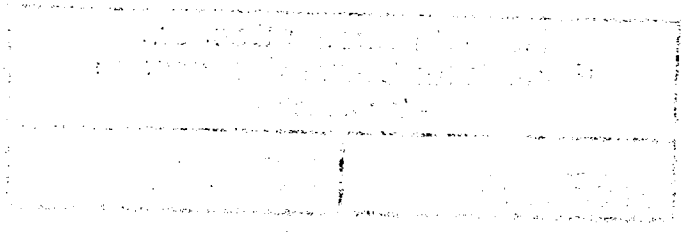
Stefan Immerfall · Göran Therborn
Editors

Handbook of European Societies

Social Transformations in the 21st Century



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Contents

Country Codes

A	Albania
AT	Austria
BE	Belgium
BH	Bosnia-Herzegovina
BG	Bulgaria
C	Croatia
CZ	Czech Republic
CY	Cyprus
DK	Denmark
EE	Estonia
FI	Finland
FR	France
G	Gibraltar
DE	Germany
EL	Greece
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
LV	Latvia
LT	Lithuania
LU	Luxembourg
MC	Macedonia
MT	Malta
M	Moldova
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
R	Russia
S	Serbia
SK	Slovakia
SI	Slovenia
ES	Spain
SE	Sweden
SW	Switzerland
TR	Turkey
U	Ukraine
UK	United Kingdom

Editors

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Chapter 9
Education

Walter Müller and Irena Kogan

9.1 Introduction

In most of present-day Europe, people spend about a quarter of their life in education and training. About a quarter of the present population of Europe are currently pupils or students, and the various groups of education and teaching professionals are the single largest professional group in the European labour force. The time spent and the attainment achieved in education and training is among the most influential determinants of the opportunities and living conditions later in life. Indeed, the more time is spent in education and training, the longer and more prosperous and advantageous life tends to be. Education plays a crucial role in shaping labour market outcomes, social stratification and mobility, the social disparities in life chances and the reproduction of such inequalities from generation to generation. Formation of human capital is not only individually a profitable investment but also considered essential in the international competition of economies. Education also affects many social, cultural and political domains such as value and attitude formation, political interest and political and social participation.

In the past, the development of a system of basic compulsory education has been one of the main elements in the formation of national identities and in the cultural integration and homogenization of the nation-state societies in Europe. Also today, education and its macro- and micro-level social and economic consequences may play a crucial role in the making of a future European society. What is learnt in schools is likely to influence whether and how the old national or regional identities will be complemented by European elements. Another factor for the formation of a European society is migration of people across the old national borders. Here again, education is pertinent. Mobility across borders is strongly tied to portability of qualifications, and especially the second generation's integration into the host society very much depends on language learning and achievement in schools.

The powerful role education plays for the life of individuals and the development of societies is largely common to all modern societies. At the same time, when looking more closely, considerable differences appear between countries. Life in schools and the experiences pupils and students make while in education can differ a lot from country to country. The timing in the age at which infants, children, adolescents and adults spend different amounts of their daily life in educational institutions varies as do the level and kind of

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competences different groups of the population acquire in schools. Countries also differ in the kind and distribution of certificates and credentials at different levels and types, and they differ in what acquired competences and qualifications imply for later life outcomes. How then can we explain what is similar in different countries and what is not?

What is similar in different countries usually is due to the operation of mechanisms and developments that are so forceful that they apply practically everywhere. In the case of education these are the benefits individuals, the economy and society expect and draw from education in the modern world. In all countries educational institutions have been installed to teach individuals the knowledge and skills they are thought to need as workers and citizens in adult life. Everywhere qualifications obtained through formal education and training have become an essential criterion employers use to recruit workers to work positions with different job tasks and rewards. Individuals acquire these qualifications in view of the benefits they expect from them for their future life and depending on how difficult and costly the acquisition of qualifications is for them. Much of the similarities and regularities observed in different countries are due to the fact that education everywhere has received this instrumental role of providing individuals with crucial resources in which families and individuals invest early in life and receive benefits later in life. This is the basic idea of the human capital theory of education (Becker 1964; Mincer 1994).

But what then accounts for differences? The two most powerful factors include, first, differences in the general economic and socio-structural development of countries, and second, differences in the institutional arrangements that are set up for education in different countries. Countries with lower levels of economic development and wealth and with still large shares of technologically little advanced production of agricultural or other goods spend less for education. Fewer individuals than in more advanced countries acquire high levels of education. Apart from this, a lot of variation between countries derives from the different ways the supply of education is institutionalized in the educational system of different countries and in the rules that govern the provision of and access to education as well as in the costs that are imposed to those who participate in education. The specific conditions given both by the level of development as well as the arrangement of educational institutions constitute the set-up within which the more general mechanisms of investing in and collecting returns from education come to play and then can lead – because conditions vary – to different outcomes. One important mechanism here is the signalling capacity attached with education (Arrow 1973, Spence 1973; see also Section 9.5.4 below). Concerning outcomes of education such as in the labour market or in the political system evidently also institutional or other conditions in these outcome spheres can vary between countries and then lead to different consequences of similar education.

In Section 9.2 we therefore first describe essential characteristics of educational systems and the institutional variations therein in different countries of Europe. In Section 9.3, we then examine the expansion of educational opportunities and educational participation as well as the varying levels of education in the different age groups of the European populations. In Section 9.4 we focus on the role played by education for the social stratification of European societies: the social inequalities in educational attainment and in the level of competences gained while at school. In further sections we then look at various outcomes of initial education; among them language competence, participation in lifelong learning, the role education plays for labour market outcomes, in particular in early working life, when school leavers and graduates make the transition from education to work. Finally we address implications for policies, especially political participation of citizens and their political orientations.

9.2 Educational Systems and Institutional Variation

Educational systems are among those institutional infrastructures of European societies that due to their historical legacy strongly vary between countries. These systems did not emerge along some rational plan. They rather are the result of historically specific cultural orientations, socio-economic conditions and power relations among interest groups and political parties in the long periods in which the educational systems were gradually built up and further developed. It began with the process of alphabetization from the 18th century onwards; in the second part of the 19th century compulsory elementary education for the general populations was first introduced; in the early part of the 20th century especially following WWI various forms of vocational and general secondary education slowly expanded; in the second part of the 20th century secondary education became more or less universal and also tertiary education strongly expanded and changed from elite to mass institutions. In the early periods in which the states gradually displaced the churches as main suppliers of education especially value conflicts in different varieties of *Kulturkampf* influenced the ways in which the states took over responsibility for and control over education. Later, the conviction that education influences the economic and social opportunities of various population groups let to heavy political dispute and class conflict about educational reforms and the further development of the systems. As these battles differed in different countries they contributed to the emergence of different institutional forms to assure the general education of the population and their vocational preparation for working life. Early developments have influenced later adaptations and through path dependencies the pluriform landscape of present-day educational systems in Europe has emerged.

We cannot review these national developments in any detail here.[1] Boli et al. (1985) describe one historical source that was highly consequential for later educational development in Europe: The expansion of mass education served as a new integrative link between the individual and the society at large in the development of modern societies and the nation building process. They distinguish two patterns in which this integration has been pursued. In the first, the individual is predominantly conceived as a *member of the moral order of civil society*. In the second, the individual is integrated predominantly as a *member of the nation state*. Which model predominates depends on the strength of the state as a formal central authority structure. In the societal member model, the central authority structure is weak; and individual citizens are integrated into a network of more or less autonomous institutions and associations that together constitute the society. In the nation-state model, the role of individuals as members of a common nation state is stressed. The state is an active force incorporating its citizens through its institutions and imposing strong obligations on them to participate in state-directed national development (Boli et al. 1985: 159; but see also Marshall 1964, Bendix 1964). Education is typically institutionalized in different ways in these two models. In the societal member model, education is decentralized, organized on a communal or even private basis, and it develops naturally through initiatives at the base of society with different branches not really connected to each other. In the nation-state model, the state promotes a mass educational system with a high degree of uniformity in order to transform all individuals into members of the national polity. From the systematic structure it develops, one would expect that its credentials would also be

[1] For general background of education development see Ringer (1979); Archer (1979); Fägerlind and Lawrence (1989); Müller (1994); for France, Prost (1981); for Germany, Lundgreen (1980, 1981); for Britain, Shipman (1971).

more systematically linked to positions in the labour market than the hardly comparable certificates provided by the less orderly institutions in the societal member model. The divergent developments of the educational systems in the various countries show that in many ways the United Kingdom and countries that developed under its influence as the United States or Australia are cases of the association/societal member model, whereas France and Germany and most of the continental countries are more aptly described by the nation-state model.

Several characteristics of educational systems today can still be traced back to these early beginnings. Other important influences derive from differences in the development of different welfare-state models. The political forces which were able to put their mark into the formation of different welfare-state institutions usually also had different conceptions about the role of education for the welfare of citizens. They had different views which arrangements in education and training would serve their aims, e.g. the conservation of the status order and the protection of status groups vs. policies of equal educational opportunity or gender equality (by building educational services in ways allowing women to better reconcile family duties and work career pressures).

Important dimensions along which the educational systems in various countries of Europe distinguish themselves include the following:

- The degree of centralization in the administration and control of the educational system by the central state, by federal state *Bildungshoheit* or even communal responsibility in (some) educational matters;
- The division between different forms of public and private supply, financing and control of education;
- The degree and the forms of differentiation in the educational pathways and the degree of segmentation among them;
- The degree of variation between different education institutes in a given educational sector (schools, colleges, universities) concerning educational content, curricula and examinations and quality (e.g. distinction between elite and mass sector).

Different parts of a country's educational system often differ in these characteristics. Parts of the system may be centrally controlled while others are controlled at the regional level. Some sectors of education may be rather homogeneous throughout all regions of a country, while for others there is more variation between different parts of a country. In some countries private institutions mainly exist in pre-school or tertiary education, and in other countries private segments exist besides public ones in most sectors of education. Elite institutions may exist only or mainly at the tertiary level, such as the *Grandes ecoles* in France. It is thus hardly useful to try to characterize entire educational systems in some ideal-typical way. In the following we therefore briefly describe the variety of the educational landscape in Europe separately for the major usually distinguished segments of educational systems: pre-school education, primary education, general and vocational secondary education, and tertiary education.

9.2.1 Institutional Child Care and Pre-school Education

We have deliberately chosen this section title because, depending on the age of a child and pedagogical philosophies, the relative role attached to the family and to extra familial

institutions for caring and early "education" in the sense of some structured teaching and learning strongly varies. How long children should be cared in the parental home before they are entrusted to extra familial public or private institutions is still – in some countries at least – a matter of considerable controversy, and hence, large differences exist between countries in the services offered to this purpose and in their use by parents. But for two main reasons, in most countries, increasingly larger proportions of children at ever younger ages make extra familial experiences together with other children in crèches, kindergartens or other pre-school institutions. Families increasingly demand such services for children to facilitate combining family and working life, especially for women. And, secondly, it is increasingly assumed that children profit from "enriched learning environments in which they can explore, play and enjoy positive social interaction, both with caregivers and other children" (OECD 2002:14), especially when the services become more professional and their quality improves. Also, with declining family size early contacts with other children outside the family are assumed to become more important to develop social skills. As to the dimensions that are especially important for the child's development and later success in school, the US National Education Goals Panel (1997) lists the following: health and physical development; emotional well-being and social competence; positive approaches to learning; communication skills; and cognition and general knowledge. The relevant pedagogical literature discusses the question of the most favourable balance between fostering the emotional, social and cognitive development of children, and how best this can be achieved at different ages through institutional care (Roßbach 2003: 252). According to Leseman's (2002) review of recent neuroscience research both cognitive and socio-emotional outcomes should be pursued simultaneously. "Children's self-esteem, self-confidence, work attitudes and social skills support cognitive development, while, in turn, cognitive achievement reinforces the well-being and self-image of children" (OECD 2002:14). It seems evident that very young children especially need attention to their socio-emotional needs. But research has also shown the huge impact on cognitive and especially language development of exposure of children in the early childhood to a rich environment of cognitive stimulation (Leseman et al. 2001; Blok et al. 2005; OECD 2006). Thus, in particular, children who grow up in families that cannot provide a stimulating environment should profit from high-quality extra-family institutions, notably children in the lower classes or in migrant families with poor receiving country language competence.

In most countries, services offered differ by age of children. For children below 3 years of age, in various countries beside institutions such as crèches, more private day-care services in other families are also offered. Such arrangements are not well covered in statistical sources and reliable comparable information is lacking. However, extra-family care of infants and very young children is most frequent in the Scandinavian countries, in France, and was also widely available and used in the Eastern European countries during the socialist period, but after the fall of socialism it declined in many countries because it became more costly for families and because, due to rising unemployment, employment of women declined.

From age 3 onwards, children in most countries visit kindergartens and similar pre-school institutions, with emphasis of structured learning increasing with the age of children. In most countries, participation recently has increased. In 2005, on average, close to three-quarters of all 3-year-old children are enrolled in the EU-27 countries (see Table 9.1). Participation is above average – and in some countries almost universal – in Scandinavia (except Finland) and in Belgium, France, Spain, Italy, Germany, the United Kingdom, Malta and Estonia. In practically all countries of Eastern

AQ2 **Table 9.1** Participation of children in pre-school education, % of population in 2005

	EU member states	Other countries
At age 3:		CH (8%)
Below 25%	IE (2%) NL (0.1%)	
25–49%	AT (48%) CY (32%) PL (28%) FI (38%)	HR (42%) AU (30%) US (35%)
50–69%	LU PT BU CZ LV LT HU RO SI SK	JP
70–89%	DE EE MT SE UK	NO
90–100%	BE DK ES FR IT	
No information	GR	
72.3%	EU 27 average	
At age 4:		
Below 50%	IE (1%) PL (38%) FI (47%)	HR (45%) CH (38%)
50–69	GR CY LT	
70% or above	All other countries	

Source: Own calculations. Based on data from Eurostat Homepage/ Population and Social Conditions/ Participation / Enrolment in education (ISCED 0–4) Indic_ed_p01_1; date of extraction 30 August 2007.
Country abbreviations: AT – Austria; BE – Belgium; BG – Bulgaria; CH – Switzerland; CY – Cyprus; CZ – Czech Republic; DE – Germany; DK – Denmark; EE – Estonia; ES – Spain; EU27 – European Union (27 countries); FI – Finland; FR – France; GR – Greece; HR – Croatia; HU – Hungary; IE – Ireland; IS – Iceland; IT – Italy; JP – Japan; LT – Lithuania; LU – Luxembourg (Grand-Duche); LV – Latvia; MT – Malta; NL – Netherlands; NO – Norway; PL – Poland; PT – Portugal; RO – Romania; SE – Sweden; SI – Slovenia; SK – Slovakia; UK – United Kingdom.

Europe and in Portugal it is below average. Less than half of all children participate in Austria, Finland, Poland and Cyprus, and it hardly exists at age 3 in the Netherlands, Ireland, Turkey and Switzerland. In the Netherlands and Ireland the very low participation rates in pre-school institutions is partly compensated by a very early start of schooling (see section 9.2.2 below). On average, participation is larger in the EU than in countries like the United States, Japan or Australia. At age 4, participation is clearly higher in most countries that have below average participation at age 3, but it remains especially low in Ireland, Poland, Finland, Switzerland and Croatia. The main factors which explain the cross-country differences in participation rates include the publicly supported supply and the relative cost burdens for the families. Participation, however, also varies between different population groups within countries. It is often lowest in families of lower social classes and of migration background, in which participation probably would be most profitable for children. What makes them participate less most likely is the relative cost burden. In these families, mothers (and partly fathers as well) encounter often particular difficulties to find employment and their gains from working – compared to the costs of childcare and pre-school participation – are lowest. In migrant families, another likely barrier is the cultural distance and mistrust against host country care institutions.

Countries not only differ in participation rates. They also differ in many ways in the public or private organization of the services, staff professionalization, financing and cost sharing between the state and family budgets and – most difficult to assess – the service quality and the more socio-emotional vs. cognitive-educational orientation of the activities agenda of the institutions. A recent OECD assessment (OECD 2002:15) observes that in the Nordic countries emphasis is on the child's own interests, on play and interactive group work and on child initiated activities to develop children's self-esteem, social responsibility and inter-personal skills. In the English and French-speaking

countries, in contrast, programmes tend to focus more on cognitive development and on early literacy and numeracy. It is suggested that measures to support cognitive development are stressed because of the greater heterogeneity of populations in the latter countries and the higher proportions of bilingual children, and of children at risk of school failure.

All in all, we see that the organization of all-day life in families with small children and their early experience with non-family institutions is still rather different among countries in Europe, both in view of the age and the length of time in which they make these experiences as well as in view of the characteristics of the experiences they make.

9.2.2 Primary Education and the Transition to Secondary Education

The institutional set-up and the teaching content of primary education is probably the part of education with the largest degree of similarity in various countries of Europe, especially in the first years of primary education. Everywhere, there is little differentiation, neither in the institutions which provide primary education nor in curricula for different groups of pupils. Almost all children in most of the countries are enrolled in a primary education school, which is common for all children, mostly with no or at most little ability tracking. The curricula are also rather similar across countries. They focus everywhere on the basics in native language, reading and writing, numeracy, nature and the environment, some sports and arts/crafts activities, e.g. in drawing and music. The most pronounced difference between countries concerns the teaching of foreign language which in some countries already starts in the early years of primary education while in other countries, notably in the Anglo-American world, foreign language learning starts later and with less emphasis.

In most countries compulsory primary education begins at age 6. It starts at age 4 in the Netherlands, the Republic of Ireland and Northern Ireland, and at age 5 in the other parts of the United Kingdom, Latvia and Malta. It starts only at age 7 in the Nordic Countries (except Norway) and in a few countries of Eastern Europe (Estonia, Poland, Bulgaria). In countries in which primary education begins early the very first years partly resemble to what is pre-school education in other countries. Still, the earlier or later inclusion of children into the formal programmes of primary education is indicative of the earlier or later beginning of more purposive teaching and structured learning. It also has the consequence that education tends to be concluded at younger ages and entry into the labour market takes place earlier in countries with an early start of schooling. The Scandinavian countries with their late school entry have the oldest students in Europe (Eurostat 2005:155).

While the early years of primary education are quite similar across countries, with increasing time in schools the educational realities become increasingly different across countries. In some counties, notably in the Scandinavian and Baltic countries, and also in Portugal and Slovenia, there is no clear transition between primary and lower secondary education. There is only one school type continuing more or less until the end of compulsory schooling. In other countries (mostly after 6 years) pupils transfer into a school of lower secondary education, which however has no separate tracks and teaches all students practically the same curriculum, such as in the *Collège* in France, the schools of secondary education in Spain, the *scola media* in Italy or the *Gymnasion* in Poland. In other countries, like Austria, Germany, the Netherlands or Switzerland, and also the Czech and Slovak Republics and Hungary since the system change, the transition from primary and secondary education is also the point at which the pupils are sorted into different types

of secondary schools which clearly differ in their curriculum and ability requirements. Still another model exist in the United Kingdom, where pupils after 6 years of primary education transfer in comprehensive secondary schools, which however have a lot of differentiation in the subjects pupils focus on and in the competence level at which these subjects are studied.

9.2.3 Secondary Education

At the secondary level, education serves rather diverse aims: It selects and prepares students for higher education at the same time as it prepares other students for many different jobs in the labour market that usually do not require higher education. In different countries different solutions and institutional arrangements were found for these diverse chores. We cannot describe here the full plurality of different regulations and diversity of institutional forms in any detail. We rather focus on a few select aspects which have important consequences for the kind of qualifications people obtain and the more or less equal distribution of education among the population:

- Length of compulsory education
- School track differentiation
- General or vocational education
- Tertiary education eligibility

9.2.3.1 Length of Compulsory Education

While making education compulsory, states attempt to define a kind of minimum of education that is felt indispensable and hence imposed on all citizens. Historically it often took a long time to establish the rule that all children indeed regularly participate in education, initially though only for a few years. Even at the turn to the 20th century participation rates were still very low and only tiny minorities had some secondary education. Among children aged 5–14, only about 40% were enrolled in schools in Finland and Italy, between 60 and 70% in Austria, Belgium, Denmark, Norway and the Netherlands, between 70 and 85% in France, Germany, Ireland, Sweden and Switzerland. In most of Eastern Europe and Russia participation rates were below 40%. Beyond age 14 participation rates in most countries were very poor. In the course of the 20th century, the length of compulsory education has been increased steadily, and now in all Europe, children have to stay in school at least until age 15. Increasing the length of compulsory education has not only been a means of increasing the minimum level of education, but has also resulted in a less skewed and more equal distribution of education. In terms of educational equality it matters a lot whether most people have only four or five years of education while a few receive four times as much, or whether all spend at least 10 years in schools and those with most educated about twice as much. In most countries of Europe compulsory education presently lasts 9 years (see column 2 in Table 9.2). Only in Romania it remains at 8 years, while 10 years or more are required in several countries. Compulsory education is especially long in some of the new member states in Eastern Europe, and in Spain, France, the Netherlands, Norway, Ireland and in the United Kingdom. Further upward shifts can be expected for the future.

Table 9.2 Characteristics of secondary education

	Length of compulsory education in years	Age at first track – differentiation	% of upper secondary students in general track
EU 25			37.3
Austria	9	10	27.7
Belgium	9	12	30.3
Bulgaria	10	14	44.5
Cyprus	9	15	86.2
Czech Republic	11	11	19.8
Denmark	9	16	47.0
Estonia	9	16	68.5
Finland	9	16	42.8
France	10	14	43.7
Germany	9	10	37.0
Greece	9	16	60.0
Hungary	13	10	87.2[a]
Ireland	10	15	100
Italy	9	14	73.2
Latvia	11	15	60.9
Lithuania	10	14	71.8
Luxemburg	11	12	36.0
Malta	11	16	67.2
The Netherlands	12	12	30.8
Norway	10	16	42.0
Poland	9	16	39.1
Portugal	9	15	71.2
Romania	8	15	26.0
Spain	10	16	62.0
Sweden	9	16	50.4
Slovakia	10	10	23.6
Slovenia	9	16	29.7
United Kingdom	11 (12 in NIR)	16	27.9

Source: Columns 2 and 3: Eurostat (2005: 56–63); Column 4: Eurostat (2005: 140).
[a]This figure is questionable, as according to other sources (UNESCO 2007) it should be lower.

9.2.3.2 School Track Differentiation

Sooner or later all educational systems split up the student population in segments which follow different tracks or courses of study. This is indispensable because not everybody can study everything and also because students have different abilities and preferences. But various questions arise: Which knowledge and general competences should be shared by everybody, either because they are an essential prerequisite for further more specialized learning or because it is considered a basic resource for full participation as citizen in social life? Which degree of specialized tracking is hence useful at which point in the educational career? Are tracks mainly distinguished by subject areas or by school performance or ability level of students? Which criteria are used to assign students to different tracks and who decides? How strongly segmented are tracks from each other and how open are they for between track mobility in the course of the educational career?

The earlier students are assigned to different tracks, the more likely they will end up with different kinds and levels of knowledge, competences and qualifications. Inequality between students will tend to be larger (Wößmann 2007). The more tracks are segmented by ability level of students, the more likely these tracks will also be academically more

or less demanding and represent learning and development environments with different degrees of stimulation for the students. Students in more demanding and stimulating environments will make more progress than students in less demanding and stimulating environments, even when controlling for level of ability and competence of students before track entry (results from BIJU project; Baumert et al. 2006). However, the mediating processes and mechanisms are highly complex and not yet fully understood (Baumert et al. 2006). General competences and skills (like reading, writing, reasoning, numeracy, computing) tend to be more flexibly applicable in different life and work domains than specific knowledge, competences and skills that more narrowly relate to a particular subject area or occupation. Track systems which differentiate students according to their school performance tend to segregate students more by social class, whereas tracking systems which specialize more along subject areas or occupational specialties likely segregate more by gender. When track allocation is decided by competence or ability tests the result is less class biased than allocation by school marks or teacher's recommendation. Class bias increases with increasing leeway left to parental preferences and decisions. Secondary educational systems in Europe strongly vary along most of these aspects, but there is no sufficient research yet that would allow drawing a detailed map for all countries.

