

# **Educational expansion and labour market**

A comparative study  
of five European countries  
– France, Germany, Italy, Spain  
and the United Kingdom –  
with special reference  
to the United States

EDEX

# Educational Expansion and Labour Market

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- France, Germany, Italy, Spain and the United Kingdom -  
with special reference to the United States

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# Summary

Between November 1998 and September 2001, LIRHE co-ordinated the EDEX project (Educational Expansion and Labour Markets). This is a European research project conducted under the 4th RDFP (TSER line) in collaboration with British, German, Italian and Spanish teams, together with a U.S. team for certain aspects. The aim was to analyse the long-term consequences of the rise in levels of education on mechanisms of access to employment and on human resources management.

The teams involved in the project were LIRHE in Toulouse, the Centre for Economic Performance (CEP) of the London School of Economics, the Zentrum für Sozialforschung Halle (ZSH), the Centro di Ricerche Economiche e Sociali (CERES) in Rome, the Grup de Recerca Educació i Treball (GRET) in Barcelona, and the Center for Research on Innovation and Society, (C.R.I.S. International) in Santa Barbara.

This LIRHE document contains the final report of the project. It has been compiled from national contributions from the teams and interim synthesis reports produced during the research, all of which may be consulted at the website: <http://edex.univ-tlse1.fr/edex/>

Four major questions were addressed in succession, taking a comparative approach:

- In each of the countries, what are the processes leading to educational expansion and the production of generations with increasing levels of qualifications? Can the factors influencing these processes be identified?
- How – in macro-economic terms – have these generations with increasing levels of qualifications spread throughout the employment system, and with what returns in terms of salary and social position?
- What has been the impact of an increased supply of graduates on company organisation and human resources management? How is it viewed and used by companies? What links have been established between qualifications (produced) and skills (demanded)?
- From the above results, is it possible to deduce implications for the future evolution of national systems linking education with employment? To what extent are countries converging or diverging?

## CHAPTER 4

# Conclusions and policy recommendations

The rise in the level of education among British, French, German, Italian and Spanish populations is a continual process which forms part of the economic and social history of these developed countries. A phenomenon of the period since the end of the War, it has resulted from the converging strategies of the State, families and employers, all of whom – albeit for reasons that may have been completely opposite – have pushed for educational expansion.

Of these three protagonists, the State played the key role: they were the main source of funds for educational expansion, and drew up the relevant legal framework. Families have sometimes provided more support for expansion than governments expected, even in times when qualified people find it difficult to get a first job.

Though they have not explicitly played a major part in the expansion of education, employers have always had a stake in vocational education and training, and have supported this expansion if only by taking qualifications into account in recruiting staff. The State has also played a crucial role in its function of entrepreneur, by making level of qualifications a core criterion for appointments in the public sector and soaking up large numbers of new graduates (especially in health and education provision).

The strategies of each of the players have obviously influenced those of the others: governments have tried to interpret the needs of employers and to incorporate these into the expansion of education systems, particularly vocational education. Families have also picked up the signals coming from employers and have taken these into account in their educational behaviour. Employers, while participating globally in the process of educational expansion by expecting particular specialist skills, have been essentially concerned with non-formal and formal continuing education and training, the manner, amount and cost of which depend on the characteristics of the labour supply, i.e., on decisions taken earlier by governments and families.

In EDEX, the link between developments in education and the needs of the economy rests on the notion of skills. An individual's skills have been defined as the knowledge and abilities acquired, which the individual may modify at any time of life and in a variety of places, the chief ones being of course school and work. The higher an individual's initial education, the more

quickly, effectively and efficiently he or she will learn. Employers buy these individual skills and develop them, implicitly through the work experience that they allow individuals to acquire, and explicitly by providing continuing education and training. Although this development of skills within a company depends on the ability to learn of each employee, it serves the company's particular aims of adapting resources. These hypotheses have proved both extremely useful and generally valid in the course of this work.

Analysing the consequences of the rise in levels of education via the increase in individual and collective skills in the labour market enabled us to move on from the classic question of the link between qualifications and employment to a more coherent way of looking at the interactions between developments in education and the economy. Both the education system and the employment system need to transform themselves; but although they are relatively autonomous, in the sense that they obey forces that are peculiar to them, their interests coincide in that the one produces and the other uses – and together they jointly produce – socially and economically relevant skills. And while they safeguard their own interests, they also develop their relationship (their joint production) in order to protect themselves as best they can against the unpredictability of long-term changes in work.

From the results of this research (1), we have selected some basic ideas which have policy implications: on the convergence of education systems (2), on the irreversible aspects of educational expansion (3), on the shift in consensus (4) and on the place of education systems in the production of skills (5).

#### 4.1. 40 years of educational expansion in the five project countries

The EDEX project set out to identify the educational changes that had led to a huge expansion in education in five European countries. The educational careers and behaviour of the generations born between 1940 and 1980 were analysed, compared and contrasted with the education policies which governments had been pursuing. We also took into account the role of companies in the expansion of formal and non-formal vocational education and training. Lastly, the question whether these trends would continue was examined and discussed country by country. The conclusions of this work may be summed up in the following points:

- All the countries considered experienced a significant rise in levels of education in the generations born between 1940 and 1980. In the majority

of the countries, this rise accelerated among the 1970s generations, and then apparently slowed among the generations of the early 1980s.

