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A

COMPARATIVE ANALYSIS  
OF  
TRANSITIONS FROM  
EDUCATION TO WORK  
IN EUROPE  
(CATEWE)

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1. A Conceptual Framework
2. Demographic and Economic Changes

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# **A Comparative Analysis of Transitions from Education to Work in Europe (CATEWE): A Conceptual Framework**

## **1 Introduction**

The main objective of this study is to describe and explain differences amongst individuals, and differences in patterns amongst countries, in the nature and "success" of young people's transitions from full-time education into the labour market.

Our analyses of these transitions are based on cross-sectional analyses at the individual level, using Labour Force Surveys and school leavers' and longitudinal surveys of young people during their initial years in the labour market. In addition, analyses will take into account changes over time in the pattern of education to work transitions.

Our first task, therefore, is to define a set of inter-related concepts which allow us to describe, compare and explain the effects of cross-national differences in education/training systems on the transition patterns of young people from full-time education into the labour market. This explanatory framework starts from the proposition that (macro) national institutional differences in educational and training systems, and their varying corresponding relationships to labour market entry processes, constitute some of the most important influences on individual (micro) level transitions.

At the macro level, our interest is in those institutionalised processes - including market processes - which structure or mediate individuals' education/training outcomes and subsequent entry into the labour market, and the effects of these institutionalised processes on individual level transitions. At the individual level, our interest is in socially structured differences in processes or outcomes by social category - gender, age, social class and ethnicity, and the way in which this social differentiation relates to institutional differences. In

addition, however, we will attempt to assess the varying extent to which pathways and transition processes have become more individualised and less structured over time, as well as national similarities and differences in these respects.

## 2 Key Research Questions

Our central research questions refer to the nature of education-to-work transitions in specific EU countries: particularly the way in which national institutional arrangements in education and training (ET) systems and related modes of labour market (LM) integration affect the nature of the transition process, in terms of employment returns to education/training, "success" in transition, and the length, sequencing and "turbulence" of transition patterns.

Five basic research questions structure our research:

1. What is the nature and extent of similarities and differences in education/training systems in the EU countries studied, and in the associated type and level of education and training achieved by educational system leavers entering the labour market?
2. What is the relationship between differences in education/ training outcomes and the social background (ascriptive) characteristics of system leavers: gender, social class, ethnic origin? Do such social differences vary systematically across national systems?
3. How do transition (particularly school-to-work) processes vary systematically across countries (e.g. in terms of their length, complexity, and process of "settling down" in the labour market)? To what extent are these differences related to differences in education/training and labour market structures?
4. What is the nature and extent of the relationship between level and type of educational achievements of system leavers and (the success of) their transition processes and outcomes? How do these relationships vary by type of system?
5. What is the relationship between social background characteristics and labour market outcomes? To what extent is this mediated by education, and does this vary by type of system?

While we need to take account of the effects of contextual factors, such as demographic and economic processes, on educational and labour market outcomes, our data will limit our ability to estimate and explain the likely specific effects of these factors.

### **3 Demographic and Economic Change: The Context of Transitions in the Countries Studied**

In this section we summarise the main differences among the countries studied in their economic and demographic characteristics as well as changes over time in these characteristics. Significant country differences exist in the crucial demographic factors which are likely to affect the employment circumstances of young people entering the labour market. There are equally significant differences in the nature of the economic/occupational opportunities available to young people. Cross-national variation in the demographic and economic context of the study countries is discussed in greater detail in Annex 1.

#### **3.1 Demographic Differences amongst Countries**

There are substantial differences amongst countries in the rate of population increase as well as in the relative size of youth cohorts entering the labour force. Since 1983, there has been strong population growth in France, the Netherlands and Germany (excluding the former GDR). The UK and Ireland have experienced moderate population increases while Portugal has been characterised by a declining population (see Table 1, Annex 1). Trends in the size of the labour force do not wholly correspond with these patterns, with the strongest increase in the working population found in Ireland, the Netherlands and France (Table 8).

There are significant cross-national differences in the age structure of the population. The percentage of the population in the younger age-groups (15-24) is highest in Ireland and Portugal, being almost 50 percent greater than in other countries (Tables 2-4, Annex 1). The effects of these demographic differences are likely to result in proportionate difficulties in school to work transitions.

### **3.2 Unemployment Rates**

Unemployment rates are not determined by population growth rates, although they are sensitive to them. Total unemployment rates are much higher in Ireland and France than elsewhere (Figure 2). Levels of unemployment among young people (those aged 20-24) are highest in Ireland, France and Portugal. There has been some decline in youth unemployment in Ireland since 1993 while the rates in France and Portugal show a net increase, albeit with some fluctuations (Tables 6 and 7).

### **3.3 Educational Participation Rates**

For the 15-19 age-group, educational participation rates are at their highest in Germany and France (at 92-93 per cent), intermediate in Ireland and the Netherlands (81-82 per cent) and slightly lower in Portugal and Britain at 76 and 71 per cent respectively (Table 11). For the 20-24 age-group, however, the rank order of countries is somewhat different with Ireland and Britain exhibiting the lowest rates (Table 12). However, in both cases third-level education starts earlier and completion rates tend to be higher, primarily because of the greater selectivity on entry to third-level education in the latter countries.

Portugal shows the most dramatic change in educational participation rates for both age groups - with levels for 20-24 year olds almost doubling over the past 10 years, and rates for 15-19 year olds increasing by over 65 percent (Tables 11 and 12). France shows equally fast growth in participation among 20-24 year olds, passing Germany and almost equalling the Dutch figures by the mid 1990s. Ireland, on the other hand, has increasing numbers - though a relatively stable proportion of young people enter the labour force. This growth in numbers was compensated for by rapid growth in educational participation rates up to the early 1990s, but this has stabilised in the past few years.

These substantial national differences in educational policy and participation rates need to be kept firmly in mind in any cross-national comparisons, and can be seen as indicating equally significant changes in the structure of demand for young people's labour.

This is the first time the "six countries" are clearly differentiated by the level of education of the older youth cohorts, most of whom have completed their education. Germany

and the Netherlands show the highest levels of education with fewer than one in six of the 25-29 age-group with less than upper second-level education (Table 13). France follows Germany and the Netherlands, while Ireland is a close fourth at 33 per cent. The UK is next at 43 per cent and Portugal still high with 63 per cent with lower second-level. Again these educational level differences across countries, indicating underlying substantial differences in state educational policy, suggest equally significant differences in labour force outcomes, especially given the increasing degree of globalisation and international competitiveness.

### **3.4 Changes in Industrial Structure**

In all countries the services sector has been growing rapidly with the agricultural sector becoming relatively insignificant everywhere. What is significant, however, is the continuing importance of the manufacturing sector in some countries and significant decline in others. There is a moderate rate of decline since 1985 in the proportionate share of manufacturing in Germany and France. The Netherlands, France and the UK, on the other hand, show relatively high rates of decline; while both Portugal and Ireland show very low rates of decline (see Annex 1, Table 14). Services sector employment increased rapidly in all countries, especially in Portugal with very rapid change from agricultural-based to services-based employment. The composition of services sector growth, however, tends to be quite different, for instance, with rapid growth in the high value-added sector, particularly financial services, in the UK.

