on the date of achievement of the highest level of education; those individuals have not been automatically excluded in our analysis, since we need to exclude only the *events* for those waves where this information was not available. This fact can explain the lower “event unit per individual” mean reported in the table for Germany.

Finally, in this paper our analysis is confined to events occurring to individuals aged under 60 who are not “still at school”; this reduces the original full ECHP sample by about 28%, with reductions that vary from 21% in Germany to 33% in Greece and Austria.

Annex table A2.1 reports the number of unweighted units (events observed) disaggregated by two constructed variables: (a) the highest level of education/training achieved, and (b) the number of months elapsed since that level was achieved. We have grouped individuals into two categories according to the number of months elapsed: “younger” (1-60 months) and “older” (61+ months).

Table 2.1 about here

Table 2.2 compares some figures from our sample of “events” and the original ECHP wave 7 sample of individuals. (Henceforth, all figures are based on data weighted by original ECHP wave-specific cross-sectional weights.) Columns [1]-[3] report mean ages of all persons, persons “still at school”, and excluding “still at school”³. It is with col[3] that the mean ages of “events” in our combined sample, col[4], can be compared. The ratio of these two (col[5]) is remarkably close to 1.0 for all countries, apart from Germany where the reduction of sample size observed from Table 2.1 seems to be selective.

Table 2.2 about here

Annex table A2.2 show full distribution of the above mentioned population by age. It contains four panels. The first three concern the original ECHP data set, wave 7. The last one concerns our working sample of events.

Panel 1 simply reports age distribution of the ECHP wave 7 population by country; panel 2 reports percentages of the population still “at school” disaggregated by age group; in some countries (Denmark, Ireland, Belgium and particularly Finland) there is a non-negligible proportion of individuals “at school” in high age categories, probably undertaking vocational training courses. Panels 3 and 4 demonstrate the close agreement of the age structure of our sample of events with that of the ECHP wave 7 sample of individuals.

Table 2.3 shows the percentage “young” in the population classified by age, i.e. the proportion in each age group who have completed education/training within the preceding 5 years. These provide a most important indicator of differences among the countries of the spread of education/training to higher ages (“life-long learning”). Several patterns can be identified. (a) Countries where a *majority* (50-60%) of those aged 25-29 have had recent education/training; these include Germany, Belgium, Denmark, and above all Finland where 20-30% have been in education/training even at the highest ages up to 55-59. (b) In France and Spain, a third (30-35%) of the 25-29s have been in recent

³ Age of course refers to that at the moment of observation and not at the time of completion of education/training.

education/training. Among the remaining countries, this proportion is mostly in the range 20-25%. Among these, (c) high levels of participation are nevertheless sustained to high ages (10% or more even among those aged 35-39) in Italy, Austria and the UK, while (d) there is little sustained education/training beyond age 25-29 in Portugal, Ireland, and especially in Greece.⁴

It is also instructive to note how the population is distributed over various categories used in the analysis. Annex table A2.3 shows weighted relative sizes of the analysed population (of "events" observed during waves 1-7) disaggregated by education level and gender. Levels vary very much among countries; tertiary level of education (level 1) is common in Germany, Denmark, Belgium, UK and Finland (at least 40% of units), while percentages are much lower in Italy, Portugal and Austria.

In each country the gender partition is between 48 and 52, except in Germany where we observe an abnormal predominance of males (54%) which does not reflect well the proportion in the original UDB data set: again it seems that our German working data set is somewhat selective. The second panel reports the percentage of individuals belonging to the "young" group in each category.

The analysis of characteristics of "young" units is carried out also in Table 2.3; here percentages are reported by age categories.

 Table 2.3 about here

3. EDUCATION AND EMPLOYMENT

This section proposes and applies a methodology for exploring educational and employment differentials and the relationship between the two. In studying school-to-work transition, our focus is on the situation of persons who have recently completed a relevant education or training course. The last subsection briefly explores employment-educational differential by income level.

3.1 PREVAILING LEVELS OF EDUCATION AND TRAINING

How do those who have recently undergone a "school-to-work" transition differ from the general population in the level of education or training received? What kind of such differentials exist within and between countries? Are there significant gender differentials? It is necessary to explore these patterns as the necessary background. In this subsection, we also describe a methodology which can illustrate important aspects of these patterns clearly and simply.

Consider a set of population groups classified by level of education/training completed into three categories: say, with percentages L_1 , L_2 and L_3 , from the highest to the lowest level. A 'score' computed as a weighted sum of these proportions, with more weight given to higher levels, would be indicative of differences in the overall level of education among the population groups. For this purpose, we have used a score defined as $S = 2 * L_1 + L_2 = 100 + (L_1 - L_3)$. These scores, classified into 36 categories by county (total, male, female), are shown in Table 3.1. It is convenient to rescale these to the range (0-100) over the categories, giving an index $Y_i = 100 * (S_i - S_{min}) / (S_{max} - S_{min})$ for category i , where the max and min values are defined over the range of categories being compared.

In the context of school-to-work transition, our primary objective is to compare the situation of (1) "younger" persons who have recently (taken here as within past 5 years) completed a relevant education or training course, with (2) "older" persons who have not done so. For each of these subgroups in each i , we can compute education level scores (S_{1i} , S_{2i}) and take their ratio or

⁴ The UK pattern is rather exceptional, however, in that despite the large decline in this proportion between ages 20-24 and 25-29 (as in the other countries of this group), a high level (10% or over with recent education/training) is nevertheless sustained at all ages, much like group (a).

difference, respectively $R_i=(S_{1i}/S_{2i})$ or $D_i=100-(S_{2i}-S_{1i})$, as a score measuring the (1):(2) differential. The ratio generally provides a more sensitive measure, but the difference measure is preferable when small denominators or negative quantities are involved.⁵ As before, it is convenient to normalise these measures such as $X_i = 100 * (R_i - R_{min}) / (R_{max} - R_{min})$, with the min and max values defined over the range of i values of interest. Higher values of X indicate that the educational position of the “younger” group is better (or less disadvantaged) compared to the “older” group.

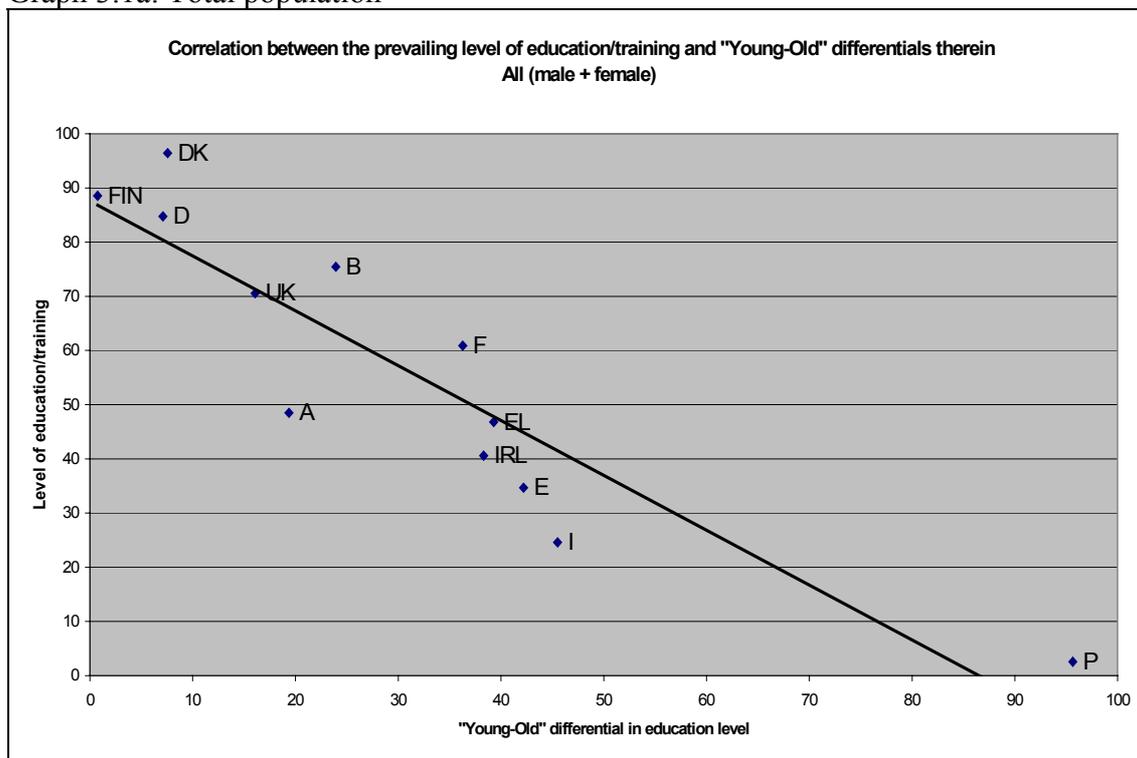
The results in Table 3.1 and Graph 3.1a indicate a very large negative correlation (-0.9) between (Y_i, X_i) , implying a substantial narrowing of the large national differences (in Y_i) when we consider the younger population. This reflects the historical trend of narrowing national differentials among EU countries, but is important to emphasise that this is also reflective of self-selectivity of the “younger” group in relation to education/training. This self-selectivity tends to be stronger where the undertaking of education/training tends to be concentrated at lower ages (e.g. Portugal; see Section 2), and weaker when that is spread out over a wide age range (e.g., Finland).

In any case, the important point here is that national differences in the achieved educational level are much smaller among the “younger” groups than the overall national differences.

Graphs 3.1b and 3.1c report the relation between (Y_i, X_i) , respectively for males and females; the strong pattern is also present here.

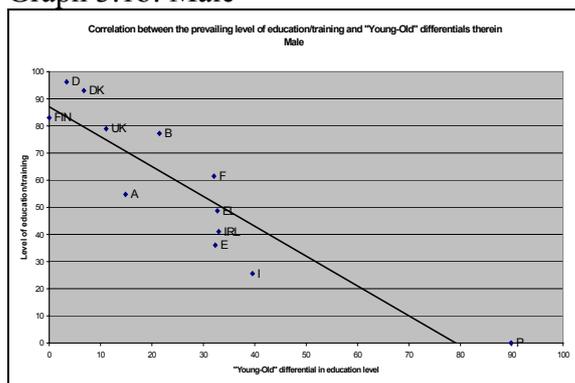
 Table 3.1 about here

Graph 3.1a: Total population

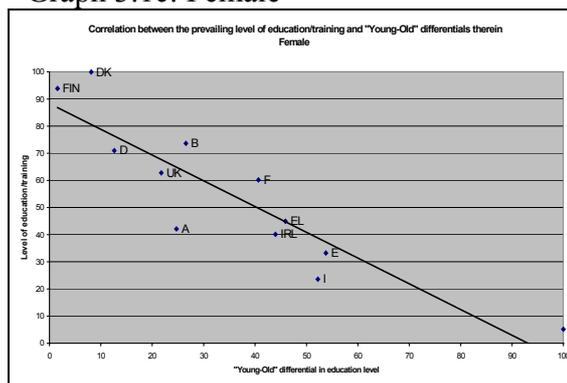


⁵ We use these measures alternatively, for instance taking ratios in Table 3.1, but differences in Table 3.2.

Graph 3.1b: Male



Graph 3.1c: Female



3.2 THE EMPLOYMENT SITUATION

How do those who have recently undergone a “school-to-work” transition differ from the general population in their employment situation? What kind of differentials exist within and between countries? We describe the employment situation in terms of the following five indicators.⁶ With e , s and u , respectively, as the proportions employed, self-employed and unemployed in the working age population (z) (taken here as aged 16-59),

%I inactivity rate	% economically inactive of the working age population, $=1-(e+s+u)/z$
%U unemployment rate	% unemployed of the economically active population, $=u/(e+s+u)$
%S self-employment rate	% self-employed of the working population, $=s/(e+s)$
%P part-time work rate	% working part-time (p) of the working population, $=p/(e+s)$
%T temporary employment rate	% of the employed population working without a permanent contract and/or working part-time (t), $=t/e$

In ECHP, economic activity has been recorded using two concepts: using the standard ILO definitions, and in terms of self-declared status. We have computed the results for both these types of measures. Generally, the differences in the conclusions are small, especially in relation to the most important indicator (%U), and therefore we mostly have reported results only for the ILO measures. Table 3.2 again considers the 36 population categories, by country (total, male, female). For *each* of the employment situation rates, such as %U, we can construct a score

$$S_i = 100 * (U_{\max} - U_i) / (U_{\max} - U_{\min}),$$

normalise to the range (0-100) over the population categories.⁷

Next, in order to summarise the overall employment situation of groups, we have used a weighted index combining the different employment measure (k)⁸: $Y_i = \sum_k W_k \cdot S_{ki}$, $\sum_k W_k = 1$.⁹

The choice of the weights is necessarily subjective. However, clearly unemployment (U) in the present context is the most important indicator; the next in importance is perhaps the indicator of the absence of full-time work with a regular or permanent contract (T) for those who have obtained employment. Consequently, we have give a weight of **0.5** to S_U , **0.2** to S_T , and **0.1** to each of the

⁶ In previous Eurostat work (Statistics in Focus), seven measures of the employment situation have been analysed as functions of time since first leaving continuous education. In addition to the above five analysed here, these include employment in the service sector and an hierarchical index of occupational status.

⁷ Note that while the original rates (U etc) indicate a negative (unfavourable) situation, the corresponding scores as defined above are positive (favourable): a score of 100 means the most favoured category, and 0 the least favoured.

⁸ Note that such combining requires different measures to be uniformly rescaled, to a common range of values such as 0-100 above.

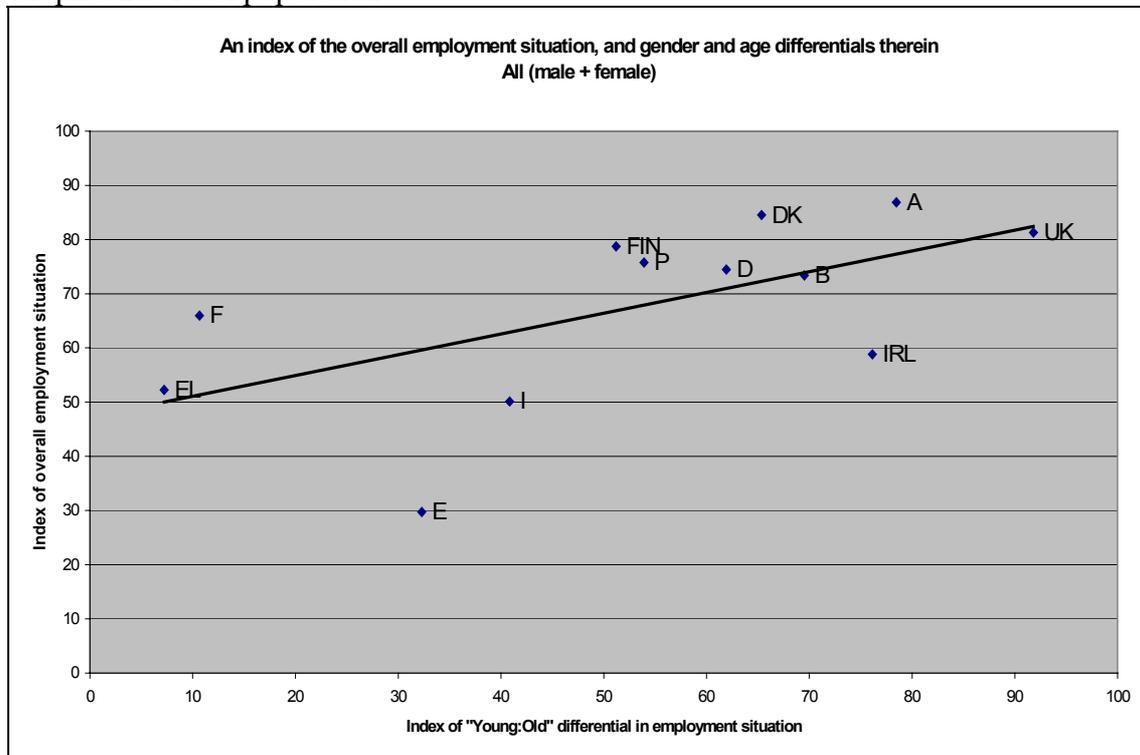
⁹ At the individual level, with I, U .. treated at dichotomies, their weighted sum would provide a “fuzzy” measure of the individual’s employment situation. However, individual-level analysis is not pursued here.

other score S_i , S_S and S_P . Table 3.2 shows the indices so constructed by country (total, male, female). Again, in the context of school-to-work transition, our objective is to compare the situation of “younger” persons who have completed education/training with past 5 years, with that of the remaining “older” persons who have not done so. For these two subgroups in each i , we compute weighted employment situation scores (S_{1i} , S_{2i}) and take a measure of their difference, $D_i = 100 - (S_{2i} - S_{1i})$, as a score measuring the “Y-O” differential. As before, it is convenient to normalise these measures such as $X_i = 100 * (D_i - D_{min}) / (D_{max} - D_{min})$, with the min and max values defined over the range of i values of interest. Higher values of X indicate that the employment situation of the “younger” group is better (or less disadvantaged) compared to the “older” group.