- In all five countries, the expansion in education essentially affected the initial education of each generation within the education system. This result, which needs to be qualified according to country, shows up the (as yet) secondary role of continuing education (lifelong learning) in building the qualifications structure of the population that is currently of working age. The initial education, which each generation receives in youth, leaves a lasting trace.
- The process by which each generation acquires qualifications has become longer as education has expanded but generally stops before the age of 30 years. This period of life comprises both initial education before entry into active life, vocational training via apprenticeships, and various combinations of periods of work and study. The distinction between the education phase and the work phase is becoming less and less clear, even in countries with 'school-based only' models such as France and Spain. For a growing number of individuals, the ten or twelve years following the end of compulsory education are a time of searching for an identity and position in society through education and work. However, the order in which this occurs is not immutable: there is considerable overlap between the two and a wide variety of combinations.
- The changes occurring in national education systems agree in two essential respects: a considerable fall in the number with "no qualifications" (although this category has not disappeared) and a rise in the percentage of each generation obtaining qualifications granting them entry to university at the end of secondary education. In each country, therefore, there is an appreciable increase in the average level of education of the labour supply as these generations with more education and more qualifications enter active life and "spread" throughout employment. This should not mask the fact that there is a considerable proportion with "no qualifications" in each country, even among recent generations. This sends a particularly negative signal in times of educational expansion and may lead to exclusion from the labour market.
- The similar developments taking place have far from eradicated all structural differences between countries. In 40 years we have moved from a situation of wide gaps between the proportions with no qualifications (ranging from 33% to 89%) and small gaps between the proportions with higher education qualifications (fewer than 16%) to a completely opposite situation: a drawing together of the proportions with no qualifications (fewer than 15%) and growing gaps between the proportions with higher

qualifications (ranging from 7% to 37%). Thus, the countries where education was poorly developed have caught up. More precisely, this result means that the various countries have, while expanding education, retained or even strengthened their individuality in their educational decisions. The factors that have led to the international phenomenon of educational expansion take forms peculiar to each country.

- These strong initial differences between levels of formal education and training, i.e., education and training attested by qualifications, among generations born in the years 1930-1940, are matched by equally strong differences in economic development. Such economic and educational gaps have now been reduced, although it is not possible to identify any simple causal link within the framework of this study.
- In all five countries, the main force driving educational expansion is the notion of equity. But the idea of “meritocracy”, which generally guides the implementation of equality of opportunity in the school system, does not entirely solve the problem. Maintaining equality of opportunity for longer has led European education systems above all to postpone the first true differentiation within each generation until after the end of compulsory education – except in Germany, which retains its hierarchy of three types of school.
- In all five countries, educational expansion is the joint product of a) longer compulsory education, which, in effect, is creeping closer to entry into higher education, and b) an increase in post-compulsory study. The average level of education among recent generations has moved from secondary towards university and/or vocational higher education, and this has profoundly affected the nature of vocational education. The institutional emphasis of education has shifted towards higher education in all countries studied.
- The educational system is an increasingly important variable in young people’s careers (education, work, transition to adult life, socialisation and first employment).
- After more or less continual growth over nearly 30 years, educational expansion speeded up radically in all the countries examined – except Germany – among generations born in 1970 and later.

The outlook:

- The most likely hypothesis for the future, in the light of the behaviour of the generations currently undergoing initial education (the generations of 1980 and beyond) appears to be stabilisation of educational expansion in the next ten years. This already seems to be a reality in France and the United Kingdom, a new development in Spain, and a possibility in Germany and Italy.

- With the exception of the United Kingdom, existing institutional arrangements do not show much room for manoeuvre in order to encourage study beyond the end of compulsory education.
- Study after the end of secondary education (e.g., *baccalauréat*) appears to be a crucial factor in stabilising or raising levels of education. It depends heavily on national policies for the development or diversification of higher education.

#### 4.2. Convergence and divergence between education systems

The results of EDEX show the way in which the countries have managed educational expansion, which may be summarised in terms of convergence and divergence. But has there been a convergence between education systems themselves? As systems evolve, are they drawing closer together, structurally speaking?

The national peculiarities of education systems have much to do with the extent to which vocational education is integrated into a unified system under State supervision. Germany gives vocational education a central place in its “dual” system managed jointly by the social partners; the United Kingdom has no unified system of vocational education after compulsory education; and France, Spain and Italy have integrated initial vocational education into a unified system under State supervision, though responsibility may be shared between various levels of government, especially in the regions.

The rise in levels of education is certainly a key feature of the last quarter of the 20<sup>th</sup> century which is common to different European societies. The factors influencing it cannot be confined solely to the actions of the State or of individuals, or to the needs of the economy. The rise in levels of education is one of the essential components of the overall transformation of Western societies. This transformation is quite obviously common to the various European countries.

It is nonetheless worth noting that the rise in levels of education has taken place simultaneously in countries whose education systems are very different for historical, cultural and economic reasons. Yet these differences have not hindered the general growth in education. Education systems remain very different and have retained their particular national forms of coherence. They have handled educational expansion in their own particular ways.

Education systems have nonetheless been through considerable internal and structural change. The more centralised have tried to become more

flexible, and the more decentralised have set out to introduce national standards or more exact common rules. Each country has found examples or ideas in other countries' systems that have helped to bring about change. There is also a certain permeability between education and training systems. But this is far from enough for us to reach the conclusion that systems are converging.

For one thing, the changes are responses to socio-economic tensions and developments, which are fundamentally similar in the different countries. Unemployment, changes in the labour market and labour organisations, rising standards of living and even growth in the demand for education, have pushed every education system to adapt. The causes of change are thus largely similar, and each system has aimed at greater professionalisation, adaptability to changes in employment, less rigid educational tracks and a wider range of courses. The objectives are relatively similar, especially in higher education, where the issues of professionalisation and diversification of courses are currently key topics. However, the responses to these needs for change have differed in the past, and still differ today from country to country. It would not be accurate to speak of a standardisation of education systems.

The fact that all countries can produce a more or less equivalent level of skills to meet similar economic needs by means of quite different education systems is part and parcel of the very concept of skills. Their vectoral nature and their joint production by systems and other places, ranging from schools to companies and including social life, are transnational, but the way in which these different elements fit together is peculiar to the society of each country.

Let us simply take one example: it is quite common for pupils and students in initial education to work while at school or college in France (Béduwé, Giret, 2001) and Spain (Planas 1990). In some cases at least, this may amount to a sort of spontaneous version of the highly formalised German dual system of vocational education. Both may turn out relatively similar skills on the basis of school learning, work experience, etc., that are peculiar to each education system (with its own rules, permits, etc.), of employers' behaviour towards young people and of labour market conditions (regulations) specific to each country.

Where it proves necessary or merely beneficial, such behaviour tends to become institutionalised. But its institutional form remains closely related to the society in which it is produced. For instance, secondary and higher education in France and Spain increasingly frequently include work placements in companies as part of vocational education courses, even though such placements are far from constituting a true dual system. It is well

known that the societal framework of the German dual system has implications that go well beyond the mere education system. This makes it difficult to export to countries lacking these strong traditions and rules governing the labour market.