Columns 3 and 4 of Table 9.2 provide information on three rather crude characteristics of secondary education in Europe, which, however, have quite substantial consequences especially as regards inequalities of educational opportunities and labour market outcomes of education.

Column 3 shows that the age at which pupils are first sorted into different tracks varies a lot in different countries of Europe – from 10 to 16 years. Three groups of countries can be distinguished: The first group already sorts at age 10–12, usually when students transfer from primary to lower secondary school. In the intermediate group of countries transition into different tracks takes place at age 13 or 14, either at the end of a much longer stage of primary education or during lower secondary education. In the third group tracking only occurs at entering or during a relatively short stage of upper secondary education at age 15 or 16. Late tracking was first introduced in the Scandinavian countries, somewhat later the United Kingdom and Ireland joined, and in more recent reforms it was also introduced in Southern Europe (except Italy). Also, some countries in Eastern Europe (Estonia, Poland, Romania and Slovenia) introduced late tracking early, and still keep late tracking. Meanwhile most countries have late tracking, usually only in the post-compulsory stages of education. Thus compulsory education is spent in school classes which are common for largely all pupils of a given age (except for late entrants, repeaters or pupils with handicaps who need special service). The intermediate group of countries includes France (and likely under its influence) Belgium and Italy, but also Bulgaria and Lithuania in Eastern Europe. Reserves of very early tracking remain in Central and Central Eastern Europe: in Germany and its neighbours the Netherlands, Luxemburg, Switzerland, Lichtenstein and Austria and the offspring countries of the Austrian–Hungarian Monarchy, Hungary, Czech Republic and Slovakia. It is interesting to note that the latter countries, as well as Russia, Belarus and Croatia, recently re-introduced early tracking as a post-socialist reform. In these countries, following competitive examinations, pupils can enter selective elite-type gymnasia with a strong academic orientation (Cerych 1997; Kotásek 1996). It should be mentioned, however, that pupils in the Czech Republic, Hungary and Slovakia who do not enter selective gymnasia can continue in a single-structure school, which formally offers similar prospects for tertiary education as gymnasia do. The reality is, however, that graduates of selective gymnasia have higher transition rates to tertiary education and are, on average, better equipped with the skills and knowledge to succeed there (Kogan 2008).

Defenders of early sorting usually assume that segmenting pupils into groups of homogeneous ability and school performance makes teaching and learning more efficient because it can be better adapted to the pace of students. However, effects in this direction are at most weak and its advantages can be counterbalanced by negative consequences of stigmatization of students in low achievement tracks and by weakening social integration and cohesion. As research discussed further below shows, it can be widely taken for granted that early tracking is furthermore associated with the generation of more educational inequality with particular disadvantage for lower class and migrant families.[2] Considering the status-conserving consequences of early sorting, it is perhaps not surprising that the list of early-sorting countries in Central Europe heavily overlaps with those countries that also share various other institutions of conservative welfare states. On the other side, all countries with a social democratic welfare-state model postpone tracking. However, also liberal welfare states such as the United Kingdom or Ireland have late tracking. In these countries, acceptance of late tracking could be related to ideas in the liberal political philosophy which stress the importance of empowering individuals with the resources they need to make it themselves in markets[3] while in social democratic policies late tracking may be seen more as an element of policies which foster social equality. Timing of educational tracking is thus plausibly associated with other welfare state characteristics, even though the association is not perfect. The association is especially less clear for Southern Europe and for Eastern Europe where the new democracies have yet to establish and stabilize their welfare institutions.

9.2.3.3 General or Vocational Education

The timing of tracking is partly also related to the predominance of general or vocational orientation in upper secondary education. Most educational systems provide a mix of tracks; but some systems provide more places in tracks that have a general orientation; other systems provide more places in vocationally oriented tracks. In most systems vocational tracks become available at the earliest only towards the end of compulsory education, in many countries (especially those with late differentiation) only at the level of so-called upper secondary education. The general tracks are often academically more demanding and their main mission is to prepare students for later entry into higher tertiary education. The vocational tracks usually prepare for entry into the labour market; they specialize in various occupational areas and are often intended to cater for students who are stronger or feel more comfortable in doing things practically rather than study them theoretically. Many systems have inbuilt selectivity in the sense that only students with good school performance are given access to the higher levels of general education. The vocational tracks then often include more students with weaker cognitive abilities, school motivation and

[2]For instance, in practically all countries with early segmentation disparities between students of different social class background in school performance towards the end of compulsory education are larger than in the international average of countries (see Figure 9.4 below).

[3]This does parallel as it appears other 'liberal' elements in the UK educational system, such as the high degree of free choice among curriculum subjects left to individual students early in the educational career, the relatively high degree of autonomy of schools or aspects mentioned above in connection with the discussion of Boli et al. (1985) on the civil society characteristics in the early history of educational development. A further related characteristic of the UK system is the considerable role of private schools in secondary education which evidently represents an alternative form of tracking which allows well-to-do families providing privileged educational opportunities to their children.

school performance, and a more or less pronounced hierarchy evolves between the tracks. In most countries, vocational tracks are overwhelmingly oriented towards manual and technical occupations whereas general tracks have a closer affinity towards office and service work. This probably partly explains why girls usually are more often found in general tracks and boys more often in vocational tracks (OECD 2007:46-47).

In the process of educational expansion – whenever larger proportions of a cohort entered upper secondary education – the institutions of both general and vocational education have been transformed. In fact, often reforms have been pursued to motivate higher numbers of participation. The general track has traditionally offered a quite uniform curriculum to prepare for university matriculation. In the course of expansion and reforms it often diversified into various streams of specialization. Different types of final qualifications were introduced, such as different types of *baccalauréat* in France, *Abitur* and maturity types in Germany and Austria and corresponding differentiations in other countries. While in earlier decades, upper secondary education was mostly dominated by the general track, in many countries vocational tracks have particularly expanded. On the average of the EU27 countries in upper secondary education, students on a vocational track outnumber those in general tracks. The fostered expansion of vocational education was partly motivated to reduce the number of early school leavers who otherwise would have entered the labour market without qualifications. In some countries it was partly also politically stimulated by its priority in the EU educational policy agenda. Another motivation derived from the observation of its successful history and the rather good labour market prospects of its graduates in countries such as Germany, Austria, Switzerland, the Netherlands and Denmark who have a long tradition of vocational education. The increase in the proportion of students in vocational education can at least partially be attributed to the EU expansion to the East, where vocational and technical education has traditionally been strongly represented.[4] Even though all CEE countries (apart from the Baltic States) have systems that predominantly favour vocational or technical education, the majority of their pupils leave education with a matriculation certificate. That is, despite its strong vocational orientation, the systems of vocational and technical education in CEE countries provide definitely more open access to tertiary education, than similarly organized secondary education systems in German-speaking countries.

However, aside these general characteristics and developments in general and vocational education, a world of difference exists in the more specific forms of their institutionalization in various countries of Europe. What is counted as vocational education in different countries is quite diverse. Sometimes it is hard to see what the "vocational" element is. For example, what Italy counts as vocational education has much less of practical, workplace based training than Germany's vocational education. There is probably more diversity between countries in the character of vocational education than in any other kind of secondary education. One might even say that the extent and character of vocational education is the main source of variation between countries in their secondary education. First of all, the number of places available in the two segments varies a lot (Column 4 in Table 9.2). We can distinguish three groups of countries: countries with an above average number of students in vocationally oriented courses (63% or more in vocational and 37% or less in general); at the other extreme countries with a clear majority of general

[4] It should be noted, however, that an increase in the enrolment of pupils in general tracks is rather apparent for CEE countries, with Latvia, Lithuania, Hungary, Poland and Slovenia having more pronounced growth rates (Kogan 2008).

education (60% or more), and the countries in between with similar share of students in either general or vocational education. Vocational courses of study clearly dominate in Central and Central Eastern Europe, in Germany, Austria, Switzerland, Luxemburg, the Netherlands, Hungary, the Czech Republic, Slovakia, Slovenia and also in Belgium, the United Kingdom and in Romania. The intermediate group of countries includes the Scandinavian countries, France, Poland and Bulgaria, while particularly little vocational training and a clear dominance of general education is found in Southern Europe, in the Baltic States and in Ireland. With a few exceptions and outliers we thus find clear regional clusters. This is especially interesting in the first group of countries, which heavily overlap with the early tracking countries. Aiming at building up a practically oriented workforce, these countries foster vocational training and at the same time separate early and provide different kinds of education and training to the students in vocational education and those in general education.

Further crucial differences relate to the form and context in which education and training is provided. While general education is usually provided in schools and classroom contexts, vocational education is much more varied, often combining learning in schools and practical work in workplaces. In the most explicit way these two learning environments are combined in the dual system model: While enrolled in a vocational school the learner at the same time has a paid learning/employment contract as an apprentice. The employer commits himself to teach the practical side of an occupation or profession either in regular workplaces or in special training shops within the firm. These arrangements predominate in Germany, Austria, Switzerland, Denmark and are partly also found in the Netherlands. Also, in the United Kingdom, there was a tradition of apprenticeship training, but it eroded.[5] While during the socialist period most of the countries in Eastern Europe had strong elements of enterprise-based apprentice training, dual system training has survived the market transformation as the dominant training arrangement only in the Czech Republic, Slovenia, Hungary (Austria neighbours) and Romania. In parts it also exists in Slovakia and Poland, whereas in the rest of countries it is mostly under the auspice of schools. While apart from dual system arrangements vocational education usually also includes elements of learning practical work tasks, learning is mostly school-based and workplace experiences are much less pronounced. In contrast to apprenticeship system (the roots of which reach back to the guilds in the Middle Age) in which specialized training is often offered for a large variety of specific occupations, school-based vocational training arrangements tend to be less occupation specific. Training relates rather to broader areas of work: not bicycle mechanics, car mechanics or aircraft mechanics as separate occupations, but mechanics in general.

9.2.3.4 Tertiary Education Eligibility

The different arrangements and curricula in general and vocational education are often connected with different degrees of permeability and mobility between the various tracks and courses of study, especially in terms of later access to tertiary education. Unfortunately, no well-harmonized data on tertiary education eligibility are available for the whole of Europe, even though such data are crucial to assess opportunities and barriers of access to the most profitable sector of education.

[5]The new apprenticeships that have been introduced recently are more an opportunity to make first work experiences rather than anything of a systematic professional training.

Successfully passing the concluding exams in the general upper secondary tracks usually provides access to a wide variety of study programmes at institutions of tertiary education. This is less the case for the vocational tracks, even though in many countries new routes through vocationally oriented education to tertiary education eligibility have been implemented (such as the 'baccalauréat professionel' in France, vocational gymnasia in several federal states in Germany or the vocational *Matura* in Switzerland. Notably, also in Eastern Europe, parts of vocationally oriented education has been upgraded towards more demanding courses in technical, commercial or other areas. Its the successful completion usually gives access to tertiary level studies, however sometimes limited to specific subject areas. But, especially in countries with strongly established vocational traditions, especially those with dual system arrangements, the vocational tracks often still have a somewhat dead-end character. Substantial amounts of additional bridging courses can be required to be eligible for tertiary studies. And even if – in other countries such as Italy– vocational degrees formally allow access, participation and success rates of vocational graduates in tertiary studies are usually clearly lower than among graduates from general education. Vocational graduates who continue education more often opt for post-secondary non-tertiary training rather than tertiary studies. Given the barriers vocational graduates encounter for entering tertiary education, participation rates in tertiary education tend to be lower in countries with extended vocational training than in countries with a prevalence of general tracks. In Western Europe this is especially true for Germany, Austria and Switzerland. Also in Eastern Europe an countries with a strong emphasis on vocational or technical education at the secondary level such as the Czech Republic, Slovakia, Romania, Hungary and Poland had low level tertiary participation. However, in most recent years Hungary and Poland experienced strong growth in tertiary education participation. Low tertiary education participation among vocational graduates is probably also due to the fact that direct access to jobs is usually easier than for graduates of general tracks.

In sum, secondary education is organized in highly diverse ways in Europe. It has experienced a lot of reforms and changes in the course of its expansion in the decades following World War II. Reforms have been unequal, but one general tendency in most of the countries has been to postpone selection of students into different tracks to higher ages. An exception to this general trend are the German-speaking and some of their neighbour countries which also in other respects show a high degree of continuation of their historical traditions. They conserved the strong emphasis of vocationally oriented and occupation-specific training organized in the dual system pattern, and – connected to it – the early segmentation of students in different schooling tracks. The early channelling into tracks with highly different opportunities for further educational progression is linked to other characteristics of a status-conserving welfare state. Interestingly, some of these characteristics are also found today in those Eastern European countries that historically were most subject to German and Austrian influence and powers. While after the separation from the Soviet Union the Baltic States – possibly taking Scandinavian developments as a model – moved to a strong emphasis on general education, especially the regions of the once Austrian–Hungarian monarchy retained, or reintroduced early selection and a strong emphasis on vocational training and a dual system type organization.

9.2.4 Tertiary Education

Over and above the universalization of secondary education, in almost all countries educational participation at the tertiary level has also strongly grown. In some countries already clearly more than half of a cohort obtain a tertiary degree. The process of expansion and its

reasons are described in more detail in Section 9.3 below. In terms of its institutional implications it is important to note that practically everywhere expansion has been connected with increasing differentiation of tertiary level education. Still in the first decades after World War II, it was more or less exclusively only universities that offered academically oriented studies. And while the organization of the universities and of the study programmes and teaching staff differed to some extent, this academic world was rather similar in different countries. But over the post-war decades two main factors have contributed to increasing differentiation of higher education within countries and increasing divergence between countries.

First, tertiary education is closely related to the development of science and the production of scientific knowledge. With its unprecedented growth, scientific knowledge has become more diversified. To successfully compete in the production of new knowledge, research institutions and researchers must increasingly specialize in their fields of expertise. The proliferation and specialization of knowledge also inevitably requires tailoring of knowledge in more specialized study programmes. The progressive growth and differentiation of scientific knowledge entails similar trends in higher education.

The second major force of diversification and differentiation derives from the expansion of the system which requires institutional reforms for the selection, management and canalization of the growing masses of students. General reasons for educational expansion are discussed below. Here we only note some specific aspects for *tertiary* education expansion in order to understand why this led to different forms of tertiary education differentiation in different countries. In many knowledge-intensive work areas for which a classical university education is considered indispensable, such as in the professions, in higher level teaching, in the higher ranks of private and public administrations or in research, labour market demand has grown. This trend is probably largely common in different countries and mainly depends on the general economic development of the countries. But the number of the students has also increased because in most countries tertiary education is considered appropriate for increasingly more work areas. Since higher education is usually connected with higher status and better remuneration, many occupational groups urge for academic or semi-academic credentials. In different countries, different groups pressure for and succeed to conquer such professionalization. Societal needs, pressures and success tend to be higher when traditions of vocational education on the secondary level are only weakly developed.[6] In Sweden, France and Spain, e.g. education and training for nurses and for several other medical auxiliary occupations are clearly part of tertiary level education. In contrast they are clearly part of the secondary level education in those countries which at that level have a strong vocationally oriented sector such as Germany, Austria or Switzerland. The same is true for many technical and other occupational fields.

Both expansion and need – driven by the development of science, labour market demand and interest group pressures – to invent ever new study programmes and competence profiles are strong forces of diversification of the system of tertiary education within single countries, but also of its growing divergence between countries. Differences between countries in established traditions of vocational and general education and different political compromises between the various actors involved in the described processes have led to varying policies of opening up and putting resources into tertiary education. In different countries all this has "caused" varying rates of expansion, different forms of differentiation and varying spectra of qualifications for which the tertiary education sector prepares.

[6]For a case study of new fields of work for tertiary education graduates in the United Kingdom see Elias and Purcell (2004). For a discussion on the relationship between secondary-level vocational education and tertiary education expansion see Müller and Wolbers (2003).

Also, the student populations became more heterogeneous over time within the individual countries as well as between the countries.

The differentiation of tertiary education observed in tandem with its expansion can be interpreted in the light of general organization theory, according to which growth of organizations usually tends to be accompanied by differentiation (Blau 1970). To become more efficient, the growing heterogeneity is handled by creating a larger number of homogeneous units. But as Arum, et al. (2007: 4) observe, the differentiation may not only follow expansion, but may also further expansion because in new segments of the educational system more potential students may find study opportunities attractive to them. Besides such functional interpretations of differentiation, Arum, et al. (2007) also point to interest-and conflict-based theories of the expansion–differentiation link: Differentiation can serve to secure the survival of privileged elite sectors of education in spite of expansion (Brint and Karabel 1989). A large body of literature has emerged on the diverse developments of the systems of higher education in different countries. The long-lasting work of Ulrich Teichler about the various institutional configurations of vertical and horizontal differentiation that emerged and changed over time in different countries is especially informative (see e.g. Teichler 1988, 2007a).

9.2.4.1 Forms of Differentiation of Tertiary Education

In most countries, differentiation of tertiary education went beyond merely increasing the number of study programmes. Differentiation usually also occurred via the introduction or strengthening of elements of stratification in tertiary education. Stratification here means the creation of courses of study with different duration, termination levels, cognitive demands, study efforts and labour market value. Often the traditional university studies – oriented towards science, research and academic professions and representing the top of the educational hierarchy – have been complemented by other programmes. These tend to be shorter, oriented towards practical application rather than research or have a less-demanding learning profile. Countries introduced such more diversified structures at different historical times. France massively expanded short programmes in the 1970s; Austria or Italy did so only in the new millennium. Countries also differ in the institutional integration of the various types of programmes. Two main types can be distinguished according to whether the programmes with the different orientation, requirements or termination levels are organized in *parallel* or in *sequence*. Systems with a parallel segmentation are often called *binary* systems. Systems with a sequential structure are also labelled as *diversified*. Some systems clearly correspond to one of these types, while other systems include elements of both types. Until recently, a few countries (such as Italy or the Czech Republic) still had *unitary* systems. This means that at the tertiary level they just offered one form of traditional long academically oriented university studies.

Binary system with a predominantly parallel segmentation has mainly developed in the European countries which have a strong tradition of vocational education and training, especially in Germany, the Netherlands, Denmark and more recently also in Austria, Switzerland and CEE countries. (In Norway a binary system developed without the vocational background in secondary education.) Besides the classical universities – oriented towards basic research – a second (lower) tier of tertiary education institutions with a profile oriented towards application and work praxis has been established in these countries.[7]

[7]Binary systems to some extent thus replicate with their parallel structure of different kinds of tertiary institutions the pattern of parallel general vs. vocational tracks at the secondary level.

They often developed out of attempts to provide opportunities of higher education to graduates from secondary vocational training who had no direct access to university studies. With the aim to provide their graduates career opportunities similar to those of university graduates, these institutions successively raised standards. This process was driven as well by the aspirations of the teaching staff to obtain status and remuneration equivalent to those of their colleagues at the universities. Thus, the 'second tier' institutions were gradually upgraded up to point where they call themselves 'universities of applied sciences'. Well-known cases of such a development are the *Fachhochschulen* in Germany, Austria and Switzerland or the *Hogschoolen* in the Netherlands. Remnants of their historical provenance include special entry requirements, most clearly perhaps in the Netherlands, where a separate track of secondary education is designed to prepare access to the *Hogschoolen*. In binary systems, a crucial line of differentiation exists between the tiers who offer clearly different study programmes and diplomas, while within a given tier there is no marked difference in requirements, quality or reputation of its institutions and study programmes. Another important characteristic of binary systems is that the two sectors really exist in parallel, side by side. The students enrol in either of these sectors with very little mobility between them. Also, only a very small minority of students strive for a university degree once they have concluded their studies at an institution of the lower tier.

The second type of structure of tertiary education is sequentially organized. These systems are dominantly structured by successive cycles of two or three study years. Access into the following cycle is dependent on the successful completion of the preceding cycle. But the study programmes of each cycle are organized in ways that the conclusion of each cycle is also an institutionally established entry point into the labour market. The labour market value of the qualification and the career prospects tied to it evidently vary with the level of the cycle concluded. Western Europe, France, Belgium, Spain and Portugal have most closely adopted elements of this model.

However, as the case of France illustrates, elements of binary and sequential structures are sometimes mixed. In France, the universities – the part of the system that serves most of the students – are structured in three cycles with usually 2–3 years duration. After each cycle a certificate can be obtained which provides access to the next cycles and also qualifies for gainful employment. While the organization in cycles clearly points to the sequential character of the French system, it also has elements of binary segmentation. Besides the universities which teach a broad variety of all traditional academic subjects, other institutions of tertiary education exist, which mainly specialize in technical areas. Most students in these institutions enter the labour market after the first cycle, but some institutions also provide programmes at the second cycle; and there are various options to transfer to second cycle studies at universities. Furthermore, the *Grandes Écoles* represent another, even more segregated domain. Access to them is highly selective and requires special preparation courses and examinations beyond secondary level graduation. There is extremely little student mobility between these and other tertiary education institutions. With their high intake selectivity and with the best labour market returns they clearly represent a separate elite sector of French tertiary education. A particular mark of these elite institutions is their high specialization for particular areas of the labour market, such as for public administration (ENA – *École national d'administration*). Pursuing a strategy to keep elitism side by side with professing democratization, tertiary education has altogether enormously expanded with this organizational structure in France: The system allows open access to tertiary education. However, a large proportion of students are sent into working life after a study period of 1 to 2 years, and the majority of tertiary level graduates only qualify at the short first level. The number of those who are admitted to the higher cycles

is carefully selected according to achievements in the system and has grown only slowly. Likewise, the *Grandes Écoles* have survived the education expansion relatively unchanged. Access to them continues to be highly selective and the number of graduates remain low. This solution mirrors the French educational traditions since the French revolution and particularly since Napoleon, in which the idea of elite formation and elite selection coexists with the idea of just and democratic selection. According to French educational thinking, these two guiding ideas are thought to be reconciled if the selection takes place according to criteria of performance shown (see e.g. Prost 1992; Brauns 1998). This is an interesting contrast to the public discourse in other countries, e.g. Germany, in which elite institutions are often seen as incompatible with values of equality.

The third relatively distinct model of tertiary education differentiation has developed in the United Kingdom in a tradition in which the educational system is not primarily the product of central state regulation, but has developed from initiatives undertaken by civil society with a considerable degree of institutional autonomy and regional variation between England, Wales, Scotland and Northern Ireland (Raffe et al. 1999). In this tradition a tertiary education system has developed that is characterized (similar as in secondary education) by much heterogeneity between institutions and a considerable role of private institutions. The latter not only include the elite universities of Cambridge and Oxford, but also many less distinguished training sites. The heterogeneity partly also derives from the fact that the boundary between the secondary and the tertiary level is not clearly defined and that tertiary level degrees are often obtained through part-time further education while already employed. The criteria and requirements of access into institutions of tertiary education as well as teaching levels and the requested performances of students vary to a large extent.[8] Also, the special set-up and the development of vocationally oriented training and the strong emphasis on further education has contributed to today's extraordinarily large heterogeneity of the tertiary education system in the United Kingdom. In earlier decades, higher level vocationally oriented training and further education was offered in institutions clearly separated from universities and was often not considered as part of tertiary education. In the 1980s and 1990s, large parts of these training sites became integrated into the UK university system. In particular, with the integration of the earlier Polytechnics into the university system, the variety in the profiles of universities has strongly increased. Many institutions of the university system deliver courses and degrees in a large bandwidth of qualifications ranging from higher level vocational training or further education to traditional academic degrees while others have retained a more academic character. The mixture of students with various educational backgrounds and careers and of students who study full time and those who combine work and study to upgrade their qualifications is more varied than in other countries. After 3 years of study, a very large majority of students enter the labour market with the First Degree. After the First Degree, studies can be continued for master and doctoral degrees, and in this sense the UK system has a cyclic structure. But as the main differentiation consists in the large differences between institutions in the highly heterogeneous tertiary education sector, the UK, system might best be labelled as diversified. Of all the European countries, it probably resembles the US system most. The Irish

[8]English secondary education pupils take exams in selected subjects at Ordinary or Advanced level. The number of O- and A-level credits obtained determines their chances of admittance to more, or less demanding tertiary studies. The reforms in the 1994 Education Act also make it possible to combine general and vocational secondary qualifications to qualify for tertiary education (see Raffe et al. (1999) on the problems of unifying academic and vocational learning).

system has many similarities to that of the United Kingdom, but it offers less opportunity for vocationally oriented studies and lacks the broad supply of Further Education.