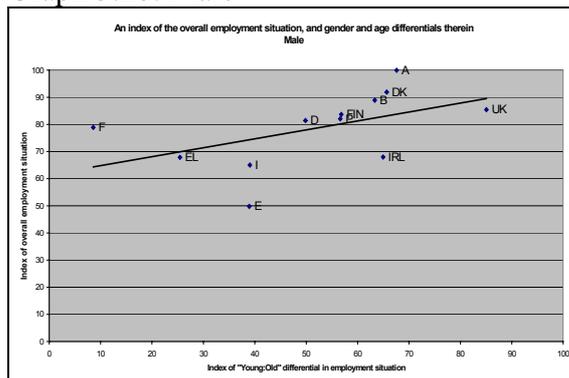
The results in Table 3.2 and Graph 3.2a indicate a positive correlation (0.5-0.6) between (Y_i, X_i) . This implies that in countries (and in subgroups by gender, see Graph 3.2b-males and Graph 3.2c-females) where the overall employment situation is already less favourable - Italy, Greece and especially Spain - the disadvantage of the “younger” population tends to be accentuated due to the adverse “Young:Old” differential in the employment situation.

 Table 3.2 about here

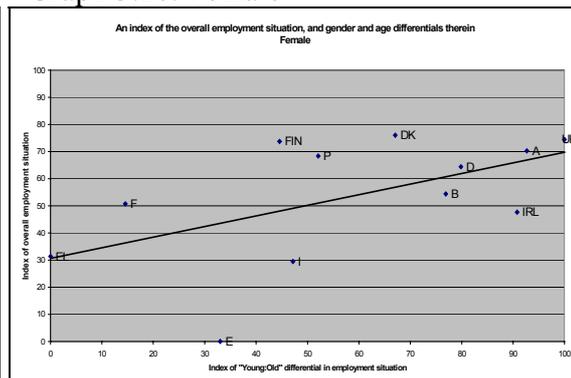
Graph 3.2a: Total population



Graph 3.2b: Male



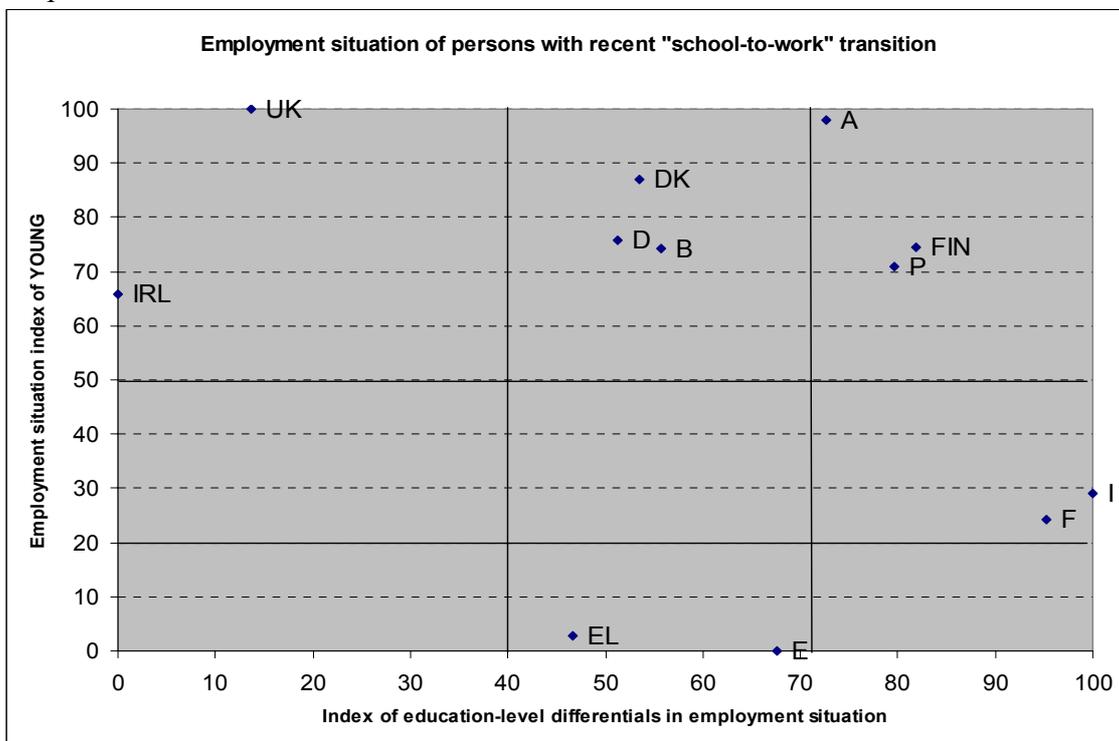
Graph 3.2c: Female



3.3 ASSOCIATION BETWEEN EMPLOYMENT SITUATION AND EDUCATIONAL LEVEL

The employment situation of those with low levels of education/training can be expected to be worse than that of the better educated and trained. But how big are these differences? Do they relate to national differences in the overall employment situation? Table 3.3 and Graph 3.3a explore the association between the level of education and the employment situation in general, preliminary terms. The analysis is restricted to the “younger” population of interest in the study of school-to-work transition. Using the same methodology (and weights), we compute weighted score (S_i), and then the index of overall employment situation (Y_i) in each country (range 0 least favourable, to 100 most favourable among the countries). Similarly computed weighted scores for the two extreme groups by level of education, S_{1i} (highest) and S_{3i} (lowest), are differenced to obtain a score summarising employment situation differentials by level of education, $D_i=100-(S_{3i}-S_{1i})$; these scores are normalised to corresponding indices X_i as before.

Graph 3.3a



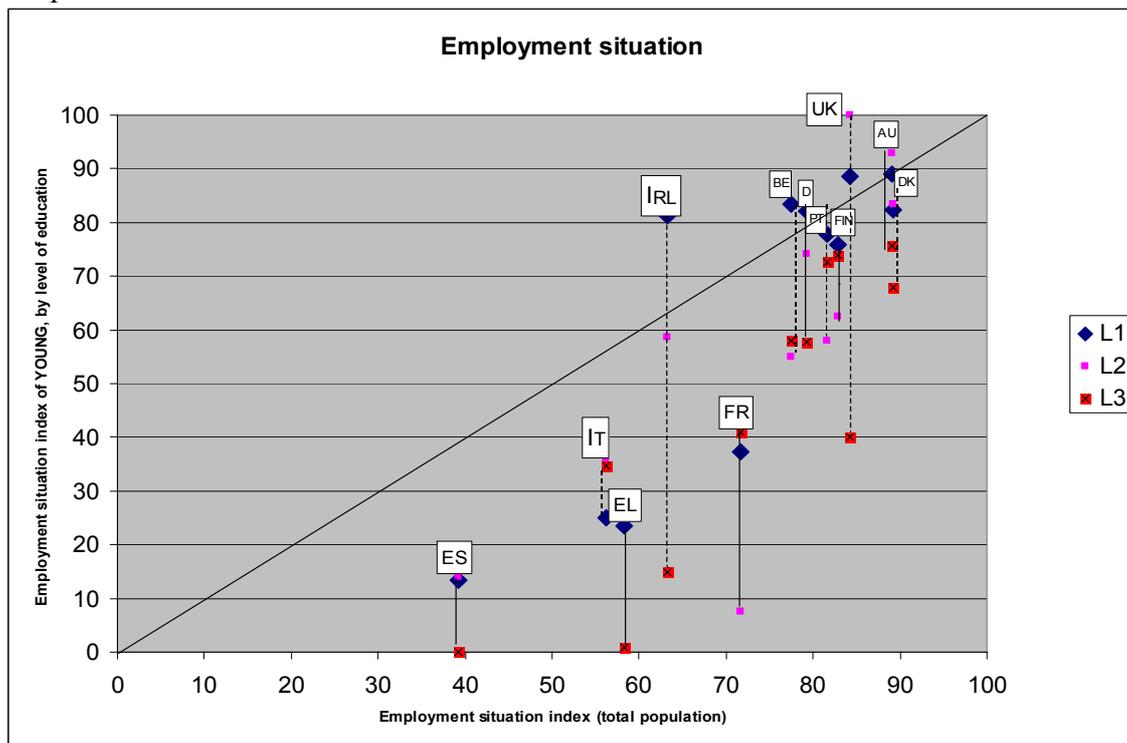
Higher values of X indicate smaller differentials (more equality) in the employment situation by differences in the recently completed level of education/training. The results indicate a negative but weak correlation (-0.3) between (Y_i, X_i). In fact, countries form fairly distinct clusters:

Cluster	Employment situation index (Y)	“Equality” index (X)
A, FIN, P	H(igh)	H
DK, D, B	H	M(edium)
I, F	M	H
UK, IRL	H	L(ow)
EL, E	L	M

 Table 3.3 about here

Graph 3.3b shows in more detail the information summarised in the previous graph. As before, Y-axis shows an index reflecting the overall employment situation of the “young”- persons who have completed a relevant education/training course within past 5 year – but separately for the three levels of qualification.¹⁰ The same index for the total population of each country is shown on X-axis. Hence the actual employment situation of the young by education/training level can be seen against that of the general population in each country. Points below the 45^o line imply relative disadvantage of the former, as in the case of Spain, Greece, Italy, France, and also, the least educated/trained in Ireland and the UK.

Graph 3.3b



For a given country, the spread of the index from the highest to the lowest level, (L1-L3), indicates the magnitude of the disparity by education/training level among the young. The UK and Ireland are distinguished by the largest disparity of this type, as already seen in Graph 3.3a. In fact, the highest education/training level does not always go with the best employment situation, as for instance in the case of Italy and France.¹¹ The other country-clusters can be identified as in the previous graph. In a number of countries, while the average employment situation of the young is less favourable than the overall national situation, better educated/trained young nevertheless tend to do better than the general population.

¹⁰ The previous graph is more concise (it can easily display many more countries or population groups); 3.3(b) contains more information. Note that, as explained earlier, all such indices have been constructed as a linear transformation of the actual rates of different employment measures (unemployment, inactivity, ...). However, for convenience the final indices are scaled to be in the range (0-100, least to the most favoured) over the particular set of populations categories of interest in the comparisons presented in each table or graph. Hence the scaling in graphs 3.3(a) and (b), though close, is not identical.

¹¹ Of course such a “reversed pattern” is possible and may be real, but smallness of the sample sizes available should also be kept in view. It implies a high value of the index of ‘the relative position of the least educated’ shown in Graph 3.3(a), again in the case, for instance, of Italy and France.

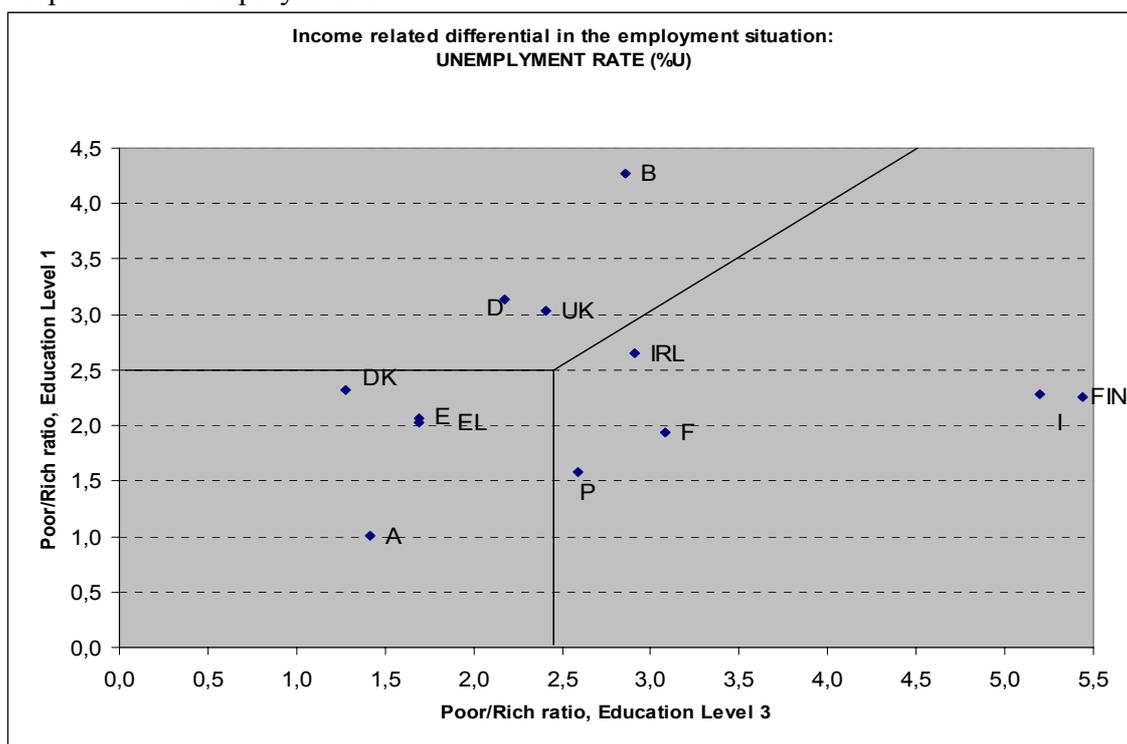
3.4 POOR:RICH DIFFERENCES

After having completed a course of education or training, does the employment situation depend - even for a given educational level achieved - on the individual's income level? How do any differences between poor and rich vary by the level of education or training achieved?

The analysis in Table 3.4 is restricted to the "younger" population, i.e. persons who have recently completed a relevant education or training course within past 5 years. To identify income differentials, we have ranked these individuals within each country according to the level of their equivalised household income, and took the bottom 25% as the "poor" for the purpose of this comparison.¹²

There are indeed large Poor:Rich differentials in all countries, in all indicators of the employment situation of individuals who have recently (within past 5 years) completed an educational/training qualification and have potentially entered the labour market; and furthermore, this applies in most cases when the level of education/training completed is controlled. This is as may be expected, but the magnitude of the differentials remains remarkable. For instance, the unemployment rate among persons in school-to-work transition is 4 times higher for individuals from poorer households in Ireland and Belgium, 3-4 times higher in UK, Finland and Italy, 2-3 times in Germany, France and Portugal, and below 2 times in only the remaining countries, with the lowest value (1.6 times) in Austria; the simple average over 12 countries is 2.7 times. The overall pattern is essentially the same within each level of education, though individual figures at the country level are subject to fluctuations due to smallness of the sample sizes.