Clearly, the continued presence of important structural differences between countries is no obstacle to educational expansion; in fact, comparing and contrasting the different systems is of benefit to all parties.

Certain difficulties arise, however, in making a comparative analysis of the rise in levels of education and the cross-fertilisation between education systems.

In the first place, little is known about the effectiveness of the systems and their contributions to the economic and social development of each country. It is probable there have been some changes in this area over the last 25 years. There is no point in examining responses to economic and social change unless they can be related to each system as a coherent whole, and unless there is some way to assess their relative effectiveness.

Secondly, it is still difficult for one person to understand another's education system and the significance of the rise in levels of education since there are great differences and knowledge of that system as a whole is required. The best solution is probably not to aim at convergence or standardisation of systems but gradually to build up some common points of reference, particularly for similar levels of education.

### 4.3. Irreversibility of educational expansion

The results of EDEX (*cf.* Section 4.1) show that educational expansion, having gone on for a long time, recently speeded up dramatically, after which it would appear that there has been a stabilisation, in at least four of the five countries. Is the huge and continuous expansion in education, except in Germany, at a turning point in its history? It is still very difficult to answer this question, but it is obvious that it could have very significant consequences.

The "stabilisation" currently observed may perhaps amount, as has already been seen (Chauvel, 1998, Vignoles, Steedman, 2000), to a consolidation, following the rapid acceleration among the generations of the 1970s which will precede a renewed period of expansion. The conditions for an upturn have been described (Chapter 3): renewed expansion depends on the removal of a number of institutional barriers within education systems, and on young people's demand for education, which now appears more sensitive to economic fluctuations than in the past. This would mean that we

do actually face a consolidation of the preceding period, which saw the 1970s generations advance dramatically: having made significant progress, the system would then maintain its level while it digested this advance.

But is a reverse trend conceivable? The power of the behavioural factors that led to the expansion of education, and the strong potential resistance to a decline, suggest that the expansion of education will stabilise (at least), will definitely last and cannot be reversed.

Educational expansion is a cumulative process which, in turn, profoundly influences family behaviour, decision-makers' strategies for the organisation of general and vocational education systems, and employers' attitudes towards qualifications. The upward shift in the minimum threshold of qualifications allowing access to employment and social status has a knock-on effect on the behaviour of the players, who regard it as a *fait accompli*. The fact that over half of each generation enter upper secondary or higher education has thus acquired a symbolic value for the generations that have contributed to it, and has come to form part of families' histories and fixed beliefs.

The role of qualifications as a social and economic signal also means that the development would be difficult to reverse. According to the "Investment in Education" model (Hartog, 2000, p. 9), only drastic action by the State (more obstacles and less funding) and a heavy fall in returns to investment, could lead to a return to the past, at least in the absence of severe shortages of labour.

At this point, mention should be made of a significant consideration: the results of EDEX over a long period show low sensitivity to economic conditions and cycles in the output of persons with qualifications. This output has been rising since the War without any obvious breaks, either during the period of strong growth ("the 30 glorious years") or during employment crises (the oil crises of 1974 et 1989). That said, observations about acceleration and stabilisation of educational expansion relate to a period characterised by abundance of labour rather than shortages. The low opportunity cost of post-compulsory education (Chapter 2) has encouraged further study. The period to come, however, will see the retirement of the large post-war generations. This may create quite significant job opportunities, to which young people will perhaps respond.

Subject to this reservation, four points suggest that educational expansion has a knock-on effect.

#### 4.3.1. Educational strategies

The lengthening of the period spent in education has been supported by a wide consensus of all those involved in each European country. Everyone was in favour, although it was the State and families that were the main players. What has become of this consensus?

The State, the principal funder and organiser of educational expansion, does not seem inclined to reduce its commitment in any country despite the increasingly rapid pace of educational expansion in the recent past. In the United Kingdom, for example, “institutions at all levels are undergoing great political changes because of the Government’s desire to raise the level of education of pupils and students. The aim is also to increase student participation at all levels, especially in the field of technology and at intermediate level” (Steedman, 2000). This is in fact the only country of the five which appears to have significant room to give levels of education another boost in the near future.

Even if qualifications were to become less cost-effective (which is not proven), young people would still find it helpful to obtain the highest possible level of qualifications in order to occupy the most favourable position in the market. Young people might, however, reason that they should take advantage of earlier opportunities to move into the labour market. Although this has actually occurred in some countries when there has been an upturn in the economy or in sectors where there is a shortage of skills (computing, for example), it is possible that these young people will seek to have their knowledge validated later in one way or another. The greater flexibility in educational demand found in some countries can be interpreted in this way. It is obvious nonetheless that the policy of diversifying higher education courses will crucially influence the decisions of young people who hesitate to commit themselves to long courses. This clearly seems easier to achieve in unified systems (Chapter 3, 3.1.2.1.2). In the case of the United Kingdom, the cost/benefit advantages need to be sufficiently attractive to pupils and students: firstly, the new courses introduced (the equivalent of *baccalauréat* + 2 years’ apprenticeship) must lead to high-quality qualifications that are recognised by employers and the labour market, and secondly, the apportionment of costs between the State, employers and students must be resolved in a manner that is satisfactory for all. In general terms, however, it does not look as though we are moving towards clear changes in young people’s behaviour.

As for employers, their skills requirements are complex. On the one hand, they have to cope with an economic environment that is increasingly subject to forces of change (internationalisation of markets, advances in technology,

new models of company organisation) bringing about a greater need for skills and therefore higher qualifications. On the other hand, they also need to find staff for low-skilled jobs (cf. the banking sector, Chapter 2), the supply of whom is becoming smaller because of rising levels of education. There are tensions in this area, particularly in Germany where they have been brought into the open, but no doubt also in other countries. There are cases, for example, where companies have been unable to recruit and pay salaries at the intended level, and even of their shifting employment to somewhere where labour is less well educated and cheaper. This pressure exists, but ultimately appears to be minor in such a wide accountancy exercise as this.

Now that the study has ended, no reason has emerged with sufficient force to call into question the notion of the educational consensus. The common strategy continues to be educational expansion, even though changes may be made to the way in which this is organised (cf. the following concluding point). But the interests of the three main players will not change so much that educational expansion goes into reverse.