Germany, France and the United Kingdom represent three different forms of an interesting systemic relationship between the hierarchical differentiation within tertiary education and the regulation of access of students into the various institutions and programmes. Germany (and similarly Austria, Switzerland and the Netherlands) represent entitlement systems.[9] In the tradition of these systems, the right of access to different institutions of tertiary education are essentially acquired at the secondary level of education. All those who have successfully completed a given level of secondary education with the matriculation examination are in principle entitled to admission at a tertiary level education institution of their choice in the tier corresponding to the type of their matriculation exam. Such a system presupposes that the institutions at the releasing secondary level and the receiving tertiary level have largely the same quality standards and reputation. Similar standards at the secondary level are required because the tertiary institutions that have no choice in selecting students must be able to rely on a minimum standard of ability and knowledge of the students they have to admit. The standards are expected to be secured by the institutions which provide the matriculation certificate. Institutions at the tertiary level must be of similar quality and reputation because otherwise the best would be overrun by students. United Kingdom, with no standard secondary education certification (in the sense of a standard set of subjects and requirements in the level of competence, see footnote 8) and its marked diversity in quality and reputation of universities, finds the equilibrium of the system via student selection through the universities. France has found a mixed solution: From different kinds of more or less demanding *Baccalauréats* (the French matriculation exam) there is open initial access to the mass universities, but students sooner or later are selected in the course of the sequence of study cycles. At the same time, access to the elite institutions and some technical courses of study is highly selective. With educational expansion, the entitlement system has increasingly come under pressure. The population of secondary education graduates eligible for tertiary education became more heterogeneous. Attractive study programmes did introduce selective *numerus clausus* regulations to counteract the growing demand for study places. With attempts to build an elite sector of higher education, Germany is slowly seeing the end of the entitlement system, as increasingly larger proportions of students are admitted on the base of selective recruitment procedures.

Germany, France and the United Kingdom have been described here more extensively as distinct types exemplifying the broad variety of organization of tertiary education in the countries of Western Europe. As indicated, variants of tertiary education institutions with more or less clear similarities to the described types exist in other countries. Over time, they have partly changed their character through reforms. The Scandinavian countries, for instance, had much of a German type Humboldtian university system and moved toward the English and American tertiary education model.

In Eastern Europe the system of higher education was strongly influenced by the manpower planning priorities of the command economy and by the separation of research from universities and its localization in the so-called academies and other large-scale research units. Tertiary studies were very limited in numbers and technological (e.g. engineering) education was over-emphasized, while fewer educational opportunities were offered in the humanities and social sciences (Matějů and Simonová 2003). After the break down of socialism, lack of resources in the public institutions, the spread of the market philosophy

[9]For an interesting discussion see Pechar and Pellert (2004).

and the quickly rising demand from the mid-1990s onwards let many private higher education institutions of unequal quality emerge. They particularly feature short and practically oriented programmes (see e.g. Roberts 1998; Matějů and Simonová 2003; Mickelwright 1999). On the one hand, this contributed to a growing heterogeneity of the tertiary education sector. On the other hand, the orientation of the builders of new institutions towards the Western World and the coincidence of the expansion with the Bologna process were good grounds to at least formally accept the structures that were proposed in the Bologna agreements.

This large diversity in tertiary education has not only been described for its own sake. The different systems have varying consequences, e.g. for social inequalities in tertiary education opportunities or in different patterns of labour market returns for tertiary education graduates, that we discuss further below. Furthermore, an awareness of the varied tertiary education landscape with different principles of organization, training programmes, exams and certificates is also important as a background for better understanding the currently ongoing reforms in most of the European countries through the so-called Bologna process. It attempts to counteract these diverging trends in European higher education, and we now turn to it to see how and to what extent this may in fact become true.

9.2.4.2 The Bologna Process: Bottom-Up or Top-Down? Europeanization or Globalization?

The most discussed part of this process consists in implementing a structure of successive cycles in tertiary education in all countries of the European Educational area. This process has many facets. In view of overarching issues pursued in this handbook two aspects are of particular interest: First, the Bologna reforms concern an area, which according to the principle of independent science and university autonomy is often accepted – with variation between countries – to be autonomously ruled by the respective educational institutions themselves. And along the principles of subsidiarity and of respecting cultural identities educational matters are often a responsibility assigned to lower level societal or state administrative units. It is therefore of particular interest to examine the role of supra-national, national, sub-national or institutional actors in the Bologna Process. Second, are the Bologna reforms indeed reverting the trend of divergence and promoting convergence in European tertiary education?

In the European Union, education is clearly a matter of competence reserved to the member states. In the funding treaties there is no role at all for the EU in education matters. Also in the 1991 Maastricht treaty, education is reserved as a primary responsibility of the member states. Formally, the EU may encourage cooperation between member states and support and complement policy action at the national level, but must respect the member state's responsibility for the content of education, for the structure of education systems and their cultural and linguistic diversity (Huisman and van der Wende 2004). Until the Bologna declaration the member states did use all occasions to emphasize that the diversity of their educational worlds are an expression of their historical traditions and an indispensable vehicle to conserve the richness of the European cultural heritage. The Bologna Declaration in 1999 brings a revolutionary turn in this discourse: The responsible national education ministers now plea for compatibility and comparability in the set-up of a "European area of higher education". Reflecting the nation states' concern to keep their competence in educational matters untouched by supra-national authority, EU bodies did not take part in the Bologna Declaration or were not invited to take part. Also, the preceding step from which Bologna emerged – the Sorbonne declaration of 1998 by the

education ministers of France, Germany, Italy and the United Kingdom, which formed the blueprint of the Bologna declaration – was clearly nation-based. Bologna is explicitly a non-EU intergovernmental initiative and process with wide participation of meanwhile 19 European states besides the EU members.[10]

How then the turn of mind in practically all European education ministries from Iceland to Azerbaijan from praising "the blessings of diversity" (Wächter 2004: 268) to a cooperation and convergence discourse be explained? The literature mentions various reasons, some of which stress (common) needs felt at the national level and among the HEIs themselves, while others also refer to the "Invisible Hand of the EC and other Supranational Agencies" (Huisman and van der Wende 2004: 351). At the national level, the perception of an emerging international higher education market was increasing towards the turn of the century, and – anticipating a knowledge society – concerns were growing in many countries of Europe that they could lose in the competition with America's higher education and the brain drain resulting from its attraction to many talented young people. The Bologna declaration explicitly notes the objective of "increasing the international competitiveness of the European system of higher education", which needs to acquire "a worldwide degree of attraction" that is hindered by its diversity and the peculiarities in various countries. Perhaps more importantly, in many countries, various problems in the existing systems of higher education – notably the inability to cope with the massive student expansion – had led to pressures and initiatives for structural reforms along the lines formulated at Sorbonne and in Bologna.[11] Higher education reform was on the agenda in many countries, and in many countries an international agreement was a welcome legitimation to back reformers and to be used against within country opposition. The acceptance of the Bologna ideas in ever more countries in Europe is thus at least partly due to its promise to help push through intended national reforms and partly also to the dynamism engendered by taking part in a winning race.[12]

While thus Bologna is formally an intergovernmental process and a considerable part of its momentum is due to the promise to solve domestic problems, the hands of the EU and other international organizations cannot be overseen. Still, notwithstanding all efforts to enlarge EU competences, its main mission remains in the economic realm of creating a common market and enhancing the free flow of productive resources among the member states. As in other areas with no legal mandate, this is a door for the EU to enter into education-related policies. Under the open market flag, the EU pushes for reforms in education and educational structures which enhance the mobility of academic staff, students

[10]Initially the Bologna declaration was signed by the then EU-member states, the then EU-accession countries and Norway, Switzerland and Iceland. While the declaration notes the important contributions to the process by the educational institutions with their autonomy and of non-governmental European organizations with competence on higher education, there is no mention of any EU institution nor has any such institution signed the declaration. The EU, Commission later joined, however side by side with other international institutions and associations such as UNESCO, the European Council, the European University Association and the European Student Union.

[11]In Germany, e.g. a law enabling reforms along a bachelor/master structure was prepared to counteract very long study times and high dropout rates from university studies. Similar pressures and initiatives existed in other countries, e.g. in Austria (Pechar and Pellert 2004), the Netherlands and Flanders (Dittrich et al. 2004) or in Italy. In Eastern Europe most countries were to modernize their higher education systems after the fall of communism and welcomed the opportunity to join into a wider European process.

[12]Often within-country opposition to the reforms has been given up not by the conviction that something better is coming, but rather by resignation that one's own country's idiosyncrasy cannot survive when most others follow a common new track.

and later workers and which augment the research capacity through improved cooperation and increased exchange among researchers and research institutions of different countries. Various EU-funded teacher and student mobility programmes (Erasmus and others) and research framework programmes essentially pursue this line. The mobility programmes were initiated in the mid-1980s, indeed long before the days of Bologna. As a probably not anticipated consequence, the resulting "mass mobility laid bare a very shocking diversity" (Neave 2003). In the confrontation with a plethora of issues of equivalence and recognition of studies abroad, national governments and educational institutions became aware of the real barriers for mobility. In the declaration, they explicitly recognize the impediments of, the idiosyncratic national systems and of the high diversity in Europe on the way ahead. Furthermore, since the 1980s, the OECD pushed its efforts of (comparative) reviews of educational systems, publication of international educational statistics and its various programmes for international assessment of students' and adults' competences. In the context of a public discourse increasingly emphasising the role of education and knowledge for international competitiveness, the naming and shaming policies of international agencies such as the OECD and the envious comparisons with other countries did likely also help to understand the needs for reform and fostered the nations' readiness for building a European Education Area. Once Bologna was declared on national initiatives, the EU Commission later was able to enter the game. It became a full member of the Bologna process and a facilitator and further motivator, not least through paying the bill for many coordination groups, conferences, experiments and evaluation studies. In terms of practical implications, likely the EU's most significant contribution includes the development of the European Credit Transfer System (ECTS) in the context of the Erasmus programme that later became an important convertibility tool in the Bologna process. In many documents the EU institutions also publish a lot of poesy and visions about the current and future challenges for education. This likely has some influence on the general educational discourse in Europe; its implications for educational policies and resource allocation among the decision makers in HEI's and the national or sub-national parliaments and governments, however, are difficult to assess. Due to less restrictive competences and due to the much larger EU budget available for supporting research, research cooperation and research infrastructure, the EU has probably a more significant role for the development of the European Research Area (ERA) than it has for the European Higher Education Area (EHEA).

Bologna is thus a child of many circumstances, forces and actors, but it is clearly more a (national) bottom-up rather than an (EU) top-down process. And because the process encompasses many countries outside the EU and is influenced by international developments and agencies beyond the EU, its international traces probably derive more from globalization rather than (EU) -Europeanization even though this is difficult to establish (Verdier and Breen 2001).

9.2.4.3 Bologna: A Process of European Convergence?

The rapid adaptation in many countries of the core Bologna vision – a two- or three-level sequential structure of tertiary education – points at least superficially to an amazing success story of a politically induced transformation of higher education along an international template. In view of the HEI's steady claim of autonomy (Magna Charta Universitatum, Bologna 1988), this development is all the more surprising. As the reforms are still in the process of being implemented, one cannot yet foresee their precise implications for harmonization and convergence of the higher education landscape in Europe. The long-term outcomes are open because (a) there is ambivalence in the political aims, (b) there

are a variety of instruments envisaged in or later added to the initial declaration that may induce fuzziness to the enterprise and (c) there is considerable leeway for the national implementation of the reforms.

In the Sorbonne declaration the initiating ministers agreed to the aim of "progressive harmonization of the overall framework of our degrees and cycles". In Bologna they moved a step back and – aspiring not any more for harmonization but just for "greater compatibility and comparability" – they required the "adoption of a system of easily readable and comparable degrees, ... based on two main cycles, ... establishment of a system of credits, ... (and) promotion of mobility". As Wächter (2004: 271), a long-time participant observer of the process describes it: "With the Union's abstention from any major convergence push and the member states' ambiguous attitude on this issue, it is unlikely that convergence policies will get a further boost." A harmonized higher education landscape with a common currency is not likely to finally emerge, but rather the creation of instruments of convertibility and tools of transparency and equivalence. These include the consolidation of a Credit Transfer System such as ECTS (which allows easy recognition of Credits obtained in different institutions and countries), the delivery of diploma supplements (which rephrase the national diplomas in a common international language) or the creation of qualification frameworks (which are essentially detailed descriptions of the structure of qualifications in a given country). Wächter (2004) also notes a danger of dilution of the initial aims due to the fact that increasingly more autonomous national partners joined the club and that in Bologna follow-up meetings successively new items were discussed. This agenda includes the request for "transnational education", the further development of the Bologna model in a life-long learning perspective; the development of accreditation and quality assurance mechanisms, the addition of a third doctoral cycle, the recognition of non-formal and informal learning in credits relevant for higher education, the inclusion of student associations as full partners. The latter stress social dimensions and extend those to anti-globalization and anti-competition orientation. With so many different (verbal) commitments the process is indeed in danger of losing focus. But most importantly it has to be recognized that all national partners are autonomous actors and no mechanisms exist to enforce implementation in a truly convergent manner. When in their most recent communiqué, the education ministers "reaffirm our commitment to increasing the compatibility and comparability of our higher education systems, whilst at the same time respecting their diversity" (London Communiqué 2007), they realistically acknowledge limits of convergence.

In the decade following the declaration, a wide majority of the participating countries have indeed started to reform the structure of higher education along the Bologna lines and is introducing the 2–3-cycle study programmes and qualifications, but the extent of realization varies a lot between countries, and so do many specifics of national regulations. This is not surprising, because in terms of the concrete set-up of study cycles or qualification requirements the official declarations and ministerial communiqués are extremely vague and no written formulations of concrete operationalizations[13] exist. In her profound study comparing England, France, Germany and the Netherlands Witte (2006) concludes that

[13]The most concrete exercise in this direction are the so-called Dublin-descriptors, in which the competences to be required from a holder of a bachelor's, master's and doctoral degree's are described on a two-page leaflet with a number of general definitions. See http://www.jointquality.nl/. An effective observation of the nations' eagerness for cooperation is that Germany and Austria cannot agree to an identical translation of the English language version of these descriptors into German.

the Bologna process has often been used to legitimize national arrangements that may differ substantially. Such differences usually mirror characteristics of pre-Bologna national education systems. Sometimes the old wine is merely coloured with new nomenclature. For instance, in these countries, the varying set-up of tertiary education institutions with their different study programmes has not been changed. Germany and the Netherlands keep their binary structure of universities for general studies and universities of applied sciences (*Fachhochschulen* and *Hogescholen*) for professionally oriented programmes. Also in France and the United Kingdom the organizational and institutional peculiarities described above remain in place practically unchanged. In some instances, transparency may even have become worse. While before the reforms, different things in different countries had different names, they may have the same name now. In the Netherlands, for instance, the delivery of master-level courses and degrees is practically reserved for universities, and courses are expected to have a research orientation.[14] In Germany, in contrast, *Fachhochschulen* and universities now deliver at all levels grades with identical names without fully corresponding adaptations of the study programmes and requirements. Also in France the universities and the *Grandes Écoles* can now deliver an equally named "grade de master" while largely conserving the earlier differences in programmes and student selectivity. Countries vary in the extent to which the bachelor degree is considered to sufficiently qualify for the labour market and whether access to the master level is selective and dependent on performance on the bachelor level.[15] Major differences between the countries also exist in the programme accreditation procedures and requirements and in many other respects, not the least in the conditions and selectivity of access to tertiary education and its different institutions.

With many countries meanwhile committed to introduce the two- or three-level sequential structure of tertiary education and related diplomas at each of these levels, a clear development towards more convergence of tertiary education in Europe can be expected, at least superficially in terms of study and diploma structures. However, it is much less clear whether and how much convergence will be reached in terms of the more substantive issues of study content, the competences acquired in study programmes, the value of qualifications on the labour market or the implications of the new sequential structures of tertiary education for inequalities of educational opportunities and social mobility. Much is changing within countries in the course of the ongoing reforms. This includes tendencies among many HEI's to specialize with particular profiles. Serving "the Zeitgeist of 'competition and stratification'" (Teichler 2007a: 270) some countries also foster increasing differentiation in terms of quality and reputation among institutions of the same type. For instance, when in Germany the attempts to develop a number of elite universities are successful, the labour market value of diplomas will increasingly depend on the reputation of the issuing institution. In the future much research will be needed to find out what the precise consequences of all these developments are. It will cost not little efforts to obtain knowledge on the character and comparability of the post-reform systems which reaches the level of knowledge now available on the pre-reform systems. Only then will we be able to establish in a more comprehensive view whether the systems have indeed become more similar at the end and in which respect.

[14]Public funds for such courses are only available for universities and the required accreditation criteria make it hardly possible to establish master courses at the *Hoghscholen*.

[15]For detailed discussion see Witte (2006).

9.2.4.4 Student Mobility and Its Consequences

Mobility of people between countries of Europe and their integration into the host society is likely one of the strongest factors of European integration from below. Hardly anything else could be a stronger indicator of an emerging European society than growing interregional mobility and the raising, self-evident and accepted presence of persons from different regional origins in the local communities and workplaces of other regions of Europe. Both the Bologna and the Copenhagen process are understood as part of such an agenda. It is assumed that by providing similar qualifications and similar institutional forms to acquire qualifications and by making it easier to transfer study credits between countries, the barriers for students to study in other countries will decline. Increased student mobility is expected to promote the international orientation and competence of future workers and prepare the grounds for international careers and increasing cross-European (or wider international) worker mobility. Many programmes to foster pupil and student mobility exist for years now. What do we know about the present extent of student mobility and its potential significance as a mechanism to enhance cross-cultural contacts and future worker mobility across national boarders? We focus on higher education students and do not consider here migration from less-developed into advanced economies which often involves individuals with little education.

As recent data from the REFLEX project for a selection of 13 European Countries indicate,[16] about a quarter of students – thus quite a substantial number of them – currently have foreign experience during the time of studies. Twenty-one percent indicate to have spent a period of study abroad and seven percent a period of work abroad (Teichler 2007b:193). Participation in studies abroad has risen in recent years, but varies between countries; rates seem to be lower in Southern Europe (Italy and Spain) and in the United Kingdom, while they are larger in the countries of Central Europe. Usually, study periods abroad are short (7 months on average). Some young people also have an experience abroad before studies (about 5% according to Jahr and Teichler 2007b: 216) or spend time abroad for post-graduate studies (about 7%). In the first five years after graduation 16% of graduates have a work episode abroad, the majority of them, however, only for relatively short periods of less than 1 year and are often commissioned to work in an international workplace of a national employer. Only 3% work and live abroad five years after graduation. Work abroad of European graduates is concentrated in a few countries only and mostly in neighbouring countries.[17] Young people who study and work abroad, of course, are a selective group. They more often have parents with higher education, higher income and status. They are often "depicted as highly motivated and energetic" (Teichler 2007b:199) and they rate their study success as higher than formerly non-mobile students. Observed correlates in later life of having studied abroad such as a smoother and quicker transition into working life, employment in somewhat higher positions and slightly higher income, are thus certainly not entirely due to the international experience of students. Considering this, direct consequences of studying abroad seem to be rather limited. Graduates with earlier international experiences somewhat more often than graduates without such experiences make international careers or work at home in international firms or organizations and

[16] About REFLEX see: http://www.roa.unimaas.nl/projects/reflexabstract.htm

[17] About two-thirds of the graduates work in either Germany (17%), UK (12%), Switzerland (11 %), USA (9%), the Netherlands (7%) or France (6%), and working abroad is concentrated in neighbouring countries. The Dutch, Swiss and Austrians often work in Germany. Graduates from a Scandinavian country most often work in another Scandinavian country.

have more often jobs which require foreign language proficiency. They may earn slightly more (in some countries), and they more often work in innovative firms and in jobs that are seen by the graduates as providing good career prospects and opportunities to learn.

Thus, depending on the country, already considerable numbers of students go abroad to study, and even though such periods tend to be short, they likely enrich students' knowledge and experience of other countries and provide opportunities to make friends in other places. Studies abroad also generate "horizontal" links between international learning and experiences and later international work, as well as "vertical" links between international experiences and career success, even though vertical consequences are less pronounced and less consistent (Teichler 2007b:211). Still, later life of the very large majority of graduates with international experience very much remains a national story. This is true, even though the EU commission and many national agencies invest much to provide students opportunities for international learning. For the later stages in life, the structure of opportunities and the prevailing incentives and constraints, benefits and costs seem to be such that for the acting individual a place at home will likely remain for long the most attractive option.

9.2.5 Public and Private Responsibilities for Education

Everywhere in modern societies states have assumed responsibility for education. Still, countries vary considerable in the relative weight put on public and private actors in various domains of education. Among the many aspects under which the role of public and private actors can be examined, two are of particular importance: Who pays for education and who is in charge for the direct delivery of educational services? These two aspects must not overlap. Often the state pays the costs of education, but contracts out its delivery to private organizations which run kindergartens, schools or universities. Conversely, a state-run university may deliver education, but students have to pay fees for receiving it. The extent of public or private financing affects the chances of especially less wealthy groups to participate in education. The extent of public or private delivery of education affects the homogeneity of educational services. While education offered under direct authority of the state can certainly differ in many respects among the delivering institutions, services in a system with diverse private organizations in charge of providing education are likely to vary even more. Private delivery is indeed often advocated by arguments to allow for religious, cultural or *Weltanschauungs*– diversity in education. It is also expected to improve quality or innovation by fostering competition between (public and private) educational providers who may pursue different teaching methods or other measures to better satisfy expectations of clients. Especially education providers who are both privately financed and privately run are likely to carter for particular (often well to do) clienteles. In a system with private financing and/or private delivery, the state may nevertheless use its regulatory competence and impose, e.g. through accreditation and control procedures minimum quality standards, "equal opportunity" requirements or other demands.