Graph 3.4a: Unemployment rate



Graph 3.4a compares the Poor:Rich differences in the unemployment rates by country for the highest and the lowest levels of education/training achieved. The situation of counties falls into

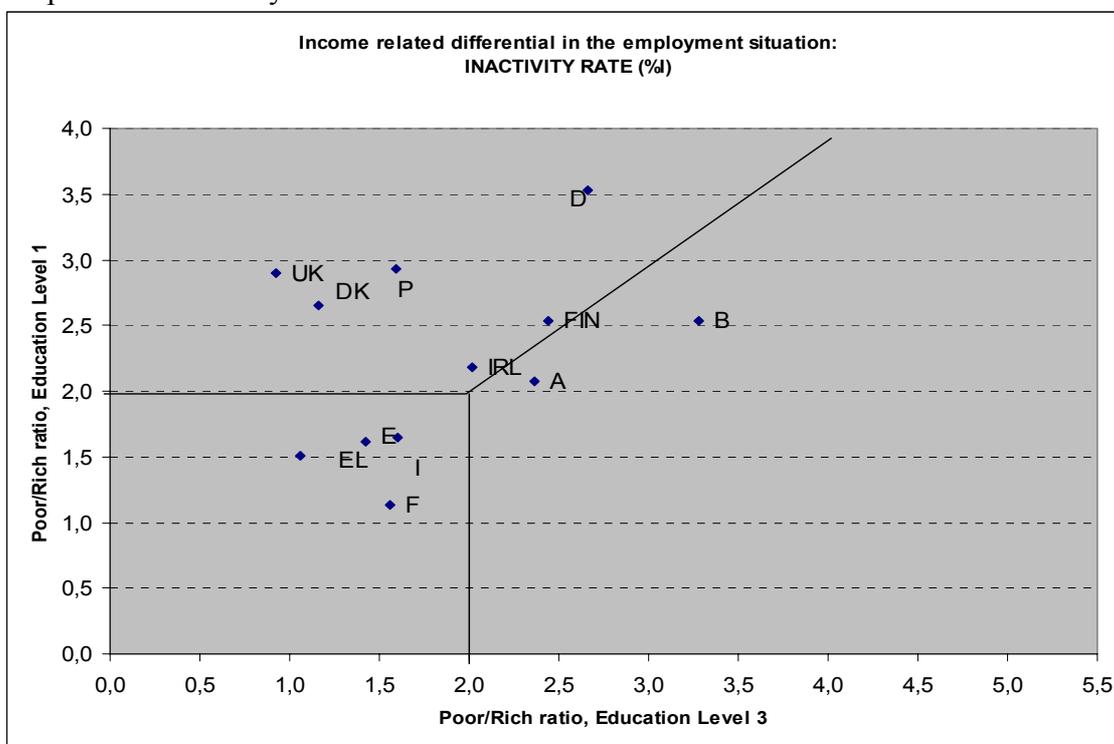
¹² It is necessary to correct for monetary inflation and changes in the levels of income in real terms over time in pooling data from different waves. A relatively simple ways of doing is to identify the bottom 25% for each wave separately before pooling the data for combined analysis. A more general procedure, applicable to time-pooled analysis of other aspect of the income distribution as well, would be to first convert all income amounts into positions in the income distribution within each wave separately. By an oversight, this refinement has not been included in the results presented here, in that the bottom quartile has been computed from pooled incomes in the original amounts reported in each wave.

three clusters in terms of the Poor:Rich ratio in unemployment rates: (a) ratio ≤ 2.5 at all education levels, A, EL, E, and DK, with P at the margin; (b) more extreme income differentials at the highest level (L1), B, D and UK; and (c) more extreme income differentials at the lowest level (L3), FIN, I, F, with IRL at the margin.

 Table 3.4 about here

Similar differentials are observed in other employment related indicators. Inactivity rate among persons in school-to-work transition is more than twice higher for individuals from poorer households in the UK, Belgium, Ireland Germany and Finland. The pattern differs by level of education (Graph 3.4.b). I, F, E and EF form a group with the smallest income differential in activity rates at all education levels.

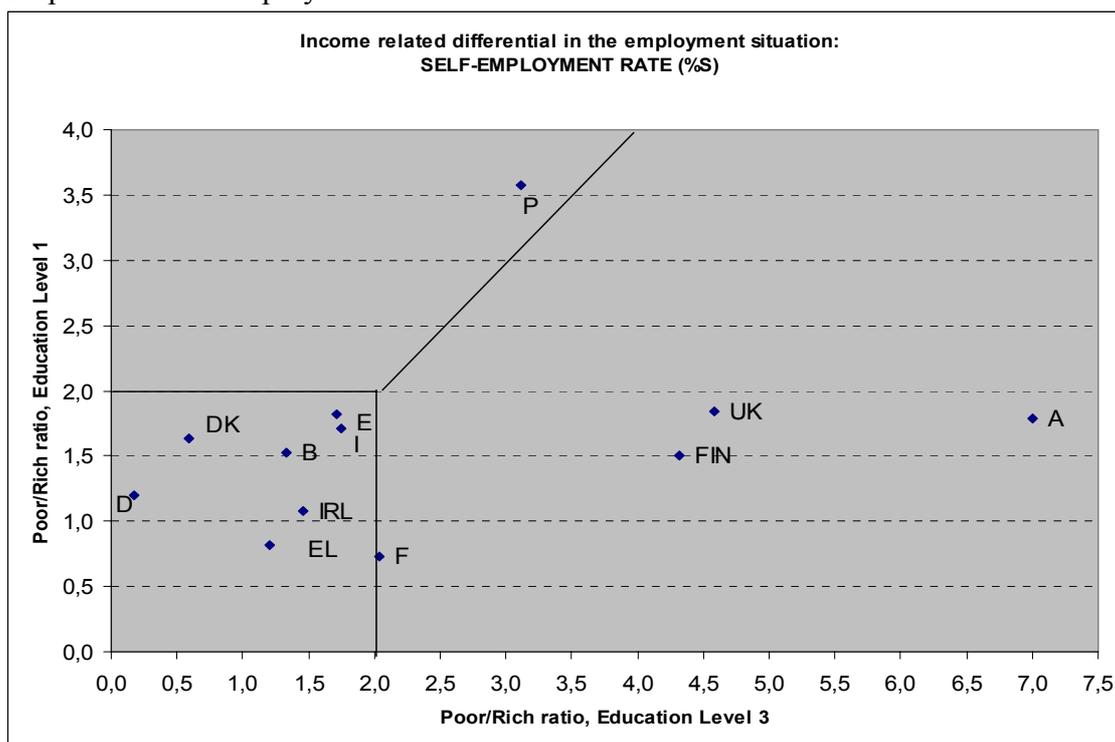
Graph 3.4b: Inactivity rate



Self-employment rate for the poorer population is three times higher than that for the richer in Portugal, twice as high in Italy and France, and largely absent in some countries such as Greece. In Austria, Finland and the UK, income differentials in self-employment rates are markedly higher among lower education groups (Graph 3.4.c).

In the discussion throughout, we have referred to employment variables as measured according to ILO concepts and definitions. We have examined, but not reported here, alternative measures based on the ECHP respondents' self-assessment. As an exception, Table 3.4 also presents figures based on this alternative concept. Overall, the results are very similar across countries as concerns unemployment rates, irrespective of which of the two concepts are used. There are some differences in the results for activity and self-employment rates: the results are similar but the observed differential are a little less marked using the self-assessment measures.

Graph 3.4c: Self-employment rate



4. EMPLOYMENT SITUATION FOLLOWING EXIT FROM EDUCATION/TRAINING

As seen in the preceding section, the employment situation of “younger” persons who have completed a relevant education or training course recently (within past 5 years), is considerable worse than that of the general working-age population. This applies not only in relation to employment, but also in relation to other indicators of the employment situation. It applies generally across countries, by gender, by level of education, and more forcefully in the case of persons from poorer households. In this section, we look at the employment situation following completion of an education/training course from a more dynamic perspective, *as a function of the time elapsed since exit from education/training*. How does the employment situation look after 1, 2 3... years? Does it begin to resemble that of the general population after a relatively long period such as 5 year? This section examines main differentials in the patterns over time by country, gender and level of education/training. The following section will examine these in more detail.

4.1 TRENDS IN UNEMPLOYMENT

During the first year following the completion of education/training (i.e., after an average duration of 6 months), around 15% of males and 25% of females are reported to be unemployed. Similar female:male differences in the unemployment rate also exist in the general population, but the here the *actual unemployment level* is two and a half (2.5) times higher than the general level.¹³ Even after an elapse of 4-5 years following the completion of education/training, unemployment rates remain 50% higher than those at the general level.

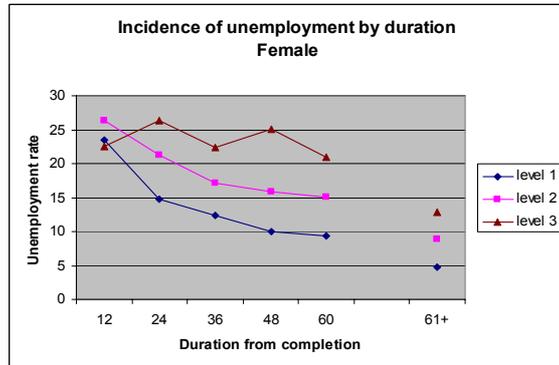
¹³ Throughout we indicate the overall situation on the basis of simple averages of the figures over individual countries. This gives an equal weight to each country, irrespective of its population size, and provides a convenient and appropriate summary of the national patterns. As an alternative to treating country as the unit, national data and results can be weighted in proportion to population size; that would provide the correct picture as it applies to the population of individual persons in EU. Apart from simple averaging across countries, all figures in the individual cells of the tables are of course based on weighted data, using the wave-specific individual weights provided in ECHP-UDB. We have not adjusted these weights for the added non-response involved as a results of missing data on the required variables in the analysis of school-to-work transition using data pooled over 7 waves.

 Table 4.1 about here

Graphs 4.1a: Male



Graphs 4.1b: Female



Graphs 4.1a and 4.1b show the pattern over time by gender and level of education/training, again averaged over countries. These provide a useful indication of the situation despite the limitation of such simple averaging. For the highest education/training group, there is a consistent and substantial improvement over time, though the unemployment levels for the “young” still remain notably higher than those prevailing for the population as a whole. The pattern holds for both males and females. For the intermediate education/training group, the improvement with time is somewhat less marked, but still quite significant and consistent – especially among females. By contrast, for those with the lowest level of education/training, there is little or consistent improvement with time for females, and for males the situation appears even to get worse! The differences with the general population at the same (lowest) education/training level remain very large even after 5 years. This may well reflect a worsening historical trend for the least educated – especially among males, though the generally high levels of unemployment among females should be kept in mind in this examination of patterns and trends.

It is also necessary to keep in view differences between national situations. Detailed examination is limited by the small sample sizes available. Nevertheless, the remarkable similarity in the situation of many countries is illustrated in Table 4.2. The figures have been extracted from the more detailed Table 4.1. We have taken the four countries with the highest levels of unemployment among the “young”, and aggregated over levels of education/training. Panels show unemployment measures for males and females, and the corresponding female:male ratio. Except for the last two columns of each panel, we show the ratio with the corresponding average rate for the “young” (completed education/training within past 5 years) as the base, so as to illustrate the patterns over time. The last two columns show the actual rates for the “young” and the rest of the working-age population, so as to keep in view the high levels of unemployment prevailing. In the case of Spain, there is no improvement in the situation of males following exit from education/training over the 5-year period, and only small improvement in the situation of females. The improvement with time is the most marked in the case of France, for both males and females. However in all cases, the situation of the “young” remains unfavourable after 5 years of exit from education/training compared to the rest of the population in the country. As to female:male differentials, while the situation of females remain worse in absolute terms, in *relative* terms it tends to improve over time following the exit from training, and after 4-5 years is better than that among the rest of the population as concerns the unfavourable female:male differentials.

 Table 4.2 about here

4.2 INACTIVITY AND SELF-EMPLOYMENT RATES

Annex Tables A4.1 and A4.2 provides detailed results for two other indicators of the employment situation: inactivity rate (%I) and self-employment rate (%S) defined earlier. We will not comment on these, except very briefly.

Traditionally, inactivity rates are of course much higher among females than males. Simply averaging the overall rates over countries, “older” females (i.e., those of working ages, who have not completed an education/training course during past 5 years) are 3.7 more likely to be economically inactive compared to males. Controlling for the level of education/training completed, the highest figure is for the intermediate level at 4.3. Among the “younger” groups, with education/training completed within past 5 years, the female:male differentials are greatly reduced: on the average, females are only 1.2 times as likely to be economically inactive as males in the same situation. Furthermore, these differences tend to vary inversely with the time since exit from education/training: practically no difference during year 1, the female:male ratio in inactivity rates increasing to 2.0 by year 5, reflecting a proportion of women leaving the labour force. The patterns differ by level of education.

Level 1: following completion of education/training at the highest level, inactivity rates fall sharply among both males and females (are nearly halved) from the first to the second year, but thereafter the fall in the case of females is considerably less marked.

Level 2: for those with intermediate level of education/training, there is little change with time among females, but a substantial – though less marked than the previous case – decline in inactivity rate among males.

Level 3: for those with the lowest level of education/training, there is little change with time among males, while inactivity rates actually increase with time among females.

As to self-employment rates among working persons, overall the “young” differ little from the general population, and among the former, there is little change with time interval since exit from education/training, except for some increase with time among males with the lowest level of education/training. In most groups by country, level of education and duration since exit from training, males are substantially (often 50-100%) more likely to be in self-employment, as is well known.

5. SCHOOL-TO-WORK TRANSITION: A DYNAMIC PERSPECTIVE

Using and extending the methodology developed in the preceding sections, this section analyses the phenomenon of school-to-work transition more comprehensively, from a dynamic perspective in terms of time since the most recent completion of education and training and potential entrance into the labour market. Specifically, taking into account multi-dimensional aspects of the employment situation, we develop the concept of “employment poverty” to identify the most disadvantaged groups in terms of the level of education/training and time elapsed since it was achieved.

5.1 AN INDEX REFLECTING THE OVERALL EMPLOYMENT SITUATION

As explained in Section 3, data are available to consider several dimension of the employment situation of individuals and groups. Specifically, five indicators have been included, namely the rates (or condition, in the case of individuals) of: unemployment (U) among the economically active; economic inactivity (I) among those in the working age; self-employment (S) among those working; part-time work (P) also among the working; and temporary and/or part-time work (T) among those in employment. High rates (or incidence of) any of these generally reflects a negative employment situation. We convert each of these into a uniformly-scaled score (0-100), with a higher score a more advantaged position. These scores are shown in Table 5.1 for what we take as the most important dimension, namely unemployment, and in Annex Tables A5.1-A5.4 for other dimensions. These scores are similar to the ones in Table 3.2, except that here these have been

scaled to be in the range (0-100) over 216 categories by country, level of education and duration since (most recent) completion of education/training, and automatically also over 120 groupings of these categories, separately for each dimension of the employment situation. Using the same weights as in Section 3.2, namely 0.5 for unemployment, 0.2 for temporary employment, and 0.1 each for the other three dimensions, a single index reflecting the overall employment situation has been constructed. As noted, the choice of the weights is necessarily subjective, but not unreasonable in our view.

Table 5.1 about here

5.2 “EMPLOYMENT POVERTY” AT EU LEVEL

The index of overall employment situation may be scaled in two ways. One is to scale it uniformly (say in the range 0-100) across countries at EU level. The other is to scale it to be in a fixed range (say 0-100) separately within each country.

Scaled in the first way, the score reflects the position of each category at the EU level. The classification categories (by country, level of education and duration since completion of education/training, etc.) can be ranked according to the employment situation score.¹⁴

Treating the *classification categories as units of analysis*, we can determine the mean and median values, and define an “employment-poverty” line, such as 50%, 60% or 70% of the EU median score. Categories below that line may then be considered to be “employment-poor”. We have applied this treatment, as an illustration, to the present categories in Table 5.2 to identify employment-poor subgroups corresponding to three employment-poverty lines. Note that because of the common EU-level scaling of employment situation indices, this is akin to using a common EU poverty line.¹⁵

With three employment-poverty lines for illustration, the table also shows the observed “employment-poverty rates”, that is the proportion of categories judged to be employment-poor. (The rates are 15%, 19% and 23% for, respectively, the 50%, 60% and 70% of the EU median employment-poverty lines.) The rates are extremely high for Spain and Greece (nearly 80% and 60% respectively), reflecting the relatively employment-poor situation of these countries against a EU standard. The rates for France, Italy and Ireland are approximately in the 20-30% range. Figure 5.2a and 5.2b also show clearly which categories are affected and how the situation changes (generally improve) with increasing level of education and increasing duration since exit from education or training.

Furthermore, by altering the chosen employment poverty line, we can see which categories are at the margins and enter or leave the state of employment-poverty as the line is changed.¹⁶ What emerges from this analysis consists in marked differences by level of education and duration since exit from education or training.

Table 5.2 about here

¹⁴ Note that, as defined, higher values of the score reflect a positive situation, and in this respect the score is similar to “income” rather than “hardship”.

¹⁵ Here we have treated the categories as an unweighted sample, thus not taking into account the population size of individual categories.

¹⁶ Changes from 50% to 60% and from 60% to 70% lines are indicated with different symbols in Figures Table 5.2a,b.

5.3 “EMPLOYMENT POVERTY” AT COUNTRY LEVEL

Scaled to be in a fixed range (say 0-100) separately *within each country*, the index of overall employment situation reflects the relative position of each category within its own country. As before, the classification categories (by level of education and duration since completion of education/training, etc., within each country) can be ranked according to the employment situation score. Again, treating these as units of analysis, we can determine the mean and median values, and define an “employment-poverty” line, such as 50%, 60% or 70% of the national median. Categories below that line may then be considered to be “employment-poor”. As an illustration, this treatment has been applied to the present categories in Table 5.3 to identify employment-poor subgroups corresponding to three employment-poverty lines. Because of the country-specific scaling of the employment situation indices, this is similar to the common practice of analysing poverty in terms of national poverty lines.