#### **4.3.2. The symbolic role of education and qualifications**

The irreversibility of a certain level of investment in education is also affected by its symbolic role. This reflects the many different functions of education in the social system, which go beyond the mere search for purely economic benefits. We need to move away from too reductionist an approach to the education system, and must not restrict its role to responding to the demands for skills expressed by production. The relative independence of educational demand from the needs expressed by employers strengthens this argument.

The value of qualifications is greater than the productive value accorded them by the market. This value, and the demand for academic education associated with it, is governed by the role of qualifications in overall social and occupational relationships. The growth in educational demand is not solely linked to employment prospects, anticipated productivity and the returns expected by each individual. Nearly 20 years on, we see that Carnoy (1982) was right: “even in an economy that shows itself incapable of absorbing larger numbers of graduates and obliges some of them to accept jobs previously occupied by less educated people, the factors causing educational expansion will continue to apply.”

P. and A. D'Iribarne (1993, 1999, p. 28) also point to the significance of the symbolic role of education in France: “It is impossible to grasp the relationship between the education system and the production system in France if one overlooks the symbolic aspect of education. And this means above all appreciating the role played in France today by the contrast between what is

more, and what is less “noble”.... In contemporary French society, it is essentially a person’s “academic *noblesse*”, governed by their educational career, that will determine their personal *noblesse* for the rest of their life.”

What is true of France applies equally, in various ways, to all the countries of “old Europe”, each of which divides up and distributes its “*noblesses*” on the basis of education. However, as Shavit and Muller suggest (1998, pp. 19-20), in all countries, access to higher social positions is heavily influenced by the level of qualifications achieved.

The relationship between education and jobs, and the match between level of education and level of employment, are part of a broader issue that includes social signals. The education system produces both skills and a social hierarchy (in the case of the various *élites*, it does so through courses with very wide occupational goals – D’Iribarne A., D’Iribarne P., 1993).

#### 4.3.3. Qualifications as a signal in the labour market

Given the lack of complete information about the labour market, the “signal” theory (Spence, 1973) and its more radical version, the “filter” theory (Arrow, 1973), have always been regarded as relevant factors in the interpretation and distribution of qualifications in the labour market (see Chapter 1). In this context, qualifications play a key role in signalling the skills that are asked for by employers (Chapter 2).

These theories, particularly the filter theory, also have their limitations: they do not necessarily imply optimum use of the knowledge associated with qualifications. Nor do they rule out the possibility of “wastage” in the matching of qualified persons with jobs. This “wastage” may be temporary, as companies may in fact be stockpiling adaptation abilities that they will need in order to evolve.

With the increase in the number of people with qualifications, there is also the danger that the value of qualifications as a signal will become weaker and decline (Gamel, 2000, pp. 71-74). But even if we make such an assumption adapting to the decline will not automatically lead to a slowing of the qualifications race among young people and their families. Rather, there will be “longer periods spent in study and a quest for higher or more selective qualifications” (although another form of behaviour, which is more difficult to measure, deliberately aims at a first job that is more modest in relation to the qualifications obtained). In other words, if qualifications provide a weaker signal, some people will go along with this trend and lower their expectations, while others will look for a stronger signal in order to keep them up.

The role of qualifications and hierarchies should not be forgotten in the creation of standard levels in the labour market. Although their effects differ

according to the structure of the education system, “The nature of the links established between education and employment, and particularly their normative quality...have become a key reference point in the decisions made by those involved in the labour market” (Germe, Planas, 2000, p. 4). Qualifications gained at the end of long courses, for example, are judged by their capacity to ease access to a given level of job for which they are assumed to offer some preparation. This is neither a rule, nor a description of what actually happens, nor yet a mere response to the market, but a socially constructed point of reference that guides those managing the system, those in search of a qualification, and those who are recruiting or looking for a job.

These more or less explicit standards allow young people and their families to arrive at occupational expectations and make their educational decisions. They have a push and pull effect on these expectations, although the gap between symbolic perception and reality cannot be too wide. Given current perceptions, it is hard to imagine a reversal of the trend.

#### **4.3.4. Education and qualifications as an investment**

Another argument that should not be forgotten, which supports the irreversibility of educational expansion, is that though qualifications are less and less a sufficient condition for access to middle-level and higher positions in the jobs hierarchy, they are nonetheless increasingly a necessary condition (and a factor in protection against unemployment).

The positive results eventually found in respect of remuneration (Chapter 2) are in full agreement with the Human Capital Theory approach (Becker, 1964), which argues that individuals are inclined to sacrifice resources and satisfaction in the present in exchange for compensatory satisfaction and resources in the future. They regard education as an investment and reason that they can expect to profit from it. The future is thus a dynamic extension of the present: investment has not yet been affected by any potential weakening of the signal.

#### 4.4. From consensus on initial education to consensus on skills?

Let us return to the question of the consensus on education: young people and their families, the State and employers have all had an interest in the expansion of education, although their reasons may have been different, and even contradictory. Educational expansion has thus occurred in a largely consensual context. It has taken the form, at least implicitly, of an expansion of initial education and an increased output of people with qualifications. In the preceding section we argued that the bases of this consensus were sufficiently firm to prevent a reversal of educational expansion. None of those involved – in the current state of the market – would benefit sufficiently to want to cause a breach in the consensus.

However, educational expansion seems to have come to a pause in most of the countries studied. The reasons for this phenomenon are not clear. The idea of a maximum threshold suggests itself, as the bulk of each generation is now educated beyond compulsory education. Solving the matter of young people with “no skills” or “no qualifications” has more to do with educational behaviour than with “level of education”. Here also, while the situation in the different countries appears to be more and more similar, there are subtle distinctions. It is not the primary focus here, although this dimension must be borne in mind in speaking of the future of educational expansion and the educational consensus.

Skills requirements are still rising. Until now, they have largely been satisfied by a mixture of expanding initial education and/or the acquisition of work experience during active life. If the output of people with qualifications from initial education declined, it could no longer provide all the skills on its own that are needed throughout the market. Its role in the production of skills would cease to be paramount and would have to be compensated – assuming a constant need for qualifications – by certificated continuing education and training. The phenomenon would be even more marked if an increased need for skills were to make itself felt.