In a rudimentary way, the extent to which education at the various levels is practised as a public or private enterprise can be grasped (1) by the shares of public or private funding and (2) by examining the proportions of public funds that are used for service provision by public institutions rather than being transferred to private organizations to this purpose. Table 9.3 shows respective figures for selected European and non-European countries for which data are available. Columns (2) – (5) indicate the shares contributed by public finances for the various levels of education. In European countries, at all levels the bulk of costs (84–93%, averaged over countries) is covered by public funds. In the non-European Countries the share of public funds is considerably lower. A much larger

Table 9.3 Proportions of public expenditures on educational institutions and proportions of total public expenditures used for public institutions in 2004

	Expenditures from public sources (in %)				of public expenditures used for public institutions (in %)	
	All levels	Elementary	Primary + secondary	Tertiary	Primary + secondary	Tertiary
Austria	93	70	95	94	98	75
Belgium	94	97	95	90	45	36
Czech Republic	87	87	89	85	92	93
Denmark	96	81	98	97	81	70
Finland	98	91	99	96	91	76
France	91	96	93	84	84	87
Germany	82	72	82	86	84	81
Greece	95	94	94	98	100	95
Hungary	91	65	95	79	84	79
Iceland	91		97	91	97	73
Ireland	93		96	83	91	85
Italy	90	91	96	69	97	81
Netherlands	90	96	94	78		
Norway	99	86			86	56
Poland	90	87	98	73		
Portugal	98		100	86	92	95
Slovak Republic	84	79	85	81	90	89
Slovenia	86	81	90	76	94	76
Spain	87	83	93	76	84	90
Sweden	97	100	100	88	87	67
Switzerland	90		86		91	80
Turkey	83		93	90	99	81
United Kingdom	84	95	87	70	79	0
Cyprus	83					
Latvia	85					
Lithuania	91					
Malta	92					
Bulgaria	86					
Romania	96					
Average Europe	**89**	**86**	**93**	**84**	**87**	**74**
Australia	73	69	83	47	76	67
Japan	74	50	91	41	96	70
Korea	61	38	80	21	92	70
Mexico	81	81	88	69	95	94
New Zealand	81	58	88	61	90	56
United States	68	75	91	35	100	71
Chile	52	66	69	16	60	35
Israel	76	77	92	50	74	5
Average non-Europe	**71**	**64**	**85**	**42**	**85**	**59**

Source: OECD (2007) Columns 2–5: p. 220–221; columns 6–7: p 231.
Data for Cyprus, Latvia, Lithuania, Malta, Bulgaria, Romania: Download (12 February 2008) from Eurostat: Populations and Social Conditions; Funding of education indic_ed fs03_1.

share of education costs is paid by private sources, especially for pre-primary child care and for tertiary studies. In both groups of countries the public contribution is highest at the primary and secondary level, and lowest at the tertiary level. Primary and secondary education is usually considered as providing the minimum competences all citizens should master, and thus it should be free of costs. Higher education, in contrast, is often seen

differently. As it usually provides especially profitable economic returns later in life, in many countries the conviction gains ground that those who profit from higher education should also pay for it. Still, in many parts of Europe, higher education remains a paradise with largely free or low-cost access.

As columns (6) and (7) indicate, in most of the European countries the public resources are also used to a larger extent for the direct delivery of educational services by public institutions than outside Europe. In Europe a smaller part of these resources is handed over to private actors for delivering education or buying educational services. A more prominent role of private institutions for tertiary education in countries outside Europe is fostered by both, a low share of public resources and the use of large parts of these resources to subsidize private education providers.

Still, the public/private mix varies to some extent between countries. For pre-school child care, more than 20% of the cost burden is covered by private sources in Austria, Germany, Hungary and Slovakia. At the primary and secondary level, more than 10% of costs are covered by non-public sources in Germany, Switzerland and the Czech Republic, mainly including cost of firms for apprenticeship training, while in the United Kingdom the relatively high private bill results from households paying for private education. At the tertiary level, private financing is more pronounced in the United Kingdom, Ireland, Italy and Spain, paralleling the generally weaker role of welfare state institutions in these countries. As a recent development, also in some countries of Eastern Europe (Hungary, Poland, Slovakia and Slovenia), higher education relies more than elsewhere in Europe on private funds, most likely due to the lack of public resources in the transformation years giving room to private entrepreneurs to satisfy the quickly rising demand for education. Private delivery of state-paid education is especially high at all levels in Belgium, the Netherlands and the United Kingdom, and at the tertiary level also in Slovenia and in the Scandinavian countries. In the Netherlands, the strong role of private organizations in education delivery derives from the pressures for educational autonomy of religious communities in the Netherlands. In Belgium it is due to both religions (Catholicism vs. laicism) and language conflicts (French vs. Flemish). In the United Kingdom, where the tradition of private education reaches far back into history, the contrast between public financing and (formally) private delivery is possibly most pronounced. In the United Kingdom, tertiary education institutions are formally all private institutions (hence 0% of direct public expenditures are used for public institutions), but they depend highly on the state for their funding. As far as funding is concerned, this also applies to Oxford and Cambridge. Universities have no discretion to set their own fees for undergraduate teaching. Even spending on infrastructure such as buildings comes from the state. Their funding from the state depends on their meeting certain requirements laid down by the state, such as how and what they teach and how well they teach, what research they do, and so forth. This lack of discretion means that although they are formally private, they are *de facto* under the control of the state. The character of private institutions is thus quite different from the private US universities, for example, who have complete freedom to charge, teach or build what they want. Also in some countries of the New World with a strong role of private education, the character of the private–public interplay takes up various forms.[18] But such variation

[18]However, it would be wrong to assume that everywhere in the non-European world private financing and private delivery play a similarly strong role as in the countries listed in Table 9.3. While several other populous countries such as Argentina, Indonesia or the Philippines have a similar public/private mix as the countries listed, in India, in contrast, almost all education is publicly financed and publicly provided (OECD 2003).

notwithstanding, and consistent with differences in general welfare state expansion, education is nevertheless clearly more in public hands in Europe than in various countries outside Europe.

9.2.6 Educational Systems in Europe: Concluding Remarks

Education is a cumulative process. The early stages are important because differences in achievements at these stages are often difficult to compensate at later stages. Secondary education is decisive because it tends to separate in all countries sooner or later the student population into different tracks, which to a large degree structure later educational and work career opportunities. Tertiary education is crucial because those who obtain it have by far the best labour market opportunities and other life outcomes. When children move through education and make their early non-family experiences they encounter highly diverse institutional set-ups brought about by the varying historical conditions under which the educational systems have been gradually built up and reformed in the different countries of Europe. Among other factors, the varying institutional conditions lead them to attain different kinds and different levels of education. As per the recent results of the various international programmes for student assessment document, there is also a lot of variation between countries in the competences children acquire to master tasks in various domains of education, such as reading, and the understanding of mathematics or natural science.

As there are many dimensions along which educational institutions and processes in the several stages of education can vary, it seems hardly possible to construct simplifying models through which the highly diverse educational landscape in Europe could be classified into a small number of characteristic types which summarize several interrelated dimensions. The most clearly distinguishable set of countries, which differ in characteristic ways from most other countries, are the German-speaking countries and some of their neighbours. Throughout secondary education they have an early and marked segmentation of school tracks as well as a strong emphasis on and particular organization of vocational training in common. This is replicated in the marked parallel segmentation in the binary tertiary system. During the Cold War, a characteristic structure with a lot of similarity between the different countries also existed in Eastern Europe. Since the break-down of socialism, the commonalities appear to diverge, interestingly though in ways, that the traces of the 'historical kinship' among the closest neighbours to Germany and Austria reappear. The Scandinavian countries have in common the historically early reforms towards comprehensive models of secondary education, featured by long-standing social democratic governments. In contrast to most of Scandinavia, Denmark – the closest neighbour to Germany in the North – kept a widely apprenticeship-based system of vocational training. France, with some influence in the south of Europe, strongly stresses general education with a strong examination-based system of selection and a distinct mark of hierarchical levels cumulating in the *Grandes Écoles*. Quite a proportion of students though follow vocational tracks, but in contrast to Germany, vocational education is not really valued but rather stigmatized as training for those who cannot do better and do not survive in general tracks. The UK system with its strong heterogeneity and the most pronounced role of private education in Europe may best be understood from its civil society traditions and less central state involvement in educational matters – at least in the early developments – leaving more autonomy to local and institutional actors as well as to educational market forces.

Can "harmonization" be expected in this European world of difference and who are likely the actors? Tertiary education has been chosen as an example to discuss these issues, because the Bologna process is the most far-reaching initiative to this end. However, under similar conditions, with similar aims, with similar instruments and with similar roles for the involved actors, similar initiatives are under way for secondary vocational education in the so-called Copenhagen progress. What is true for Bologna is therefore largely also true for Copenhagen, even though in vocational education there is less of an explicit vision about the format and shape an European vocational training system might take. The ambition there is to generally strengthen vocational training, to improve the connectivity and portability of general and vocational training modules and to make the training systems more transparent through qualification frameworks. Very little attempts exist for the harmonization of secondary general education. At the tertiary level of education, the introduction of a successive cycle organization of studies is likely to make the systems more similar, at least in the formal structure of the study programmes. This does not mean that the substance in the boxes will become the same thing even if they get the same name. The national reforms very much build on what is grown historically and many of the national idiosyncrasies are likely to remain. This is the more true as the competences for the structure of education and reforms explicitly remain the autonomous responsibility of national parliaments and governments and the role of supra-national bodies like the EU or OECD remains one of facilitating and sometimes coordinating cooperation. Already the fact that the Bologna structure essentially emulates the American system of higher education rather than something existing in one of the European countries before the Bologna agreement, might be seen as indicative of global adaptation rather than being based on strong European forces.

9.3 Educational Expansion and the Future Dynamics of Human Capital Growth

Educational expansion is one of the most significant social changes of the second half of the 20th century in most European countries, and the future is likely to bring further expansion in particular of tertiary education. Different theories attempt to explain educational expansion. According to *modernization theory* (Treiman 1970), education becomes an increasingly indispensable resource for access into advantageous and well-paying jobs when science and technology advances. Growing proportions of jobs require high qualifications while unskilled work is replaced by machines or exported into less-advanced cheap-labour countries. Also due to the expansion of bureaucratically structured work organizations, formal qualification criteria are used in recruitment procedures for increasingly more jobs (Weber 1964). In their own interest, individuals adapt to this growing demand and require more education. *Macro-level variants of human capital theory* (Hanushek and Welch 2006) refer to productivity gains, the enhancement of economic growth and the advantages in the international competition that countries can achieve by investing in education. In the view of economists, it is reasonable for the state to spend money on education as far as higher education has positive externalities, that is, when education adds more to total welfare than to individual welfare and people would take too little education for a societal optimum if there was no support from the state (Wolf 2002). Governments therefore pay for education from their budgets; over the last 200 years they have required increasingly more years of compulsory education; at all levels of education they have augmented the number of schools and subsidized in many different ways education, so that it becomes increasingly profitable for more people to stay longer in education and training. On occasions, the international competition arguments have high currency value

in the public discourse to mobilize more resources for education (e.g. in the Sputnik–Shock reaction during the Cold War or in the current globalization discourse).

According to the *micro-level variant of human capital theory* (Becker 1964; Schultz 1961) educational expansion is driven by individual productivity growth and profitability calculation. It is assumed that education enhances the productivity of individuals and in turn their incomes and other returns. As long as investments in education have more profitable returns than other investments individuals will go for education. The positive returns education had and continues to have in many dimensions provide strong incentives to require more education. They constitute the basis for the growing aggregate demand for education. According to *signalling theory* (Arrow 1973) and *the job competition model*, (Thurow 1975), what counts is to have more education than one's competitors, because employers recruit workers from a labour queue in which applicants are largely ranked according to their education. Those placed at the top of the queue will obtain the relatively best jobs. As Boudon (1974) has argued, this may lead to a perverse race for more education. Individuals need increasingly more education to reach the same job (returns) because competitors have more education. To a considerable extent, the expansion of tertiary education thus is an endogenous process, at least in countries with a deregulated labour market. Once tertiary education starts to expand, jobs that formerly required only secondary qualifications may be partly taken by tertiary graduates, and this increases the demand by parents for tertiary education for their children. This is then manifested through pressure on politicians to expand tertiary education and make access to it easier. Demand for education may not only rise because of its profitable economic returns. Individuals may also demand education for its own sake, i.e. for its *consumption* value because they enjoy it or they do it for a more enriching life style. In a kind of self-perpetuating dynamic such demand may especially come from families in which parents already have higher education or in social groups whose material needs are largely saturated. Finally, going back to Max Weber, *status group* or *conflict theories* emphasize that growing demand for education results from the interests of status groups to conserve their privileges. In modern societies education increasingly is a key for access to professions and other privileged positions. In order to restrain access to such positions and keep privileges intact, these groups raise the standards and educational entry criteria and contribute to inflationary demands for education (Weber 1964, 1971; Collins 1971, 1979; Abbott 1988).

As mentioned before in the context of tertiary education expansion, conditions and incentives for expansion differ between countries, and thus also the rates of expansion are likely to vary between countries. It is not possible here to establish the relative weight of the possible driving factors in the various countries, but the fact itself is unquestionable. In successive birth cohorts ever larger proportions of cohort members obtain higher levels of initial education. While it is true that increasing numbers of people return to school after a period of gainful work or combine work and further education, such successive accumulation of education only accounts for a small part of educational expansion. Educational expansion is thus an exemplary case of a cohort-driven process of social change, and it is also best represented in this way. With such a representation we grasp the unequal stocks of human capital available in the different countries of Europe. At the same time we can observe the gaps in the possession of the educational resources in the different generations of the European populations and foresee the future dynamics in human capital development in different countries of Europe.

In Figs. 9.1 and 9.2 we illustrate this cohort-driven process of educational expansion with two indicators which characterize the two extreme positions in the educational distribution. Figure 9.1 shows the proportions of cohort members with only lower secondary education or less. Everywhere this level of education involves a serious risk of

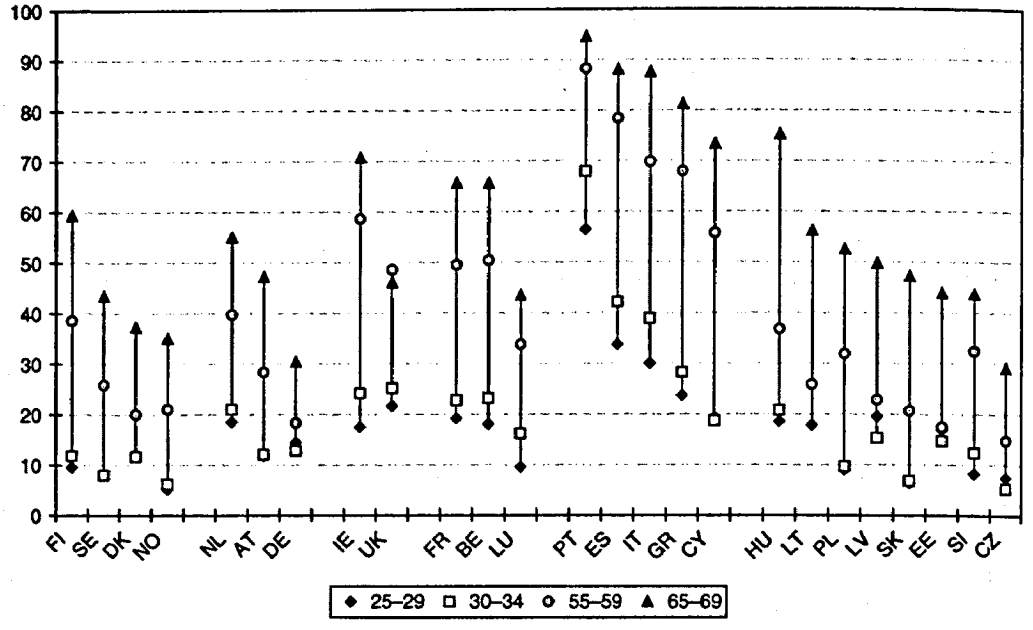

Fig. 9.1 Percent lower secondary education or less by cohort in 2004
Source: EULFS (2004); calculations by authors.
Country abbreviations as in Table 9.1, page 222.

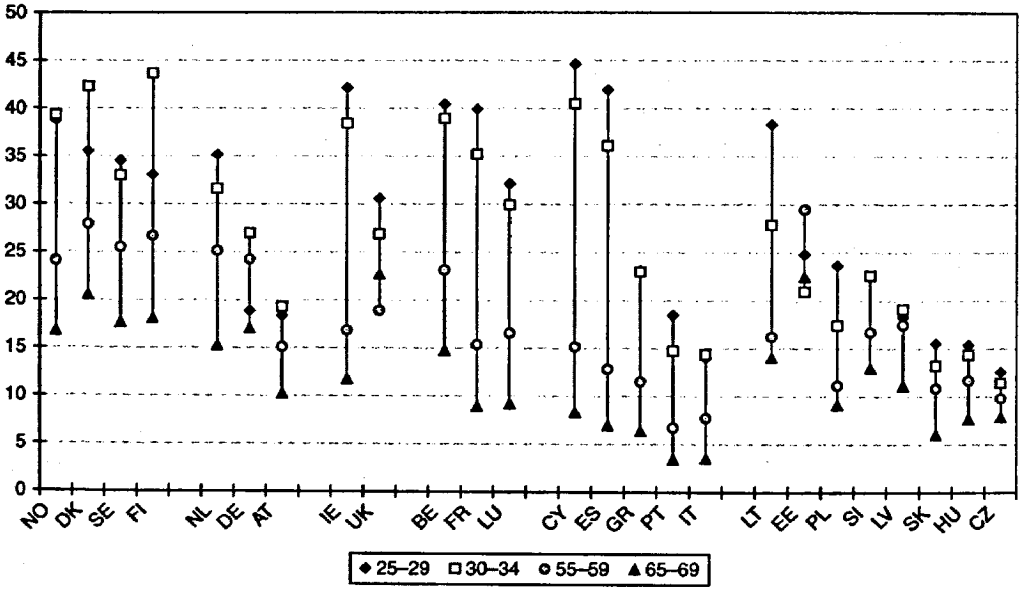

Fig. 9.2 Percent tertiary education by cohort in 2004
Source: EULFS (2004); calculations by authors.
Country abbreviations as in Table 9.1, page 222.

deprivation in further life including unstable employment, unemployment, low status, poverty, living without a partner, political alienation and little participation, bad health up to even poor life chances in the literal sense of a shorter life. Figure 9.2 in contrast

shows the proportions of cohort members with some kind of tertiary education, which is the best guarantee for an advantaged position in the very same dimensions. In these figures we show two old and two young cohorts (excluding the middle cohorts). The oldest cohort has been born just before the Second World War and was in compulsory education during World War II or in the economically difficult early post-war years. The second cohort was in compulsory education in the years of growing prosperity from the early 1950s until the mid-1960s. The two youngest cohorts entered schooling from the late 1970s onwards. Those with tertiary education among them have recently finished their studies; among the youngest some will still be studying.

For all countries we find a dramatic decline in the proportions of low education, but the decline took place in different periods of post-war history in different regions of Europe. In Scandinavia (except Finland) and in Central Europe (Germany, Austria and the Netherlands) the cohorts who were already in compulsory education up to the mid-1960s (the second cohort) had relatively low levels of low education. In most Scandinavian countries this is due to early comprehensive school reforms; in Germany and the surrounding countries (Austria, Switzerland, Netherlands, Denmark) it results from the wide spread opportunities of apprenticeships and other forms of vocational training. In Eastern Europe as well, low education declined early. Here the educational policies of the communist regimes strongly fostered education beyond the elementary level. The effect of these policies is particularly evident for the cohort 1945–1949 for which the figure indicates a very substantial decline of low education. In Ireland, the United Kingdom, France and Belgium, in contrast, even in the first post-war cohort about half left education with a low level, and significant reduction of low education occurred only later. The historical laggard in combating low education, however, is the south of Europe. In some of these countries, especially in Portugal, even among the youngest cohorts, large proportions continue to obtain only a little schooling. As indicated by the two youngest cohorts in the leading countries, it seems to be rather difficult to further reduce low education. In none of the countries of Scandinavia or Central Europe substantial gains have been made between the two youngest cohorts. Germany is the most telling case: From the first post-war cohort up to now, hardly any decline of low education occurred. However, as Germany has been surpassed by many other countries, one can conclude that more can be achieved at the lower end if adequate efforts are made.

In describing the development of tertiary education (see Fig. 9.2) we must be aware of the variation in age at which students in different countries finish their tertiary education. If the proportion of highly qualified persons in a country is lower among the 25–29-year-olds than among the 30–34-year-olds, this likely derives from the late conclusion of studies in a given country. This applies to some of the Scandinavian countries and especially to Germany. While in all countries tertiary education has expanded, the expansion occurred at different rates in different countries. Ireland, France, Belgium, Spain, and Cyprus experienced an enormous increase in tertiary education. Together with some of the Scandinavian countries, these formerly backward countries have reached a top position with almost half of the cohort members obtaining some tertiary degree. In other countries such as in Germany, Austria, the United Kingdom, Italy and Portugal, tertiary education did grow only moderately, and these countries have fallen or have remained far behind the former group of countries. In Eastern Europe (with the exception of Lithuania) the decline of low education did not result in a similar growth of tertiary education. The communist regimes pushed for often polytechnic qualifications at the upper secondary level, but did not invest in university or other tertiary education. Except for Lithuania and perhaps Poland, we also cannot see yet any significant growth in tertiary education after the system

change. This may have different reasons. The youngest cohort who reached the age to enter tertiary education in the first decade after the system change was either not prepared for academic studies, did not have the means for such education in the turbulent transformation years or the tertiary education system was not able to offer study places in these years.

In recent years, however, tertiary education participation has substantially increased in all CEE countries (see Fig. 9.3). A surge in tertiary educational enrolment is observable for Slovenia, Hungary, Latvia and Poland. Despite growth, tertiary education enrolment still lags behind in Romania, Bulgaria and Slovakia. Tertiary educational expansion occurred not least due to the emergence of private institutions of higher education and the expansion of short, practically oriented programmes at the tertiary level in 'fashionable' areas of specialization (Cerych 1997; Roberts 1998; Matějů and Simonová 2003; Mickelwright 1999; Kogan 2008).

In interpreting these figures we must be aware that tertiary education can mean different things in different countries and that in some countries the pressures towards tertiarization are less acute than in other countries.[19] The countries with a quick expansion of tertiary education often include rather short training programmes, which in other countries (especially in Germany or Austria) are part of secondary vocational training. But the staggering

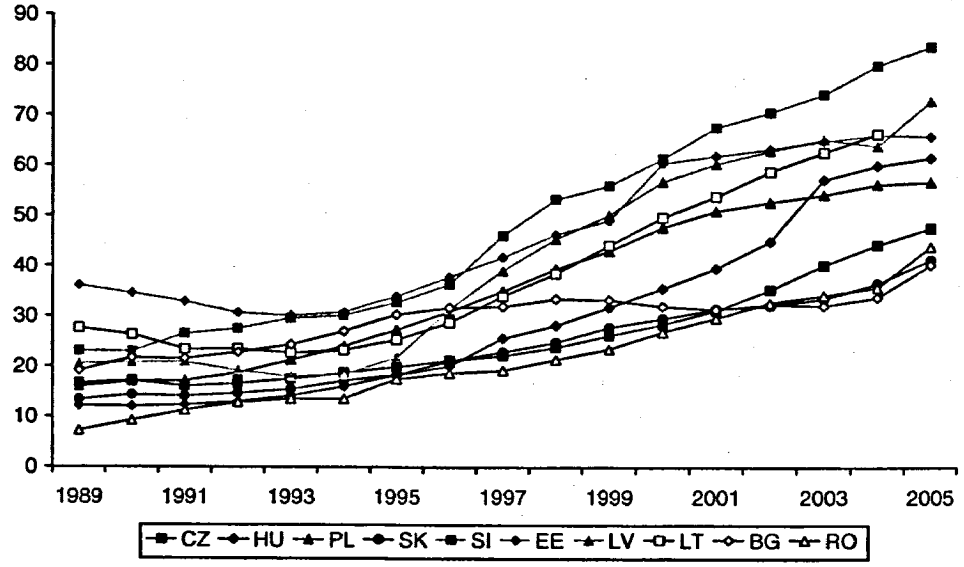

Fig. 9.3 Higher education enrolments (gross population ratios, percent of population aged 19–24)
Source: UNICEF (2007). Note: For Czech Republic the data for 1989–1995 refer to those aged 18–22; 1996–2005 to those aged 19–23; for Hungary data refer to those aged 18–23; for Slovakia - data refer to those aged 18–22, 1989–1995 for full-time courses only; for Slovenia data refer to those aged 19–23; data includes all students enrolled at ISCED 5 level (also enrolled on post-graduate master's programs); for Estonia data refer to those aged 19–22; for Latvia and Lithuania data refer to those aged 19–23.
Country abbreviations as in Table 9.1, page 222.