These substantial changes by industrial sector have also resulted in substantial changes in the skill levels of jobs and in the educational and training levels necessary for successfully functioning in these rapidly changing labour markets. Unskilled and low-skilled jobs generally have been in decline for some time (see *Employment in Europe*, 1994; 1997; and Annex 1, section 1.5). On the other hand, growth in technicians, other specialists and in semi-professional, professional and managerial occupations has been very rapid. In contrast, the decline in agricultural and other low-skilled occupations has been continuous. Again the implication for educational policy and for the relationships between educational outputs and labour market demand indicates the necessity for rapid educational growth, as well as the likely penalties that the poorly educated will pay in the labour market. The returns to increasing educational levels are likely to be high (*Employment in Europe*, 1994 to 1997). Comparing the unemployment rates for those with ISCED 0-2 to those with ISCED 3 (third-



level) qualifications, the ratio is over 3:1 in most countries with the exception of Portugal where it is below 2:1 and for France where it is 2.5:1. The highest rates of return in terms of escaping unemployment are in Ireland where the ratio for the 30-34 age-group is almost 6:1 (see also OECD, *Education at a Glance*, 1994 to 1996). In the latter case, high unemployment combines with high selectivity on the basis of educational qualifications - a situation not apparently holding in Portugal, another peripheral economy with equally rapid, though later, change in employment structures. Obviously, therefore, different countries with their distinct institutional systems also exhibit quite different patterns of education-employment relationships. These national institutional differences and their likely effects will be explored in greater depth in the following section.

## **4 A Conceptual Framework of Transitions in Europe**

The conceptual framework takes account of three inter-related elements:

- i) the demographic, economic and labour market context within which transitions occur;
- ii) the dimensions of the education/training system;
- iii) the nature of the transition process.

Since the focus of the project is specifically on youth transitions rather than cross-national variation in overall labour market characteristics, for example, the focus will be on developing elements (ii) and (iii). The framework will deal with contextual issues only in so far as they influence the nature of the education/ training system and its relationship with labour market outcomes.

### **4.1 Demographic, Economic and Labour Market Context**

While the analysis of contextual factors is not an objective of our study, a consideration of these dimensions should help us to develop a more dynamic approach to the analysis of education to work transitions.

#### **4.1.1 Demographic factors**

##### *(i) The youth/adult ratio*

Countries differ in (trends in) the proportion of young people in the population overall and in the economically active population. The implications of these differences for transition processes and outcomes need consideration. A smaller proportion of young people in the population may result in greater ease of access to further education and more successful labour market integration, especially where there are specific "youth jobs" within the labour market. In such circumstances, the existence of segregation between the youth and adult labour markets may serve to produce a relatively protected employment niche for young people. Demographic change may also influence changes in educational policy and in the structure of the labour market. The proportion of young people in any given society is not static, however: altering due to firstly changes and to inward and outward migration processes. Comparative research has rarely considered the role of migration in transition processes but this can be an important factor in certain national contexts (e.g. Ireland). In general, migration decisions are highly responsive to (changes in) economic and labour market conditions (Callan and Sutherland, 1997).

##### *(ii) Family structure and staying on at home*

The nature and resources of the family system are likely to have implications for the nature of the transition process, in particular for patterns of household formation. There appear to be three groups of countries: the Mediterranean countries and Ireland with high rates of young people remaining in the parental home; Germany, Belgium and Britain with average staying rates; and Denmark, the Netherlands and France with the youngest age of leaving home and establishing independent households (Guerraro, 1997). This is thought to be mainly due to the greater strength of the family system in the former countries and their weaker welfare provision for such new household formation, resulting in a more prolonged and family-dependent transition process among young people.

#### **4.1.2 Economic factors**

##### *(i) Nature of economic development*

It is important to take account of a country's stage of economic development and the timing of its integration into a changing world economy. "Peripheral" countries, which have experienced late and dependent industrialisation, will differ significantly from "core" countries

in the nature of the economy and its linkages with other institutions. Even in these situations a greater reliance on inward investment from multi-national corporations (as in Ireland) will result in a different structure of employment relationships than a prevalence of smaller indigenous firms (as in Portugal). These differences will in turn influence the type of jobs and work-based training available to young people. The issue of such "core"-“periphery” differences has rarely been addressed in analyses of youth transitions. In general, studies have tended to focus on a small number of “core” European countries (or systems) at similar stages of economic development (Hannan, Raffe, Smyth, 1996).

However, substantial differences also exist amongst core capitalist countries. Countries differ in the type of industrial sectors that are prevalent within their economies (see Annex 1). In addition, significant institutional differences in the structure of firms may be evident. In Britain, for instance, equity-based public companies that dominate the market have shorter investment horizons than German companies that are more likely to depend on long-term investment bank loans. In contrast, even large firms in Italy tend to be family-owned rather than publicly owned. The ability of firms to engage in long-term strategic planning is likely to lead to different transition outcomes than where firm behaviour is more short-term in nature (Soskice, 1990; 1993; 1997). Analyses of the likely effects of these differences in institutional factors on firm-level recruitment and promotion behaviour lies outside the parameters of this study. However, it should be possible for us to utilise contextual information on economic conditions to explore differences between countries and over time.

#### *(ii) Stage in the economic cycle*

Countries differ in their stage within the economic cycle and in the timing and severity of recessionary periods. Consequently, it is necessary to view the impact of economic conditions on transition outcomes from a dynamic perspective. Economic conditions may have significant influences on state policy for education and training, with many systems expanding or adapting provision in response to unemployment in the 1980s (Smyth and Surridge, 1996). These system and policy consequences may outlast the cyclical conditions that gave rise to them. At the micro level, wide-scale unemployment may result in young people staying on in school or training, the so-called “discouraged worker” effect (Raffe and Willms, 1989). In general, the impact of the economic cycle on transition processes and outcomes is likely to be

mediated by other contextual factors, including the youth-adult ratio and the structure of employment.

#### **4.1.3 Labour market structure**

##### *(i) Structure of employment*

Countries differ in their structure of employment, that is, the nature of occupational positions open to those seeking employment. Cross-national analyses indicate marked differences in, for example, the relative size of the services sector and in the occupational profile of employees (see Eurostat, *Employment in Europe*, 1997; and Annex 1). However, this study is not concerned with a simple comparison of the proportion of, for example, (young) workers holding clerical or other jobs across the study countries, but rather in the way in which structuration within the labour market interacts with educational and other differences at the micro-level to shape a particular pattern of employment and occupational allocation.

##### *(ii) A labour market or labour markets?*

Studies of labour market structures have indicated the limitations of conceptualising the labour market as a single competitive market with workers competing solely on the basis of their "human capital", however defined (Garnsey *et al.*, 1985; Rubery and Wilkinson, 1994). Studies of youth/adult differences in labour market location, for instance, consistently indicate a disproportionately high concentration of young people in lower-paying, "secondary" segments of the labour market in most, though all countries (OECD, *Employment Outlook*, 1996); with some evidence of their increasing concentration in these sectors over time (Wooden, 1997). In our framework, we conceptualise "the labour market" in terms of a set of potentially segmented labour markets. However, it is worth exploring the assumptions underlying this model and defining more precisely the basis for such structuration.