From the likely future behaviour of the three protagonists, it can be shown that a scenario in which continuing education and training take on more and more importance in the production of skills is plausible. The consensus would then move to the maintenance and expansion of skills in lieu of increased output of skills by initial education.

#### 4.4.1. Outlook for the behaviour of the different players

What indicators are available to provide information on the future behaviour of the players towards education and training, and their new strategies to cope with the changed context created by the “stabilisation” of levels of education?

##### 4.4.1.1. Young people and their families

As was reiterated in point 4.1.:

- In the recent past, the 1970s generations were the turning point in the development of educational expansion, and the 1980s generations have today reached another turning point. Of the young people in the five countries born in the 1980s, over 50% should eventually have an upper secondary (*baccalauréat* level) qualification. According to this criterion, they have attained the highest level of education ever found.
- Furthermore, except in the UK where there still seems to be some room for manoeuvre, it would appear that the rise in levels of education has reached an upper limit and that the proportion of upper secondary qualifications will, in the near future, only vary slightly. A return to below 50% of a generation at that level appears equally unlikely.
- These generations at the pinnacle of educational expansion are, except in Germany, less numerous than preceding generations (France, UK) or even falling appreciably in size (Italy, Spain). Assuming an equal demand for labour, they should find it easier to get a first job of higher quality. These fortunate employment circumstances may even improve given the opportunities created by the retirement of the numerically large post-war generations and/or a continuing economic upturn. But a favourable employment situation may *a priori* have a negative effect on continued study (Section 3.1.2.2.1.): on the one hand, it may increase the opportunity cost of continuing to study and reduce the tendency to seek shelter within the education system, but on the other, it may increase the returns to study and therefore encourage take-up of long courses.

One hypothesis put forward to accommodate these contradictory effects (Chapter 3) is that the behaviour of the new generations will be more variable and flexible in terms of educational demand, tracking economic conditions more closely. This is a powerful hypothesis which, from a study of the situation in these countries, appears to be holding up. The risk inherent in leaving education and entering the labour market early, which may be justified by favourable economic conditions, would be compensated by the possibility of returning to study, including certificated education and training, during active life.

This would be made easier by the high level of education achieved by the young people in question: it is established that the more initial education an individual has acquired, the more he or she will demand continuing vocational education and the more he or she will be able to make effective use of it. What is true of the new generations will also apply to the whole of the active population, which will, by a demographic process, become more and more highly qualified.

This “new” behaviour could lead, if it were confirmed, to new links between initial and continuing education, between continuing study and return to study. If such behaviour spread, tensions would doubtless emerge owing to the rigidity and inflexibility of the education system. More broadly, the rise in the population’s levels of initial education would threaten the balance between the roles of initial and continuing education in the building of skills.

#### 4.4.1.2. *Employers*

According to the information collected on employers’ possible attitudes towards qualifications in the near future (Chapter 3):

- Employers’ behaviour will depend essentially on two factors: first, the “forces driving economic change”; second, changes in the supply of persons with qualifications leaving the education system.
- The forces driving economic change (Chapter 2) are unlikely in the near future to cease or let up the pressure they place on companies. In consequence, employers’ demand for skills should continue to rise.
- Employers will need to recruit both more skills and skills suited to changing and largely unforeseeable needs.

Employers express their needs in terms of skills. These increased needs have in the recent past often been met by young persons with qualifications from initial education. The question is to what extent the output of persons with qualifications by the education system will continue to supply the skills needed by employers if the latter continue to place the emphasis on recruiting young graduates.

A person’s set of skills can be acquired in different places and by different means, in a wide range of combinations. The sources of skills are school and higher education, working and social life, and continuing education and training. What will be the most relevant (effective and efficient) combination for the acquisition of the skills needed by employers in the future?

Given national demographic trends and the likely hypothesis of stabilisation of educational expansion, it is inconceivable that the huge output of young people with qualifications entering the labour market in the 1990s will continue in the second half of this decade. It is difficult to imagine that the

relatively abundant supply of young qualified labour, of which employers have been able to take advantage over the last ten years, will continue.

On the other hand, the decline in the output of qualified persons entering the labour market will not prevent a continued rise in the level of qualifications of the active population as a whole: even though it will be smaller, the flow of qualified entrants will more than replace those who retire.

The labour supply will therefore move in two directions: a) a probable decline in the flow of entrants to the labour market with qualifications, and b) a sustained rise in the level of qualifications of the labour force.

Countries will thus have at their disposal active populations that have been educated for longer and longer, have more qualifications and, above all, are more easily to educate further through continuing education and training. While tensions in the labour market will arise in certain occupations as a result of the slower rise in the level of education of the population of working age, it may be assumed that companies will more readily encourage their staff to return to study through continuing education and training.

#### 4.4.1.3. *The State*

Until now, governments have not slackened in their commitment to education despite some evidence here and there of educational Malthusianism. Not the least of the challenges that they will nevertheless face in the future is how to implement lifelong education in practice. From the statements made by governments, European supranational bodies and educational institutions, especially in higher education, it is evident that this issue may result in a reorganisation of education and training systems. But to achieve this we have little budgetary room for manoeuvre.

Educational institutions as a whole, despite appreciable differences between countries, are more sensitive today to the demands of their clients. They are in fact looking for new clients. In order to maintain, and if possible to widen their base, they are prepared to be more flexible in both course provision and routes of entry. These changes, already the norm in continuing education, are also beginning to affect initial education. They are a reaction to the new needs and behaviours detected among employers and young people, and are being developed as part of policies aimed at expanding educational provision without appreciably increasing budgets. Governments believe that the initial education system must become more flexible and open to new sections of the population without any substantial change in the overall costs of education.

#### 4.4.2. Towards a greater role for continuing education in the production of skills

This look at some aspects of the likely future behaviour of the various players engaged in education suggests that the consensus on educational expansion will continue, but on a new footing that is modified to take account of current circumstances and the behaviour and interests of all those involved.

Assuming that the role of qualifications remains constant, satisfying employers' needs will mean a shift in skills provision to sources other than certificated initial education, even though this will continue to play a key part in the renewal of the active population.