With three employment-poverty lines for illustration, the table also shows the observed “employment-poverty rates” - the proportion of categories judged to be employment-poor – which happens to average 19%, 25% and 31% for, respectively, the 50%, 60% and 70% of the national median employment-poverty lines.) There is a greater variation in the national rates with lower employment-poverty lines, the national rates becoming more uniform as the line is raised, though the position of Portugal remains the best consistently.¹⁷ Note particularly the relatively low employment-poverty rate for Spain when a national rather than a EU line is used. This is indicative of the less unequal situation among categories within the country, despite the highly adverse situation of the country as a whole in terms of EU level standards.

 Table 5.3 about here

Figure 5.3a

GROUPS IN POOR EMPLOYMENT SITUATION - NATIONAL "EMPLOYMENT-POVERTY" LINES																										
Employment Situation "Poverty Line": overall employment situation score= 60% of median (over categories within each country)																										
Poor employment situation: "Poverty Rate" or "Headcount Ratio": proportion of categories with score below the MS "Employment Poverty Line"																										
	level 1						level 2						level 3						all levels						Overall EU (simple average)=	25%
	12	24	36	48	60	61+	12	24	36	48	60	61+	12	24	36	48	60	61+	12	24	36	48	60	61+		
D	L						X						X	L	L	L	L	X	X						39%	
DK	X												X	L				X	X						17%	
B							X	X						X		X	X								28%	
F	X						X	X	X			X	X						X						28%	
UK	L												X	L		X	X	X							28%	
IRL							X							X	X	X	X	X	X							33%
I	X						X									X	X		X						22%	
EL	X						X	X						L			X		X	L					28%	
E	X														L	X	X	X							22%	
P	L						X												X						11%	
A													L		X	X	X	X	X							28%
FIN								L								X	X		X							22%

¹⁷ The relative position of some countries changes rather significantly with changing line, such as Germany, but here there may also be some problems with the data set analysed, as noted in Section 2.

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Tab 2.1 Sample size

	Number of individuals		proportion excluded	Number of analysis units ("event observed")			
	in ECHP sample	available for analysis		total	mean per individual	data available	proportion excluded
D-SOEP	15.411	13.799	0,10	30.633	2,22	24.167	0,21
DK	7.198	6.716	0,07	25.704	3,83	19.039	0,26
B	8.018	7.643	0,05	35.593	4,66	24.168	0,32
F	17.183	15.501	0,10	72.001	4,64	51.470	0,29
UK-BHPS	12.244	10.733	0,12	55.504	5,17	41.238	0,26
IRL	11.826	11.298	0,04	44.960	3,98	32.474	0,28
I	21.580	20.903	0,03	105.309	5,04	76.984	0,27
EL	15.188	14.944	0,02	72.780	4,87	48.491	0,33
E	21.911	21.176	0,03	89.758	4,24	62.615	0,30
P	15.008	14.433	0,04	59.556	4,13	44.711	0,25
A	9.104	8.761	0,04	38.391	4,38	25.645	0,33
FIN	9.836	7.469	0,24	24.635	3,30	18.917	0,23
	164.507	153.376	0,07	654.824	4,27	469.919	0,28

Tab 2.2 Mean ages for major categories of the sample

	ECHP Wave 7			Analysed sample	
	all persons [1]	persons "still at school" [2]	excluding "still at school" [3]	all units ("events") [4]	ratio [4]:[3] [5]
D	38,6	22,7	40,2	37,4	0,93
DK	38,4	26,9	40,1	39,7	0,99
B	37,8	21,6	40,1	39,7	0,99
F	37,6			38,3	
UK	38,5	20,6	39,3	39,1	0,99
IRL	35,9	22,5	37,3	37,6	1,01
I	37,7	22,1	39,4	38,6	0,98
EL	37,5	20,4	38,7	38,6	1,00
E	35,9	21,7	38,3	37,4	0,98
P	36,2	22,0	37,7	37,2	0,99
A	37,4	21,3	39,3	38,8	0,99
FIN	38,7	25,4	40,5	40,5	1,00
simple average	37,5	22,5	39,2	38,6	0,99

"Younger" Persons who have completed some relevant education/training within past 5 years
 "Older" Persons not completing any such education/training within past 5 years

Table 2.3 Percentage "Young" in the analysed population

											Age means		
	<20	20-24	25-29	30-34	35-39	40-45	45-49	50-54	55-59		all units ("events")	"Younger" persons	"Older" persons"
D	89	91	59	44	22	13	9	8	4	36	37,38	27,70	43,30
DK	99	90	59	33	20	16	15	12	8	30	39,70	31,57	43,21
B	70	80	49	15	12	10	8	6	2	19	39,69	30,32	42,30
F	75	77	36	9	5	4	4	3	1	18	38,31	25,69	41,74
UK	100	66	22	15	14	14	13	13	10	22	39,09	31,36	41,33
IRL	96	73	19	7	6	4	5	3	2	19	37,56	25,17	40,46
I	90	56	21	14	10	9	7	5	3	17	38,58	28,35	40,75
EL	92	65	21	5	2	1	1	0	0	14	38,62	22,68	41,32
E	93	61	33	13	11	9	8	6	3	22	37,36	27,59	40,10
P	82	46	23	8	6	5	5	3	2	16	37,18	25,75	39,41
A	99	61	23	13	10	8	7	5	3	17	38,83	28,40	40,96
FIN	79	89	58	29	22	22	26	31	25	34	40,54	36,71	42,80
simple average	88,7	71,3	35,1	17,1	11,7	9,7	8,9	8,0	5,4	22,1	38,57	28,44	41,47

Table 3.1 Correlation between the prevailing level of education/training and "Young-Old" differentials therein

T. Total population (A+B)

Distribution by level of education/training (L1-L3, highest to lowest)

	ALL (Male+Female)							MALE							FEMALE						
	L1	L2	L3	score	index T	L1	L2	L3	score	index T	L1	L2	L3	score	index T						
D	54	18	28	100	127	85	61	18	22	100	139	96	46	19	35	100	111	71			
DK	47	46	7	100	139	96	43	50	7	100	136	93	50	43	7	100	143	100			
B	41	35	25	100	116	75	41	36	23	100	118	77	40	34	26	100	114	74			
F	30	40	30	100	100	61	28	44	28	100	101	62	32	36	32	100	99	60			
UK	44	23	33	100	111	71	49	22	29	100	120	79	39	24	37	100	102	63			
IRL	18	41	41	100	78	41	20	39	42	100	78	41	17	42	40	100	77	40			
I	10	40	50	100	60	25	10	40	49	100	61	26	9	40	51	100	59	24			
EL	26	33	41	100	84	47	26	35	39	100	87	49	26	31	43	100	82	45			
E	24	23	53	100	71	35	24	24	52	100	72	36	24	22	54	100	69	33			
P	10	15	75	100	35	3	9	15	76	100	32	0	11	16	73	100	38	5			
A	8	71	22	100	86	48	8	77	15	100	93	55	8	64	28	100	79	42			
FIN	45	41	14	100	131	89	39	46	15	100	125	83	51	35	14	100	137	94			
mean=					95	56					97	58					93	54			
max=					139	96					139	96					143	100			
min=					35	3					32	0					38	5			

For overall (across panels ALL, MALE and FEMALE) score of educational level: max=143, min=32. For the index: max=100, min=0.

A. "Young Persons" (persons who have completed education/training within past 5 years)

	ALL (Male+Female)							MALE							FEMALE							
	L1	L2	L3	score	ratio (A/B)	index (A/B)	L1	L2	L3	score	ratio (A/B)	index (A/B)	L1	L2	L3	score	ratio (A/B)	index (A/B)				
D	41	38	21	100	120	0,92	7	44	36	20	100	124	0,83	3	38	40	22	100	116	1,06	13	
DK	39	54	6	100	133	0,94	8	35	58	7	100	127	0,92	7	44	51	5	100	138	0,95	8	
B	58	30	12	100	146	1,34	24	57	30	14	100	143	1,28	21	60	30	10	100	150	1,41	27	
F	62	23	15	100	147	1,65	36	58	24	17	100	141	1,55	32	66	21	13	100	153	1,76	41	
UK	33	57	10	100	123	1,15	16	33	56	11	100	122	1,02	11	33	58	9	100	124	1,29	22	
IRL	35	47	18	100	117	1,70	38	32	46	22	100	111	1,57	33	38	47	15	100	123	1,84	44	
I	18	62	20	100	97	1,88	46	16	60	23	100	93	1,73	40	19	65	17	100	102	2,05	52	
EL	43	47	11	100	132	1,73	39	38	49	13	100	125	1,56	33	46	45	9	100	138	1,89	46	
E	35	39	26	100	109	1,80	42	30	40	30	100	100	1,55	32	40	38	22	100	117	2,09	54	
P	22	39	40	100	82	3,13	96	18	37	44	100	74	2,99	90	25	40	35	100	90	3,24	100	
A	13	76	11	100	102	1,23	19	11	79	9	100	102	1,12	15	15	73	13	100	102	1,36	25	
FIN	32	44	24	100	109	0,77	1	27	49	24	100	102	0,75	0	38	39	23	100	116	0,79	2	
mean=					118	1,52	31					114	1,41	26					122	1,64	36	
max=	3,24				147	3,13	96					143	2,99	90					153	3,24	100	
min=	0,75				82	0,77	1					74	0,75	0					90	0,79	2	
Correlation between "index T" and "index A/B"=							-0,91															-0,90

B. "Other Persons" (persons who have not completed any education/training within past 5 years)

	ALL (Male+Female)							MALE							FEMALE						
	L1	L2	L3	score	L1	L2	L3	score	L1	L2	L3	score	L1	L2	L3	score					
D	61	7	31	100	130	71	6	23	100	149	50	8	41	100	109						
DK	50	43	8	100	142	46	46	7	100	139	54	38	8	100	146						
B	37	36	28	100	109	37	37	26	100	112	36	34	30	100	106						
F	23	44	33	100	89	21	49	30	100	91	24	39	37	100	87						
UK	47	13	40	100	107	54	12	34	100	119	41	14	45	100	96						
IRL	15	39	46	100	69	17	37	46	100	70	13	41	46	100	67						
I	8	35	56	100	52	9	36	55	100	54	8	35	58	100	50						
EL	23	31	46	100	76	23	33	43	100	80	22	28	49	100	73						
E	21	19	60	100	60	22	20	58	100	65	19	18	63	100	56						
P	8	11	81	100	26	7	11	82	100	25	8	11	80	100	28						
A	7	70	24	100	83	7	77	16	100	91	6	62	31	100	75						
FIN	52	39	9	100	142	46	45	9	100	137	57	34	10	100	147						
mean=					90					94					87						
max=					142					149					147						
min=					26					25					28						

Table 3.2 Constructing an index of the overall employment situation, and gender and age differentials therein

	Total sample						Score of other measures of employment situation											
	Unemployment rate (%U)			corresponding score			Inactivity rate (%I)			Self-employment (%S)			Part-time work (%P)			Temporary employment (%T)		
	Rate			T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
D	6	6	6	87	88	85	78	91	62	83	77	91	64	88	27	44	55	29
DK	5	4	5	93	96	89	92	100	83	93	87	100	74	96	48	56	67	43
B	6	4	7	89	95	81	60	87	34	75	71	80	61	97	13	50	72	22
F	10	8	13	70	80	57	57	78	37	86	79	94	73	96	43	56	67	42
UK	6	6	6	87	86	86	69	89	52	79	68	91	69	92	37	77	82	70
IRL	9	10	8	73	70	76	45	83	7	69	55	89	51	85	0	43	59	21
I	14	11	19	52	66	30	45	80	10	44	36	59	79	94	55	56	64	44
EL	10	7	16	68	84	43	39	81	0	5	0	15	83	94	65	46	48	43
E	18	13	26	33	54	0	45	83	7	53	47	62	74	92	41	14	21	0
P	5	4	6	91	95	87	68	87	48	50	48	52	87	98	73	50	54	45
A	4	3	5	97	100	93	68	91	44	77	77	77	67	100	23	79	100	52
FIN	9	8	10	74	77	70	83	87	79	82	74	90	85	94	75	83	93	73
max=	26			97	100	93	92	100	83	93	87	100	87	100	75	83	100	73
min=	3			33	54	0	39	78	0	5	0	15	51	85	0	14	21	0

	Total sample						Employment situation weighted score for groups by months since last education/training						Difference between scores of the groups			INDEX (X) of difference in scores of groups A and B		
	Employment situation measures weighted scores			INDEX (Y)			A. up to 60 months			B. More than 60 months			of the groups			of difference in scores of groups A and B		
	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F
D	75	81	66	74	81	64	68	69	67	79	88	66	88	80	101	62	50	80
DK	84	90	76	85	92	76	77	83	71	86	92	79	91	91	92	65	66	67
B	74	87	58	73	89	54	69	79	57	75	90	58	94	89	99	70	63	77
F	68	79	55	66	79	51	28	38	18	75	86	62	53	52	56	11	9	15
UK	81	84	75	81	85	74	87	88	86	79	83	71	109	104	114	92	85	100
IRL	61	69	52	59	68	48	60	62	58	62	71	50	98	91	108	76	65	91
I	54	67	36	50	65	29	33	44	19	59	71	41	74	73	78	41	39	47
EL	56	69	38	52	68	31	13	37	-7	62	73	47	51	64	46	7	25	0
E	36	54	11	30	50	0	12	32	-12	44	59	20	68	73	69	32	39	33
P	76	81	70	76	82	68	62	69	55	79	84	73	83	85	82	54	57	52
A	85	97	71	87	100	70	85	91	79	86	98	70	100	92	109	78	68	93
FIN	79	83	74	79	84	74	66	73	58	85	88	82	81	85	77	51	57	45
max=	85	97	76	87	100	76	87	91	86	86	98	82	109	104	114	92	85	100
min=	36	54	11	30	50	0	12	32	-12	44	59	20	51	52	46	7	9	0
mean				74	82	59										58	57	60

Correlation between INDEX (Y) and INDEX (X) =

0,60 0,50 0,54

Weights given to the various dimensions of the employment situation

unemployment 0.5; temporary or part-time employment 0.2; inactivity, self-employment rate and temporary work, 0.1 each.