Earlier conceptualisations of labour market segmentation posited a dualistic division between a primary sector (with higher paying and more stable positions) and a secondary sector (with relatively low paid unstable jobs) (see, for example, Doeringer and Piore, 1971; Averitt, 1968). More recent approaches have moved away from this ideal type to emphasise the complexity of labour market segmentation (see, for example, Rubery and Wilkinson,

1994). The approach adopted in our study draws upon these more sophisticated accounts, focusing on the diversity of labour market structures rather than positing a dualistic division.

It can be useful, however, to use ideal types to specify in broad terms the nature of labour market structuration. The relative balance between occupational labour markets (OLMs), internal labour markets (ILMs) and external (or secondary) labour markets (ELMs) is an important dimension of labour market structure which varies across societies (see, for example, Marsden and Ryan, 1990; Marsden and Germe, 1991). In this distinction, occupational labour markets refer to labour market segments where jobs are clearly defined in terms of content with high levels of consistency across firms and/or industries; workers generally have educational/training qualifications or other skills that are transferable across employers (see Edwards, 1979). In internal labour markets, lower grade jobs are filled from outside the firm with mobility into higher positions taking place after a period of (firm-specific) training (see Doeringer and Piore, 1971). In contrast, workers within external labour markets (or the secondary segment) are exposed to competition from other workers; mobility between firms is commonplace but reflects job insecurity rather than "upward" mobility.

These ideal types have been invoked in discussions of cross-national variation in labour market structures. Consequently, systems such as Germany has been viewed in terms of OLMs while the French economy has been associated with the dominance of ILMs (Maurice, Sellicr, Silvestre, 1982; Marsden and Ryan, 1990; Eyraud *et al.*, 1990). In contrast, the significance of external labour markets appears to be very high in other countries such as Ireland (Hannan, McCabe, McCoy, 1998). However, while this distinction is not problematic *per se*, the complexity of labour market structuration processes must be recognised. First, OLMs and ILMs are likely to co-exist within the same national system although the relative balance between the two forms varies across countries. However, in all countries, OLMs tend to operate for certain positions, for example professional occupations. Second, even those in occupational labour markets may be exposed to some aspects of an internal labour market (e.g. internal promotion may play a role for professional workers in addition to between-firm mobility). Third, the nature of labour market structuration is not static; for example, the French ILM model has recently experienced challenges from changes in the overall economic structure (Beret *et al.*, 1997; Verdier, 1996) and clear generation effects are evident in the pattern of returns to education and seniority (Baudelot and Gollac, 1997).

It is intended to take account of such complexity and, in so doing, to advance the conceptualisation of labour market structuration in comparative perspective. This raises important issues, including the extent to which the causal factors shaping labour market structuration are similar across countries and the extent to which the way we conceptualise labour market structuration needs to reflect societal specificity. Other dimensions to be developed in this respect include:

- The size and nature of the informal economy. For obvious reasons, it is difficult to measure cross-national variation in the prevalence of informal economic activities. However, it should be taken into account (for example in familial employment) in assessing cross-national differences in labour market structures and transition processes.
- Regulation and deregulation of the labour market. Countries vary in the extent of regulation (or deregulation) within the labour market, and the extent to which this has changed over time. Labour market regulation is likely to impact on the process of wage determination, the employment rights of young people and the nature of training schemes.

*(iii) Age structuring of the labour force*

Countries are likely to differ in the degree of segregation between the youth and adult labour markets. In some countries, the distinctions are more marked with young people disproportionately concentrated in particular occupations, industries or types of firms. Points of entry into particular occupations or internal labour markets may be age-based with certain segments restricted to younger workers (Ashton, 1988; Ashton, Maguire, Spilsbury, 1990; Clemenceau and Gehin, 1983). The extent to which there are "youth jobs" is likely to have significant consequences for the nature of the transition process, including its length, sequencing and implications for subsequent mobility (see below).

*(iv) Gender and ethnic structuring of the labour force*

Cross-national differences in gender structuring of the labour force can occur in two ways: differential labour force participation by gender; and variation in occupational (or industrial) segregation by gender. Research on the adult population has indicated substantial

variations in female labour force participation across European countries (OECD, 1994). However, gender differences in labour force participation tend to be smaller among young people and any such differences are likely to reflect higher educational participation rather than labour force withdrawal on the part of young women (see Annex 2). There is a high degree of similarity in the structure and trend of occupational segregation patterns within the EU. However, cross-national differences are apparent in, for example, the degree of feminisation of clerical and service work, and in female representation in professional occupations. Furthermore, similar levels of gender segregation may be associated with very different outcomes in terms of pay, status and career opportunities (Rubery and Fagan, 1995).

There may be more diversity in ethnic differentiation, although this issue has rarely been considered in comparative perspective on youth transitions. There are substantial inter-country differences in the origins of ethnic differentiation: with most ethnic groups in Britain and France coming from the ex-colonies, most in Germany as guest workers, and in Sweden as refugees. In addition, the degree to which there are certain ethnic enclaves within the labour market is likely to vary across countries. While data limitations mean that ethnic diversity cannot be explored in any great detail, ethnicity must be recognised as a potentially important structuring factor within the labour market.

## **4.2 Education/Training Systems**

Education/training systems in Europe differ along a number of dimensions that affect the nature of education/training received by young people and the nature of pathways into the labour market both have clear implications for the achievement of subsequent positions. The following dimensions appear to be the most important.

### **4.2.1 Standardisation**

This refers to the extent to which curricula, examinations and certification are standardised and "quality assurance" standards are ensured on a national or regional basis. All of the study countries can be seen as quite highly standardised in terms of their initial education systems, certainly by comparison with countries such as the United States. Greater variation is apparent between countries in the degree to which vocational training is nationally standardised and the way in which this relates to educational standardisation. For example,

Ireland and Scotland appear to have greater standardisation in general education than in vocational training, whereas in the other countries training is at least as standardised as general education. It would appear worthwhile to pursue this issue in order to investigate the relationship between initial educational achievement and subsequent training outcomes, and between both and subsequent labour market integration outcomes.

Why does standardisation matter? Most obviously, standardisation is relevant because it enables employers to assess job candidates in terms of their education/training qualifications, related learning-socialisation experiences and associated personal characteristics. These can be taken as direct indicators of particular skills, proficiencies or knowledge in certain areas, or as a proxy for more diffuse characteristics; such as underlying personal abilities and motivations: such as time keeping, punctuality, work or task, ability to work to orders and supervision, working with others, etc. If educational processes and related qualifications are not standardised then this cannot be taken as accurate signals of educational achievement. Some studies have found, however, that standardisation does not appear to be a particularly predictive national characteristic unless it is linked to a process of differentiation (see below) in education/training "outputs" (Müller and Shavit, 1998). However, in other studies both examination level and examination grades have been shown to be very important in employment decisions in highly standardised systems, with no significant effects evident in unstandardised systems - such as the United States (Breen *et al.*, 1995; Rosenbaum and Kariya, 1991; Yoshimoto, 1996; Ashton *et al.*, 1993).

#### **4.2.2 Differentiation**

There are three senses in which education/training systems differentiate between young people:

*(i) Differentiation between educational institutions and/or curricular programmes at the same stage*

"Track differentiation", mainly between academic/general and vocational/technical routes, may involve students attending different schools or may occur within the same subject specialisation/tracks. Systems differ in the timing of this differentiation. Early differentiation (at ages 12-15) takes place in Germany and the Netherlands. In other systems, however, such track differentiation only takes place in upper secondary (for example, in Scotland between



general education, Further Education and YT), or post-school (as in Ireland between third-level and post second-level vocational training). Differentiation in this sense is similar to that advanced by Müller and Shavit (1998), although we extend the concept of differentiation to include two additional dimensions ((2) and (3) below).