From the quantitative point of view we have seen that the supply of persons with qualifications is likely to be more limited than in the past unless there are significant social and institutional changes or a shift in young people's behaviour. These changes are not improbable, but they presuppose "...profound changes in education systems so that these make education available at more flexible times. This is not inconceivable. Here and there, such options are making their appearance. Changes in behaviour in choice of subject and pattern of study are actually to be seen in some countries. Different routes of entry to higher education are developing in certain countries" (Frey, Germe, Ghignoni, 2001).

At all events, this new behaviour by young people, adults and employers should lead them to demand far more continuing education. This may be encouraged by the high level of education among recently recruited staff, which may reduce the costs of training and adaptation. Employers will need to manage the tensions created by the intra-company competition between the generations: "...if the pressure of competition (in the banking sector) increases and methods of regulating internal markets are not modified (recognition of skills and training effort, and career progression), these characteristics are likely to create serious tensions" (Bruniaux, 2001, p. 26).

These possible changes therefore contain the seeds of a skills production scenario in which certificated courses provided by continuing or lifelong education complements and partly replaces the certificated courses provided by initial education systems. This would take the form of:

- (a) greater flexibility in young people's demand for education, linked particularly to the immediate economic situation,
- (b) the possibility that some form of work might become more common during initial education (especially in systems giving greater weight to academic education), allowing more young people, particularly of student age, to study while working,

- (c) new opportunities for young people to decide between continued initial education and return to study after a first period spent working, which might call into question the “30 years of age” frontier (Section 3.1.).
- (d) an increasingly important role for continuing education and training (some of it leading to certification) among the employed, leading to a wider distribution of formal qualifications and to a closer adaptation of the skills acquired during initial education to employers’ needs.

Once again, such a scenario is very hypothetical. “It would probably require very profound long-term changes in employment, the labour market and education and training systems” (Germe, 2001).

This scenario would nonetheless suit all those involved for the following reasons:

Young people would be able to adjust their new pattern of educational “consumption”, using continuing education to maintain and even increase their chances of being educated and gaining higher education qualifications which, it should be remembered, play a symbolic role and act as significant signals or standards in the labour market. They are also a key factor in opportunities for occupational mobility, and hence a crucial element in career development.

By means of this new regime, reflecting demographic and institutional changes, employers might still have access to a better-educated, more highly skilled and more adaptable work force. They would continue to use education as a means of supplying the reservoir of skills they needed in order to respond to future changes.

Finally, governments would be able to deal with the new challenges of meeting the needs of increasingly well educated societies; and education systems and educational institutions would find the means both to adapt to young people’s new behaviour and to widen their potential public, thereby consolidating their position in the economy and in society.

#### 4.5. The identity of education systems and production of skills for the economy

The question addressed in this point is the interaction between the supply of and demand for qualifications. For this we need to look at a number of aspects: the timescale of the production and consumption of skills, the response to the needs of the economy versus the needs of employers, the differences between these two sorts of needs and their links with the needs of individuals, and, finally, against this background, the role of educational institutions.

The supply of persons with qualifications is relatively independent of demand. This is explained by the social diversity of the functions of education, which cannot be reduced solely to the economic domain. Even in this domain, the difference in the timescale between the supply of qualifications and the demand for skills, and the differences between employers' short-term needs and the long-term needs of the economy, not to mention those of individuals, may help to explain the relative independence of the supply.

Much attention has been given to the key part played historically in the evolution of the output of qualifications by the protagonists involved – the State, young people and their families. It has also been shown that the behaviour of these players regarding the rise in education has been affected by changes in the demand for labour.

The results of EDEX also point to an obvious interaction between educational expansion and economic developments, even though long-term educational growth does not appear to be very sensitive to variations in economic conditions: "...even though the study makes no pretence of being exhaustive, the employers interviewed usually perceived the issue of educational expansion and the greater availability of people with qualifications in the market – at least this is a strong trend – as a response to the increasingly urgent needs for retraining labour and anticipating those retraining needs. Technological advances bring about changes in work that often tend towards greater complexity. In recent years, moreover, they have also speeded up extraordinarily because of the growth in computerised information and communications (to mention but one factor). Since the vast majority of individuals acquires qualifications during initial education, it is young people who are the "carriers" of educational expansion. There is an assumption that the higher the qualifications, the greater the individual's adaptability. Employers see qualifications as a guarantee of greater and faster – and ultimately less costly – adaptability. And that may be a major factor in the decision to recruit young people" (Bédouvé, 2000).

Although employers may not play a leading role in educational expansion, they have certainly supported it through their recruitment behaviour in France, Spain and Italy; as also in Germany, where they show a preference for offering apprenticeships to young people who have completed upper secondary education. It is in any case unthinkable that such a widespread and long-term phenomenon should have been contrary to the needs of employers. Employers express their opinions on the matter by default: they accept the products of the education system when they recruit people with qualifications. The initiative for expansion would thus rest with the State and families.

On the other hand, if we focus on the production of skills rather than the qualifications produced by education systems, it is apparent that skills – additional and specialist skills – are produced jointly by both systems, i.e. by educational institutions and by employers.

#### 4.5.1. Demand follows supply: Results of a macro-statistical approach based on skills

The work done in EDEX was based on a macro-statistical finding from earlier studies (Mallet *et al.*, 1997): **demand for qualifications follows supply**. These studies were explored and built on in EDEX (Chapter 2).

The studies were conducted on the basis that the skills needed to do a job are made up of a variety of components acquired through initial education, experience, continuing education and social learning. We attempted to reflect this essential fact statistically in our work, although we had to work around the limitations of our statistical systems: thus, we added age as a proxy for work experience to level of qualifications in order to evaluate individual skills.

These three results were common to all the countries taking part in the study:

- Educational expansion has spread in all categories of employment, as the result of a strong supply-side effect that is relatively independent of the parallel growth in the numbers of people employed in various categories.
- If requirements for access to each occupation are taken into account, the rise in levels of education within employment has overall been reflected wages and salaries.
- The likelihood of reaching management positions, all other things being equal, (qualifications, age, economic situation) has declined among generations born after 1940.

The rise in levels of education within employment has been reflected in the pay scale according to complex and changing patterns that combine the supply-side effect and employers' requirements (Haas, Tahar, 2001). People with more qualifications are being recruited (by default, given the changes in the supply), but this is beneficial as the additional human capital is better rewarded overall within a given occupation. It also leads to changes in the system of occupational mobility, access to management positions being merely one aspect.