Table 3.3 Employment situation of persons with recent "school-to-work" transition

	Employment-related rates					Normalised measures					Weighted score of overall employment situation				Corresponding INDICES	
	ILO measures			Job profile		%U	%I	%S	%P	%T	Total	Level 1	Level 3	differential		
	%U	%I	%S	%P	%T						T	L1	L3	100-(L1-L3) D	T	D
D	8	10	5	10	47	91	91	90	27	23	71	79	52	73	76	51
DK	7	8	4	11	35	96	98	97	26	50	80	81	56	75	87	54
B	9	10	10	11	35	84	92	57	23	50	70	79	56	77	74	56
F	24	34	3	13	44	21	16	100	0	29	28	34	42	108	24	95
UK	6	12	5	9	13	98	86	89	44	100	91	88	32	44	100	14
IRL	12	14	5	11	42	73	78	91	25	33	62	79	12	33	66	0
I	24	23	17	8	36	21	50	14	55	47	32	20	32	112	29	100
EL	29	40	19	8	46	0	0	0	51	26	10	21	-10	70	3	47
E	28	26	15	13	57	1	43	31	0	0	8	9	-5	86	0	68
P	10	22	11	4	43	79	55	54	100	31	67	76	71	96	71	80
A	6	7	8	8	21	100	100	68	59	82	89	84	74	90	98	73
FIN	13	13	8	7	27	69	84	69	63	69	70	76	73	97	75	82
max=	29	40	19	13	57	100	100	100	100	100	91	88	74	112	100	100
min=	6	7	3	4	13	0	0	0	0	0	8	9	-10	33	0	0
WEIGHT given to different measures in overall index:						0,5	0,1	0,1	0,1	0,2	correlation between indices=				-0,32	

Population: Persons who have completed a formal or vocational qualification within the preceding 5 years

%I inactivity rate (% economically active, of persons aged 16-59; ILO definition)

%U unemployment rate (% unemployed among economically active; ILO definition)

%S self-employment rate (%self-employed among working persons)

%P part-time rate (% part-time among working persons)

%T temporary employment rate (% temporary and/part-time among employees)

Table 4.1 School-to-Work Transition: Gender differentials in incidence of unemployment

UNEMPLOYMENT RATE

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	
MALE																												
D	11	7	6	3	3	6	2	13	9	12	8	6	10	6	11	7	5	7	15	9	10	11	7	8	5	5	8	
DK	14	9	3	2	4	7	3	5	5	3	3	3	5	4	5	5	3	0	0	3	4	8	6	3	2	3	5	
B	5	5	6	5	3	5	2	15	13	8	9	8	11	3	4	13	17	18	26	12	6	7	9	8	7	7	8	
F	32	26	14	10	5	19	3	26	33	31	26	14	26	5	32	19	16	14	21	20	8	30	26	19	16	11	21	
UK	15	7	3	6	8	8	4	4	3	9	9	5	4	3	18	16	14	21	22	18	12	6	5	7	9	11	6	
IRL	13	6	6	1	1	7	2	13	14	7	8	8	10	6	16	31	29	35	33	29	17	13	15	12	13	14	13	
I	34	28	16	14	8	22	3	23	20	18	17	16	19	7	11	11	17	25	29	19	11	23	20	18	19	19	20	
EL	22	14	18	12	8	14	3	27	28	22	22	21	24	6	14	15	15	14	23	16	6	24	19	19	17	15	18	
E	28	26	18	16	17	22	6	16	16	21	22	22	18	10	24	24	24	26	27	25	15	22	21	21	21	22	22	
P	15	4	5	0	0	6	1	25	6	13	7	5	11	4	6	10	5	9	7	8	4	16	7	8	7	5	9	
A	9	3	0	0	0	4	1	4	7	6	3	3	5	2	4	4	2	6	24	6	5	4	6	5	3	4	5	
FIN	8	10	5	8	5	7	4	14	19	17	9	15	15	7	10	12	15	21	10	12	20	11	14	12	11	10	12	
simple mean	17	12	8	6	5	11	3	15	14	14	12	11	13	5	13	14	13	16	20	15	10	15	13	12	11	11	12	
FEMALE																												
D	10	10	2	10	4	7	4	13	5	7	7	5	8	3	12	6	8	10	9	9	9	12	7	5	9	5	8	
DK	15	6	6	3	4	8	3	11	8	4	9	4	8	6	7	0	4	2	0	4	9	12	7	5	5	4	8	
B	9	8	7	3	4	7	2	24	22	16	14	13	19	9	15	34	11	30	29	23	11	13	14	10	10	9	12	
F	43	20	15	10	8	22	5	50	40	37	30	20	36	10	42	33	26	25	20	30	15	44	28	23	18	13	27	
UK	15	3	4	3	9	7	4	5	5	4	4	13	5	7	34	21	13	14	14	19	7	7	6	4	6	9	7	
IRL	12	2	4	5	4	6	2	25	17	13	10	7	16	6	17	48	36	32	14	30	15	18	14	12	11	7	13	
I	40	29	24	20	21	29	7	38	28	24	24	25	28	14	27	23	28	33	37	30	22	37	28	24	25	26	29	
EL	54	42	30	25	19	35	9	55	50	34	36	33	42	15	27	69	58	44	46	49	12	54	45	32	30	26	38	
E	49	34	29	21	26	34	12	42	35	41	34	38	38	21	49	45	44	49	41	45	29	46	36	36	31	33	38	
P	18	8	5	6	0	9	1	25	20	10	9	7	16	3	21	15	13	11	4	12	6	21	15	9	9	4	12	
A	6	1	10	3	0	4	3	9	10	3	2	4	7	3	10	8	11	20	9	11	6	9	9	5	4	4	7	
FIN	13	16	13	11	12	13	6	19	15	14	12	15	16	10	10	11	18	30	30	13	13	14	15	14	14	15	14	
simple mean	24	15	12	10	9	15	5	26	21	17	16	15	20	9	23	26	22	25	21	23	13	24	19	15	14	13	18	
FEMALE:MALE RATIO in unemployment rate																												
D	0,9	1,4	0,3	3,3	1,5	1,2	1,5	1,0	0,5	0,6	0,9	0,7	0,8	0,5	1,1	1,0	1,7	1,4	0,6	1,1	0,9	1,0	0,9	0,6	1,8	1,0	1,0	
DK	1,0	0,7	1,9	1,2	1,1	1,1	1,1	2,0	1,5	1,3	2,9	1,1	1,7	1,5	1,4	0,0	1,5	*	*	1,3	2,4	1,5	1,1	1,5	2,2	1,2	1,5	
B	1,8	1,5	1,1	0,7	1,3	1,4	1,2	1,6	1,7	2,1	1,6	1,7	1,7	2,7	3,7	2,7	0,7	1,7	1,1	1,9	2,0	1,7	1,7	1,2	1,3	1,3	1,5	
F	1,3	0,8	1,1	1,0	1,6	1,2	1,8	2,0	1,2	1,2	1,1	1,5	1,4	2,1	1,3	1,7	1,6	1,8	1,0	1,5	1,7	1,5	1,1	1,2	1,2	1,2	1,3	
UK	1,0	0,5	1,1	0,5	1,1	0,9	1,1	1,3	1,4	0,5	0,5	2,7	1,3	2,2	1,9	1,3	0,9	0,7	0,6	1,0	0,6	1,4	1,1	0,6	0,7	0,8	1,0	
IRL	0,9	0,4	0,7	4,8	2,7	0,8	1,1	2,0	1,2	1,9	1,3	0,9	1,5	0,9	1,1	1,6	1,3	0,9	0,4	1,0	0,9	1,4	0,9	1,0	0,9	0,5	1,0	
I	1,2	1,0	1,5	1,5	2,5	1,3	2,5	1,6	1,4	1,3	1,4	1,5	1,5	2,0	2,5	2,2	1,6	1,3	1,3	1,6	1,9	1,6	1,4	1,4	1,3	1,4	1,5	
EL	2,5	3,0	1,6	2,1	2,4	2,5	2,7	2,1	1,8	1,6	1,6	1,5	1,8	2,6	2,0	4,6	3,8	3,1	2,0	3,0	1,9	2,3	2,3	1,7	1,8	1,7	2,1	
E	1,7	1,3	1,7	1,3	1,5	1,5	1,9	2,6	2,2	1,9	1,6	1,7	2,1	2,1	2,0	1,8	1,8	1,9	1,5	1,8	2,0	2,1	1,7	1,7	1,5	1,5	1,7	
P	1,2	1,7	1,2	*	*	1,4	*	1,0	3,3	0,8	1,3	1,5	1,4	0,7	3,5	1,5	2,3	1,3	0,5	1,6	1,5	1,3	2,0	1,2	1,3	0,7	1,4	
A	0,7	0,4	*	*	*	1,1	*	2,3	1,4	0,5	0,7	1,3	1,5	1,5	2,7	1,8	6,2	3,2	0,4	1,7	1,3	2,0	1,4	1,0	1,4	0,9	1,5	
FIN	1,7	1,7	2,7	1,4	2,5	1,8	1,5	1,4	0,8	0,8	1,3	1,0	1,1	1,3	0,9	0,9	1,1	1,4	3,0	1,1	0,7	1,3	1,0	1,1	1,3	1,5	1,2	
simple mean	1,4	1,2	1,5	1,6	1,8	1,4	1,7	1,7	1,5	1,2	1,3	1,4	1,5	1,7	1,8	1,9	1,7	1,5	1,1	1,6	1,3	1,6	1,4	1,3	1,3	1,2	1,4	

Note: Figures not available or not shown: "*" denominator zero or very small (<1%); "X" suspected outliers because of very small sample size or other reason.

Table 4.2 School-to-Work Transition: Time trends in unemployment - for 4 countries with the highest rates

	Male										Female										female:male ratio																			
	Months since completed										Months since completed										Months since completed																			
	Relative to average 1-60					Rates					Relative to average 1-60					Rates					Relative to average 1-60					Rates														
	12	24	36	48	60	.1-60	61+	.1-60	61+		12	24	36	48	60	.1-60	61+	.1-60	61+		12	24	36	48	60	.1-60	61+	.1-60	61+		12	24	36	48	60	.1-60	61+	.1-60	61+	
E	1,0	1,0	1,0	1,0	1,0	1,0	0,5	22	12		1,2	1,0	1,0	0,8	0,9	1,0	0,6	38	22		1,2	1,0	1,0	0,8	0,9	1,0	1,1	1,7	1,9											
EL	1,3	1,1	1,1	0,9	0,8	1,0	0,3	18	5		1,4	1,2	0,8	0,8	0,7	1,0	0,3	38	12		1,1	1,1	0,8	0,9	0,8	1,0	1,1	2,1	2,2											
I	1,2	1,0	0,9	0,9	0,9	1,0	0,5	20	9		1,3	1,0	0,8	0,9	0,9	1,0	0,6	29	17		1,1	1,0	0,9	0,9	1,0	1,0	1,3	1,5	1,9											
F	1,4	1,2	0,9	0,7	0,5	1,0	0,2	21	5		1,6	1,0	0,8	0,7	0,5	1,0	0,4	27	10		1,2	0,8	0,9	0,9	0,9	1,0	1,5	1,3	1,9											
simple average	1,2	1,1	1,0	0,9	0,8	1,0	0,4	20	8		1,4	1,0	0,9	0,8	0,7	1,0	0,5	33	15		1,1	1,0	0,9	0,9	0,9	1,0	1,2	1,6	2,0											
For all levels of education/training combined																																								

Table 5.1 School-to-Work Transition: Level of Education/training and Unemployment

MEASURES OF EMPLOYMENT SITUATION: UNEMPLOYMENT RATE (%U, ILO)

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	10	8	4	5	3	6	3	13	7	10	7	6	9	4	11	7	6	9	12	9	10	12	7	6	7	5	8	5
DK	15	7	5	2	4	8	3	8	7	4	6	4	6	5	6	3	3	1	0	3	6	10	7	4	4	4	7	4
B	7	6	6	4	4	6	2	19	17	11	11	10	14	5	7	21	15	23	27	16	8	10	11	9	9	8	9	5
F	38	23	14	10	7	21	4	36	37	34	28	16	30	7	37	25	20	18	20	24	11	37	27	21	17	12	24	7
UK	14	5	4	5	8	7	4	5	4	6	7	8	4	4	18	18	14	18	19	17	9	6	5	5	8	10	6	6
IRL	12	4	5	3	3	7	2	19	15	9	9	7	13	6	16	36	31	34	27	29	16	16	14	12	12	11	13	9
I	37	29	20	16	15	26	5	31	24	21	20	20	24	10	15	15	20	28	32	22	15	30	23	21	21	22	24	12
EL	43	32	25	19	14	27	6	42	41	28	29	26	33	9	18	29	26	23	32	27	9	42	36	26	23	20	29	8
E	39	31	24	19	21	29	8	28	24	30	27	29	27	14	33	31	31	35	33	32	20	33	28	28	26	27	29	16
P	17	6	5	4	0	8	1	25	14	11	8	6	14	3	13	13	8	9	6	10	4	19	11	9	8	5	10	4
A	7	2	5	2	0	4	2	6	8	4	3	3	6	3	7	6	6	13	16	8	5	6	7	5	3	4	6	3
FIN	11	13	10	9	9	11	5	16	17	15	11	15	16	8	10	12	16	25	20	13	16	13	14	13	12	12	13	7
Simple mean	21	14	11	8	7	13	4	21	18	15	14	12	16	7	16	18	16	20	20	18	11	20	16	13	12	12	15	7

SCORES OF EMPLOYMENT SITUATION: (0=highest, 100= lowest Unemployment Rate)

D	78	85	94	90	96	88	96	73	88	80	86	90	82	93	76	87	89	83	74	82	81	76	86	88	88	91	84	92
DK	68	86	93	98	94	85	96	84	87	94	90	95	88	92	89	97	96	100	100	95	89	79	88	94	95	95	87	94
B	87	88	88	94	95	89	98	58	63	77	76	80	69	90	86	54	68	48	38	65	84	80	77	82	83	85	81	92
F	12	48	69	80	87	54	94	17	16	23	37	64	31	87	16	45	56	60	55	46	76	14	39	54	63	74	46	86
UK	69	91	94	92	85	87	94	92	95	89	86	85	93	94	60	60	70	59	59	62	81	89	91	90	85	80	89	89
IRL	73	94	92	96	97	87	98	57	66	81	83	86	73	89	65	18	30	22	38	34	65	66	69	75	75	78	71	81
I	14	35	55	64	68	42	92	30	46	53	55	55	47	80	66	68	54	37	28	50	68	32	47	54	52	51	46	75
EL	0	26	44	59	71	40	90	2	5	36	35	40	24	82	61	33	41	48	28	40	83	3	18	40	48	55	34	84
E	10	30	45	57	53	35	83	37	45	32	39	34	38	70	26	29	30	20	24	26	56	24	36	37	41	38	34	66
P	64	88	91	94	100	85	100	44	71	77	84	90	71	96	72	73	83	81	89	80	93	58	77	83	85	92	78	94
A	86	98	91	100	100	94	99	88	83	93	97	96	90	97	86	89	88	72	65	83	91	88	86	92	95	94	90	96
FIN	77	72	80	81	82	78	92	65	62	67	78	67	66	84	80	75	64	44	56	73	64	73	69	72	75	74	72	86
Simple mean	53	70	78	84	86	72	94	54	60	67	71	73	64	88	65	61	64	56	54	61	78	57	65	72	74	76	68	86

Table 5.2 School-to-Work Transition: Overall Index of Employment Situation by Time (EU-Level)

AN INDEX OF EMPLOYMENT SITUATION (0=the worst, 100=the best among categories at EU-level)

Education Level	level 1							level 2							level 3							all levels						
Months since completed	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	69	80	90	88	92	83	89	61	83	82	88	89	77	86	53	68	70	69	68	63	71	61	79	83	85	88	77	84
DK	67	83	90	95	92	83	92	79	84	90	88	87	84	85	66	76	77	78	82	73	77	74	83	89	91	90	83	89
B	82	85	83	85	86	84	88	53	59	70	71	75	64	79	85	59	63	48	43	66	68	76	74	77	76	79	76	80
F	4	49	70	79	87	50	90	16	15	22	38	60	30	83	26	55	62	66	60	54	67	9	42	56	64	73	45	80
UK	66	96	98	92	85	88	91	97	100	93	83	80	97	87	42	66	74	57	55	55	69	91	96	95	85	78	90	83
IRL	67	89	88	89	94	82	89	45	61	76	77	80	66	76	62	24	29	27	37	35	48	57	66	71	71	74	66	67
I	17	38	55	59	62	42	85	34	48	55	58	58	49	75	64	65	51	35	30	47	57	34	48	54	53	52	48	67
EL	7	27	42	57	68	40	82	0	9	30	35	40	23	70	62	19	20	26	13	23	59	6	19	34	45	52	32	68
E	15	28	42	52	48	34	79	34	40	28	32	28	34	61	27	31	24	13	19	24	42	25	33	32	34	32	31	55
P	59	79	86	87	93	78	95	39	62	69	77	81	64	90	67	70	75	75	81	74	81	53	70	75	78	83	71	83
A	79	92	82	97	96	88	95	87	86	94	99,7	97	91	91	79	85	73	67	65	77	75	85	87	91	96	95	89	88
FIN	75	73	79	82	82	78	94	68	66	69	75	73	69	84	83	79	69	54	62	77	65	74	71	73	75	76	74	88
Simple mean	51	68	75	80	82	69	89	51	59	65	69	71	62	81	60	58	57	51	51	56	65	54	64	69	71	73	65	78

Range: 0=poorest, 100=best employment situation over all categories in the EU.

Simple mean over (all 216) categories=66; median=70.

Weights: Unemployment 0.5; temporary/part-time employment 0.2; inactivity, self-employment, part-time work 0.1 each.