[19]Comparing educational attainment in different countries suffers from various inconsistencies and lack of detail in delivering educational information by different countries to international statistical agencies such as Eurostat or OECD that cannot be discussed here; for a review and suggestions for improvement see Schneider (2008a, b).

educational growth in some countries is not to be denied; neither the slow rate of growth in other countries.

As to convergence or divergence in the profile of educational qualifications in different countries of Europes, the developments differ at the lower and at the upper end of the educational ladder. At the lower end we find a converging trend. While in the oldest cohort who entered the labour market in the 1950s, proportions of low education varied between more than 80% in the South of Europe and about 30% in Germany, the proportions in the youngest cohort vary between 5% and some 30% (with the only exception of Portugal). The trend to convergence is evidently supported by floor effects. Even in the most successful country, low education cannot fall to zero. All improvements in other countries then lead to convergence. At the upper end, in contrast, countries are far from reaching a ceiling, and there is much room for diverging developments. Indeed, in the last half century, the disparities in the amount of tertiary education have considerably grown. While in the oldest cohort countries varied between somewhat less than 5% and 20%, in the youngest cohort, they vary between about 15% and 45%. In sum, based on the most recent data we can confirm a conclusion drawn from data of the mid-1990s: "Educational expansion has not so far brought about a significantly more homogenous educational landscape in Europe. However, the geography of educational participation has changed considerably. In the early post-war decades, obtaining more, or less education was very much a matter of living in northern or central Europe rather than in the peripheral countries in Southern Europe or in Ireland. At the beginning of the new century, this contrast does not exist any more. Countries like Ireland, Spain, and Greece have narrowed the gap between themselves and the educationally most advanced countries" (Müller and Wolbers 2003).

Countries also differ largely in the generational disparities of education. In Germany or Austria the differences in the levels of education between the oldest and youngest cohort are small compared to the huge gaps between young and old found in other countries such as in Spain, Cyprus, Ireland, Belgium or France.[20] Countries with rapid cohort change in education also require rapid change in labour markets to provide adequate jobs to the young graduates who are looking for rather different jobs than those the retiring workers leave.

Countries in Europe not only vary in the level of education and the rate of its expansion. As described above, they also differ in the mix of provision of more general/academic vs. vocational education, in particular at the secondary level. Several general conclusions from research on the implications of the dominantly general or vocational orientation of secondary education can be drawn. First, countries that provide ample opportunities for vocationally oriented training have for long been most successful in reducing early dropout from education and training. Germany is an exemplary case. However, as the recent developments in Ireland or Belgium show, countries in which vocational education scarcely exists may find ways to reduce the incidence of low education down to quite low levels. Similarly, the incidence of low education is quite low in practically all CEE countries, regardless of the level of provision of vocational education. Romania and Bulgaria represent exceptions as in these countries vocational training provision is at the medium level, but early school-leaving rates are comparatively high (Kogan 2008).

Second, in countries with ample opportunities of vocational education at the secondary level and when vocational education secures relatively easy integration into the labour markets and provides access to decent skilled jobs (this is particularly true for well-established

[20]The extreme case is probably Spain, where 90% of the oldest cohort have received but a few years of elementary schooling, while almost half of the youngest has gained tertiary degrees.

apprenticeship programs), the pressures towards expansion of the tertiary sector of education and the consecutive growth of tertiary education have been much smaller than in other countries. The strong apprenticeship tradition in Germany, Austria and Switzerland has likely been one of the main reasons of slow tertiary education expansion. Decent and promising vocational alternatives to general and academically oriented tracks of secondary education are likely to be especially attractive to children of working class background. The availability of such alternatives may draw children of such background away from more promising, but also more costly and risky tertiary study aims and contributes to enhanced class inequalities in educational participation (Murray 1988; Shavit and Müller 2000; Hillmert and Jacob 2003; Müller and Pollak 2004). Recent research for CEE countries, in which the system of vocational education appears to be more diverse and also formally more open than in the German-speaking neighbour countries, also proves that a smaller proportion of young people proceed to the tertiary level. Examples are the Czech and Slovak Republics, Bulgaria and Romania. Hungary and Slovenia, on the other hand, do not fit this pattern (Kogan 2008).

As especially the younger cohorts will be part of the active labour force for many years to come, data like those in Figs. 9.1 and 9.2 can also be used to anticipate the human capital potential existing in the different countries for the foreseeable future. Countries in which low education declined early and higher education expanded early have a higher level of human capital available for the future than countries which developed late. Unless the latter heavily invest into adult education, they will have to compete with a less well-educated population for possibly many years.

9.4 Social Inequalities in the Distribution of Education

9.4.1 Inequalities by Social Class

In all countries education is distributed highly unequally among different population groups. This fact contrasts sharply with the claims of equality of educational opportunity officially proclaimed by most political and social actors in modern societies. This discrepancy appears the more dramatic the more education is recognized as crucial resource for individual life chances and the welfare of societies. The social sources of educational inequality have been increasingly realized in the early decades after World War II and then became subject of continued research. In this research, the individual and social conditions and mechanisms which lead to unequal individual investment and success in education are discussed controversially. For the explanation of the individual-level processes, the distinction between "primary" and "secondary" disparities proposed in the pioneering work by Boudon (1974) has become widely shared. But this distinction also proves useful to understand the macro and institutional conditions of the generation of educational inequality, e.g. the hotly debated issues whether in the course of educational expansion educational inequality is likely to change or which reforms in educational institutions are likely to lead to less inequality (for recent reviews see Vallet 2004; Breen and Jonsson 2005).

Primary disparities of social origin result from differences in school performance of children from different class backgrounds, while secondary disparities are due to different propensities prevailing in different classes to progress to the next educational step – even at the same level of performance. Children raised in families of advantaged classes encounter better conditions in their home environments which help them to do better in school. From early childhood onwards, they get more intellectual stimulation, receive more parental motivation and support and have better physical conditions for learning. To some

extent, ability-relevant genetic differences between individuals from different class backgrounds may also affect school performance. As emphasized by Bourdieu (1977), school requirements may also be more difficult to be fulfilled by working-class than middle-class children, and there is indication that performances of children of different background are evaluated differently by teachers. However, there is also ample evidence that at the same level of shown performance, parents and children from different homes choose differently at the various branching points in the educational system to exit education or to continue in one of the different educational tracks towards a higher level of education. Rational Action theory is particularly useful to explain these secondary disparities. As discussed elsewhere, according to these models, "three components typically contribute to making middle class students more likely than working class students to continue to higher levels of education: They can more easily bear the *costs* of higher education; they expect *higher rates of success* in education; and they have more incentives to continue to higher education because by doing so they avoid the risk of downward mobility" (Breen et al. 2009a). The higher social classes favour the more demanding and prestigious qualifications as they have more to lose by not doing so. Therefore it is much more likely that middle-class families invest more in education and their children reach higher levels of education than working-class children (for imaginative studies of the interplay and accumulation of primary and secondary disparities see Gambetta 1987; Erikson and Jonsson 1996; Breen and Goldthorpe 1997; Becker 2003; Erikson et al. 2005; Erikson 2007; Stocké 2007; Erikson and Rudolphi 2009)

These primary and secondary mechanisms seem to operate very much in the same way and in the same direction in different countries. Their strength, however, may vary, essentially depending on institutional factors of the school system and the macro-structural economic and social context conditions in a given country. They can make it more or less easy and attractive for families and children in different classes to invest in education and fulfil school requirements. Whether educational inequalities remain stable or change over time will also depend on stability or change of these institutional or structural conditions.

Empirically based insights on the operation and outcome of these interlinked mechanisms and processes in different countries result from two different major lines of research: first, from the international programmes of the assessment of student competences, and second, from studies of social class effects on educational attainment in the tradition of sociological stratification research.

The studies focusing on student competences mainly capture primary disparities as they refer to competences in various study subjects (such as reading, mathematics, natural sciences) achieved by students at relatively early ages (e.g. at age 11 in the PIRLS studies; at age 15 in the TIMMS or in the PISA studies). However, depending on the age at which children are sorted into different educational tracks, the results may be more or less confounded with secondary effects. For 29 countries participating in the PISA-studies 2000–2006, Fig. 9.4 cross-classifies the average level of the reading scores achieved in these countries with the variance of the individual students reading scores explained by parental ISEI (International Socio-Economic Index). The lower the variance explained the less individual reading scores of children depend on parental socioeconomic background. Thus according to PISA, Japan, Korea, the Scandinavian countries and also Canada, Spain and Italy are the countries in which achieved competences of children depend the least on parental socio-economic conditions. Particularly high inequality, in contrast, is found in France, Belgium, the Netherlands, Switzerland, Germany, Austria and all Eastern European countries participating in the study. With the exception of the Netherlands all countries of the latter group also show only average or below average reading scores, while the countries with very good average reading scores (Korea, Finland, Canada) at the same time

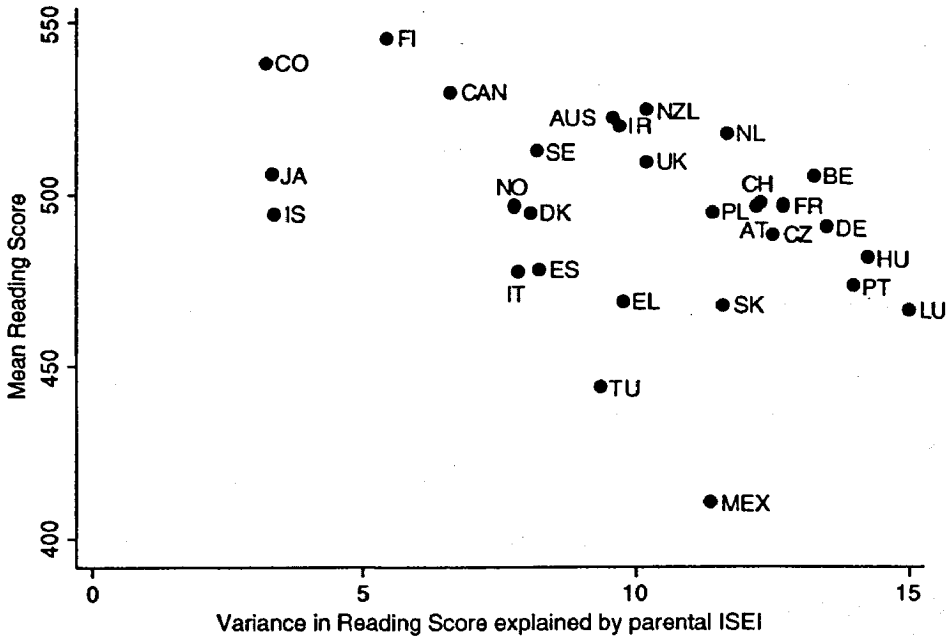

Fig. 9.4 Variance of PISA-reading scores explained by highest parental ISEI and average reading scores in 29 countries*

Source: Baumert et al. (2001: 391), Prenzel et al. (2004: 99); Prenzel et al. (2007: 229, 323).

*Variances explained and average reading scores are shown as the arithmetic mean of the respective measures found in the PISA- studies of 2000, 2003 and 2006.

Country abbreviations: AT – Austria; AUS – Australia; BE – Belgium; CAN – Canada; CH – Switzerland; CO – Korea; CZ – Czech Republic; DE – Germany; DK – Denmark; ES – Spain; FI – Finland; FR – France; EL – Greece; HU – Hungary; IR – Ireland; IS – Iceland; IT – Italy; JA – Japan; LU – Luxembourg (Grand-Duchè); MEX – Mexico; NL – Netherlands; NZL – New Zealand; NO – Norway; PL – Poland; PT – Portugal; SE – Sweden; SK – Slovakia; TU – Turkey; UK – United Kingdom.

have very low inequality. Over all countries, we find a slight negative, statistically significant correlation between the extent of social class disparities in reading competences and the average reading score achieved by the students of a given country (r=0.43; p= 0.029). Thus across countries there is a slight tendency to find low social inequality paired with high average reading competences in some countries, and high social inequality paired with low average reading competences in other countries. However, unless the factors, that lead to the results in each country are firmly established, one cannot claim a causal relationship between the social inequality in competences in a country and the level of competences achieved in it.

Recent research on these issues[21] seems to show that the factors that affect social inequality differ from the factors that influence the level of competences; but they do not inhibit each other. For instance, the *level of average competences* achieved is higher in countries in which final exams are not taken by the school, but take place externally, that is, school external bodies provide examination tasks and assess students' achievement; competence levels are also higher in countries with more school autonomy and with higher proportions of non-state schools. However, positive effects of school autonomy and private school management are not unconditional. Positive effects of school autonomy depend on

[21] See Wößmann (2003, 2005, 2006, 2007), Schütz et al. (2005), Schütz et al. (2007); Hanushek and Wößmann (2006); and Wößmann and Peterson (2007).

external examination control, motivating schools to use autonomy in ways to raise school quality. Positive effects of private schools are conditional on public financing and fee-free and non-discriminatory access for students (e.g. state-paid schools run by religious organizations are not allowed to be selective in terms of confession, ability or social background of children). Private schools must be organized in a fair competition to public schools and in ways to attract children by school quality. Under such conditions they may not only improve their own quality but also be a means to induce quality improvements in public schools, which otherwise might lose pupils. *Social inequality*, in contrast, is lower in countries in which a higher proportion of children receive pre-school care and education (in crèches or kindergartens), in countries in which such care and education starts earlier and in countries in which tracking occurs later and the number of different tracks is smaller. Given similar provisions of public financing and open access as above, social inequality is also systematically lower in countries in which a higher proportion of students receive education in privately managed schools. These findings from country comparisons on the effects of the described institutional characteristics hold under control of various individual level social background factors. Results from different studies, however, are not always fully consistent and a lot of further research is certainly needed for consolidation and test of other factors that can explain the considerable difference between countries in the average level of competences achieved and in the extent of social disparities in acquired competences. But considering the institutional characteristics of educational systems discussed in Section 9.2 of this chapter, the results just described make understandable, that, compared, e.g. to the Scandinavian countries, in the German-speaking countries and in their neighbour countries in Eastern Europe average levels of competences are relatively low and social inequalities are high.

The student assessment programmes study competences mastered at a given, usually early point in the educational process. The social stratification research tradition, in contrast, focuses on the social disparities in the educational choices at the crucial branching points of the educational career and on the social inequality level of education finally achieved at the end of the educational process.[22] Also, rather than concentrating on outcomes at a particular point in time, much attention has been devoted to the long-term developments of educational inequality in the course of societal modernization and educational expansion. In one of the seminal studies in this tradition – Shavit and Blossfeld's (1993) "Persistent Inequality" – a core aim was indeed to examine a central hypothesis of modernization theory: When societies modernize (and educational participation expands) socio-economic inequalities in educational attainment decline. Shavit and Blossfeld could not confirm this hypothesis. They essentially find that in spite of dramatic educational expansion during the twentieth century, all but two (Sweden and the Netherlands) of thirteen countries studied "exhibit stability of socio-economic inequalities of educational opportunities" (Shavit and Blossfeld 1993: 22). However, this conclusion must probably be revised. Evidence based on more powerful data than was available to the researchers in the Shavit and Blossfeld project clearly indicates that in the second half of the 20th century educational inequalities have declined in various European countries.[23] In their comparative assessment for Britain, France, Germany, Ireland, Italy, the Netherlands, Poland and

[22]Much research in this area has followed Mare's (1980) exemplary study for the USA on social disparities in the successive educational transitions individuals make when they move through the various stages in the educational system.

[23]The databases used by Breen et al. (2009a, b) are considerably larger than those used by Shavit and Blossfeld (1993), and hence allow more stable and reliable estimates for change over time with less random noise. The former also use variable definitions more comparable across countries.

Sweden, Breen et al. (2009a, b) find that throughout the 20th century inequalities of educational attainment by parental class have declined in practically all of these countries, for both men and women. They also find some convergence in these countries in the extent of inequalities. While among cohorts at school in the first post World War II decade inequalities were clearly larger in Germany, Italy, France and Poland than in Great Britain, the Netherlands or Sweden, such differences between countries became smaller among more recent cohorts. Declining inequalities are also found in several single country studies.[24]

As tertiary education expands and is increasingly indispensable for advantageous life chances research interest increasingly focuses on inequality in attainment of tertiary education. In their recent internationally comparative study Arum et al. (2007) analyse how the extent of such inequalities is influenced by various characteristics of systems of tertiary education such as their expansion, financing and the binary or diversified type of tertiary education systems. For the OECD countries studied, they essentially find that non-European systems, which usually are *diversified* and have a higher level of private financing, expanded at a higher rate than most of the European systems, most of which have a binary structure and are largely publicly financed.[25] As stated by the authors, privately financed systems tend to become institutionally more diversified and they tend to develop more lenient admission criteria, both in order to attract more clientele for their services. These systems thus expand more. According to further findings, expansion at the tertiary level is related to lower levels of inequality, and this inequality-reducing capacity of expansion compensates for the tendency of private financing to boost inequality. Private financing, in the end, thus does not lead to higher inequality, because the expansion generated by it counterbalances the growth of inequality inherent in private financing. Even if, as the authors add, systems with higher levels of participation and student output had the same level of inequality as systems with lower student numbers, expansion is beneficial because it enhances inclusion, i.e. it "extends a valued good to a broader spectrum of the population"(Arum et al. 2007: 29).

When there is thus evidence that educational disparities between children raised in different social classes have declined in a number of countries, and when in some countries disparities appear to be somewhat smaller than in other countries, one must nevertheless underline, that everywhere such disparities are still large. One should also note, that one is not likely to find quick decline. Rather, one needs to observe fairly long historical periods, such as in the Breen et al. (2009a,b) study who compare cohorts born at the beginning of the 20th century with cohorts born in the 1960s. Decline is thus at most slow. Unfortunately there are hardly any studies so far which were able to precisely identify the factors responsible for change in disparities (but see Erikson (1996), who shows that in Sweden essentially the following factors have contributed to the decline of educational inequality: the introduction of comprehensive education and postponement of educational tracking to higher student ages; increasing economic security; and the decline of income inequality between the parental families). As long as such factors are not precisely identified, it is impossible to foresee developments in the future. It cannot be excluded that inequalities will increase again. Breen et al. (2009a, b), e.g. find such a tendency for the youngest cohort in Poland,

[24] For a review of respective findings see Breen and Jonsson (2005) and Breen et al. (2009a).

[25] It should be mentioned that the understanding of binary versus diversified systems by Arum et al. (2007) differs somewhat from the characterization of systems given in Section 2.4. For instance, Arum et al. classify both France and the United Kingdom as binary systems of higher education while they include Sweden among the diversified systems.

and there is some evidence, that also elsewhere in Eastern Europe educational inequalities during the turbulent transformation years have become larger than they were under the socialist regime (Gerber (2000) for Russia; Iannelli (2003) for Hungary, Romania and Slovakia).

Summarizing then, it seems clear, that educational inequality varies in Europe, both between countries and in the course of time, where it has declined in several countries. It is less clear, however, exactly why educational inequalities are smaller in some countries than in other countries and which are the crucial factors that are responsible for declining inequalities. The results of the two approaches (study competences at a given point in the educational career vs. study the level of educational qualifications reached at the end of the educational career) are not in complete agreement for the European countries. While according to both approaches educational inequalities are relatively small in the Scandinavian countries and large in Germany, France and some countries of Eastern Europe, there is disagreement for Italy, the Netherlands and the United Kingdom. In Italy, inequalities are low for measured competences, but high for final educational attainment. In the Netherlands and the United Kingdom inequalities are high for measured competences, but low in educational attainment. Even though comparative research on educational inequality has made substantial progress in recent years, there are still many riddles to be solved.

9.4.2 Ethnic Inequalities in Education

European countries increasingly face problems connected with the integration of the so-called second generation of immigrants in the educational system and the labour market. The recent volume edited by Heath and Brinbaum (2007) with research covering Belgium, England and Wales, France, Germany, the Netherlands, Norway and the USA, documents large differences in educational attainment that exist between various ethnic groups in these countries. The most disadvantaged groups are young people of Turkish ancestry (in Norway, Belgium and the Netherlands, also in Germany but to a somewhat lesser degree than in the rest of the countries), Moroccan ancestry in Belgium and the Netherlands, of North African ancestry in France, of Mexican ancestry in the United States, of Pakistani ancestry both in Norway and in England and Wales and of Caribbean ancestry in England and Wales and in the Netherlands. Lagging behind are also youth of Italian ancestry in Belgium and Germany, Portuguese ancestry in France and Germany, of former Yugoslav ancestry in Germany. Interestingly enough, there are also some groups with immigrant background that match (e.g. youth of Greek origin in Germany) or even outperform charter population (e.g. second generation of Indian ancestry in Norway, England and Wales).

According to the editors of the study (*ibid.*), the hierarchy of success in educational attainment for various migrant nationalities is parallel to the location in the occupational hierarchy reached in the parental generation (see Kogan 2007; Heath and Cheung 2007). The most consistent finding is that the educational disadvantage of European ancestry groups can be almost fully explained by their parents' socio-economic positions and hence is nothing else but a special case of social reproduction. This holds true for groups of Yugoslav, Spanish and Portuguese[26] ancestry in Germany (Kristen and Granato 2007),

[26]Furthermore, after controlling for social origin the original disadvantage of Spanish and Portuguese youth in Germany turns into advantage – i.e. these groups appear to outperform native Germans.

Portuguese origin in France (Brinbaum and Cebolla-Boado 2007), and Italian origin in Belgium (Phalet et al. 2007). Differences between youth with immigrant background and natives to a very large extent result from the former's lower socio-economic origin, going hand in hand with lower financial resources and poorer quality social networks. Apart from financial conditions and social capital, parental support may vary in various other respects with social origin. For example, children and youth of working-class background may have less information on the functioning of the educational system and experience with its challenges and opportunities (Erikson and Jonsson 1996). Another important argument linking social origin with educational attainment concerns class differences in educational aspirations (see above).

For visible minority groups from less-developed countries, educational disadvantage persists even after taking into account parental socioeconomic position. Examples are Mexican disadvantage in high-school graduation in the United States (Lutz 2007) or Turkish and Pakistani difficulties in secondary school completion for Norway (Fekjær 2007). These remaining ethnic penalties for the most disadvantaged groups could be related to several factors. One is the lack of country-specific cultural capital, which for immigrants largely means the lack of fluency in the host country language. For the children of migrants, host-country language usually is not their native tongue and consequently many of them encounter difficulties in their schoolwork or during the tests. Furthermore, migrant families can lack information about options available in the host country educational system and might discount high-cost alternatives despite their promising returns. Possible lack of contacts with the charter population hinders their access to such information. Further, residential and school segregation are seen as factors contributing to immigrant disadvantages in the school system (Kristen 2008). First of all, segregation hampers the establishment of everyday contacts with native speakers essential for acquiring language proficiency and developing skills necessary to succeed (Esser 2006). Furthermore, high concentrations of students from ethnic minority families or of any other disadvantaged students tend to have a negative impact on academic climate and achievement (Kristen 2008). Given that ethnic minorities are often concentrated in economically deprived neighbourhoods, these are often associated with poorer schooling, higher teacher turnover and other adverse effects of the school composition on student attainment (Heath and Brinbaum 2007).