The questions that arise relate to employers' behaviour in response to the greater availability of people with qualifications in the labour supply; the reasons they give for recruiting qualified people; and the use they make of them.

#### 4.5.2. The timescale of skills production

One basic finding of EDEX is that the skills which employers were able to use with some success to meet the commercial challenges of the second half of the 1990s (which resulted from technological change and the globalisation of trade), were largely produced through educational expansion, well before the demand for them became visible. In other words, the demand of the 1990s was satisfied thanks to educational decisions taken by governments and families in the 1970s and 1980s. **The nature of the supply made it possible to satisfy the demand that actually arose.**

The answer to the question of what qualifications are needed varies according to the timescale in which it is asked; similarly, every mismatch arising between the supply of skills and the demand for skills is essentially a problem of timing. The changes occurring as a result of globalisation mean that decisions about the production, circulation and accumulation of capital are governed by the short term, while decisions about human and social reproduction must take into account the long and very long term (Vinokur, 1998).

In the relationship between the supply of skills and the demand for skills, time plays widely varying roles. There are the time taken to acquire skills, the length of time for which they are used, and the timescale for forward planning, all of which have financial consequences. In order to clarify these roles, it would appear helpful to distinguish between the players involved (individuals, institutions and employers), thereby demonstrating the incompatibility of the timescales in which they each make their financial calculations.

##### 4.5.2.1. *The individual timescale in the acquisition of qualifications*

Individuals largely acquire qualifications during initial education.

People logically have long-term strategies for initial education, being aware that investment in this education will provide the basis for their social and occupational positions (D'Iribarne A., D'Iribarne P., 1993) and hence for their ability to enter continuing education. The minimum timescale for these decisions about initial education is necessarily the same as the anticipated length of active life.

Individuals are also aware of the irreversible nature of their initial education for at least two reasons. First, such a long period of full-time education cannot be repeated later in life. Secondly, people are only young once. Youth, the age of initial education, is a period of life when individuals are more malleable, both psychologically and physically, and this again reinforces the irreversible nature of initial education (Planas, Plassard, 2000).

#### 4.5.2.2. *The time taken to produce and renew the overall supply of skills*

Two major processes may influence the renewal of the overall supply of skills: a) demographic renewal through the flow of leavers from initial education, and b) continuing education.

The overall supply of skills is therefore affected by the long-term inertia of demography and of the initial education acquired by each of the generations making up the active population of each country (see Chapters 1 and 2). In the short term, it has the adjustment mechanism of continuing education, in the broad sense, i.e., education comprising work experience, continuing education and training courses and any other activity from which skills can be learnt during active life.

The time taken by education systems to produce persons with qualifications is expanding, both because the period spent in compulsory education is becoming longer, and because post-compulsory education is becoming increasingly common (see Chapter 2). This reflects individuals' strategic decisions.

The time taken to produce skills must distinguish between the long periods spent in basic education on the one hand – which are *structural* – and the history of experience incorporated into human capital and the short periods required to produce specialist abilities on the other – which are *situation-specific*.

#### 4.5.2.3. *The timescale for demand: short-term tactics and long-term strategy*

As a tactical approach (see Chapter 3), employers quite independently make the best use of the opportunities offered by the environment in which they find themselves in order to respond to production needs that are increasingly dominated by the short term.

Nowadays, when a company decides on its initial requirements, the skills needed are laid down in ignorance of the skills that will be required in the future. It is reasonable that companies should try to anticipate, either by recruiting people whose skills may not all be used until later, or by recruiting workers capable of acquiring cheaply the skills that may prove to be necessary later. In both cases, it would be possible to speak of a “reservoir of skills” associated with level of qualifications and possibly with specific subject areas (Haas, 2000).

As for the organisation and design of jobs, a lack of full information suggests that “constructivist” theories of organisation apply, i.e., that problems are resolved as they appear. Companies must therefore have the requisite skills (skills necessarily possessed by individuals or a group of individuals) to respond to these issues. The adaptation cost analysis

proposed by Stanckiewicz (2000) addresses this issue.

The lack of complete information also relates to outlets and hence to short-term flexibility of production. Being flexible has consequences for the organisation, and therefore for jobs and the skills required (Vincens, 2000 p. 3).

But companies are not a homogeneous whole, and the time constraints on a company will depend on two groups of variables (Planas *et al.*, 2001):

- (a) *On its strategic timescale* (Galtier, 1996). If a company plans to continue its current activities for a long time, its timescale will be long and its main problem will be the uncertainties that are inseparable from any project. If, on the other hand, a company has a short timescale, this will mean that it intends to change the way in which it uses its capital in the relatively near future. It is therefore highly likely that it will also change its demand for labour and hence its skills requirements in order to match the use made of its capital.
- (b) *On staff relations within the company*. By this term we mean the whole web of relationships which together form the human resources management policy governing the potential existence of an internal market or a company training policy, etc.

The combination of these two groups of variables governs the policy of the company. It is obvious that a company with a short timescale will seek to obtain the skills needed from the market without worrying about their future use. A company with a long timescale, however, may try to make sure of the skills needed in both the short and the long term. It will tend to develop a training policy and to recruit its staff with an eye to individuals' potential. However, even with a long timescale, staff relations may be such that the company has no long-term policy and is content to look to the market for what it requires at any given time. Here, the situation on the labour market will obviously be of huge importance.

#### 4.5.3. The needs of employers and the needs of the economy

The needs of the economy are not the same as the aggregate needs of employers at any given time. This difference rests on two key factors: the long-term needs of the economy cannot be discerned from the needs of companies; on the other, individuals' education and training behaviour does not exactly match the needs of the companies employing them.

Because of the unemployment associated with finding a first job or losing a job, part of the active population is not in employment. Moreover, if an employee's education is to coincide with his or her company's training plan, their aims would need to be remarkably similar.

There is no guarantee that the needs of employers (usually short-term) and those of individuals (usually medium or long-term) will coincide. In managing their careers, individuals take decisions which do not fit with the skills requirements of the companies employing them, and are sometimes even contradictory. Nonetheless, the sum of these individual behaviours, as has just been said, is a crucial factor in economic development.