Table 5.3 School-to-Work Transition: Overall Index of Employment Situation by Time (Country-Level)

MS INDICES OF EMPLOYMENT SITUATION: (0=worst, 100=best among categories within each country)

Education Level	level 1						level 2						level 3						all levels						mean	median				
Months since completed	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+		
D	41	69	95	90	100	77	93	20	78	74	91	94	62	85	0	39	43	40	38	26	45	22	66	77	83	90	61	80	63	71
DK	6	58	83	100	90	59	93	45	62	83	78	74	63	67	0	35	38	43	56	26	40	29	59	81	87	83	60	79	60	61
B	87	93	89	92	95	90	100	22	35	61	62	72	47	81	94	36	45	12	0	51	56	73	70	75	73	79	73	83	66	73
F	0	52	77	87	96	54	100	14	13	21	39	65	30	91	26	59	67	72	65	58	73	6	44	60	70	80	48	88	56	60
UK	41	94	96	86	73	79	84	94	100	88	70	65	94	77	0	41	55	25	21	22	46	84	94	91	74	62	84	71	68	75
IRL	61	93	92	92	100	83	93	31	53	74	75	80	60	74	54	0	8	5	19	17	35	48	60	68	67	72	61	62	58	62
I	0	31	55	62	67	37	100	25	45	56	60	61	48	86	69	70	51	26	19	45	59	25	46	55	52	52	45	74	51	52
EL	9	34	51	70	83	49	100	0	11	37	43	49	28	85	75	23	25	32	16	28	72	7	23	42	55	63	39	84	44	40
E	3	23	43	59	53	31	100	32	41	22	29	22	31	73	21	27	17	0	9	16	43	18	31	29	32	29	27	64	33	29
P	36	72	84	85	97	70	100	0	42	54	69	74	44	91	51	55	65	65	74	63	75	25	55	65	70	79	58	79	64	67
A	41	77	49	94	89	67	87	64	61	84	100	93	75	76	40	57	24	5	0	34	30	58	62	74	90	86	69	68	63	67
FIN	53	48	65	70	72	60	100	37	30	39	54	48	38	77	75	64	39	0	21	60	28	52	45	49	54	57	51	86	53	53
Simple mean	31	62	73	82	85	63	96	32	48	58	64	66	52	80	42	42	40	27	28	37	50	37	55	64	67	69	56	76	57	59

Range: 0=poorest, 100=best employment situation over (18) categories within each country.

Weights: Unemployment 0.5; temporary/part-time employment 0.2; inactivity, self-employment, part-time work 0.1 each.

ANNEX 1 METHODOLOGY: CONSTRUCTION OF THE BASIC STUDY VARIABLES

EDUCATION RELATED VARIABLES

As noted in Section 2, variables on the type and timing of education and training as recorded in the UDB need to be transformed into a consistent set of analysis variables. These variables concern:

1. Level of Qualification, defined as the most recently completed education, supplemented by any course of vocational training (whether full-time or part-time) of one year or longer duration completed.
2. Exit from Education/Training, defined as the time of completion of the level of qualification defined above.

The variable Level of Qualification (**E_level**), highest level of general or higher education or vocational training completed, has four categories:

- 1 recognised third level education (ISCED 5-7)
- 2 Second stage of secondary level education (ISCED3)
- 3 Less than second stage of secondary education (ISCED 0-2)
- 8 Still at school

The variable Exit from Education/Training, the date of achievement of the level, is described by means of two variables, say **E_Year** (the year) and **E_month** (the month).

The main source of information in the UDB-ECHP data set consists of Section PT–Training and Education. The data set contains two variables that apparently describe the required variable:

PT022 Highest level of general or higher education completed

PT023 Age when the highest level of general or higher education was completed

However, these two variables have some limitations for the purpose, as described below.

1. The basic problem arises from the fact that in waves 1-4 the question on “the highest level of general or higher education completed” was asked only to people at their first appearance in the panel, and the data for these waves (and also for wave 5 to some extent) have not been updated with information on education and training completed during the preceding year obtained in each wave.
2. Secondly, the existing variables do not incorporate relevant vocational training completed during the preceding year.
3. Incompleteness of the educational level variable means that the time to which it refers is also not necessarily the one applicable to the required Level of Qualification variable, since the two may refer to different courses.

Consequently, longitudinal linking (and some checking and correction of inconsistencies) has been necessary in constructing the required variables.

Since in waves 1-4 the survey question related to the UDB variable PT022 was asked only to people at their *first appearance in the panel*, this variable in waves 2-4 for persons coming from a previous wave has been simply copied from the previous wave. In this way, the information about other education courses undertaken during the calendar year preceding each wave (and reported in the survey) has not been included in PT022 as coded in UDB. It also does not incorporate information on relevant vocational training courses completed. From wave 5 onwards, the question on the highest level achieved has been introduced; furthermore in addition to general education courses, it also covers vocational training. Hence it is possible, in principle, to use PT022 from wave 5 onwards for the purpose of our analysis. However, UDB documentation notes some problems for this variable in wave 5 as well, and advises that it be used only from wave 6 onwards.

As a consequence, the same variable PT022 has difference meaning in different waves. Because the aim of this work is the study of transition from school to work, it is very important to have a consistent set of variables in each wave. The PT022 as constructed is not usable for our purpose so a redefinition of it becomes necessary.

Variable PT023 is related to variable PT022, therefore it cannot be used in the construction of the required Exit from Education/Training variable. Moreover it is expressed in completed years and does not contain information about the exact month when the level was achieved.

Our procedure consists of updating the highest level of education every year using information on whether a person has been in education or training in the preceding year and whether the person has completed the course. At each wave we construct a variable containing information about the level of the vocational training course achieved (if any), a variable describing the level of general education achieved (if any), a variable describing the highest level of education or vocational training achieved in the past year (if any), and finally a variable updating the highest level of education achieved so far. Our procedure constructs the following variables, wave by wave:

PT022_ly_ed: variable related to PT005 and PT007, whether the person completed a general education course last year, and if so, the type of general education

PT022_ly_voc: variable related to PT010 and PT012, whether the person attended and completed a vocational training last year, and if so, the type of vocational training;

PT022_ly: variable combining the information included in variables PT022_ly_ed and PT022_ly_voc

E_level: the final recoded variable to be used, constructed as described below.

E_year year when the level in **E_level** was achieved

E_month month when the level in **E_level** was achieved

These variables have been constructed wave by wave as follows.

Wave 1

1. For wave 1, the starting point is the existing variable PT022, the highest level completed at the time. If the person has not completed any education or training course during the preceding year (PT001, “the person has been in education or training since last year?” ≤ 1), PT022 gives the required variable **E_level** for wave 1.

2. If the person has been in education or training (PT001=0), it is necessary to identify whether it covers general education. This is so if variable PT005 (finishing year of the general education course attended last year) is applicable. If not, then existing PT022 gives the intermediate variable PT022_ly_ed defined above. If PT005=applicable, then PT022_ly_ed is constructed as function of PT007 (level of the general education course) as follows:

If PT007 is equal to 1, 2 or 3 then PT022_ly_ed=1 (tertiary education);

If PT007 is equal to 4 then PT022_ly_ed=2 (secondary education);

If PT007 is equal to 5 or 6 then PT022_ly_ed=3 (primary education);

3. For the part related to vocational training, the procedure is a little more complicated because of the differences among countries in the treatment of the vocational courses.

First of all we have taken into account those courses with an overall duration of 12 months or longer. This information is taken from UDB variable PT013 (category 3, more than 9 weeks), in conjunction with variable PT016 (duration 12 months or more). Following the instructions in the PAN 73 we obtained the country-specific categories according to the Labour Force Survey, and using the “Mapping of national education programmes to ISCED 97” we recoded UDB variable PT012 into the variable PT022_ly_voc in three categories, 1 (tertiary), 2 (secondary) and 3 (primary). Annex Table A1.1 reports the conversion scheme by country; for instance in some countries (Denmark, UK, Ireland, Portugal, Austria, Finland and Sweden) no vocational training is considered equivalent to recognised third level education (ISCED 5-7).

Annex 1.1 Construction of PT022_ly_voc from ECHP-UDB variable PT022

	D	DK	NL	B	LU	F	UK	IRL	I	EL	E	P	A	FIN	S
PT012 from UDB															
1	1	2	1	1	1	1	2	2	1	1	1	2	2	2	2
2	2	2	2	3	2	2	2		2	2	2	2	2	2	2
3	2	3	3	2	2	2	2	3	3	2	2	3	3	3	3
4	3	3	3	3	3	3*	2	3	3	3	3	3	3	3	3
5							3	3	3		3				

PT022_ly_voc codes:

- 1 Tertiary
- 2 Secondary
- 3 Primary

*Description of the code corresponding to PT012=4 (that is, original 87.3) is not available. It has been assumed to correspond to PT022_ly_voc=3, i.e. Primary level.

4. At this point we combined variables PT022_ly_ed and PT022_ly_voc obtaining PT022_ly as the union of the two, i.e., taking this as the maximum level achieved in the two variables.

5. The last step was the construction of our new variable **E_level** by putting together the information from PT022 and PT022_ly defined above, i.e., taking this as the maximum level achieved in the two variables.

6. In wave 1 we have information about the date (month and year) of completing the highest education or training course only if the course has been completed during the past year; in this case, variables E-year and E_month are constructed from UDB variables PT005 and PT006 (if a general education course), or from PT010 and PT011 (if a vocational training course).

7. For other individuals, who did not complete an education or training course during the past year, we have imputed the date (month and year) of completion using information from variable PT023 (age, in completed years, when achieved the level), in combination with the date of birth (PD001 and PD002), and assuming that courses of level 1 (tertiary) are normally completed in the month of July, whereas other course are normally completed in the month of June. This is an arbitrary but realistic and necessary assumption.

Wave 2,3,4

1. If a person enters in the panel for the first time in one of these waves, the procedure used for the imputation of the consistent PT022 was exactly the same as wave 1.

2. If the person was interviewed the previous wave the procedure is as follows. Since in these three waves PT022 in the UDB is simply copied from the preceding wave without re-asking the same question each wave, our starting point must be an updated variable, **E_level** of the previous year, rather than the exiting PT022. Variable **E_level**_(i-1) available or constructed for the previous wave plays for wave i the same role as PT002 does for wave 1; otherwise the procedure is the same (the last mentioned variable in waves 2-4 can be simply discarded). The information is thus fed-forward from one wave to the next.

Wave 5

Except for new entrants, the procedure for waves 2-4 is used for Wave 5 as well. This is because of the remaining problems despite the collection of additional information as noted above.

Wave 6 and 7

In principle, existing PT007 can be used as the required variable **E_level** for wave 6 and 7. We checked to ensure PT007 was in fact updated from the previous year, and also to identify any inconsistencies.

EMPLOYMENT RELATED VARIABLES

The purpose is to define, for each person, the employment status according to the ILO definition and according to the self-declaration definition used in ECHP. The variable categories in either case are:

1. Employee
2. Self employed
3. Unemployed
4. Inactive

Variable ILO (ILO definition) is based on two UDB variables, PE003 and PE004; variable PE003 does not distinguish between employees and self-employed, therefore this information is extracted from variable PE004, as follows:

```
if (1 le pe003 le 2) and (1 le pe004 le 3) then ilo=1
if (1 le pe003 le 2) and (4 le pe004 le 5) then ilo=2
if pe003 eq 3 then ilo=3
if 4 le pe003 le 5 then ilo=4
```

Variable SELF (self defined) is based on two UDB variables, PE002a and PE001a; variable PE002a does not distinguish between employees and self-employed, therefore this information is extracted from variable PE001a, as follows:

```
if pe002a eq 1 and pe001a ne 4 then self=1;
if pe002a eq 1 and pe001a eq 4 then self=2;
if pe002a eq 2 then self=3;
if pe002a eq 3 then self=4;
```

In addition, we constructed variables indicating whether the current job or business is full time (based on UDB PE005c variable), and whether current employment is has a permanent contract (based on UDB variables PE024 and PE001a).

CONSTRUCTION OF THE WORKING DATASET

Once variables related to highest level of education achieved (and the timing of its achievement) has been constructed, some checks have been carried out in order to ensure consistency among waves and in order to analyse missing cases. In several cases we observe individual inconsistencies: highest level of education reported in a certain wave was higher than the highest level achieved in a successive wave. For this reason we have “imposed” the level of education achieved in a certain wave to those (successive) waves where the level was lower. This procedure has involved the link of individuals longitudinally.

Because of some missing values, “unacceptable” cases and simplification of the procedure, the original sample has been reduced, depending on the country. Moreover, we have decided to not include in our analysis the whole samples of the Netherlands, Luxembourg and Sweden, since many variables in the UDB section PT were not asked at all or had too many missing cases.

Annex 2.1 Sample size

	data available	Distribution by category					
		Level 1		Level 2		Level 3	
		Younger	Older	Younger	Older	Younger	Older
D	24.167	3.658	8.609	3.481	975	2.384	5.060
DK	19.039	2.139	6.907	3.229	5.592	294	878
B	24.168	2.659	7.526	1.364	6.840	584	5.195
F	51.470	5.934	9.144	2.337	18.222	1.514	14.319
UK	41.238	3.385	15.051	5.319	4.075	992	12.416
IRL	32.474	2.241	3.815	2.947	10.203	1.110	12.158
I	76.984	2.377	5.058	8.556	22.475	2.696	35.822
EL	48.491	2.862	8.414	3.365	12.266	802	20.782
E	62.615	4.614	10.049	5.542	8.938	3.789	29.683
P	44.711	1.186	2.152	2.689	3.913	2.837	31.934
A	25.645	533	1.448	3.546	14.583	563	4.972
FIN	18.917	1.943	6.796	2.998	4.552	1.467	1.161
	469.919	33.531	84.969	45.373	112.634	19.032	174.380

"Younger" Persons who have completed some relevant education/training within past 5 years
 "Older" Persons not completing any such education/training within past 5 years

Annex 2.2

ECHP Wave 7. Age distribution of the population

	<20	20-24	25-29	30-34	35-39	40-45	45-49	50-54	55-59	
D	6	9	9	14	14	13	12	11	11	100
DK	5	9	12	13	13	12	12	12	11	100
B	6	10	11	14	14	13	12	11	9	100
F	7	11	11	13	13	13	12	12	8	100
UK	6	10	11	12	14	13	11	13	11	100
IRL	9	14	11	14	13	11	11	10	8	100
I	6	11	13	13	14	11	10	12	10	100
EL	7	11	12	13	12	12	12	12	10	100
E	9	14	13	13	12	11	9	10	8	100
P	8	14	14	12	13	10	11	10	9	100
A	8	9	11	15	14	12	10	10	10	100
FIN	6	10	10	12	12	13	12	15	10	100
simple average	6,9	11,1	11,5	13,1	13,2	12,0	11,2	11,4	9,6	100,0

ECHP Wave 7. Percentage of the population still "at school"

	<20	20-24	25-29	30-34	35-39	40-45	45-49	50-54	55-59	
D	62	29	17	5	2	1	0	0	0	8,9
DK	62	30	27	7	6	5	2	2	3	12,5
B	89	49	7	1	1	1	2	0	1	12,1
F										
UK	43	14	1	0	1	1	0	0	0	4,4
IRL	53	22	5	2	1	2	2	2	1	9,7
I	64	33	17	3	1	0	0	0	0	10,0
EL	47	20	4	2	0	0	0	0	0	6,5
E	64	38	16	4	1	1	1	0	0	14,0
P	47	30	10	2	1	1	0	0	1	9,8
A	71	26	13	4	2	1	0	0	0	10,4
FIN	53	42	17	5	3	4	2	2	2	11,6
simple average	59,6	30,3	12,1	3,1	1,8	1,6	0,9	0,8	0,7	10,0

ECHP Wave 7. Age distribution of the population, excluding persons still "at school"

	<20	20-24	25-29	30-34	35-39	40-45	45-49	50-54	55-59	
D	2	7	9	14	15	15	13	12	12	100
DK	2	7	10	14	14	13	13	13	12	100
B	1	6	11	15	16	15	13	13	10	100
F										
UK	4	9	11	12	14	13	12	13	11	100
IRL	5	12	12	15	14	12	12	10	8	100
I	2	8	12	14	15	13	11	13	11	100
EL	4	10	12	13	13	13	13	13	10	100
E	4	10	13	15	14	13	11	12	10	100
P	4	11	14	13	15	11	12	11	10	100
A	3	8	11	16	16	13	11	11	12	100
FIN	3	7	9	12	13	14	13	16	11	100
simple average	3,1	8,7	11,2	14,1	14,5	13,0	12,2	12,5	10,7	100,0

Distribution of the population (observed events) analysed here

	<20	20-24	25-29	30-34	35-39	40-45	45-49	50-54	55-59	
D	5	13	11	14	14	13	11	9	11	100
DK	2	7	12	14	14	14	14	13	10	100
B	1	6	12	16	16	14	13	12	10	100
F	4	10	12	14	13	14	14	11	9	100
UK	4	9	11	13	14	13	13	13	10	100
IRL	4	12	12	15	13	13	12	10	9	100
I	4	10	13	14	14	12	12	11	11	100
EL	5	10	12	13	13	13	12	12	11	100
E	4	11	14	15	14	12	11	10	8	100
P	5	12	13	15	14	12	12	10	8	100
A	3	8	12	16	14	13	11	11	11	100
FIN	2	6	10	14	15	15	15	15	10	100
simple average	3,6	9,5	11,9	14,3	14,0	13,0	12,5	11,4	9,9	100,0

Annex 2.3 Relative size of the population (of "events" observed during waves 1-7)

	ALL			MALE				FEMALE				
	level 1	level 2	level 3	all	level 1	level 2	level 3	all	level 1	level 2	level 3	all
% distribution of total within country												
D	54	18	28	100	33	10	12	54	21	9	16	46
DK	47	46	7	100	22	26	4	52	24	20	3	48
B	41	35	25	100	20	17	11	49	21	17	13	51
F	30	40	30	100	14	22	14	49	16	18	16	51
UK	44	23	33	100	23	11	14	48	20	12	19	52
IRL	18	41	41	100	10	19	21	50	9	21	20	50
I	10	40	50	100	5	20	25	50	5	20	25	50
EL	26	33	41	100	12	17	19	48	13	16	22	52
E	24	23	53	100	12	12	26	50	12	11	27	50
P	10	15	75	100	4	7	38	50	5	8	36	50
A	8	71	22	100	4	39	7	50	4	32	14	50
FIN	45	41	14	100	19	23	7	49	26	18	7	51
	30	32	38	100	16	16	18	50	14	15	21	50
% "Young" in each category												
D	28	75	28	37	27	79	35	38	29	72	22	35
DK	25	35	26	30	22	32	28	28	28	39	23	32
B	28	17	10	20	29	18	13	21	27	16	7	18
F	39	11	9	19	40	11	12	19	38	11	7	18
UK	17	55	7	22	15	57	8	23	19	54	6	22
IRL	35	21	8	19	31	23	10	19	40	20	7	18
I	31	27	7	17	29	27	9	18	33	27	5	17
EL	24	20	4	14	21	19	5	14	26	21	3	15
E	32	37	11	22	28	36	13	22	36	37	9	22
P	35	41	9	16	33	40	9	16	38	42	8	17
A	28	18	8	17	27	19	12	18	30	17	7	15
FIN	25	37	57	34	24	38	59	35	25	37	54	33
all	27	31	10	22	26	30	12	22	29	31	8	21

"Young" means persons who have completed any relevant education/training within past 5 years.