In addition to the degree of "track differentiation", the boundaries between tracks and the potential for movement between tracks at the same stage needs to be addressed. Strong boundaries exist where tracks or courses are based in different institutions and especially where they are based on different modes of instruction/learning (work-based vs. school-based, for instance). In the German and Dutch systems, academic and vocational tracks tend to be based in different institutions, but more recently the potential for moving between tracks has been facilitated by policy changes in both countries (see Annex 2).

Differentiation at the same stage may occur in a weaker sense when young people attend different types of schools, albeit ones not based on formal differences in curricula or programmes. For example, in the Irish case, the institutional origins of the different school types - secondary, community/comprehensive and vocational schools - have resulted in very different social class and ability mixes in the three sectors (Hannan, Smyth *et al.*, 1996), as was the case at an earlier stage in England and Wales (Kerckhoff, 1993). Such social segregation may have significant effects on educational outcomes among young people (Smyth, 1999). Similar effects are also apparent when schools divide pupils on the basis of "ability" (Hannan, Smyth *et al.*, 1996; Smyth, 1999). Schools may, therefore, be equally effective as "sorting machines" (Spring, 1976; Kerckhoff, 1993) even when they do not differentiate between vocational and academic tracks.

ET systems also differ in relation to the extent to which vocational options are occupationally specific. There are a large number of occupationally specific courses in the Netherlands but in other systems (such as Sweden and Ireland), the vocational/technical courses tend to be less occupationally specific.

*(ii) The extent and nature of formal differentiation at the end of each stage*

In addition to considering the difference between academic and vocational tracks, it is necessary to assess the way in which the education/training system "ranks" or "sorts"

individuals at the end of each stage. Allmendinger's (1989) concept of stratification appears too imprecise for our purposes, conflating as it does the nature of hierarchies within the educational system with the proportion of the cohort staying on to upper second-level. In contrast, we use this dimension to refer to differentiation in terms of awards such as grades. Some systems (such as Ireland) have a highly differentiated grading structure with examination candidates awarded grades for individual subjects which may be taken at a number of curricular levels. In contrast, other systems may have only a dualistic distinction, between "passing" and "failing" at a particular stage (for example in France and the Netherlands). The main comparative dimension to such outcome differentiation, therefore, is the degree to which qualifications indicate performance level of students at the final examination taken. Where there is marked curricular differentiation, qualifications operate as an indicator of "specific human capital" while more elaborated measures of performance in general courses (as in the Irish case, see Breen *et al.*, 1995) serve as an indicator of "general human capital".

*(iii) The relationship between differentiation and progression into the next stage*

The nature of differentiation in particular systems may affect whether young people can progress to the next stage, whether they can move between different routes or tracks and the type of further education and training to which they have access. In some systems, students may not proceed to the next stage unless they have "passed" (or been awarded specified grades in) their examinations. Hence, countries vary in the extent of grade retention with relatively high levels in the Netherlands, Austria and Spain. In addition, those who have taken vocational tracks may not have access to higher education on the same basis as those who have taken academic routes.

These three dimensions reflect the way in which education/training systems differentiate among their students. However, systems vary in the importance attached to each of these dimensions; for example, the German system emphasises differentiation at the same stage while allowing some cross-track progression. The Irish system emphasises formal differentiation at the end of a stage, allowing few "second chances" once people leave school (Hannan *et al.*, 1998). Cross-national analyses will allow us to investigate variation in the relative importance of these dimensions. These macro-level dimensions shape the nature of the decisions made by young people (and their families) in terms of participation in education and

training. The resulting educational "outcomes" at the micro level can be conceptualised as follows:

1. The highest stage reached by a young person, that is, their educational "level"; thus, a person who stays on to upper secondary education is differentiated from someone who left school after lower secondary education.
2. The curricular track or programme attended by a young person;
3. The curricular level taken, and the grades or exam awards achieved, by that person.

The project therefore develops upon previous research by clearly distinguishing between different aspects of educational differentiation. Our distinctions allows us to explore the extent to which different aspects interrelate. In addition, it is necessary to maintain a clear distinction between the "sorting" and grading carried out by the education/training system, and the evaluations of employers and others. This separation must be stressed analytically in order to avoid the risk of circularity in discussing the relationship between education, training and labour market outcomes; however, it may be difficult to implement empirically without separate and direct observations of employer behaviour.

The framework also allows for the fact that macro-level structures may facilitate or constrain different decisions by different social groups or categories: for young women and men, different ethnic groups and different social classes.

#### **4.2.3 School-to-work linkages: the role of employers in the education/training system**

Countries vary in the extent to, and way in, which employers are involved in the education/training system. This is likely to have important consequences for the nature of the transition process among young people. Employer involvement can be considered along four dimensions:

1. Direct role in provision whereby employers themselves, or in co-operation with ET providers, provide training to young people, as in the German dual system; that is, a "strong and direct linkage system" (see Hannan, Raffé, Smyth, 1996).
2. Influence in specifying curricula and qualifications whereby employers do not themselves provide training but have an important institutionalised input into

- provision within the mainstream education/training system (usually for specified occupational categories), as in the Dutch system; that is, strong "collinear linkage".
3. Direct use of schools/institutions for recruitment by employees, as in the Japanese system (Hannan, Raffe, Smyth, 1996; Rosenbaum, Kariya, 1991); that is, strong job placement functions by schools.
  4. Employers may have little direct involvement in educational systems in any of these three senses. This does not necessarily mean, however, that employers do not pay attention to what school or educational systems "produce" or that school systems ignore employer expectations and demands. In highly standardised systems without formal employer involvement in education/training provision, employers may in fact pay as much attention to qualifications as in systems where they have formal involvement (Breen *et al.*, 1995).

The extent of employer influence across different parts of the ET system varies across countries. While employers obviously have a direct role in work-based training in all contexts, their direct input into school- or institution-based ET is likely to vary more cross-nationally; however, other more "market mediated" influences are also likely to be important in all systems, in particular in Scotland, Ireland and France.

#### **4.2.4 Youth training**

The nature of state provision for youth training relates both to the education/training system and to the labour market. In general, "trainees" occupy an ambiguous position in their national labour markets, an ambiguity that becomes more evident when we try to compare young people on very different training schemes in very different national contexts. The following appear to be the most important sources of cross-national variation:

1. The level of youth training provision: this varies significantly by country. Often provision has expanded in response to general economic conditions and levels of unemployment. However, states have differed markedly in their responses to such conditions and such policy development must be seen in a broader societal context.
2. Formal differentiation of youth training: in some systems, apprentices are sharply distinguished from those on "schemes", a distinction that is likely to have

important consequences for subsequent labour market success. However, in other systems, policy changes have resulted in a blurring of the distinction between apprentices and trainees, for example YT in Scotland (see Smyth and SurrIDGE, 1995; 1996 for a comparison of Scottish and Irish State strategy in youth education/training).

3. Formal inclusion: some systems guarantee a right to participation in training whereas other systems allow both for a wider diversity in training schemes and for a "cream-off" for particular schemes or training routes.