The ongoing research in Germany (Relikowski et al. 2009), as well as in England and Wales (Jackson 2008), which seeks to disentangle primary and secondary effects of ethnic origin, has shown that immigrants' poorer school performance is primarily responsible for their lack of educational success, whereas much fewer or even no disadvantages stem from immigrant educational choices. Controlling for social background immigrants families aspire at more advantageous educational tracks for their offspring than this is the case among the charter population. Research indeed shows that due to operating selection mechanisms, some immigrant groups exhibit exceptional drive, motivation and high aspirations (e.g. Brinbaum and Cebolla-Boado 2007; Kao and Tienda 1995; 1998; Vallet 2005; Van de Werfhorst and Van Tubergen 2007). Despite the fact that immigrant parents themselves hold low positions in the country of destination and hence are unlikely to accomplish their goals throughout their own careers, they might perceive education of their children as a central path to improve the latter's material conditions and as the main or even only vehicle to upward mobility available to them (Kao and Tienda 1995; Vallet 2005). This might explain these groups' ambitions to progress to higher levels of education and the fact that in some cases immigrants achieve more than natives in comparable social conditions.

A tendency among minorities to acquire high levels of education might also be related to the expectation of discrimination on the labour market and the assumption that it can best

be counteracted through furthering education. If children of immigrants expect employer discrimination when searching for training positions or gainful employment upon the completion of, let us say, secondary education, their opportunity costs of continuing into tertiary education are lower than for the majority population – as long as the returns to education do not differ across groups (Heath and Brinbaum 2007) – and they are more likely to strive for further education.

All arguments presented above would be relevant for explaining differences between students with migrant background and the native born within any single country. How would one explain cross-national variation in ethnic minorities' educational achievement? One of the reasons is certainly the nature and the composition in the flow of direct immigrants. In countries which experienced guest worker recruitment, first-generation immigrants were often negatively selected for low-status jobs, and poor socio-economic origin is likely to have consequences for the educational success of their offspring. Countries with higher returns to education but also more pronounced inequalities are more likely to attract highly educated and motivated immigrants (Borjas 1990, 1994), so positive self-selection and hence higher educational achievement is also expected for their children. Differences between countries in ethnic inequalities are argued to be also related to the structure of the educational system. In particular, early selection and tracking at the secondary level of education or stratification at the tertiary level of education is assumed to aggravate the conditions for educational success for migrants (Heath and Brinbaum 2007). The empirical evidence concerning such institutional effects on the ethnic minorities' performance is, however, still inconclusive.

9.4.3 Educational Inequality Between Gender

One of the really significant changes in inequality in education is the rapid decline of the gender gap in educational attainment. If 30 years ago women were over-represented among those with low education and they were in the minority in tertiary education in all of Europe, somewhat more in Western than in Eastern Europe, the situation dramatically changed since then.

The continuous improvement in the relative position of women compared to men clearly is illustrated in Figs. 9.5 and 9.6 with the same indicators and data that are used in Tables 9.1 and 9.2. For different age groups, Fig. 9.5 shows how more often women have only lower secondary education than men; Fig. 9.6 shows these gender proportions for tertiary education. Values above 1 indicate that women are in the majority, while values below 1 indicate that men are in the majority. An equal gender proportion is indicated by 1. In the oldest age group clearly more women than men have low education in all countries (Fig. 9.5), while in most countries more men than women have tertiary education (Fig. 9.6). For most of the countries, the contrary is true in the youngest age group. There are only two countries in which even in the youngest cohorts more women than men have only low education: Austria and the Czech Republic, but in all countries more women have tertiary education than men (again with Austria and the Czech Republic on the margin). The figures also show how different in the various countries of Europe the gender disparities were when the oldest generation was in school age, how different the dynamics of change were across Europe and how different the gender disparities among the younger generations presently are, now mostly to the disadvantage of men. As to tertiary education, women's superiority is most pronounced in some of the Scandinavian countries, notably

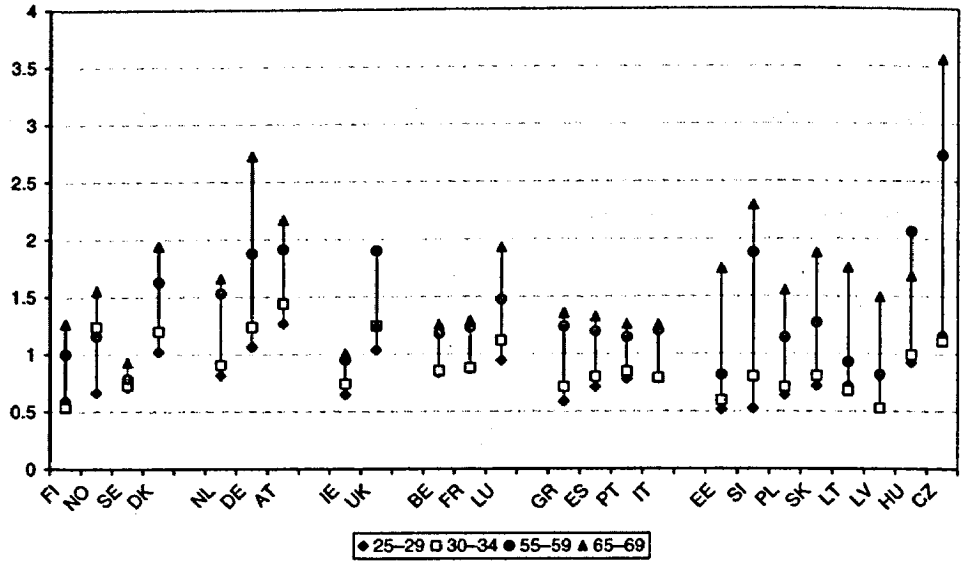

Fig. 9.5 Gender inequality (odds ratios of women relative to men) in attainment of lower secondary education or less by cohort
Source: EULFS (2004).
Country abbreviations as in Table 9.1, page 222.

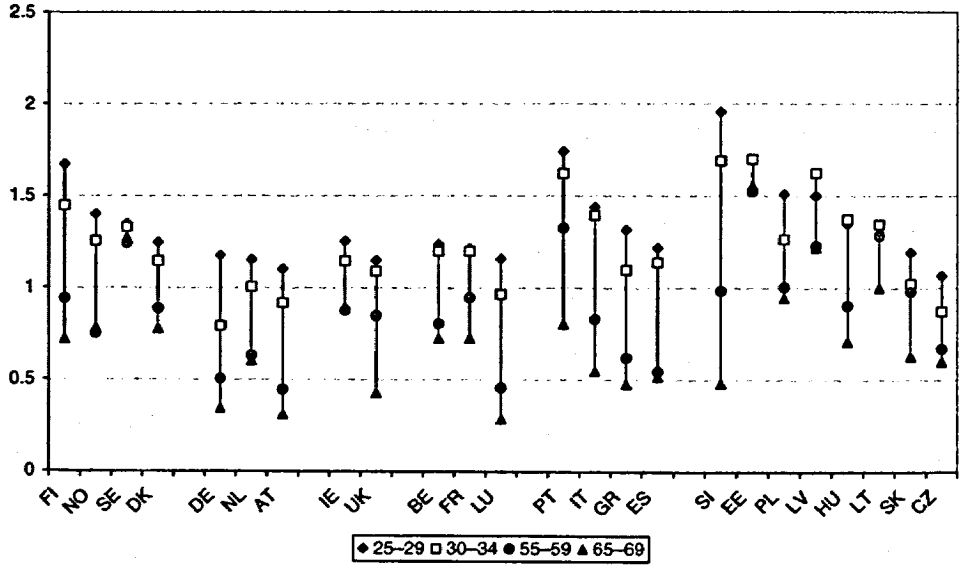

Fig. 9.6 Gender inequality (odds ratios of women relative to men) in attainment of tertiary education by cohort
Source: EULFS (2004).
Country abbreviations as in Table 9.1, page 222.

Finland and Norway, in Southern Europe, notably Portugal and Italy, and in some of the Eastern European Countries, especially Slovenia, Estonia, Poland and Latvia.

As female disadvantage in the vertical level of education has largely disappeared, the issue of gender inequalities in education has shifted recently to the issue of horizontal gender disparities in the choice of field of study. In nearly all countries much fewer women

than men are enrolled in the fields of engineering and architecture, mathematics and computer sciences. Across the board, in contrast, women outnumber men in subjects such as humanities, social sciences, social work, nursing and the medical (semi-) professions. The puzzle is sometimes discussed why in the social democratic Scandinavia the concentration of women in 'female' fields of study is particularly high while it is especially low in the familistic countries in the South of Europe.

Other puzzles to explain are as given: Why have gender disparities in the levels of education so dramatically changed while those between field of study as well as class and ethnic inequalities decline at most rather slowly if at all? And why is ethnic inequality to a large extent related to the class position of ethnic groups, while inequality between men and women is very much the same in all classes? One answer to these puzzles is that the driving forces behind class inequalities and behind gender inequalities are clearly not the same. The driving forces behind class inequalities are the resources families possess and that they can use to pursue their aims. That is why class inequalities tend to persist as long as there is not a fundamental change in the distribution of resources between classes. And ethnic inequalities are related to class because the class position of ethnicities constrains the resources at their disposition. Educational inequalities between gender do not vary by class because within families, who share resources among their members, the class-specific resource constraints for brothers and sisters can be assumed to be largely the same.

Gender disparities arise for different reasons. The driving forces for gender inequalities (in education or otherwise) must first be sought in factors which affect gender in general, irrespective of class. Only if these are controlled, one then should consider whether gender matters differently in different classes (technically by studying gender–class interactions). What are then the general factors and what did change to revert gender inequalities in education? And what remains for class specific gender differences?

Becker (1964) suggests that parents would be rational to invest less in their daughters' schooling than in their sons', even if the change in earnings with an additional year of schooling were identical for both sexes, because their daughters could be expected to work full time for fewer years than do sons. Women's attachment to the family role and their low labour force participation in earlier times (combined with usually lower pay for female work) were indeed the most likely reasons for the lower investments in daughter's compared to son's education (in all classes). This has quickly changed when gainful employment among women increased and educational investments for good labour market preparation became at least as important for daughters than for sons. For the United States, Buchmann and DiPrete (2006) argue along these lines when they explain the turn in college completion from overrepresentation of men to overrepresentation of women by an increasing value of education for women in terms of labour market earnings. In addition, they show that returns to education for women have also grown through their consequences for marriage stability, household standard of living and prevention of income deprivation. For women all these benefits have risen faster and are now higher than for men. Similar developments are the likely driving forces for the reversal in Europe of gender inequalities in the level of education attained.[27] Horizontal disparities in fields of study, in contrast, must not be necessarily tied to changes in labour force participation. Charles and Bradley (2002) argue that horizontal disparities are likely to be more resistant than vertical inequalities to

[27] A more difficult task, however, would be to explain why countries differ in the extent of this development. For more extended discussion of the issue see Breen et al. (2009b) and the literature referred to there; also see Walters (1986) and Jonsson (1999).

gender-egalitarian cultural pressures. Sex segregation by field of study is generated and maintained by extremely resilient, taken-for-granted beliefs about gender differences that are not necessarily incompatible with mandates for gender equality.

Such gender differences operated in largely the same way and to the same extent in all classes. So, for instance, Breen et al. (2009b) find that in spite of all the changes in women's role during the 20th century, advantages and disadvantages of the parental social class on children's educational attainment mattered very much in the same way and to the same extent for sons and daughters in cohorts in education at different periods in the 20th century, and disadvantages of low class background declined in similar ways for boys and girls from the older to the younger cohorts.[28]

All in all, then, the massive educational expansion, which during the second part of the 20th century has enormously increased the human capital resources in Europe, was fostered by women catching up with men in education and then letting them behind in most of the countries. The educational resources of women have improved and this will clearly also change their position compared to men in other spheres of social life in the time to come. How the educational advancement of women over men achieved in different countries will influence the position of men and women and gender relations in the various countries is certainly a highly interesting question to be observed and answered in the future.

9.5 Educational Outcomes

As illustrated in the beginning, education has numerous consequences for the further lives of people. We will concentrate on the following issues: foreign-language competences, life-long learning, labour market attainment and political participation.

9.5.1 Foreign Language Competences

Foreign language competences are an important resource for communication across the language communities of Europe. Speaking a foreign language certainly facilitates familiarization with this country's culture. Enhanced exchange across countries may eventually contribute to the formation of a 'European identity'. Schooling is certainly not the only way to teach and learn foreign languages, but language training in schools is often the beginning for later language acquisition through other means. How then education contributes to the development of language competences in different countries of Europe, and how countries differ in this regard?

Table 9.4 explores the variety of foreign languages spoken and studied in EU-15 countries based on the results of the Eurobarometer. Not surprisingly, English is the most often spoken language in all European countries with the exception of Luxembourg. Other

[28] If anything, for two classes the class disadvantage for girls is somewhat smaller than it is for boys in the same classes: Compared to the education received by girls and boys in the upper classes the class disadvantage in families of farmers and self-employed is somewhat smaller for girls than for their brothers. Given the situation of these classes, girls receive relatively more education than their brothers, probably to recompensate that the brothers are more likely to inherit the parental business, a regularity that is confirmed for various countries in Europe. Also see Buchmann and DiPrete (2006) for an interesting study, how in the United States effects of low parental education, which earlier worked to the disadvantage of girls, have changed and now works to the disadvantage of boys.

Table 9.4 Foreign language competencies across Europe

Country	Official languages	Foreign languages most spoken	Percentage of no foreign language spoken	Foreign languages studied	Percentage of no foreign language studied
Austria	German. Locally also Hungarian, Slovenian and Croatian	English (51%) French (9%) Italian (7%)	n.a.	n.a.	n.a.
Belgium	Dutch, French, German	English (37%) French (34%) German (16%)	45	English (52%) French (47%) German (30%)	28
Denmark	Danish	English (73%) German (49%) Swedish (15%)	23	English (84%) German (77%) French (30%)	11
Finland	Finish, Swedish	English (52%) Swedish (35%) German (14%)	n.a.	n.a.	n.a.
France	French	English (32%) Spanish (10%) German (8%)	52	English (60%) Spanish (24%) German (24%)	28
East Germany	German	English (22%) Russian (16%) French (3%)	73	Other (44%)[b] English (38%) French (5%)	39
West Germany	German	English (47%) French (12%) German (4%)[a]	46	English (62%) French (25%) German (5%)	32
Greece	Greek	English (32%) French (5%) German (5%)	66	English (37%) French (10%) German (7%)	52
Ireland	English, Gaelic	French (14%) English (6%) German (5%)	63	French (41%) Other (27%)[b] German (10%)	37
Italy	Italy	English (24%) French (18%) German (3%)	66	English (41%) French (37%) German (7%)	37
Luxembourg	French, German, Luxembourgish	French (87%) German (81%) English (48%) Italian (12%)	4	French (94%) German (89%) English (64%) Italian (17%)	4
Netherlands	Dutch	English (73%) German (60%) French (17%)	13	English (83%) German (76%) French (52%)	9

Table 9.4 (continued)

Country	Official languages	Foreign languages most spoken	Percentage of no foreign language spoken	Foreign languages studied	Percentage of no foreign language studied
Norway	Norwegian	English (73%) German (27%) Danish (27%)	12	English (84%) German (54%) Danish (30%)	13
Portugal	Portuguese	English (22%) French (20%) Spanish (6%)	66	French (36%) English (32%) Spanish (8%)	57
Spain	Spanish. Regionally also Aranese, Basque, Catalan, Galician	English (16%) Spanish (12%) French (9%)	61	English (26%) French (19%) Spanish (15%)	46
Sweden	Swedish	English (74%) German (25%) Danish (12%)	n.a.	n.a.	n.a.
UK	English	French (18%) German (7%) English (3%)[a]	72	French (48%) German (18%) Spanish (7%)	42

Source: Eurobarometer 34 (1990), 41 (1994), 44 (1995), 52 (1999); Language learned only EB 34, 41.
[a]Languages spoken by ethnic minorities.
[b]Other than Danish, Dutch, English, French, German, Greek, Italian, Portuguese, Spanish.

frequently spoken languages are French and German. Some other languages are also frequently spoken, and they often pertain to languages spoken by ethnic minority or migrant groups. Quite significant proportions of the European population unfortunately do not speak any foreign language. Whereas about 73% of East Germans and 72% of the British report no foreign language spoken, much fewer people in Nordic and Benelux countries speak no foreign language. Overall, fewer people report studying no foreign languages than actually speaking it, but the order of countries with regard to the frequency of foreign language studied remains more or less the same. English is the most frequently studied language in the majority of countries, French is the second most frequently studied language in Europe and is most often studied in Ireland, Luxembourg and Portugal.

Figure 9.7 shows how the number of foreign languages spoken varies by age group and level of education in different countries of Europe. In all countries, the older cohort with less than tertiary education has clearly the lowest foreign language competences. In all countries, those of the older cohort with tertiary education speak substantially more foreign languages than the less-educated cohort members. Almost everywhere, the members of the younger cohort have clearly improved language skills compared to their older compatriots. Generally, the improvement is particularly pronounced among those with less than tertiary education. In several countries the young less educated now match the language skills of the older better educated, while the young with tertiary education have often made hardly any progress compared to their older countrymen or women. We thus have a general improvement in language skills with declining educational differences. The considerable improvement among the group with less than tertiary education is likely due to both (a) language training taking place mostly in secondary education and (b) a compositional change towards higher levels of secondary education among those with less than tertiary education.

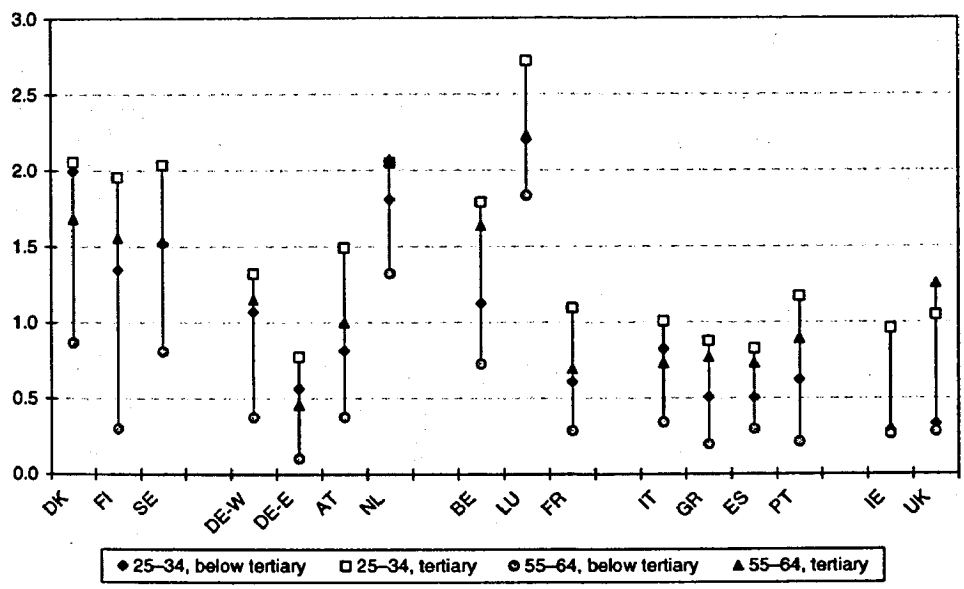

Fig. 9.7 Number of foreign languages spoken well by level of education and cohort
Source: Eurobarometer (1990, 1994, 1995, 1999).
Note: Non-national population included Finland, Sweden, Austria only 1995+1999, Luxembourg not 1990, UK not 1999.
Country abbreviations: DE-West – Former West–Germany; DE-East – Former East-Germany; other country abbreviations as in Table 9.1, page 222.

But there is also substantial variation between countries. Foreign language competences are highest in the Scandinavian and Benelux countries (all small language communities), they are lowest in the Latin countries and in the English-speaking countries. Another interesting observation is that in the English-speaking countries those with less than tertiary education have hardly made any progress from the older to the younger cohort.

9.5.2 *Life-Long Learning*

Without doubt the acquisition of qualifications is rather concentrated in initial education. Notwithstanding the persistent dominance of initial general education and, in some countries, vocational training, participation rates in continuing education and training have increased and the forms of such training over the life course have multiplied.

Three main forms of further education and training and life-long learning can be distinguished. First, in recent years, more people return to full-time education and training to obtain complementary or higher qualifications after a period of work, or they combine working and studying. Often such successive work/study careers, however, take place in very early stages of working life, and they usually serve to acquire qualifications corresponding to traditional courses of study offered before entering the labour market. Therefore, they can be understood as alternative forms of (extended) initial education and training. Second, for many workers the most important form of further skill formation throughout the life course is possibly informal learning at the workplace. In the human capital framework this aspect is conventionally included as "experience", usually only crudely and indirectly measured by years of labour force participation. Third, the most tangible form of explicit and intended further skill formation over the life course is work-related further training following initial education. It includes all forms of training offered by firms or outside agencies, and includes short training episodes as well as extended studies or training for additional or new qualifications in the more advanced work career. If counted as single training episodes or as training participation rates over a year – as is usually done in statistical sources – incidence of further education and training can appear to be quite high. For instance in the countries of central and northern Europe, according to various sources (LFS, CVTS) each year, some 30%, up to over 50% of workers participate at least once in further education (Müller and Jacob 2008). It is such figures, and their growth over the years, which nurture the assumptions of a steadily increased significance of life-long learning compared to initial education and training. However, many of the counted training episodes are usually of very short duration and of limited training intensity, and therefore in most countries further formal training following initial education is still very limited, but its extent varies a lot between countries.

As discussed in detail by O'Connell and Jungblut (2008), there are huge differences between countries in further education and training participation. Participation in continuing vocational training is highest in the Scandinavian countries, the United Kingdom and Ireland, where up to 60% of all employees participate in such training in a given year. With participation rates of 10–20% on average, it is lowest in most countries in the South of Europe and in several of the new member or candidate countries in Eastern Europe (see also Fig. 9.8). According to Bassanini et al. (2005), differences in training intensity between countries are due to the composition of firms with varying training needs in a country's economy. Innovative firms and firms with a technology- or knowledge-driven production profile train more than other firms. Large firms train more than small

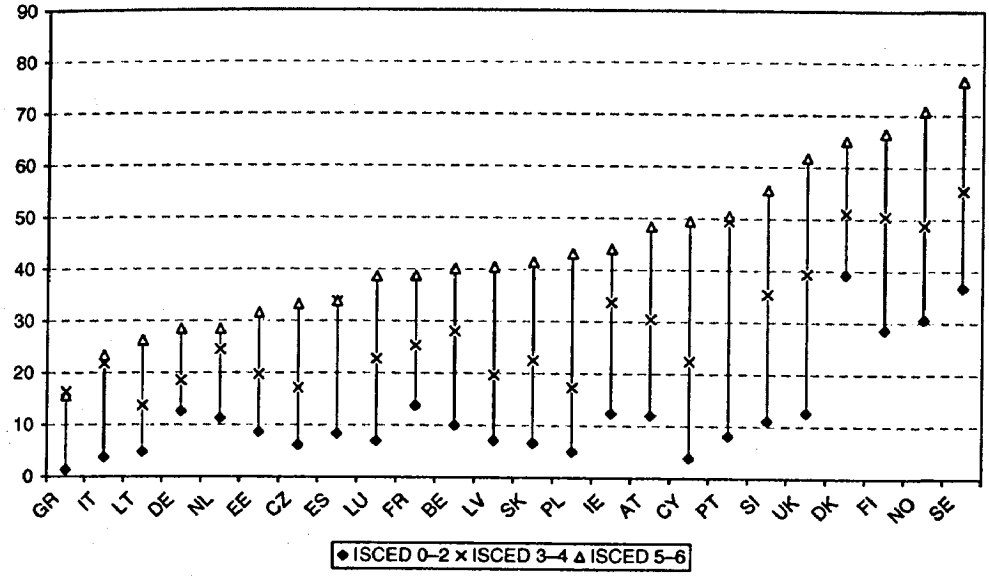

Fig. 9.8 Proportion of individuals, aged 25–64, enrolled in any type of VET in the last 12 months
Source: EULFS (2003) ad hoc module of lifelong learning (LLL), own calculations.
Labour market integration and first job outcome by initial level of education in Europe.
Country abbreviations as in Table 9.1, page 222.

firms. Country differences in a firm's demand for continuing vocational training may also result from differences between countries in initial training. Training needs in the United Kingdom or Ireland may be particularly large because in these countries study programs are short and young people enter the labour market very early and often without specific vocational qualifications. In countries with extended initial vocational training, the need for further training may be smaller, because workers with high quality initial training may adapt more easily to new task requirements. Need for formal training should also be smaller when the organization of work and cooperation among workers allows for more informal learning on the job. Finally, differences between countries in training intensity can also result from varying provisions of publicly supported training opportunities.[29] The high public resources conferred to further education and training in Scandinavian countries may explain the generally high participation rates – independent of firm and sector characteristics – and minimize the underinvestment problem in these countries.