Categories smaller than 10% in bold.

Annex 4.1 School-to-Work Transition: Gender differentials economic activity rates

INACTIVITY RATE

Education Level	level 1							level 2							level 3							all levels					
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60
MALE																											
D	12	3	1	1	2	4	5	28	15	4	6	4	16	5	16	6	4	6	10	10	18	19	8	3	3	4	9
DK	9	6	2	1	2	5	2	6	4	3	3	5	5	6	11	10	10	8	8	10	11	7	5	3	3	4	5
B	7	2	2	1	1	4	7	16	4	5	4	9	9	8	8	10	13	11	2	9	21	10	4	5	3	4	6
F	71	23	10	7	5	43	4	20	27	17	10	10	17	7	26	18	15	11	10	17	16	59	23	13	9	8	32
UK	34	3	6	8	10	13	6	9	1	1	10	10	9	7	63	3	3	4	8	27	12	17	0	2	7	9	12
IRL	9	3	2	3	1	5	2	24	7	5	6	4	10	5	13	14	19	9	10	13	20	16	7	8	6	5	9
I	32	16	8	8	2	17	4	33	22	21	13	12	21	8	8	9	25	34	32	24	14	29	19	21	19	17	21
EL	45	43	29	10	5	28	4	64	63	51	30	21	49	7	13	68	63	53	46	56	10	55	56	45	26	18	42
E	20	20	14	14	8	16	3	29	29	32	26	22	28	8	16	18	23	32	27	23	11	23	23	24	25	20	23
P	12	6	0	0	0	5	4	38	22	20	18	20	25	6	27	18	24	16	9	18	9	28	17	19	15	11	18
A	7	8	0	0	0	5	4	14	8	4	2	2	8	7	5	4	11	7	22	8	19	13	8	4	2	3	8
FIN	4	2	1	5	0	3	5	21	18	11	11	2	16	9	10	9	9	11	6	9	31	15	11	7	8	2	11
simple mean	22	11	6	5	3	12	4	25	18	15	12	10	18	7	18	16	18	17	16	19	16	24	15	13	11	9	16
FEMALE																											
D	13	9	5	6	11	9	16	15	4	5	8	12	9	25	24	11	23	16	30	21	36	17	7	9	8	15	12
DK	12	11	7	12	4	10	8	10	9	9	13	12	10	13	23	19	32	44	58	27	36	12	11	9	14	8	11
B	11	6	4	4	5	7	16	26	22	22	23	25	24	37	27	16	19	37	38	27	59	16	12	11	16	16	14
F	67	20	14	11	9	41	17	19	19	20	20	24	21	25	22	19	24	21	22	22	42	59	20	18	16	16	34
UK	30	7	5	12	14	15	19	0	2	11	13	19	7	27	62	0	21	27	26	35	40	11	0	7	10	18	11
IRL	13	7	11	2	5	9	21	27	15	16	12	22	20	42	26	34	49	53	53	44	63	21	14	20	18	24	19
I	25	15	15	13	13	18	15	34	24	20	23	20	25	30	19	26	42	53	50	43	57	31	22	23	30	27	27
EL	31	26	19	11	10	21	24	58	49	46	40	33	47	51	30	82	85	74	54	74	56	45	40	41	32	25	38
E	25	16	11	12	8	16	18	41	33	44	42	40	39	39	36	32	45	46	37	39	58	34	26	32	32	28	30
P	11	6	3	3	2	6	7	42	27	24	30	33	32	20	36	25	47	27	18	31	29	32	21	29	23	21	25
A	4	8	4	10	2	6	14	6	6	5	5	7	6	28	4	9	19	31	28	14	42	5	7	7	10	9	7
FIN	7	8	9	13	15	10	9	16	20	20	22	16	18	16	11	14	23	26	5	14	26	12	14	16	18	14	14
simple mean	21	12	9	9	8	14	15	24	19	20	21	22	22	29	27	24	36	38	35	33	45	24	16	18	19	19	20
FEMALE:MALE RATIO in inactivity rates																											
D	1,0	3,4	*	4,3	4,9	2,0	3,2	0,5	0,3	1,2	1,3	3,3	0,6	5,4	1,5	1,8	5,6	2,9	3,0	2,1	2,1	0,9	0,9	3,4	2,5	4,3	1,2
DK	1,4	2,0	2,7	X	1,9	2,1	3,5	1,7	2,2	2,9	4,2	2,5	2,2	2,2	2,0	1,8	3,2	5,5	X	2,7	3,2	1,6	2,1	2,6	5,1	2,3	2,2
B	1,5	3,4	1,9	3,6	4,4	2,0	2,4	1,7	5,3	4,1	5,9	2,9	2,8	4,4	3,2	1,7	1,5	3,3	X	2,8	2,8	1,7	3,3	2,3	4,8	3,8	2,4
F	0,9	0,9	1,4	1,5	1,8	1,0	3,9	1,0	0,7	1,2	2,1	2,5	1,2	3,7	0,8	1,1	1,7	1,9	2,3	1,3	2,6	1,0	0,9	1,3	1,8	2,1	1,1
UK	0,9	2,4	0,8	1,5	1,4	1,1	3,3	0,0	*	X	1,3	1,9	0,8	3,6	1,0	0,0	X	6,7	3,4	1,3	3,4	0,6	*	4,5	1,4	2,0	0,9
IRL	1,5	2,6	6,6	0,7	*	1,8	X	1,1	2,2	3,3	2,1	6,1	1,9	X	1,9	2,4	2,6	5,9	5,2	3,3	3,1	1,3	2,0	2,6	3,0	4,9	2,1
I	0,8	1,0	1,8	1,6	X	1,0	3,8	1,0	1,1	0,9	1,7	1,6	1,2	4,0	2,5	2,7	1,7	1,6	1,6	1,8	4,0	1,1	1,2	1,1	1,6	1,6	1,3
EL	0,7	0,6	0,7	1,0	2,2	0,8	5,6	0,9	0,8	0,9	1,3	1,6	1,0	X	2,2	1,2	1,4	1,4	1,2	1,3	5,5	0,8	0,7	0,9	1,2	1,4	0,9
E	1,3	0,8	0,8	0,9	1,0	1,0	5,4	1,4	1,1	1,4	1,6	1,8	1,4	5,1	2,3	1,8	2,0	1,5	1,4	1,7	5,0	1,5	1,1	1,3	1,3	1,4	1,3
P	1,0	1,0	*	*	*	1,2	1,8	1,1	1,2	1,2	1,6	1,6	1,3	3,6	1,3	1,4	2,0	1,6	2,0	1,8	3,1	1,1	1,2	1,6	1,5	1,9	1,4
A	0,6	1,0	*	*	*	1,2	3,6	0,4	0,8	1,3	3,4	4,1	0,7	4,1	0,7	2,4	1,7	4,3	1,3	1,7	2,2	0,4	0,9	1,6	5,0	2,8	0,9
FIN	1,8	3,1	X	2,9	*	3,7	1,8	0,8	1,1	1,9	2,1	6,6	1,1	1,7	1,1	1,5	2,5	2,3	0,8	1,5	0,8	0,8	1,2	2,2	2,2	X	1,3
simple mean	1,0	1,0	1,4	1,9	2,7	1,1	3,7	1,0	1,1	1,4	1,8	2,2	1,2	4,3	1,5	1,5	2,0	2,2	2,2	1,7	2,8	1,0	1,1	1,4	1,8	2,1	1,2

Note: Figures not available or not shown: "" denominator zero or very small (<1%); "X" suspected outliers because of very small sample size or other reason.

Annex 4.2 School-to-Work Transition: Gender differentials in the incidence of self-employment

SELF-EMPLOYMENT RATE

Education Level	level 1							level 2							level 3							all levels					
	Months since completed	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60
MALE																											
D	8	8	7	8	15	9	18	5	3	1	4	2	3	14	6	0	1	1	3	3	12	7	5	4	6	11	6
DK	4	6	4	7	3	5	9	6	5	6	5	3	5	12	0	0	0	4	11	2	20	5	5	5	6	4	5
B	15	14	14	18	23	16	17	6	5	5	7	8	6	17	4	6	12	6	10	6	15	11	11	11	14	17	12
F	3	4	2	5	6	4	13	1	4	4	4	4	4	13	1	2	2	3	4	2	14	2	3	3	4	5	3
UK	7	5	7	10	10	8	16	5	10	11	10	11	6	20	0	3	5	7	7	4	26	5	7	8	9	10	7
IRL	6	6	3	5	3	5	19	7	7	8	7	10	8	24	7	8	3	3	7	6	31	6	7	5	6	7	6
I	28	23	32	25	39	29	26	22	17	17	16	18	18	26	21	27	25	23	22	24	34	23	20	22	19	22	21
EL	12	18	19	21	27	20	30	21	28	21	21	30	24	40	17	10	25	17	33	21	56	17	21	21	20	29	22
E	11	18	19	19	17	16	18	21	19	18	18	19	19	27	12	16	22	24	19	18	29	16	18	20	20	18	18
P	7	7	3	13	15	9	20	15	16	17	20	11	16	21	7	9	10	10	13	10	27	10	11	11	14	13	12
A	17	16	22	7	19	16	12	11	8	15	9	13	11	14	4	2	2	1	8	3	15	10	9	14	8	13	11
FIN	6	5	4	4	7	5	15	11	9	13	15	7	11	18	12	17	29	26	27	17	15	10	10	13	11	9	11
simple mean	10	11	11	12	15	12	18	11	11	11	11	11	11	21	8	8	11	10	14	10	25	10	11	11	11	13	11
FEMALE																											
D	6	4	8	8	8	6	13	1	0	0	1	5	1	9	1	1	1	5	1	2	7	2	2	4	5	6	3
DK	2	3	2	1	2	2	4	2	4	5	2	6	4	6	0	0	0	0	0	0	8	2	3	4	1	3	3
B	11	6	8	6	3	8	13	6	10	1	7	6	6	13	5	13	19	6	21	11	13	10	8	7	6	5	8
F	3	3	4	6	6	4	6	1	2	2	1	1	1	7	0	0	0	0	0	0	10	2	2	3	4	4	3
UK	5	3	4	4	3	4	11	3	4	5	3	2	3	7	1	0	0	0	0	0	8	3	4	4	4	2	3
IRL	3	4	5	4	3	4	10	3	4	1	1	4	3	11	0	0	4	0	2	1	10	2	4	3	2	3	3
I	16	14	17	17	18	16	14	12	11	6	10	11	10	18	15	17	13	14	17	15	29	13	12	9	12	14	12
EL	13	13	14	16	12	13	19	17	17	22	19	26	20	33	77	100	33	54	31	50	61	16	15	17	19	18	17
E	8	11	13	8	4	9	11	14	12	11	5	11	11	20	10	9	18	8	14	12	30	11	11	13	7	8	10
P	7	6	10	6	5	7	10	13	15	11	11	8	12	12	14	11	10	9	11	11	29	11	11	10	9	8	10
A	5	7	7	0	6	5	5	7	6	6	1	5	5	14	6	13	0	0	2	6	20	6	7	5	1	5	5
FIN	5	7	6	5	4	6	8	6	4	4	6	9	6	12	6	4	3	1	14	5	10	6	5	5	5	6	5
simple mean	7	7	8	7	6	7	10	7	7	6	6	8	7	14	11	14	8	8	9	9	20	7	7	7	6	7	7
FEMALE:MALE RATIO in self-employment rates																											
D	0,7	0,5	1,1	0,9	0,5	0,7	0,7	0,1	0,1	*	0,2	2,3	0,3	0,6	0,2	*	*	3,7	0,1	0,6	0,6	0,4	0,4	1,0	0,8	0,5	0,5
DK	0,6	0,4	0,5	0,1	0,7	0,4	0,5	0,4	0,8	0,8	0,4	1,8	0,7	0,5	*	*	*	0,0	0,0	0,0	0,4	0,4	0,7	0,7	0,2	0,9	0,6
B	0,7	0,4	0,6	0,3	0,1	0,5	0,8	0,9	2,3	0,3	1,0	0,8	1,1	0,8	1,2	2,2	1,5	1,0	2,1	1,8	0,9	0,9	0,7	0,7	0,4	0,3	0,6
F	1,3	0,8	1,9	1,2	1,0	1,2	0,4	0,5	0,4	0,4	0,3	0,1	0,3	0,5	*	0,0	0,0	0,0	0,0	0,0	0,7	1,3	0,7	1,1	0,9	0,8	0,9
UK	0,7	0,7	0,6	0,4	0,3	0,5	0,7	0,6	0,5	0,5	0,3	0,2	0,5	0,4	*	0,0	0,0	0,1	0,0	0,1	0,3	0,6	0,5	0,6	0,4	0,2	0,5
IRL	0,5	0,7	1,7	0,7	0,9	0,7	0,5	0,4	0,6	0,1	0,2	0,4	0,3	0,5	0,0	0,0	1,3	0,0	0,4	0,2	0,3	0,4	0,6	0,6	0,4	0,5	0,5
I	0,6	0,6	0,5	0,7	0,5	0,6	0,6	0,5	0,6	0,4	0,6	0,6	0,6	0,7	0,7	0,7	0,5	0,6	0,8	0,6	0,9	0,6	0,6	0,4	0,6	0,6	0,6
EL	1,0	0,7	0,7	0,8	0,4	0,7	0,6	0,8	0,6	1,0	0,9	0,9	0,8	0,8	4,4	X	1,3	3,2	0,9	2,3	1,1	1,0	0,7	0,8	0,9	0,6	0,8
E	0,7	0,6	0,6	0,4	0,2	0,5	0,6	0,7	0,6	0,6	0,2	0,6	0,6	0,7	0,8	0,6	0,8	0,3	0,7	0,6	1,0	0,7	0,6	0,7	0,3	0,4	0,6
P	0,9	0,8	3,4	0,5	0,3	0,8	0,5	0,8	0,9	0,6	0,6	0,7	0,7	0,6	2,0	1,2	1,0	0,9	0,8	1,1	1,1	1,1	1,0	0,9	0,6	0,7	0,8
A	0,3	0,5	0,3	0,0	0,3	0,3	0,4	0,6	0,7	0,4	0,1	0,4	0,5	1,0	1,5	5,4	0,0	*	0,2	1,9	1,3	0,6	0,8	0,4	0,1	0,4	0,5
FIN	0,9	1,6	1,5	1,4	0,5	1,1	0,5	0,6	0,4	0,3	0,4	1,3	0,5	0,7	0,5	0,2	0,1	0,1	0,5	0,3	0,7	0,6	0,5	0,4	0,4	0,7	0,5
simple mean	0,7	0,6	0,7	0,6	0,4	0,6	0,6	0,6	0,7	0,5	0,5	0,7	0,6	0,7	1,5	1,7	0,7	0,8	0,7	1,0	0,8	0,7	0,7	0,6	0,5	0,5	0,6

Note: Figures not available or not shown: "" denominator zero or very small (<1%); "X" suspected outliers because of very small sample size or other reason.