#### **4.2.5 A dynamic account?**

In contrast to much previous work on youth transitions, this study is concerned with taking a dynamic perspective, examining changes over the 1980s and 1990s. It is not intended, however, to provide a detailed historical account of the development of ET systems over time and the processes shaping these changes. However, the implications of such changes at the macro and micro levels will be explored.

### **4.3 Transition Processes and Outcomes**

#### **4.3.1 Concept of transition**

For the purposes of this study, the concept of transition is seen as referring to a sequence of statuses or positions achieved over a period of time from a point in full-time education (or at the "end point" of such education) to a point some years later when the majority of such system leavers have reached a "stable" adult status. In other research, the transition period has been conceptualised as a fixed interval in time (e.g. one year or five years after leaving full-time education), in biographical terms (e.g. labour market position by age cohort, say 25-30), as a relative term (e.g. time to first stable job, however defined), or as a sequence of status changes over time (e.g. in terms of career trajectories).

The traditional sequence in times of low unemployment was from full-time education into the labour market, either directly or indirectly through an apprenticeship. In this case, most young people experienced only a short period of job search and job changing before obtaining secure employment. However, the growth of youth unemployment has been

associated with a number of changes in the nature of this transition process. First, the number and complexity of status changes has increased in most countries, particularly in the context of the expansion of youth training and employment schemes. This process appears to have been more pronounced in systems such as Britain, Ireland and France. In contrast, systems with strongly institutionalised vocational training, such as Germany and the Netherlands, created "waiting loops" within existing education and training provision (Roberts *et al.* 1994; Evans and Heinz, 1994). Second, the time taken to "complete" the transition has increased significantly, due to delayed entry to the labour market, greater "turbulence" in job trajectories and the expansion of training/employment schemes (Banks *et al.*, 1992; Roberts, 1995; Furlong and Cartmel, 1997).

Third, a number of researchers have argued that there has been greater individualisation, encouraging young people to plan and negotiate their "careers" within the context of existing opportunities and resources (Godfredsen, 1981); with some research even suggesting that the influence of social characteristics on educational and occupational achievement has become less pronounced over time. Other research, however, suggests that class differences are becoming more pronounced in shaping transition outcomes (Goldthorpe and Breen, 1998, Roberts and Parsell, 1992).

Important features of the transition process, therefore, include:

1. The number of transitions: the number of changes in status or position experienced by a young person in a specified period.
2. The length of the transition period: much discussion has centred on the prolongation of the transition period, although there is less consensus on specifying the appropriate starting- and end-points for this period.
3. Differentiation between transition statuses: the distinction between many statuses (such as schemes, supported employment, and "first job") is quite blurred; countries may also differ in the extent of overlap between statuses.
4. The nature of trajectories: particularly the ways in which education, training, qualification outcomes and employment/unemployment are interrelated in the initial transition period. Comparisons of the British and German systems, for instance, indicate significant national differences, particularly amongst working

class respondents, in the phasing of education/training and employment status changes, the possibility of "reversals" and "bridging loops" back to education/training from poor employment or unemployment, and a substantial difference in education/training involvement leading to qualifications (Evans and Heinz, 1994).

5. The extent of individualisation: this concept has tended to be used in two separate senses: (i) a growth in the number and complexity of transitions (which relates to (1) (above); (ii) a reduction in the correlation between transition processes and background characteristics such as gender and social class (see below) (Furlong and Cartmel, 1997).

While we conceptualise transition in terms of sequences, the restrictions imposed by our data mean that in most cases we will operationalise the concept in terms of "snapshots" of the situation of education system leavers at particular points in time. These "snapshots" are, however, seen as being located in an underlying sequence of statuses or status changes.

#### **4.3.2 Role of state regulation**

An important dimension to consider in cross-national perspective is the extent and nature of state regulation of the transition process. This appears to be most important in the following respects:

1. Requirements for military service: This has the effect of prolonging the transition period for young people in certain countries and has a clear gendering effect on the transition process.
2. State intervention in the provision of youth training and employment schemes (see above): the extent and nature of such involvement varies significantly cross-nationally.
3. State regulations in relation to social welfare provision, particularly income maintenance and housing support: This is a macro-level variable which has important consequences for decision-making at the micro level in terms of further educational participation, participation in State training schemes and/or take-up of low paid employment.

4. National differences in minimum wage legislation and restrictions on the employment of young people would obviously have effects on access to employment and pay levels as well as the relative incentives attached to staying in school as opposed to entering the labour market.

#### 4.3.3 Transition "outcomes"

The concept of transition outcome is not unproblematic, especially in the context of cross-national differences in the length of transitions and the blurring between labour market statuses. Transition outcomes may thus appear quite different when young people from different countries are compared one year after leaving school but may become quite similar five years after leaving school. In the first instance, labour market "outcome" is a specified state at an arbitrarily defined point in the transition sequence: e.g. one year, or five years, after leaving full-time education, or status at a specified age. The main "snapshot" outcomes of concern to this study are:

- principal economic activity;
- occupational status;
- industrial allocation;
- labour market segment location;
- wages;
- security of employment;
- access to on-the-job training;
- access to off-the-job training sponsored by employers;
- job and career mobility;
- content congruence, that is, matching between type of education and type of occupation;
- "level congruence", or the extent of "matching" between level of education and occupational status.

Secondly, however, we are interested in using the follow-up surveys to examine the nature of the transition sequence: for example, by using summarising indices such as time to first job, percentage of time unemployed, frequency of job changes or loss of employment; as well as measures of more complex "trajectories" of status changes over time.



The extent and nature of individual variation in transition outcomes and the way in which different outcomes relate to each other are expected not only to be related to differences in education/training and social background, but also to vary significantly across countries with different institutional systems.

#### **4.3.4 Social differentiation**

The nature of transition processes and outcomes is likely to vary by a number of background characteristics, including gender, social class and ethnicity. There may be certain commonalities in such outcomes across countries, including, for example, occupational segregation and pay differences by gender, although the level of such differences may vary cross-nationally (see Rubery and Fagan, 1995).

In the case of social class, there has been much debate on approaches to its measurement on an equivalent basis cross-nationally. In contrast, comparing differences in ethnic groups across countries has received relatively little attention. It is evident, however, that our framework needs to allow for diversity in transition outcomes for different gender, class and ethnic groups.

### **4.4 Model(s) of Education to Work Transitions**

Two approaches can be taken towards formally summarising or providing an illustrative model of the relationships among the various dimensions of European ET systems and their relationships to the labour market. First, at the macro level we use a tabular format to represent the possible set of relationships amongst two of the most important dimensions of ET systems (standardisation and curricular differentiation) and their possible relationships ("linkages") to labour market entry processes.

Figure 1 represents the range of possible variations in institutional arrangements for educational provision and for linkages between education and the labour market. Some "empty cells" in the figure represent combinations of institutional relationships which make little sense in substantive terms; for example, it is difficult to conceive of a strong ET-LM linkage where education/training is not standardised. Equally having a highly tracked/differentiated and

standardised system without clear connections to an occupational labour market would appear to have few pay-offs for those in vocational tracks; although some recent research indicates that, even in these cases, there are some significant advantages to vocational tracks for the least academically able in accessing employment and skilled manual and service occupations (Shavit and Müller, 1998). The concentration of our study countries within the matrix makes clear the extent to which they resemble one another, with the main differences relating to track differentiation and labour market linkages. Appendix Table A.1, with its footnotes, contains the detailed information on which the country classifications in Figure 1 are based.