A consistent finding across various studies is that low-qualified individuals have the lowest training participation rates, whereas those who are already more educated participate in employment that requires high skills and therefore have higher chances to reinforce their training (OECD 1999, 2003; Booth 1991; Brunello 2001; Arulampalam et al. 2004). This picture is also evident in Fig. 9.8: tertiary-educated individuals are those who participate in VET in larger proportions, whereas least educated are less likely to be among those receiving training. Particularly low CVT participation rates are found among the least educated in Southern and Eastern European countries. In Nordic countries, on the other hand,

[29]Interestingly, countries that rank high in continuing vocational training reach this position through a high level of training involvement in all sectors and kinds of firms. In countries with lower overall training, in contrast, differences between sectors, between large and small firms, and between innovative and non-innovative firms are much more pronounced.

even the least educated receive more training that the most educated in South and East of Europe. Continuous Vocational Training thus usually does not compensate for a lack of initial training. During the life course there is no equalization in educational and training differences between individuals; differences rather increase, and this is true for all countries.

9.5.3 Labour Market Outcomes

9.5.3.1 Institutional Embeddedness

Adherents of post-modernism or individualization theory sometimes claim that – due to increased global competition, mass unemployment, and rapid structural change – social class and other stable structuring forces such as education have lost significance in shaping the life course of individuals. At least for education (but also for class) findings of recent research clearly contradict such assertions. In all countries, education matters for various dimensions of labour market outcomes. In the following, we will especially focus on the transition from school to work, because at this stage of working life the qualifications acquired through education are most directly linked to the chances of graduates in the labour market. Labour market outcomes at later stages of the work career are affected by many other intervening factors and circumstances. The study of the transition from school to work is also crucial because the consecutive work career very much depends on the positions individuals obtain at the beginning of their working life.

While there are many common features in the way education affects the integration of school leavers into the labour market, this process also differs in different countries. The differences between countries mainly depend on institutional features both of the educational system and the labour market as well as of macro-structural conditions of labour supply and demand.[30] Concerning the educational system two characteristics of education and training systems turned out to have significant effects – their degree of stratification, and occupational specificity (Shavit and Müller 1998). The concept of *stratification* refers to the extent and form of tracking in the educational system. It measures whether there are clearly distinct tracks in the educational system with different levels and kinds of requirements and training. *Occupational specificity* relates to the extent training emphasizes specific occupational competences rather than more general knowledge or cognitive abilities. Both characteristics can be assumed to enhance the signalling capacity of qualifications, the educational system provides. The more training is organized in different institutions, or tracks with specific training curricula, the better recognizable are abilities and their signalling. The more occupationally specific (rather than general) training is, the

[30]Theoretically, matching models (Kalleberg and Sørensen 1979; Logan 1996) are probably the most useful starting point to understand the allocation of individuals to jobs, the effect of institutions, and why similar skills acquired through education and training may have different labor market outcomes across educational systems and countries. Matching models explain the outcome of decisions of two contracting actors – in the classical paper these were men and women matching for a marital union (Gale and Shappley 1962). In our case, the matching partners are workers with their certified qualifications and employers with specific jobs. *Employers* try to recruit those applicants they perceive to be both most productive and least costly to train for the kind of work the job requires (Thurow 1976). They use qualifications as signals to assess actual and/or potential productivity and costs. *Workers* with given preferences strive to obtain the jobs that promise the best possible returns for their educational investments – monetary and non-pecuniary rewards, status, security or other aspects of job quality. For a further discussion how varying institutional arrangements affect the matching of individuals and jobs, see Müller and Jacob (2008).

more qualifications should be of direct use in specific jobs and require less training investments by employers.[31] In addition to these distinctions, the distinction between different organizational forms of training has received a lot of attention – whether vocational training is mainly *school based* or consists in a systematic *combination of training and working, such as in apprenticeships* (Allmendinger 1989; Kerckhoff 1995; Shavit and Müller 1998, 2000; OECD 2000; Ryan 2001).

Countries also differ in labour market institutions that affect the integration of school leavers into the labour market. The most important probably are employment protection regulations; others include arrangements for the wage-setting process or prescriptions requiring particular diplomas for specific jobs. Economists argue, and they are most probably right, that employment protection makes employers think twice before they hire additional staff, since it implies costs to dismiss workers who do not perform according to expectations or when for some reason the firm wants to reduce personnel. Employment protection also enhances the disadvantages of outsiders as compared to insiders (Lindbeck and Snower 1988; Flanagan 1988). It tends to reduce the dynamics of the labour market and, in consequence, the chances of finding a job (Gregg and Manning 1997; Bertola and Rogerson 1997; Gangl 2004). Protection of employed workers may make it particularly difficult for school leavers to become integrated into stable employment because they are in a weak competitive position against experienced workers. However, it would be too shortsighted to see only the negative effects of employment protection. Evidently employment protection provides security and prevents easy hiring and firing at employers' will. Labour market regulation can also have positive effects at the stage of school-leavers' entry into the labour market. Apprenticeship-based training systems, for instance, show that cooperative relationships between corporate partners can generate economically viable institutional structures of youth integration into the labour market.

Besides the institutional settings, labour market outcomes of school leavers will also depend on the resources an individual commands in comparison to the level of resources acquired by his competitors. We must, thus, take into account *educational supply and demand*, which affect the conditions of competition among different groups of workers in a given country at a given point in time. There is the well-known problem of the potential devaluation of qualifications and of processes of displacement from the top in the course of educational expansion by virtue of the fact that many others have made the same educational choices. Finally, our accounts for the variation in the role of education for labour market integration and outcomes in different countries are incomplete as long as we do not take account of *aggregate structural conditions*,such as the ups and downs in economic cycles, the speed of educational expansion and the change in demand for qualifications resulting from changes in occupational structures (Gangl 2003c).

9.5.3.2 Common Patterns and Cross-national Differences

Summarizing recent research on the operation of these conditions in the transition from education to work and on the role educational qualifications play for the labour market

[31] Characteristics of educational systems have also to be seen as related to different arrangements of labour market segmentation. Educational systems with a high degree of occupational specificity support the prevalence of occupationally segmented labour markets while firm internal labour market structures prevail in countries with little occupation related training in the educational system (Maurice et al. 1982; Blossfeld and Mayer 1988; Marsden 1990).

integration of graduates, we first review findings that are widely common for all European countries and then describe a number of important cross-national differences.

On of the most stable findings in much research is that the higher the level of education achieved, the more favourable the prospects are in practically all dimensions researchers have analysed. There are clear positive effects of educational achievement on class position, status and prestige of job, income, autonomy, unemployment risk, stability of employment, job security, health, and even life expectancy. The educational gradients are often very substantial. Tertiary qualifications in general provide the strongest differential in advantage. Tertiary education very often is the crucial step to do really better.[32]

We can illustrate this with a few summary data including most countries of Western Europe. To show the common (and widely shared) conditions data refer to the population weighted average in these countries. It describes the experience of young people who left education and training during the decade from 1990 to 2000.[33] Educational attainment in this data is coded according to the International Standard Classification of Education (ISCED). Unless otherwise indicated we will use the following educational groupings:

ISCED 0–2 Lower secondary education or less
ISCED 3–4 Upper secondary education or post-secondary, non-tertiary
ISCED 5–6 First or second (doctoral) stage tertiary education.

Figure 9.9 shows how long school leavers had to wait until they found their first significant job and what kind of job this was. Even with the rather undifferentiated measures of education used, the transition from school to work substantially differs between the three ISCED groupings. Education leavers with tertiary education (ISCED 5–6) find employment clearly quicker than education leavers with only lower secondary education or less. Among tertiary education leavers a larger proportion than among leavers with lower qualifications needs less than six month to find employment, and among the former a clearly lower proportion needs more than two years. The jobs obtained by tertiary education leavers are also much more advantageous than those with less education. About 70% of the former obtain professional or managerial first job, whereas almost none of those with the lowest level of education do so. Similarly, large differences result in terms of social status of first job. Having tertiary education is decisive in view of the quality of the job.

Figure 9.10 shows, again for the school leavers of the 1990s in most of Europe, how their employment conditions evolved over time (measured in months) since they left education and training. The left part of the figure shows the evolution of the proportions of those who have a precarious job. In the right part, we see how the risk of unemployment evolves when young people enter the labour market with different levels of education and training. In both figures there are substantial differences between the three educational groups, and with more time in the labour market the relative disadvantage for the least qualified does not decline, it becomes even larger.

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[32]Respective findings are shown below, but see also Brauns et al. (2003); Müller et al. (2002); Kogan and Schubert (2003) and Smyth and McCoy (2000). One case that does not seem to fit into these patterns concern some of the countries of Southern Europe, where graduates with different levels of education differ less from each other in length of search for first job and unemployment in early careers than in other countries (Scherer 2004; Gangl 2003b; Iannelli 2003; Iannelli and Bonmati 2003).

[33]The data derive from the European Union Labour Force surveys, either from the regular annual surveys or from the special ad hoc module on transitions from school to work (data collected in 2000).

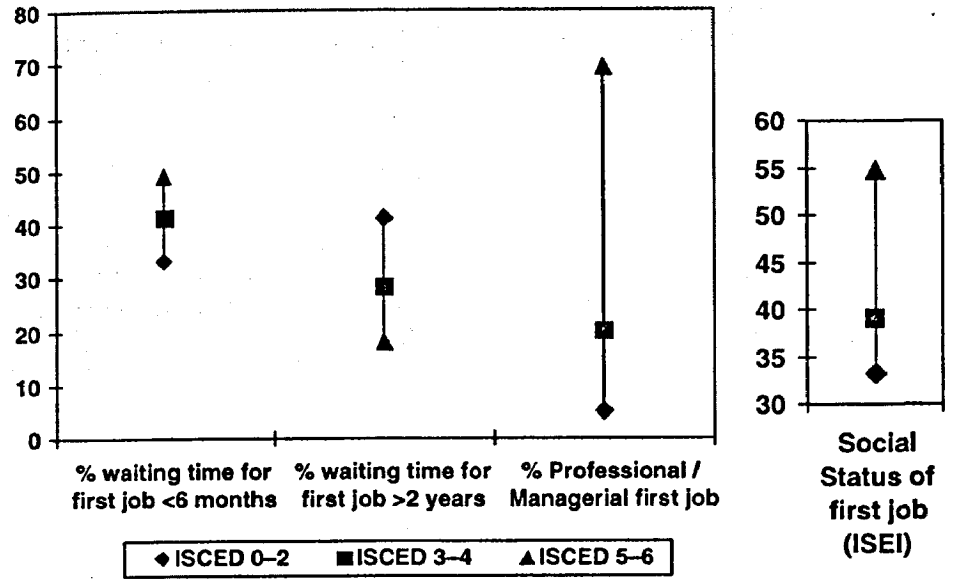

Fig. 9.9 Labour market integration and first job outcome by initial level of education in Europe
Source: EULFS (2000) ad hoc module on school-to-work transitions.
Note: Includes Austria, the Netherlands, Finland, Denmark, Sweden, France, Belgium, Luxembourg, United Kingdom, Ireland, Greece, Italy, Portugal and Spain.

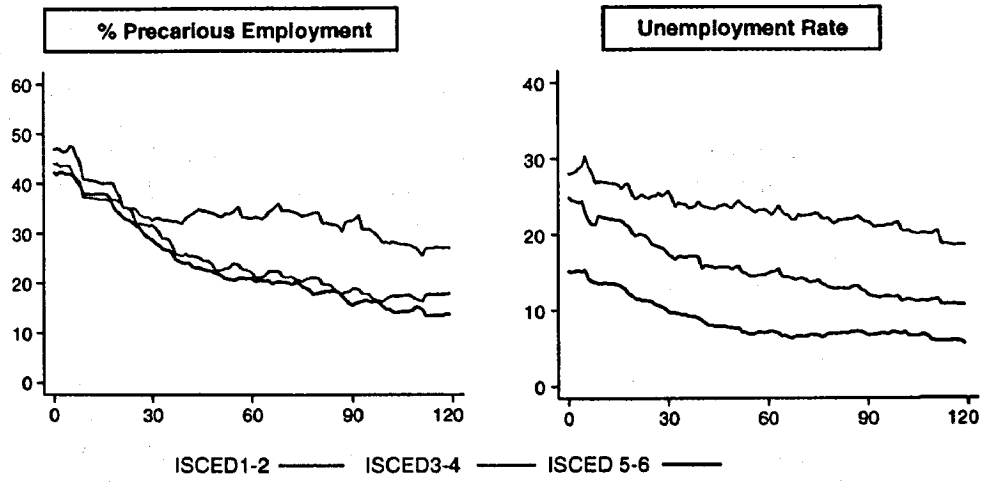

Fig. 9.10 Precarious employment and unemployment rates by initial level of education and months since leaving continuous education for the first time in Europe
Source: EULFS (2000) ad hoc module on school-to-work transitions.
Note: Includes Austria, the Netherlands, Finland, Denmark, Sweden, France, Belgium, Luxembourg, United Kingdom, Ireland, Greece, Italy, Portugal and Spain.

The *level* of education in most dimensions is a more powerful predictor of outcomes than the distinction between *general–academic education and vocationally oriented education or training*. However, which kind of education provides better returns depends on the dimension considered and also on the more specific kind of vocational training

obtained. In terms of class position, status or income, returns to general/academic qualifications often tend to be more advantageous than those to vocational qualifications. While tertiary education again makes the crucial difference, we also see variation at the secondary level of education. School leavers with general upper secondary qualifications on average obtain jobs of slightly higher occupational status than school leavers with vocational qualifications or those who have served an apprenticeship (Gangl 2003b:177).

In contrast, in particular at the secondary level of education, vocational qualifications tend to facilitate access into jobs and are associated with lower risks of unemployment than general qualifications. This is the true; the more specific vocational qualifications are and the more employers are involved in providing training. Apprenticeship-type training provides the most clear-cut example. Chances of apprentices to face a relatively smooth transition into work are substantially better than for graduates with general qualifications.

These are general principles that practically hold in all countries of Europe. One finds these same general patterns when going through the data country by country. But, as the following analyses indicate, there are also significant *differences* across countries.

There is strong evidence that different institutional arrangements matter and produce systematic differences between countries. Perhaps most marked are the differences between European countries in the unemployment risks experienced by school leavers in the first years of their working life. As illustrative example Fig. 9.11 demonstrates this for the case of labour market entrants with upper secondary education (ISCED 3). We see huge differences between countries in the extent of unemployment and in the way in which unemployment risks evolve in the first 10 years after labour market entry. In Austria, Denmark, Germany and the Netherlands, levels of unemployment tend to be relatively low and risks of unemployment do not differ much among labour market entrants and more senior workers (i.e. workers who already have 10 years work experience). In all other countries, unemployment risks are much higher at labour market entry and they only gradually converge towards the level of unemployment characteristic for more senior workers (that depending on the general level of unemployment evidently also varies between countries). In most countries in the south of Europe, young people face the highest difficulties to become integrated into the labour market.

A likely explanation for this specific pattern in the South are labour market regulations, and in particular *employment protection* legislation, that also affect the ease of young people's integration. Recent studies indicate that the level of employment protection indeed enhances the difficulties of youth integration. The countries in Southern Europe are among those with the highest degree of employment protection. However, the impact of employment protection seems to interact with characteristics of the educational system. Breen[34] (2005), for example, shows that those countries that have particularly high levels of youth unemployment mainly provide general education and have little vocational training, and which at the same time have high employment protection. Employment protection (which makes it difficult and costly to dismiss a non-fitting worker) impedes employment chances of new entrants mainly, or only, under conditions in which employers cannot easily and reliably guess from educational credentials what will be the training costs and the workers'

[34]Breen (2005) has developed a formal model to explain and test the risks of unemployment of workers at school leaving age compared to the risks of the experienced workforce. The model shows how these risks should vary between countries with different signalling capacity of the education and training system and with a different extent of labour protection in the countries.

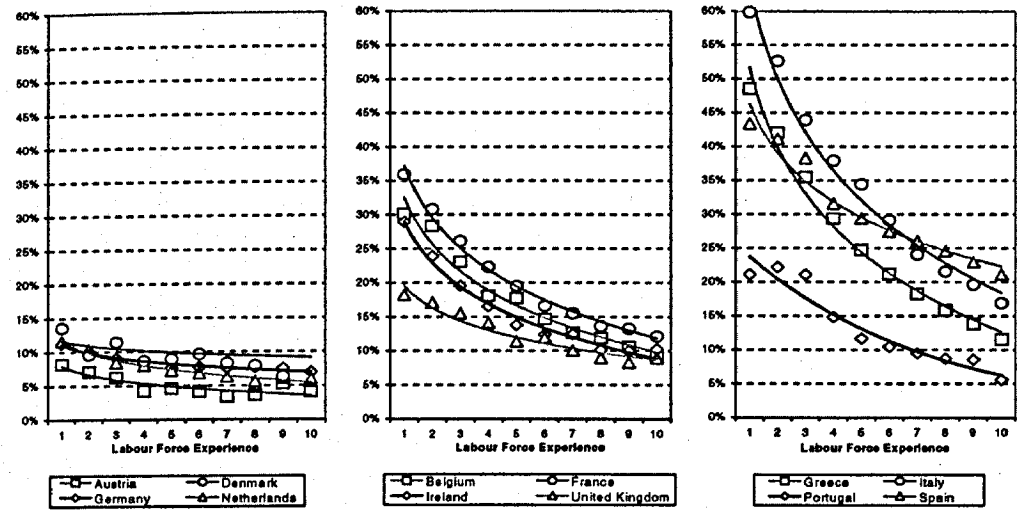

Fig. 9.11 Unemployment Rates by Country and Years of Labour Force Experience, ISCED 3 leavers Source: Gangl (2003b).

potential productivity. In countries with well-signalled vocational and occupation specific training, high employment protection has hardly negative effects on youth integration because training costs are low as well as the risks that high costs from employment protection will ensue. Breen's model quite convincingly accounts for the high variation in the unemployment rate among labour market entrants in the groups of countries in Fig. 9.11. Unemployment in the countries of Southern Europe is extremely high because these countries have high employment protection and at the same time lack ready-to-use and reliably signalled vocational qualifications. In Germany and other countries with similar training systems, unemployment is low in spite of a high level of employment protection. In several countries in the middle group of Fig. 9.11 there is less employment protection, in particular in the United Kingdom and Ireland, and therefore the signalling capacity of education is not important for employers' decision to hire someone, because they can easily dissolve the contract.

Countries also differ – even though to a lesser extent – in the degree to which education shapes the status of jobs school leavers obtain in the early working life. In two groups of countries education plays a particularly strong role (Fig. 9.12) – in the Eastern European countries, and in Austria, Denmark and the Netherlands. Germany would also belong to this group of countries, but unfortunately data for Germany are not available in the database used. The Eastern European countries operated manpower planning and manpower allocation in highly credentialist ways during the state-socialist period. In the 1990s – the period to which our data refer – education still appears to affect very strongly the status of the jobs school leavers are able to obtain in the labour market. To understand differences between the other countries of Europe we can draw on the findings of the study *From School to Work* (Müller and Shavit 1998), which shows that the more stratified and the more occupationally specific education is organized, the stronger is the association between a particular kind and level of education and the social status or class position individuals obtain in the labour market. There is also less hopping around until a fitting match is reached. In Europe, Germany, Austria, Switzerland, Denmark and the Netherlands are

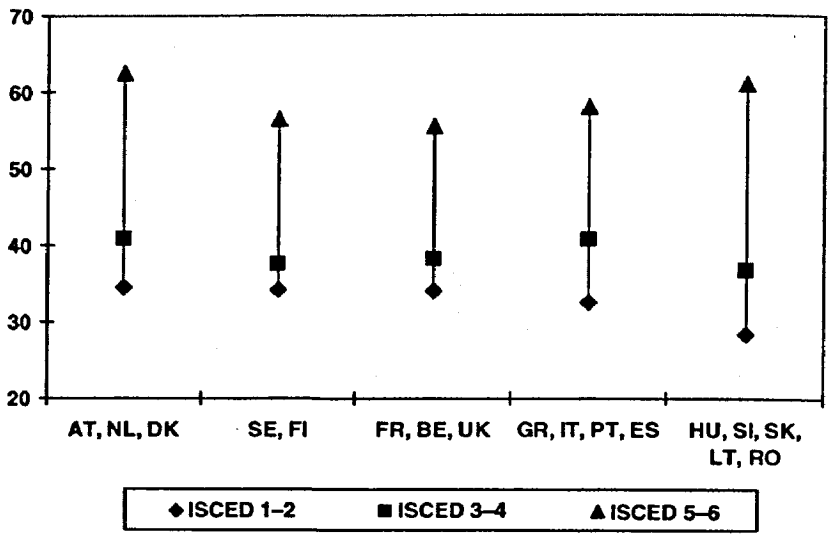

Fig. 9.12 Occupational status (ISEI) of recent school leavers by country groups and level of education
Source: EULFS (2000) ad hoc module on school-to-work transitions.
Country abbreviations as in Table 9.1, page 222.

prime examples of high stratification and vocational specificity, while the United Kingdom probably is at the other extreme.

Differences between countries in returns to specific educational and vocational qualifications also result from varying macrostructural conditions existing in different countries, such as the ups and downs in business cycles, the speed of educational expansion, and the change in demand for qualifications resulting from changes in occupational structures. Gangl (2003b) showed that business cycles strongly influence *unemployment risks* for labour market entrants, but n*ot the quality of the job* attained (in terms of status or class). *Educational expansion* is associated with lower net returns to education in terms of occupational status and class. Within a given occupational level, better-qualified school leavers tend to substitute for less-qualified ones. However, such effects of educational expansion can be counterbalanced when *demand for qualified workers* on the labour market increases. That is, the effects of educational expansion depend on the structural balance of supply and demand, and this balance can develop differently among countries. Germany, for instance, had a rather balanced development of expansion of educational participation and upgrading of occupational demand. In the United Kingdom and Spain, expansion of tertiary qualifications has grown faster than the demand for such qualifications; thus displacement has been stronger. This is consistent with findings by Wolf (2002) and Wolff (2006) who notice for the United Kingdom clear signs of a "perverse race" leading to over-qualification[35] and displacement. Similar developments may take place in other countries in which educational expansion 'overcompensates' the demand for higher qualifications resulting from the growth of professional and semi-professional services or from processes of skill-based technological change (Autor et al. 2003; Mayer and Solga, 2008).[36]

[35] We cannot enter here a discussion of the 'over-qualification issue' appropriate to the complexity of the problem; for exemplary work see Halaby (1994) or Büchel et al. (2003).