Annex 5.1 School-to-Work Transition: Level of Education/training and Inactivity

MEASURES OF EMPLOYMENT SITUATION: INACTIVITY RATE (%), ILO)

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	13	5	3	3	5	6	9	22	10	5	7	8	12	16	20	8	14	11	21	15	29	18	8	6	5	8	10	16
DK	11	9	5	7	3	8	5	8	7	6	8	8	7	9	17	14	17	21	21	17	23	10	8	6	9	6	8	8
B	9	4	3	3	3	5	11	20	13	13	14	17	16	23	15	12	15	25	21	16	42	13	8	8	9	10	10	24
F	69	21	12	9	7	42	11	20	23	19	15	17	19	15	25	19	19	15	15	19	31	59	21	15	12	12	33	20
UK	32	5	6	10	12	14	12	5	1	7	11	15	8	19	63	1	10	16	18	31	29	14	-1	4	9	13	12	19
IRL	11	5	7	3	3	7	10	26	11	10	9	13	15	25	18	21	31	28	28	26	42	18	11	14	12	15	14	31
I	28	15	12	10	8	17	9	33	23	20	18	16	23	19	11	15	32	43	40	31	36	30	20	22	24	22	24	28
EL	37	32	23	10	8	24	14	61	56	48	36	27	48	28	19	73	73	62	50	64	35	49	47	43	29	22	40	28
E	23	17	12	13	8	16	10	34	31	37	34	31	34	22	25	23	32	38	32	30	35	28	25	28	29	24	27	28
P	11	6	2	2	1	6	5	40	25	22	24	27	29	13	31	21	36	21	13	24	19	30	19	24	19	16	22	17
A	6	8	2	5	1	5	9	11	7	4	3	4	7	16	4	6	15	20	25	11	35	9	7	5	5	6	7	20
FIN	6	5	6	10	8	7	7	19	19	15	16	7	17	12	10	11	15	18	5	11	29	14	13	12	13	8	12	11
Simple mean	21	11	8	7	6	13	9	25	19	17	16	16	20	18	21	19	26	26	24	25	32	24	15	16	15	13	18	21

SCORES OF ECONOMIC ACTIVITY RATE (0=highest, 100= lowest Inactivity Rate)

D	83	93	97	96	93	92	88	71	87	95	92	90	84	79	74	90	82	86	72	80	61	76	90	93	93	89	87	79
DK	85	88	94	91	97	90	94	89	92	92	90	90	91	88	77	82	78	71	72	77	69	87	90	92	89	93	90	90
B	88	95	96	97	96	93	85	73	83	83	82	78	79	70	80	84	80	67	73	78	43	83	90	90	88	87	87	68
F	6	71	84	88	91	43	85	73	69	75	80	78	75	80	67	75	75	80	80	75	59	20	71	80	84	84	56	74
UK	57	94	93	87	84	81	85	94	99	91	86	80	89	75	15	100	86	79	76	58	61	81	100	95	88	82	84	75
IRL	86	94	91	97	97	91	87	66	86	87	88	82	80	66	76	72	58	62	62	66	43	76	86	81	84	81	81	58
I	62	80	85	86	90	77	89	55	69	73	76	79	69	75	85	80	57	42	46	58	51	60	73	71	67	70	68	62
EL	50	56	69	86	90	68	81	17	24	34	52	64	35	63	75	0	1	15	32	13	53	33	36	42	61	71	46	62
E	70	77	84	83	90	79	87	53	58	49	54	58	55	70	67	69	57	48	57	60	52	62	67	63	61	68	64	63
P	85	92	98	98	100	93	93	46	67	70	67	63	61	83	58	72	52	72	83	68	75	59	75	67	75	79	71	77
A	93	89	98	93	99	94	89	86	91	95	96	95	91	78	95	92	80	73	66	86	53	88	91	94	94	93	91	73
FIN	92	93	92	87	89	91	91	75	75	80	79	91	78	84	87	85	80	76	93	85	61	82	83	85	83	90	84	85
Simple mean	72	85	90	91	93	83	88	67	75	77	79	79	74	76	71	75	65	64	68	67	57	67	79	79	81	82	76	72

Annex 5.2 School-to-Work Transition: Level of Education/training and Self-employment

MEASURES OF EMPLOYMENT SITUATION: SELF-EMPLOYMENT RATE (%S, ILO)

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	7	6	7	8	12	8	16	3	2	1	2	3	2	12	4	0	1	3	2	2	9	5	3	4	5	9	5	14
DK	3	4	3	4	3	3	7	4	4	6	3	4	4	10	0	0	0	3	10	1	15	4	4	5	3	3	4	8
B	13	11	11	13	13	12	15	6	7	4	7	7	6	15	4	8	15	6	14	8	14	10	9	9	10	11	10	15
F	3	3	3	5	6	4	10	1	3	3	3	3	3	11	0	1	1	2	2	1	12	2	3	3	4	4	3	11
UK	6	4	6	7	7	6	14	4	7	8	7	7	5	14	1	2	3	4	4	2	16	4	5	6	7	6	5	15
IRL	4	5	4	5	3	4	16	5	6	5	5	7	5	18	5	6	3	2	6	4	24	5	6	4	4	5	5	20
I	22	19	25	21	29	23	21	18	14	12	13	15	15	23	20	24	21	20	20	21	33	19	17	16	16	19	17	27
EL	12	15	16	19	20	17	25	19	22	21	20	29	23	38	34	21	26	25	32	27	58	16	18	19	20	24	20	43
E	10	14	16	13	10	13	15	19	16	15	13	16	16	25	12	14	21	19	17	16	29	14	15	17	14	14	15	24
P	7	7	7	9	10	8	15	14	16	14	16	9	14	17	10	9	10	9	12	10	28	10	11	10	11	11	11	26
A	10	12	15	4	12	11	9	9	7	11	6	9	8	14	5	8	1	0	4	5	18	8	8	10	5	9	8	14
FIN	5	6	5	4	6	5	11	9	7	10	11	8	9	15	9	12	19	16	22	12	12	8	8	9	8	8	8	13
Simple mean	9	9	10	9	11	9	14	9	9	9	9	10	9	18	9	9	10	9	12	9	22	9	9	9	9	10	9	19

SCORES OF EMPLOYMENT SITUATION: (0=highest, 100= lowest Self-employment Rate)

D	88	90	89	87	79	87	71	96	98	100	98	96	98	80	95	100	100	97	98	98	85	93	96	95	92	86	93	75
DK	97	94	96	95	97	96	90	94	94	91	96	94	94	84	100	100	100	97	84	100	74	95	95	93	96	96	95	86
B	78	82	82	78	77	79	74	91	89	95	88	89	91	73	94	88	74	91	76	87	75	82	85	85	82	81	83	74
F	97	96	96	92	90	94	84	100	96	96	97	97	97	82	100	100	100	98	98	99	80	98	97	97	95	94	96	82
UK	91	94	92	89	89	91	76	95	89	88	90	89	93	76	100	99	96	95	95	98	72	94	92	91	90	91	93	75
IRL	94	93	94	93	97	94	73	93	91	93	94	89	92	68	93	91	96	99	92	94	56	94	92	94	94	92	93	64
I	61	67	55	62	49	59	63	69	75	80	77	74	75	59	65	57	62	65	65	63	41	67	70	72	72	67	70	51
EL	79	74	72	67	66	71	55	66	60	62	64	49	60	31	39	64	53	55	42	51	0	71	69	67	65	58	65	22
E	83	76	73	79	83	79	74	67	71	74	78	72	72	56	80	75	62	67	70	72	47	76	74	70	75	76	74	56
P	89	89	88	85	83	88	75	76	73	77	73	85	76	70	83	84	84	85	80	83	50	83	82	83	81	82	82	54
A	83	80	75	95	79	82	85	86	89	82	91	85	86	76	93	88	100	100	94	93	68	86	87	83	92	84	87	75
FIN	92	91	93	94	92	92	82	86	89	84	81	87	86	73	85	80	67	72	62	80	79	87	87	84	87	87	87	78
Simple mean	86	86	84	85	82	84	75	85	85	85	85	84	85	69	86	86	83	85	80	85	61	86	85	84	85	83	85	66

Annex 5.3 School-to-Work Transition: Level of Education/training and Part-time work

MEASURES OF EMPLOYMENT SITUATION: PART-TIME WORK RATE (%P)

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	21	7	8	7	7	10	11	19	7	6	5	8	11	16	15	7	5	12	11	10	22	19	7	7	7	8	10	14
DK	12	8	8	3	7	8	9	15	12	8	3	7	11	9	44	17	7	3	0	22	11	16	11	8	3	7	10	9
B	11	8	8	11	7	9	13	19	14	17	12	9	15	14	9	14	9	12	11	10	17	13	10	10	11	8	11	14
F	24	10	6	8	7	11	7	15	24	25	17	11	18	8	15	9	10	7	13	10	14	20	13	11	10	9	13	9
UK	18	4	5	6	3	7	8	9	5	9	8	7	8	11	59	9	11	5	13	23	17	12	5	6	7	6	9	11
IRL	12	6	6	10	8	9	11	21	12	8	7	9	12	15	15	14	15	13	19	15	23	16	10	8	9	11	11	17
I	17	10	10	7	8	11	11	9	9	9	9	6	9	7	5	4	5	4	7	5	8	10	8	8	8	7	8	8
EL	11	11	11	7	6	9	7	10	8	9	7	7	8	4	9	9	12	12	12	11	8	10	10	10	7	7	9	6
E	16	15	11	11	14	14	6	11	13	13	14	16	13	8	16	10	14	14	11	13	11	14	13	12	12	14	13	9
P	6	6	7	7	3	6	6	8	6	4	1	4	5	3	3	4	2	4	2	3	6	6	6	4	3	3	4	6
A	17	9	12	6	9	11	12	8	9	7	4	6	7	11	7	4	8	6	5	6	19	9	8	7	4	7	8	12
FIN	8	7	6	3	4	6	4	7	10	8	9	8	8	7	8	7	9	6	8	8	10	8	8	7	6	6	7	6
Simple mean	14	9	8	7	7	9	9	13	11	10	8	8	10	9	17	9	9	8	9	11	14	13	9	8	7	8	10	10

SCORES OF EMPLOYMENT SITUATION: (0=highest, 100= lowest Part-time Work Rate)

D	59	88	85	88	88	81	80	63	88	89	92	85	80	69	71	89	91	78	80	81	57	63	88	88	88	86	81	74
DK	77	86	86	95	89	85	84	71	78	85	95	87	80	84	12	66	89	97	100	57	80	70	80	86	95	88	81	84
B	79	85	86	80	87	83	76	63	73	68	78	84	72	74	85	74	85	77	79	80	67	76	81	81	79	85	80	73
F	53	81	90	86	87	79	87	71	52	51	67	79	65	86	72	84	81	88	76	81	73	60	75	78	81	83	76	83
UK	65	94	93	89	96	87	86	84	91	83	86	87	85	79	0	84	80	92	76	54	67	77	92	89	89	90	83	79
IRL	78	90	90	81	87	84	80	58	77	86	87	83	77	71	72	73	71	76	62	71	55	69	82	85	83	80	79	66
I	67	82	82	87	85	80	79	84	84	83	84	89	85	88	93	93	93	93	88	92	86	82	85	85	86	88	85	86
EL	80	79	80	88	90	84	88	81	86	84	88	87	85	93	84	84	77	78	78	79	86	81	81	81	87	88	84	89
E	69	71	79	80	74	74	90	79	76	75	74	69	76	86	70	82	74	74	79	76	80	73	75	76	76	74	75	84
P	90	89	88	87	97	90	90	86	90	93	100	94	93	96	96	93	98	95	98	96	90	90	91	94	95	96	93	90
A	68	83	77	91	84	78	77	85	84	88	93	89	87	80	87	94	87	91	91	90	62	83	85	87	93	89	86	77
FIN	86	87	89	95	93	90	93	87	82	86	84	86	85	88	86	87	84	90	86	86	81	86	85	87	91	90	87	90
Simple mean	72	85	85	87	88	83	84	76	80	81	86	85	81	83	69	84	84	86	83	79	74	76	83	85	87	86	82	81

Annex 5.4 School-to-Work Transition: Level of Education/training and Temporary/Part-time Employment

MEASURES OF EMPLOYMENT SITUATION: TEMPORARY/PART-TIME EMPLOYMENT RATE (%T)

Education Level	level 1							level 2							level 3							all levels						
	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+	12	24	36	48	60	.1-60	61+
D	45	43	31	30	24	35	25	57	40	33	24	24	40	22	93	88	84	69	46	84	32	63	52	42	34	27	47	27
DK	40	37	31	29	30	34	27	37	33	31	33	42	34	35	61	72	76	79	63	70	39	39	36	33	34	36	36	31
B	28	31	36	40	41	33	31	46	48	44	42	36	44	32	22	27	43	45	36	31	40	31	35	39	41	39	36	33
F	68	48	37	32	26	42	24	80	68	65	56	51	64	29	44	27	27	29	30	31	37	67	47	42	38	35	46	30
UK	26	10	9	17	27	16	17	6	4	6	32	37	8	23	36	35	25	56	54	43	36	10	9	10	25	35	13	24
IRL	53	38	34	40	29	41	29	66	54	44	47	38	51	35	42	55	60	54	50	52	46	57	47	43	45	37	47	37
I	48	45	34	47	38	43	25	38	39	34	31	32	35	24	41	36	39	47	41	41	35	40	39	35	36	35	37	29
EL	56	49	48	44	38	46	26	62	44	50	42	37	46	31	15	65	71	74	74	65	46	57	48	51	45	40	47	34
E	59	63	60	57	61	60	34	49	50	58	62	63	54	43	54	53	61	72	71	61	58	54	55	60	62	64	58	47
P	59	52	39	42	37	48	22	53	50	46	34	39	45	24	39	37	37	40	45	40	32	51	46	41	38	41	44	30
A	36	26	40	24	22	30	18	22	16	12	12	11	16	17	50	37	69	54	38	48	32	27	20	22	17	14	21	19
FIN	40	35	36	30	30	35	12	25	26	26	30	23	26	14	14	16	13	18	20	15	23	26	27	28	29	27	27	14
Simple mean	47	40	36	36	34	39	24	45	39	37	37	36	38	27	43	46	51	53	47	48	38	43	39	37	37	36	38	30

SCORES OF EMPLOYMENT SITUATION: (0=highest, 100= lowest Temporary/Part-time Employment Rate)

D	54	57	70	71	78	65	76	40	60	68	78	78	60	80	0	6	10	28	53	11	69	34	47	57	67	74	52	75
DK	60	64	70	72	71	66	74	63	68	70	68	58	66	66	37	24	20	16	33	26	61	61	64	68	67	65	64	70
B	74	70	64	60	59	67	70	53	51	55	57	65	56	69	80	74	56	55	64	70	60	70	65	61	58	61	64	67
F	28	51	63	69	75	57	78	15	29	31	42	47	33	72	55	74	74	72	71	70	63	29	52	58	62	66	54	71
UK	75	94	95	86	75	87	86	98	100	98	69	63	96	79	64	66	76	42	45	57	64	94	95	94	77	66	90	78
IRL	45	62	66	60	72	58	72	30	45	55	52	62	48	66	57	43	37	45	49	46	53	41	52	57	54	63	52	63
I	51	55	66	52	62	57	77	62	61	67	70	69	66	78	59	65	61	52	59	59	65	60	61	66	64	66	63	72
EL	42	50	51	56	62	53	76	35	56	48	58	64	53	70	88	31	25	21	22	31	54	41	51	48	54	60	52	67
E	38	34	38	41	36	37	67	50	49	40	35	34	44	57	44	46	36	24	25	36	39	44	43	38	35	32	39	52
P	38	47	61	58	63	51	80	45	49	54	66	62	55	78	61	63	63	60	55	60	69	47	53	59	62	58	56	71
A	65	76	60	78	80	72	85	81	87	91	92	93	87	86	49	63	27	44	63	51	69	75	82	81	86	89	81	83
FIN	60	65	65	71	71	66	91	76	76	75	71	80	76	89	89	87	91	84	83	88	79	76	75	73	72	75	75	90
Simple mean	53	60	64	64	67	61	78	54	61	63	63	64	62	74	57	53	48	45	52	51	62	56	62	63	63	65	62	72