Germany and the Netherlands are examples of highly differentiated and standardised systems with strong school-work linkages, though the method of linkage varies between them. In contrast, France, Scotland and, in particular, Ireland, exemplify highly standardised ET systems with minimal direct linkages to the labour market. However, compared to the USA, they have very strong and reliable "market signals" of potential employees' human capital characteristics. Although the main institutional differences among the study countries relate to differentiation and "linkage", the countries do vary significantly in "outcome differentiation" measures, particularly in the grades/levels achieved in examinations (See Appendix Table A.1).

Figure 1: A typology of ET systems and labour market linkages

School-Work Linkage	Degree of Standardisation of ET System	
	High	Low
	Degree of Differentiation (and Vocat./Occupat. Specificity) of ET Systems	
	High ←————→ Low	High ←————→ Low
(a) <b>Tightly Coupled</b> ET/Employer systems: <b>Strong Linkage</b> (Dual System) Substantial sharing and co-operation between providers and employers in delivery of ET. As in apprenticeships. High occupationalisation of LM	Germany Austria Switzerland Denmark	
(b) <b>Tightly Coupled</b> ET/Employer systems: <b>Collinear Linkage:</b> High levels of in-school provision of ET specific to particular occupations, agreed with employers. High occupationalisation of LM.	Netherlands	
(c) <b>Loosely coupled or Decoupled ET/Employer systems, but with strong market signals:</b> Low degree of Et provider and employer sharing of ET provision; low occupationalisation of LM, and limited school involvement in employment decisions.	England/Wales Scotland Italy France Portugal Finland Sweden Ireland	
(d) <b>Loosely Coupled</b> Systems, but with strong market signals and <b>Strong School placement function</b>	Japan	
(e) <b>De-coupled ET/LM</b> systems with weak market signals (from second level).		USA Canada

Source: adapted from Hannan, Raffe, Smyth, 1996.

These national institutional differences are expected to have substantial effects on labour market outcomes and transition sequences for individuals. This will be taken up in the following section. At the micro level, however, we first focus on an "ideal type" model of the "typical trajectories" that individuals in different ET and LM systems might take through the educational/training system into the labour market. This illustrates the likely type of relationships between two "ideal type" models of macro to micro level relationships. At one

extreme, there is the German "dual system" which institutionally constructs, supports and potentially constrains individual trajectories. At the other end of the continuum there is the "open market" model (perhaps typified by Ireland) where there are much fewer institutionalised connections between education, training and the labour market, and potentially more open competition between those with different levels and types of educational qualification for the same occupational positions – i.e., including less segmentation with LM. The labour market in the former case is highly "occupationalised" and segmented and in the latter is minimally so.

If we assume that the countries being studied are equally standardised in their educational systems, then the following ideal-type polarities are suggested.

**Figure 2: Two ideal type models of school-to-work transitions**

		Educational System Characteristics							
		Differentiation - Horizontal and Hierarchical							
1. Macro Level ET Characteristics-Second-level		High				Low			
		<ul style="list-style-type: none"> <li>high voc./occ. specificity</li> <li>mod./high levels of outcome differentiation</li> <li>multidimensional outcome differentiation</li> </ul> (e.g. Germany)				<ul style="list-style-type: none"> <li>Low horizontal differentiation with little voc./occ. specificity</li> <li>high (unidimensional) outcome differentiation or stratification</li> </ul> (e.g. Ireland)			
2. Post-School Intervening ET Provision		Lower level leaver	F.E. & ILE	Apprenticeship	Direct LM entry	Direct LM entry	F.E. & ILE	Appr.	V.T. Schemes
		↓	↓	↓	↓	↓	↓	↓	↓
3. Labour Market Entry Outcomes <sup>1</sup>		5%	30-40%	50-60%	10%	40% (10%)	30-40%	10%	20%
		Occupationally segmented LM				More open but variably segmented LM			

Note: 1. Figures are for illustrative purposes only (see Annex 2 for information on specific countries).

Neither of these system or trajectory models, however, adequately conceptualise the Portuguese or other southern European systems, which are generally characterised as having less standardisation, more informal and less structured relationships to the labour market, a greater predominance of informal economic activity and less state regulation or welfare state provision. These systems also differ in the relationship between educational and labour market outcomes, with less evidence of high returns to post-compulsory education and some evidence of significant barriers to the employment of the "over-qualified" in lower skilled jobs.

In the "dual system" countries labour market entry appears highly channelled, differentiated by ? ET pathways chosen as well as by constrained access to relatively segmented parts of the labour market. The great majority of people are entering through apprenticeships or through relatively privileged third level educational channels. On the other hand, in the much more open "Irish system" (or equivalent British counterpart) the apprenticeship channel is relatively small, which a significant proportion of those entering from upper second level and third level compete for jobs at intermediate non-manual and technical levels; or when youth unemployment is high even for non-skilled manual and service occupations – at least for the first year or two in the labour market (see Hannan, McCabe, McCoy, 1998). The nature of the Et system and its relationship to labour market structures vary significantly across the EU. Some of the implications of this varying ET/LM relationship will be elaborated on in Section 6.

## **5 Labour Market Regulation**

Two aspects of labour market regulation appear particularly relevant to labour market integration: (a) the extent of state regulation of labour/employment standards and the extent of employment protection; and (b) by the extent of corporate coverage and co-ordination of union/employer relationships.

In Appendix Table A.2 we summarise some detailed information of these characteristics (WE NEED ADDITIONAL INFORMATION ON YOUTH LABOUR

MARKET REGULATION) from published studies. We broadly categorise the study countries below in Figure 3.

*Figure 3: Categorisation of countries in terms of (a) their scores on the extent of employment conditions/standards (e.g., working hours, minimum wages, labour contracts) and the extent of employment protection; and (b) the extent and coverage of union and employer co-ordination and proportion of workers covered by collective (co-ordinated) agreement (see Fig. A.2).*

	Scores in Employment Standards (1) and Employment Protection (2) Fig. A.2		
	High (≥ 20)	Medium (11-19)	Low (≤ 10)
Extent of Trade Union and Employer Co-ordination and coverage of collective agreements	Germany France Sweden	Netherlands (Ireland)*	
High	Portugal	Ireland	(UK) Scotland
Low			

\*Ireland has much higher levels of employer/union co-ordination and national agreements than is indicated in Fig. A.2.

This rough labour market topology of countries indicates clearly the high degree of both employment protection and trade union/employer co-ordination and coverage in Germany and Sweden – as well as in France and Portugal. At the other extreme are the UK countries with both low levels of employment protection and trade union/employer co-ordination and coverage. The Netherlands, and to a lesser extent, Ireland, lie between these extremes.

Combining Figures 1 and 2, we can see that Germany and to a lesser extent, the Netherlands, have highly differentiated ET systems, with highly “occupationalised” labour markets and generally high levels of labour market regulation/co-ordination. France and Sweden, on the other hand, although with equally regulated labour markets, have much less differentiated ET systems and significantly less “occupationalised” labour market transitions.

In a sense, the ET-LM transition channels, through which strong labour market regulation might work, are not nearly as well developed.