[36] We should also note here a core problem for the assessment in a European comparative perspective labour market outcomes of education and their change over time: In pertinent European Union databases such as

All three aggregate structural conditions – business cycles, educational expansion, and occupational upgrading – tend to have the most severe effects on school leavers with low qualifications, in particular those with neither general education nor vocational training beyond the lower secondary level. Economic downturns produce stronger growth of the unemployment risks among these least qualified, likely because employers have invested the least in their human capital. Also educational expansion and occupational upgrading tend both to increase the unemployment risks of the least qualified: educational expansion because the least qualified are at the lowest end of the displacement queue; occupational upgrading because jobs for unskilled workers disappear.[37]

All in all, the cross-national differences in labour market outcomes are, to a large extent, *compositional*. This means that given levels or types of education and qualifications have broadly similar labour market consequences in the various countries of Europe. When structural conditions are controlled, then the effects of different levels and types of qualifications on labour market outcomes appear to be much more similar. Thus, the effects of different qualifications are similar, but the educational systems of different countries differ to a large extent in the composition by level and type of the qualifications they offer. An important part of cross-national differences in early labour market outcomes of education is thus institutionally based, in the sense that national systems of education provide different educational opportunities, which are then associated with systematically varying labour market prospects. These compositional differences account for a substantial part of variation in educational outcomes across Europe (Gangl et al. 2003).

9.5.4 Political Participation and Political Attitudes

Formal education does not only provide individuals with the specific competence necessary to perform duties within a given profession but also enhances more generalizable skills that help understanding the world around them and acting in competent ways. In democratic political systems which rely on the judgment and active participation of responsible citizens this is particularly relevant for the political world, e.g. the ability to integrate and organize information about government and politics (Inglehart 1989; Dalton 1984; Jennings 1996). Formal education is almost without exception the strongest factor explaining how citizens think about politics and what they do in politics. Nie et al. (1996) argue that educational attainment effects the development of verbal cognitive proficiency,[38] which is responsible for paving a cognitive pathway towards democratic enlightenment and influences the placement of individuals in social networks which serves as a positional mediator to political engagement.

The common explanation in the political science literature for why education is such a powerful predictor of political participation is resource and socialization arguments (Wolfinger and Rosestone 1980; see also Chapter 6). The mechanism can be exemplified with regard to individual voting behaviour. Education increases cognitive skills, which

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the EU Labour Force Survey or the European Community Household Panel information on education is only available in rather broad educational categories. So, developments that might become evident when educational information were available in finer grids (as they often are at the national level) may not or less clearly appear in a comparative perspective.

[37] For further discussion of specific problems for persons with low qualifications see Solga (2008).

[38] A similar idea of cognitive mobilization could be found in Becker et al. (2006), who explore development of cognitive skills of German youth, as well as Hadjar and Becker (2006).

facilitates learning about politics, and thus is a resource that reduces the costs of voting by giving people the skills necessary for processing political information and for making political decisions. Besides, better-educated people are likely to get more gratification from political participation. Finally, schooling imparts experience with a variety of bureaucratic relationships, which helps one overcome the procedural hurdles required to register and then to vote. As for the costs of contributing to politics, it is argued that people with higher levels of education have better-paying jobs and more financial resources, and can therefore more easily absorb the financial costs. It is also said that people who have been in school for more years absorb civic values and develop interest in politics, which then facilitates increased participation. For political engagement education hence works as a sorting mechanism, assigning ranks on the basis of the citizen's relative educational attainment.

Education is shown to provide both the skills necessary to become politically engaged and the knowledge to understand and accept democratic principles. In the United States education has a strong and positive influence on political knowledge, political participation and voting, attentiveness to politics and tolerance (Nie et al. 1996). In their comparative study of the United States, Germany and the Netherlands, Jenning et al. (1990) have shown a strong relationship between formal education and the conventional and the unconventional modes of political participation among all party identifiers in all three countries. In Germany, both Western and Eastern, education is the most important predictor of voting participation, party involvement, thematic forms of political participation, but plays no role in explaining protest behaviour (Gabriel 2005). Hadjar and Becker (2006), who analyse trends in political interest in Germany since 1980s, point to its increase up to the early 1990s, followed by a decrease until the mid-1990s and a new increase later on. With regard to cohort differences in political interest the descriptive evidence suggests that the cohort of 1939–1948 is the most politically engaged one, whereas the younger cohort of those born in 1959–1968 is the least interested in politics. Once age effect is taken into account, the results point to a stronger political interest among the younger cohorts. With regard to the effect of education, Hadjar and Becker's (2006) analyses show that the differences in political interest decrease between the least and most educated in the younger cohorts.

Results from the recently introduced European Social Survey (ESS, years 2002, 2004) show that in all European countries who participate in the survey there is a linear relationship between the level of education and various forms of political behaviour. A number of items for political participation are shown in Fig. 9.13. Be it contacting a politician or a government official, working in a political party or action group, signing a petition or taking part in a lawful public demonstration in the last 12 months, the higher the level of education the higher the levels of political engagement. This holds true almost without exceptions for all countries in the ESS sample. This notwithstanding there is substantial variation with regard to political involvement dependent on the type of activity as well as cross-national variation. Signing petitions, for example, is much less wide-spread in Southern (except for Spain) and Eastern European countries. Eastern Europeans are also somewhat less involved in a political party or an action group or more rarely mention taking part in lawful public demonstrations. Contacting a politician or a government official is, on the other hand, more frequently mentioned by citizens of Nordic countries.

Education also appears to be a powerful predictor of the attitudes among European citizens towards the European Union and its institutions (see Chapter 11). In Fig. 9.14 we plot the proportion of individuals agreeing with the statement of the beneficial role of the European Union for their respective countries. Irish appear to be overall the most positive about the benefits of the European Union. They are followed by the majority of the citizens of the new member states. The most sceptical about EU benefits appear to

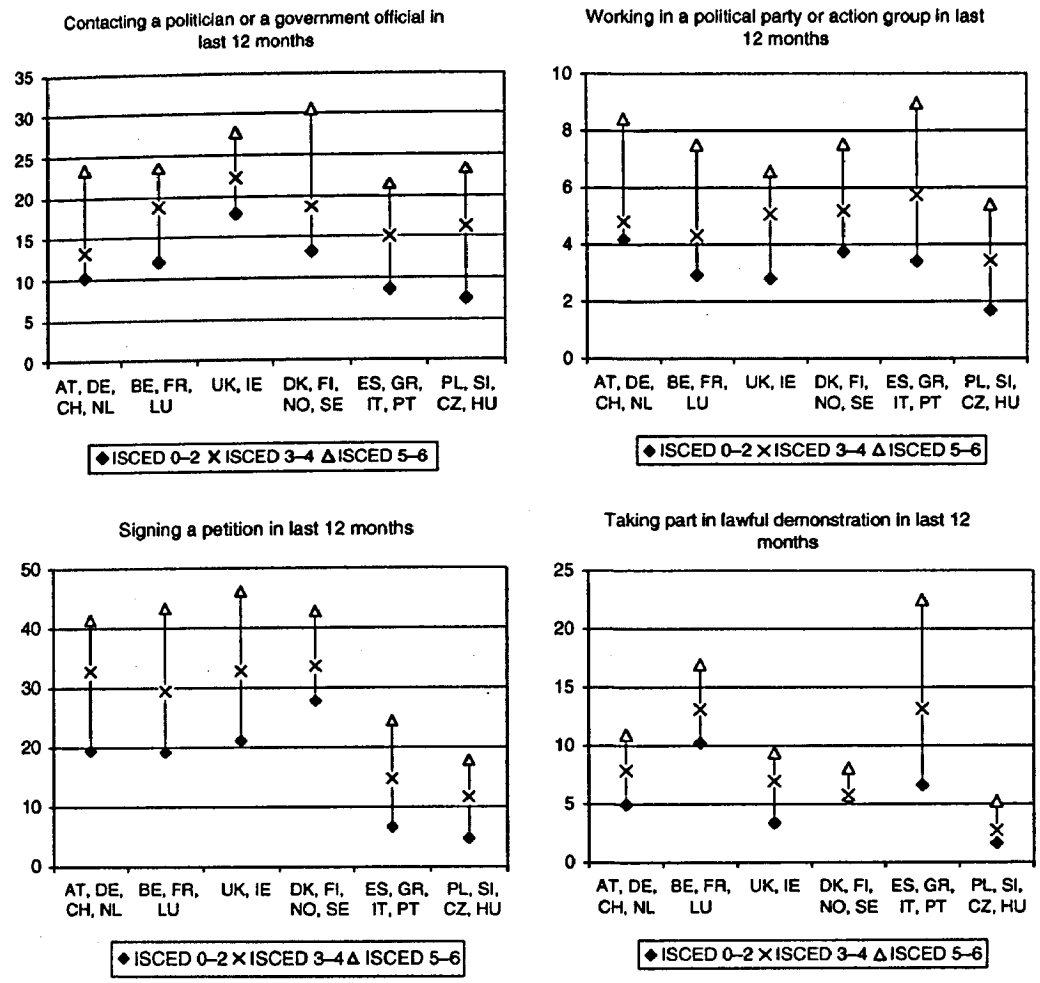

Fig. 9.13 Political participation and educational attainment in Europe (%)
Source: ESS (2002, 2004), own calculations.
Note: Unweighted data.
Country abbreviations as in Table 9.1, page 222.

be Britons, Swedes, Hungarians and Italians with the rest of the continental Europeans settling in between. With regard to the main question of this chapter, the role of education in political and social attitudes, it could again be shown that the more educated individuals are more positive about the beneficial role of the European Union for their country, and this is true for all countries shown here. Moreover, as a rule, younger cohorts, regardless of education, appear to be more optimistic about the pluses of the EU.

In Fig. 9.15 we sort the European countries with regard to the degree their citizens assess the image of the EU and compare these countries' most and least educated populations. The overall picture is as expected: tertiary-educated individuals in all countries under discussion view EU more positively. The gaps between two educational groups are mostly noticeable in the United Kingdom, Portugal, Germany, France and Ireland. Ireland again appears to be the country whose population views the EU in a most positive way. As already shown above, the EU image is more favourable in Eastern European countries, whereas British again appear among the sceptics of the EU.

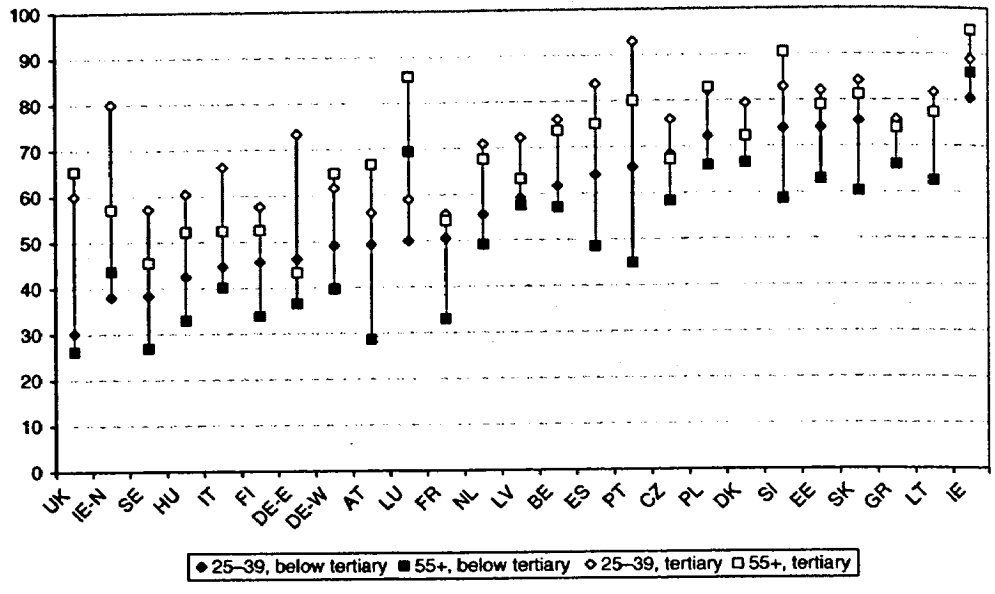

Fig. 9.14 Benefits of EU membership for one owns country by education and cohort (%)
Source: Eurobarometer, 66.1 (September–October 2006).
Country abbreviations: IE-N – Nothern Ireland; DE-E – Former East-Germany; DE-W – Former West-Germany; other country abbreviations as in Table 9.1, page 222.

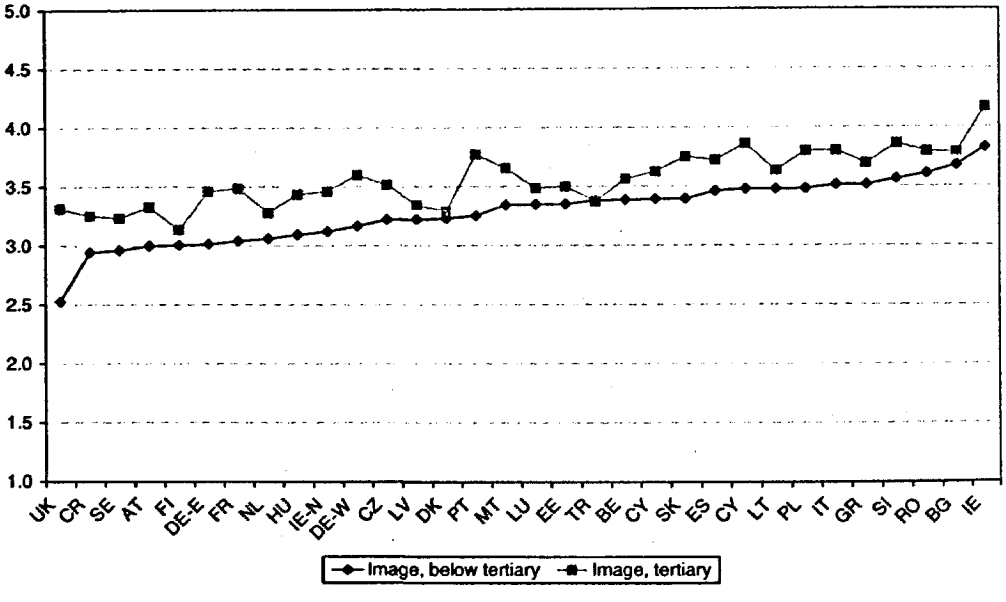

Fig. 9.15 Image of the EU (mean score), by education
Source: Eurobarometer, 66.1 (September–October 2006).
Note: The values range from 1 (very negative image) to 5 (very positive image).
Country abbreviations: IE-N – Nothern Ireland; DE-E – Former East-Germany; DE-W – Former West-Germany; other country abbreviations as in Table 9.1, page 222.

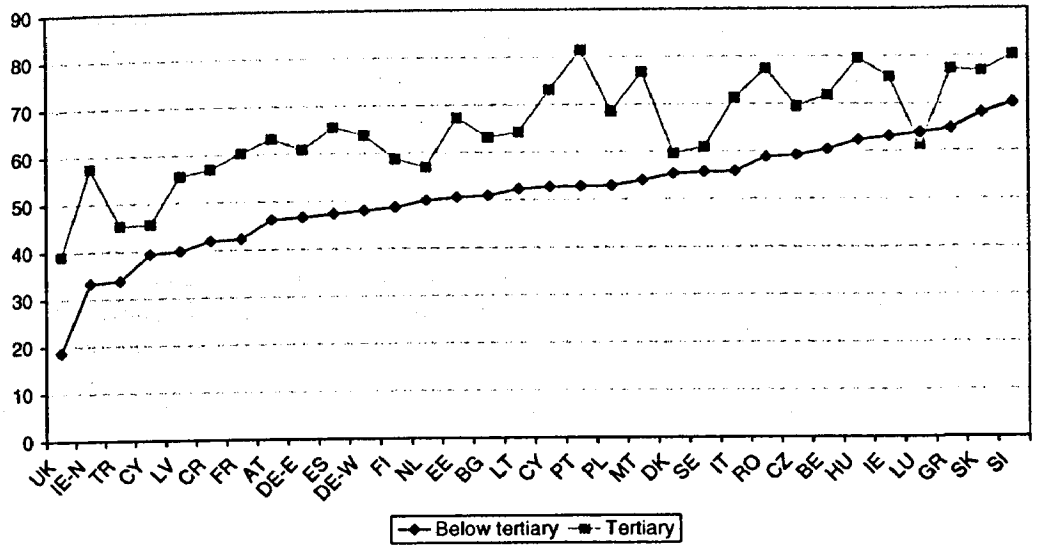

Fig. 9.16 Trust in the European Parliament (%), by education
Source: Eurobarometer, 66.1 (September–October 2006).
Country abbreviations: IE-N – Nothern Ireland; DE-E – Former East-Germany; DE-W – Former West-Germany; other country abbreviations as in Table 9.1, page 222.

Unsurprisingly, British trust European institutions less than citizens of other countries, which is evident from Fig. 9.16, where the degree of trust in the European Parliament is plotted. Among the countries with a relatively low trust in European Union institutions are Turkey, Turkish Cyprus, Germany, Croatia, France and Austria. The population of new EU members, Greece, Ireland, Luxembourg and Belgium are, on the other hand, more trustful.[39] Overall, the well-known pattern with regard to the differences in trust by education is also found here: tertiary-educated people trust in two most visible European Union institutions more than less educated. This holds true for all EU-27 and candidate countries with a single exception of Luxembourg, where the degree of trust of both highly and less educated is quite similar.

9.6 Conclusions

To conclude, we address three questions the editors of the volume ask to consider. First, what are the specifically *European* characteristics in the topical area reviewed? Second, are crucial institutions, structures or processes converging or diverging among the various countries of Europe, and third, do the developments in the area studied contribute to European integration? We will try to briefly approach these questions from what we have learned in the various sections of this chapter.

Throughout the preceding pages we have sought to identify in which aspects education is similar in the different countries of Europe and in which aspects it differs. Not

[39]Similarly to the trust in the European Parliament, trust in the European Commission is questioned in the Eurobarometer, and the ranking of countries is quite similar to the one shown.

surprisingly we found a high level of heterogeneity deriving from the historical evolution of education and training systems in different national contexts. Now, is there still something "European" in all this diversity, or to put it in other words: Does education in all or most of Europe in some characteristic way differ from education in other parts of the world? Without similar detailed investigation for other parts of the world, answers must be tentative and should be considered as suggestions for further research rather than firm conclusions. Neo-institutionalists would tend to answer negatively, since they see diffuse educational institutions and practices in similar ways all over the world, partly based on activities of international organizations with their worldwide reach and global impact (Meyer and Schofer 2005). In educational matters, not little of this global diffusion is of European origin. Agreeing or disagreeing with such claims is a question of the lenses one uses. Viewed with more focused lenses, the very diversity in educational institutions and their consequences found within Europe does suggest disagreeing with an 'all is similar' claim. The huge institutional diversity on the European territory might itself be considered a first particular characteristic. In hardly any other region of the world are small populations confronted with as varied educational institutions as in Europe.

One might think of three further aspects along which education in Europe differs from other parts of the world. First, one is tempted to assume that especially at the secondary level, education in Europe tends to have stronger vocational components than in many non-European countries such as in Japan, Korea or India, in which secondary education tends to follow the American high school model with little serious vocational training. However, difference here is a matter of degrees rather than a sharp contrast. Also, in Europe, the character of vocational education and its prevalence against general education varies a lot. What's more, some non-European countries, such as Australia, have large proportions of their secondary level students following tracks with a strong vocational orientation. Second, partly related to stronger vocational components at the secondary level, one can expect participation rates in tertiary education to be lower in most of the European countries than they are in the New World countries at a similar level of economic development. This is essentially true, at least for the past. All OECD countries outside Europe had and still have higher proportions of tertiary education graduates in their populations than the European OECD countries. However, with the recent rapid expansion of tertiary education in various European countries, this state of affairs is changing. Among the youngest cohorts (old enough to graduate from tertiary education), graduation rates in several European countries, notably in Scandinavia, the United Kingdom and Ireland, are now higher than they are in the United States (OECD 2007: 67). Third, and here we touch upon probably the most distinguishing feature for education in Europe: The role of the state in providing, controlling and financing education is more pervasive in practically all of Europe than it is in most other parts of the world. Even in the European country with the highest level of private pay for the costs of education, the United Kingdom, the public share is higher than in any non-European OECD country, e.g. Australia, Israel, Japan, Korea, New Zealand or the United States. With the exception of Belgium, the Netherlands and the United Kingdom, education is also clearly more often provided in institutions under direct public control in Europe than outside Europe, especially at the tertiary level. This 'European' pattern of more state involvement in education is embedded in a context of a generally more pronounced role of the state for welfare production in Europe, and interestingly even within Europe the state's philosophy and engagement in welfare-state policies correlates with related philosophies and practises in educational matters.

As to the convergence–divergence issue we found that in the process of educational expansion and differentiation since World War II the educational systems and institutions in Europe tended to diverge rather than converge. With the Bologna process, attempts at reverting this trend are now made by many governments in Europe. By installing a similar study and degree structure for higher education, by installing other measures to increase transparency and readability of qualifications, and with the wide acceptance of the new template, the systems of higher education are on a converging path, at least at the surface of formal structures. At lower levels of education, no similar process can be observed so far of reducing the huge diversity in the structure of educational tracks, pathways, age of tracking or selection procedures. Thus, many national idiosyncrasies remain, and for higher education we must await the further developments and research to know how significant the convergence in the educational institutions really is. Apart of such institutional reforms, even among the youngest cohorts, the patterns of participation in different types of education and in the distribution of qualifications and degrees vary a lot between countries, as do the level of competences mastered as well as the extent of social disparities in educational attainment and competences. While early drop-out from education with low level qualifications is declining towards similar numbers in most countries – converging thus in this respect – countries diverge at higher levels of education, notably due to varying policies fostering expansion for different kinds of tertiary qualifications. If convergence occurs, it will remain limited. As no supra-national authority has a legal competence to pressure for convergence and educational reforms very much remain a battle-field of national interest groups, even similar pressures from global markets will be filtered by specific national conditions and must not lead to similar outcomes. And even if in the future some convergence in educational participation and qualification attainment occurs among the rising generations, the various populations of Europe will for long have a highly diverse educational face, because it takes many decades before the new generations will have replaced the generations educated up to now.

Do the developments in education contribute to European integration? As long as we do not have good knowledge about what children learn in school, especially about their own country and about Europe, we are not well equipped to answer this question. But already from what we have learned in this chapter, we have sufficient grounds to argue, that education will certainly not play a similarly important role for the development and consolidation of an European identity as it once did for national identity in the nation-building process in the 18th and 19th century. Education at that time was much more homogenous within nations than it is today within Europe. A crucial element for nation building was learning to read and write in a common national language and inculcating a common national history and culture. We have seen that learning foreign languages has made some progress, but no one dares to suggest a common European language for everyday use. Learning a common history is hardly better developed than learning a common language. Language boarders remain a crucial barrier for cross-country communication and media consumption and thus constrain the cultural integration of the different populations of Europe. Both, different educational qualifications and language barriers inhibit worker mobility which could bolster structural integration. Developments in education which reduce such barriers and reduce the costs of mobility can contribute to European integration, but in relation to the existing obstacles progress is small and is likely to remain small for long. A somewhat friendlier climate for Europe may be backed by the general educational expansion and the continued compositional change in the population towards larger shares of highly educated people. The growth of this group with its generally more positive evaluations of Europe and

European matters may, in the long run, enhance the acceptance in the populations of policies that strengthen Europe. But again, it would be wise not to have too high expectations: Differences between education groups are not really large; they may be caused by correlates of education, and positive attitudes usually have little effects when it comes to costly decisions.

This chapter, as long as it is, could only tap upon selected aspects, and most of them would need more in-depth examination. We had to neglect many other aspects, for instance informal learning or the important role of education for social networks, social mobility, poverty, fertility, life styles, health, morbidity, criminality, value orientations or tolerance. Even a thick book cannot cover all this. For many of these aspects good and sufficiently comparable data for a wide range of countries are not yet available. A lot of resources and much scholarly work is needed to grasp the ongoing changes and to gradually cover the lacunae.

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