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Equity in the Swiss education system: dimensions, causes and policy responses

**National report from Switzerland
contributing to the OECD's review of
«Equity in Education»
2004**

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Introduction

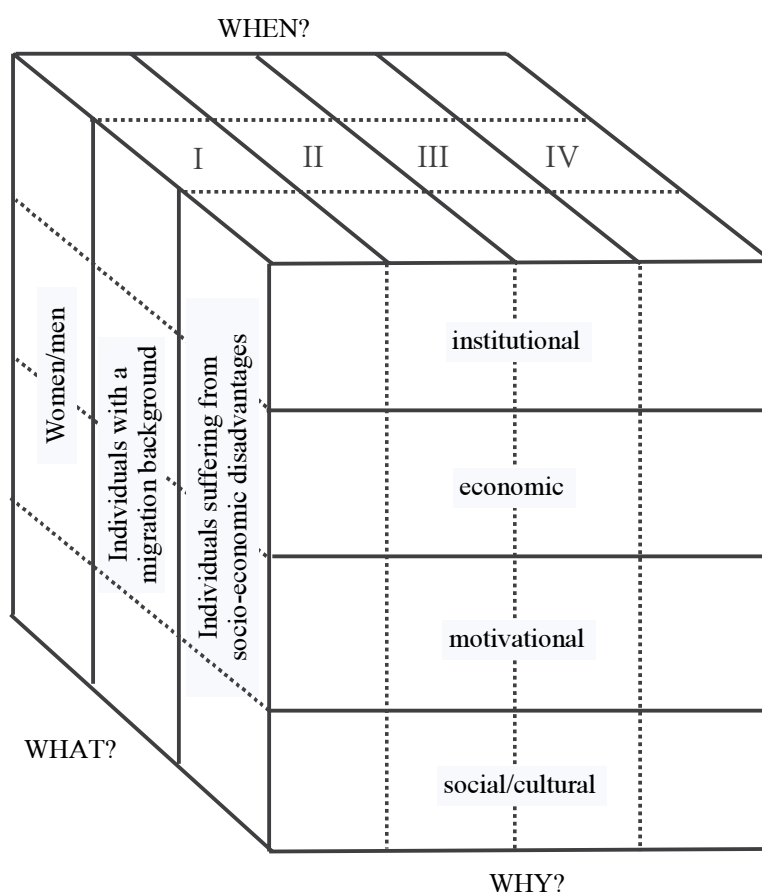
This report has been drawn up in the context of a project initiated by the OECD on the subject of «Equity in Education», which is offering the member states the possibility of reflecting on their equity policy on the occasion of a discussion and evaluation at international level. The aim of the report is to provide a differentiated description of the whole equity problem in the Swiss education system, avoiding the potential pitfall of sacrificing comprehensibility in the face of the vast and varied nature of the subject. For this very reason, it is essential to state right at the outset what is to be understood by «equity». The countries joining in the project have thus agreed that the concept of «equity» must be based on fundamental theoretical knowledge, but need not be subject to a rigid definition. The essential point is to position the term in a perspective of progressing through life. The following definition sums up how the term is used in this report¹: *«Educational equity refers to an educational and learning environment in which individuals can consider options and make choices throughout their lives based on their abilities and talents, not on the basis of stereotypes, biased expectations or discrimination. The achievement of educational equity enables females and males of all races and ethnic backgrounds to develop skills needed to be productive, empowered citizens. It opens economic and social opportunities regardless of gender, race, ethnicity or social status.»*

The report comprises four sections. Section I contains a description of the political, economic and social context, which is intended to make it easier to understand the following analysis of the equity situation. This section also includes a chapter on the structural characteristics of the Swiss education system and an outline of those equity issues that are currently a matter of debate in Switzerland. Section II is dedicated to taking stock of the research findings available for all levels of education. Equity is documented here in relation to three different social groups: disadvantaged socio-economic groups, groups with migration backgrounds and women or men (or, depending on the context, girls and boys). Section III starts by taking research findings that have been further processed to try and pinpoint so-called focal points for equity problems and the ways in which they interact. It is not a matter of seeing results in isolation but of placing them in a lifelong perspective. This section goes on to elucidate possible causes and to suggest feasible explanations for each of the problems diagnosed. Section IV, finally, presents the policy measures that Switzerland has initiated and implemented with a view to promoting equity. The opening chapter of this section deals with education policy, whilst the later ones look into policies in other fields that are closely entwined with educational policy.