At the other extreme is the UK and, to a lesser extent, Ireland: with low to moderate levels of both employment protection regulations and trade union/employer co-ordination/coverage arrangements. In both, the low degree of ET differentiation and labour market linkages and regulations are much more open, competitive and less regulated.

## 6 Hypotheses

The previous sections present the conceptual framework adopted in this project. In this section, we draw on this framework to provide more explicit hypotheses about the relationships we expect to find between education, training and labour market outcomes in comparative perspective. In the next phase of our research, these hypotheses will be used to guide our analyses. In order to link the hypotheses with the central concerns of our research, the hypotheses are arranged in terms of the key research questions (described in section 2 above).

Q.1: What is the nature and extent of similarities and differences in education/training systems in the EU countries studied, and in the associated type and level of education and training achieved by educational system leavers entering the labour market?

We have proposed five basic dimensions of ET systems which capture the most important aspects of inter-country differences: standardisation, track differentiation, differentiation at the end of each stage (or "outcome differentiation"), flexibility of progression, and nature of "linkage" to the labour market/employer involvement in education/training. In addition, the degree of selectivity of entry into each level of education is included. In Appendix A1 (and Fig. 1 above) we propose an initial classification of the six original countries included in the project along the above dimensions, classified at three educational levels (see Fig.A1): lower and upper second-level and third-level. Figure A1 allows us to explore the extent to which specific dimensions of education/training systems cluster together (This is illustrated in Fig. 1). The expected relationships between these

dimensions and transition outcomes among young people are discussed in the following sections.

There is therefore a moderate to high level of standardisation in all countries, although with significant variation in vocational education/training, particularly at upper second-level. There is very wide national variation, however, in curricular differentiation and "outcome differentiation", and particularly in LM linkage. Whether these national institutional differences impact on individual level education, training and labour market outcomes is explored in depth in the following research questions.

Q.2: What is the relationship between differences in education/training outcomes and the social background (ascriptive) characteristics of system leavers: gender, social class, ethnic origin? Do such social differences vary systematically across national systems?

We propose four general hypotheses:

- The greater the degree of track differentiation, and the earlier the selection, the greater the extent of social class and gender differences in educational outcomes (Shavit and Blossfeld, 1993; Müller and Karle, 1993; Erikson and Jonnson, 1996).
- In systems without tracking, males are more likely to drop out of school to enter the labour market or post-school vocational training, while specific vocational training tends to be incorporated into full-time provision in tracked systems. Consequently, female educational participation is likely to be higher in grade- or outcome-based differentiation systems while male participation is higher in track-based systems.
- The greater the degree of occupational specificity of vocational tracks, the greater the advantage to working-class males in securing skilled employment (Müller and Shavit, 1998; Shavit and Müller, 1998).
- Gender and class differentiation in transition outcomes is strongly mediated by the type of education received in track-based systems. In other cases, outcome differentiation (i.e. differences in exam grades) mediate the relationship between background characteristics and labour market outcomes (Breen *et al.*, 1995; Breen, 1998).



Q.3: How do transition processes vary systematically across countries (e.g. in terms of their length, complexity, and process of "settling down" in the labour market)? To what extent are these differences related to differences in education/training and labour market structures?

- Transition sequences within the labour market are more prolonged and more "turbulent" in countries without tracking and without highly developed occupational labour markets (Evans and Heinz, 1991; 1994; Bynner and Roberts, 1991). However, taking account of the apprenticeship period, the overall span of the transition period is longer in tracked systems.
- Systems with lower levels of track differentiation show greater change over time, and with economic change, in the length of full-time education and in the period of initial labour market instability - including periods of unemployment, job changing/shopping and post-school training.
- In undifferentiated systems, "post entry" training (both in-firm and part-time) assumes a greater degree of importance, and post-school qualifications growth is more marked, than in occupationally specific tracked systems (see Maurice *et al.*, 1982; Kerckhoff, 1998, forthcoming) - with more in-firm training and promotion taking place.
- Such qualifications' growth is associated with upward mobility after entry, in contrast with the lower level of such mobility in systems with highly developed occupational labour markets (Müller and Shavit, 1998).

Q.4: What is the nature and extent of the relationship between level and type of educational achievements of system leavers and (the success of) their transition (mainly labour market entry) processes and outcomes? How do these relationships vary by type of system?

- "Content congruence" is likely to be much more prevalent in track-based standardised systems, with a greater degree of matching between course and job content. There is also likely to be a high degree of "level congruence" in these

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\* However, the initial point of entering in more regulated systems is more dispersed - with lower levels of initial over-qualification amongst the more highly qualified.

- systems, that is, greater matching between the level of education and occupational status.
- Systems with a high degree of outcome-based differentiation (and low levels of track differentiation) have more potential for “over-qualification” or competition between different “levels” of education. This is highly context-dependent, however, with greater competition between educational levels in times of high unemployment. Conversely, higher level congruence is expected when labour market conditions are tight: with consequent greater
  - Youth employment is more highly concentrated in the secondary segment in systems without occupationally specific tracking (OECD, 1996).
  - The correlation between education and occupational outcomes is expected to increase from first job to later jobs, especially in systems without track differentiation and OLMs (see Hannan, McCabe, McCoy, 1998 on the Irish context).
  - In education and training systems with track-based differentiation at the secondary level, students with low levels of educational attainment have better job opportunities and more stable early employment experiences than do similar students in systems with comprehensive schools and general credentials (Müller and Shavit, 1998; Hannan *et al.*, 1998).

Q.5: What is the relationship between social background characteristics and transition (labour market) outcomes? To what extent is this relationship mediated by education, and does it vary across systems?

- Gender segregation is prevalent across all labour market systems. However, the factors shaping such segregation differ across countries (Rubery and Fagan, 1995). In ET systems with high levels of track differentiation, gender differences in labour market outcomes are strongly related to differential take-up of academic and vocational tracks within education/training.
- In systems with low levels of track differentiation, gender has a more direct role in influencing occupational allocation. Differences between males and females will be evident in the “returns” to similar levels of education and qualifications.

- Gender differences in occupational positions widen over the career to a far greater extent in systems with prevalent internal labour markets than in systems with highly developed OLMs.
- The stronger the association between educational and labour market outcomes, the greater the overall relationship between social class of origin and LM outcomes; though in the latter case these effects are mainly mediated through educational achievement.