Furthermore, in a world of growing complexity and uncertainty, a “supercomplex” <sup>(45)</sup> world as Barnett (2000) might say, the want of complete information about the needs of employers increases with the length of the timescale.

It is thus shown that there is no equivalency between the needs of the economy and the needs of employers. In other words, the needs of the economy cannot be likened to the sum of the needs of employers that obtain in the economy at any given time. The needs of the economy do not, of course, run counter to those of employers, but the results of EDEX show that there are asymmetries in the information needed to manage production of the skills needed by both. This raises the major policy issue: What should be the orientation of the initial education system? and what is its place in the development of lifelong learning and the systems that will deliver it?

The economy and education systems will evolve in line with the major trends that companies also have to cope with. Both the forces driving the economy, and educational expansion, have provided the framework within which companies have acted as consumers of qualifications and as producers and consumers of skills. In the field of education it is obvious that the production of qualifications has proved beneficial for the economy over the long term, despite the differences in timescale between the need (and therefore the demand) for skills expressed by employers, and the production by the education system of generations of people with qualifications.

Can all of this be summed up in the simple phrase “the more education, the better”, whereby the nature and purpose of the education ultimately matter little? The answer is a clear No.

The independence of each system reflects the complexity of European societies and economies: greater independence reflects increased complexity. The consequence for education systems, especially universities, is that they will be forced to find the time and the means to define medium-term development objectives jointly with the supervisory bodies funding them

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<sup>(45)</sup> The term supercomplexity, as used by R. Barnett, is employed here to indicate an extraordinary increase in the complexity of the frame of reference in European societies and, in consequence, in the unpredictability of its evolution.

– and then to implement and attain these objectives. The time that they spend on this, which might be seen as a search by education systems for their own identities (in relation to continuing education, the economy and so on), and on reporting on the objectives attained, will justify their independence in return. This leads on to the very fashionable quest for enhanced quality in education systems and for evaluation of that quality.

According to Cave *et al.* (1997), for example, in an analysis of the situation in the United Kingdom, evaluation of higher education institutions based on “objective” indicators and “external” evaluators has led to “adaptive” rather than innovative behaviour. It would appear that greater innovation is achieved through models based on joint definition of objectives, and through independence for institutions in implementing these.

#### **4.5.4. Strengthening the identities of education systems in response to the needs of the economy**

It may be deduced from the preceding points that the market, which is subject to growing pressure leading to greater uncertainty and complexity, cannot be expected to provide education systems with the long-term information that they need to guide their development.

According to Barnett (2000, p. 257), a supercomplex world is one in which facts, arguments, data, tasks, etc., do not develop a priori in fixed patterns. Even the patterns that allow us to make sense of the world, our place in the world and our frame of action, are in doubt. In a world of this type, Barnett argues, it is necessary to preserve the “identity” of education systems (he is referring to higher education) in the light of, and in balance with, their “performativity” dominated by the “know-how” that is governed by the needs of the market.

To put it simply, education systems must, in order to respond to the needs of the market in a supercomplex world, preserve their function of initial education in the long term and support the growth of lifelong education while avoiding the pressures of a market governed by the short term, failing which they may quickly become ineffective and inefficient.

“This presents a challenge to governments and the European Commission: modernising the education system without subjecting it to the strict constraints of the market while arguing for education for the long term (rather than adaptive learning), maintaining a vocational approach (to ensure that employees learn lasting skills), monitoring the subject-matter taught (to enhance cognitive ability and critical distance at the same time as vocational behaviour)... What the recent past has shown is the independence of education systems relative to employers’ needs. The former change more

slowly than the latter does, and are less subject to crises of market adjustment. Education often seems to give an unchanging answer (adjusted or not) to a wide range of social and economic problems (social life, production, economic development). It serves as a palliative for growing uncertainties and complexities in a world where traditions are in crisis and all sorts of activities continually have to be (excessively?) reformulated" (Louart, 2001).

In order to fulfil their economic and social functions in the long term, education systems need to develop their own identities, taking into account the needs of European societies and economies. As Barnett (2000, p. 265) says in relation to university curricula, "...a policy perspective has opened up, too, in our discussion. Curricula, I have suggested, are in a state of transition but they are not necessarily moving in any clear or even deliberate direction. Such dominant directions of change as there are – towards performative models – are inappropriate to conditions of supercomplexity. Accordingly, a new responsibility is falling on universities to demonstrate that the education that they offer is likely to be adequate to the challenges of a supercomplex world. It is a responsibility – and an educational project – that most universities and most curricula are failing to meet."

Defining the place of education systems in society, and creating their identity as chiefly responsible for initial education, means being able to handle a long-term balancing act between, firstly, managing the link between its economic function and its other functions – which must not be forgotten – and, secondly, within its economic function, managing the needs and interests of the economy, employers and individuals, particularly the long-term needs. And this all has to be done against a background of "supercomplexity" and hence of uncertain information.

It is not the purpose of this report to prescribe how educational institutions should set about achieving this balance. From our results it is evident that two diametrically opposite dangers have to be avoided: on the one hand, being dependent, as provider, on clients (companies) governed by the temporary economic needs of the market, and on the other, managing education on the basis of internal and/or academic inertia in the "donnish" British tradition (Halsey, 1982). The latter course runs the risk of ignoring the social and economic needs to which institutions must respond.

What information is relevant? What points of reference do education systems need to create and update their identities? It is not within the province of this research to provide the answers. It is well known that a wide range of information is required, taking into account, among other things, the needs of the economy, employers and individuals, all of which are changing.

Cedefop (European Centre for the Development of Vocational Training)

## EDEX

# Educational expansion and Labour Market

A comparative study of five European countries  
– France, Germany, Italy, Spain and the United Kingdom –  
with special reference to the United States

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Taking a comparative approach, four major questions are addressed:

- What are the processes and factors leading to educational expansion?
- How are generations with increasing levels of qualification spread throughout the employment system, and with what private returns?
- How has this affected company organisation and management of human resources and what links have been established between skills supply and demand?
- What are the implications for national systems linking education to employment, and to what extent are countries converging or diverging?

The analyses provide a sound basis for understanding and shaping the links between education and employment, and thus between the supply of and demand for skills on labour markets.

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