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Figure A.1: Characteristics of education/ training systems and linkages to labour market

Educational Dimensions	France	Germany	Ireland	Netherlands	Scotland	Portugal	Sweden	Austria	Finland	Italy
<b>A. Lower Secondary Level</b>										
(i) Track Differentiation	Low	High	Low	High	Low	Low	Low	High	Low	Low
(ii) Standardisation	High	High	High educ. mod. to low in training	High	High educ., mod to low in training	High	High	Mod/high	High	High
(iii) Selectivity by track or school type:	High	High	Mod/High by school	High	Low	Low	Low	Very high	Low	Low
(iv) Degree of 'Outcome Differentiation' in terms of level of quals. and grades etc.	Mod	Mod/high	High	Mod/high	Mod/high	Mod	High	Mod/high	Mod/high	Low (by pass/fail)
(v) Linkage to LM	Low	High	Very low	High	Mod/low	Low	None, A	High	Low	Low
(vi) Degree of voc./occ. Specificity of BT	Low	High	low	High	Low	Low	Low, B	High	Low	Low
(vii) Significance of BT signals to LM/apprentice. Entry	Low/mod	High to apprsships.	Moderate to LM entry	Low/mod to apprs and LM entry	Low to moderate to YT/appr.	Low	High, C	High	Low	Low/Mod.
(viii) Extent of Access to apprenticeships/vocational-traineeships etc.	Mod./hi.	Very high	low	Mod/high	Mod/high	Low	None	High	Low	Low/Mod.
<b>B. Upper Secondary Level</b>										
(ix) Progression rules to Upper Sec.: degree of selectivity	Low, but mod/ high for more academic tracks	Mod., but little inter track mobility	Highly selective into hon. Acad. tracks; but low in general	Very selective into upper educ./vocat. tracks	Moderate	Low/Mod.	Low, but Highly selective into attractive vocational tracks, D	High	Low/mod for vocational schools; mod/high for non-termin track	Mod., little inter-track-mobility
(x) Standardisation										
(a) Education	High	High	High	High	High	High	High	High	High	High
(b) Vocational Training	High	High	Low-mod.	High	Mod. to high	Mod./low	High	High	High	High at schools; low at training centres
(xi) Track differentiation	Mod./hi.	High	Low/mod.	High	Mod/High if include VT	Moderate	Moderate B	High	Moderate	High
(xii) Outcome Diff.	High	Mod./high	High	Mod./high	High	High	High	Mod	Mod./high	High
(xiii) Voc. Specificity of BT	Low/mod	High	Low/Mod	High	Mod/High if include VT	Mod./Low	Moderate H	High	Moderate	Mod. Except licei & similar institutions
(xiv) Relative importance of BT quals. as market signals in terms of initial employment decisions:										
(a) content and vocational specificity:										
(b) 'outcome differentiation' in terms of level of educ., and grades:	Mod	High	Low	High	High if incl. VT	Mod.	Mod, B	High	High (Voc. Schools)/ Low academic	Moderate
(xv) Institutionalised Linkages to LM (through apprenticeships and OLMS etc.	Low/Mod	Very High	Low	High	Mod./high if include VT	Low/Mod	Very low	Very high	Low	Low
<b>C. Third-level Education</b>										
(xvi) Progression Rules/ Selectivity	Moderate to low if get Bac.	Low if get Abitur	High, even with LC	Moderate if get qual.	Moderate if get Highers	High	Mod/High F	Low if get Matura	High (university) Mod/high (AMK, vna, collegas)	Low if got Maturite
(xvii) Standardisation	High	High	Mod./high	Mod./high	Mod./high	Low	High	High	High	High
(xviii) Track Differentiation	High	Mod./high	Mod./high	High	Mod./high	Moderate	High, G	Mod	High	Moderate
(xix) Outcomes Diff.	High	Mod./high	High	High	Mod./high	High	Mod	Mod, but high dropout rate	High	Mod/high
(xx) LM linkage	Mod./ variable <sup>4</sup>	Mod./ variable <sup>3</sup>	Mod./ variable <sup>2</sup>	Mod./high <sup>3</sup>	Mod./ variable <sup>2</sup>	Mod./low	High/low H	Moderate only	Mod./ variable	Mod./Low



- Notes:**
1. Certain aspects of French higher education (e.g. DUT, BTS business, engineering and health schools, ingénieur-maitre, DESS) have strong labour market linkages. This is not the case, however, for more general 'academic' courses.
  2. Some subject areas (e.g. professional specialisation's) have very close labour market linkages.
  3. HBO courses have strong labour market linkages while university courses tend to have weaker direct links.

### Concepts/Definitions:

#### (i),(xi): *Track Differentiation:*

Refers to the extent to which pupils/students are allocated to or divided up into separate 'curricular tracks', and even into separate linked school types. While most EU ET systems are comprehensive/general at lower second level both the German 'dual system' countries and the Netherlands are very differentiated by curricula/school-types at lower second level. At upper second level, or in associated full-time VT courses, the degree of differentiation increases in most EU countries – even where comprehensive/general at lower second level.

The concept of 'track differentiation' has also been used to refer to the allocation of pupils to different 'curricular levels' (for example 'Foundation', Pass/Ordinary, Honours/Higher) within particular subjects or groups of subjects in otherwise comprehensive curricular/schooling systems – as in the American case for instance (Rcfs). – e.g. to 'vocational tracks' and to honours or 'College tracks'; or to 'Pass general' and Honours tracks as in the Irish system. (Hannan, O Riain, 199). This is an explicit hierarchical differentiation of students by their presumed level of potential achievement within an otherwise comprehensive/general system of curricular provision.

In our case however we use the term only to refer to the former – in terms of the curricular type or content – not to its level. The level of course/curriculum taken will be included within our concept/measure of 'outcome differentiation'.

#### (ii),(x): *Standardisation:*

Refers to the extent to which the state, or regional/federal-state authorities, define or closely regulate the content/levels of curricula/syllabi in different subjects – and set obligatory minimal set of subjects to be taken etc., by regulation/inspection ensure that this curriculum is taught in schools, sets minimal 'end points' or standards to be achieved by the end of each course/period etc. – e.g. after ¾ years of lower second level education, for instance; and sets and regulates/monitors examinations so that equivalent standards are used across schools etc. – usually at end of period of study for lower and upper second level education.

#### (iii),(ix): *Pupil selection and Progression Rules:*

Refers to the extent to which pupil/student selectivity into 'tracks' or school types is a random or neighbourhood/community based process; or is one in which pupils are selected into some tracks/schools by academic/performance or other social criteria – such as gender and social class or ethnic group etc.

Selection by class, gender and ethnic group as well as by academic 'ability'/performance appears to be quite high, for instance, in the Dutch and German systems – and at very young ages. It appears to be much less so in France, and minimal at lower second level in the Scottish comprehensive type system. In the Irish case although there is no explicit selection by track/school, schools are allowed to compete with each other and there is a high degree of inter-school selectivity which occurs informally, although all/most schools operate within the same curricular/examination framework. There is no explicit comprehensive schooling policy as in Scotland. So Irish schools are quite differentiated by the class, gender and general academic ability of their pupil intakes.

#### (iv),(ix): *Outcome differentiation:*

This refers to the extent to which at the end of the period of study – whether at upper or lower second level, and irrespective of curricular tracking – and culminating usually in final examinations, pupils performance levels are measured, and finely or roughly graded certifying 'how well' they have performed in the courses/examinations etc. Examination and certification systems vary in the extent to which pupil achievement levels are finely graded – whether with a simple 'Pass/Fail' dichotomy or a finely graded system of marks/grades for each subject and level – such as A1, A2, B1, B2, C1 to C3, D, E, F, etc. The Dutch, German and French systems, for instance, appear to be based mainly on Pass/Fail distinctions, whereas the Irish system is very finely graded within each subject with no explicit Pass/Fail distinction in each subject or in the overall examination system.

These dichotomous Pass/Fail distinctions may or may not be very important in gaining access to subsequent educational courses such as third level – even where the full range of grades are available for selection as in France, the Netherlands and Germany (except for a limited range of 'numerus clausus' courses); or the full range of grades/'points' may be used may be used in selection – which tends to be the case in Ireland and to a lesser extent in Scotland. Equally employers may use such fine or rough graded distinctions to choose amongst job applicants (Breen et al., 1995).