¹ This description was arrived at during the preparatory discussion of the participating countries. It was, however, decided to do without any official declaration of a binding definition.

In this way, the report considers the causes of equity deficits and the ways in which these causes interact from various perspectives. One of the first of these perspectives focuses on the social groups as categorised roughly in section II. Here it is necessary to consider, firstly, that there are problems that affect each of these groups specifically. However, there are often also overlaps between the groups, and a considerable number of people living in Switzerland thus suffer from cumulative disadvantages. Secondly, it must not be forgotten that educational processes extend over rather long periods of time, and that the equity issue is thus likely to crop up at various points in the course of an educational career. Thirdly, it is possible to place the specific problems suffered by the various individuals and social groups into more than one substantive category. By way of example, a discriminatory selection might be an institutional problem, or its causes might be cultural or social in nature; other causes might be of a motivational or economic type. This multidimensional nature is brought out in Fig. 1.

Fig. 1: Multidimensional perception of the occurrence of equity problems



Source: own diagram

Section I: Context

Country's context and current equity situation

Political, economic and social context

DEMOGRAPHIC CHARACTERISTICS

Switzerland is a small country with approximately 7.3 million inhabitants (figure for 2002; BFS/OFS, Swiss Federal Statistical Office, 2004c). The overall size of the population is comparatively stable, but the share of the 65-plus age bracket is on the increase, whilst the 19-minus age bracket is declining. More than two-thirds of the people living in Switzerland are town or city dwellers. The Swiss federal constitution recognises four national languages. About two-thirds of the population speak German, one-fifth French, just on 10% Italian and less than 1% Romansh (Rhaeto-Romance). The remaining 10% or so of the population speak other non-national languages (www.statistik.admin.ch).

Some 82% of Swiss residents in the 25–64 age bracket have completed education to at least upper-secondary level. For the majority of these, vocational education was the final stage of the education process that they went through. Some 37% of the population have qualifications at tertiary level (OECD, 2004a).

POLITICAL ORGANISATION

Switzerland is a federal state with 26 constituent territories called cantons or half-cantons (referred to in this report just as «cantons», since the distinction is irrelevant for its subject matter). Each canton has its own constitution, its own government and its own laws. The fundamental rule is that sovereignty resides with the cantons, unless it is expressly limited by the federal constitution, and the cantons are responsible for all functions that are not explicitly part of the powers granted to the Confederation. The cantons, however, must abide by federal law. In Switzerland, both the education system itself and its administration have a federal structure. There is no such body as a national ministry of education (www.educa.ch), and the cantons enjoy a vast measure of independence in this field. The cantons, in turn, are divided up into basic local-government units known as communes (sometimes called «communities» or «municipalities» in English texts). The communes have varying degrees of autonomy (from canton to canton) in matters such as administering their own resources and looking after their local institutions.

STRUCTURE OF THE ECONOMY

The Swiss economy is highly specialised. The presence of large multinational corporations and a strong banking sector are two of its salient features, but small and medium-sized enterprises are also present in large numbers. Some 41% of all people in gainful employment work for businesses with a total payroll of less than 20, and 33% in undertakings with a headcount in excess of 250 (OECD, 2004b). About 71% of the workforce is to be found in the services sector. The number in industrial jobs still stands at 25% of the total, and those in farming at 4%. Taking a more differentiated view of the services sector, the numbers of jobs in retailing as well as hotels and catering have been declining for several years, whereas those in health care and social services have been growing rapidly, as have those in education and services for businesses. This structural shift is by no means without its hazards, and the situation is becoming more difficult, especially for those labour-market participants who have no more than modest levels of education (BFS/OFS, Swiss Federal Statistical Office, 2004c).

INVESTMENT IN EDUCATION

Switzerland invests more than the mean of other countries in education. The most recent international figures available show that, in 2001, taking all levels of education together, it spent US\$ 8800 for each child at school or adult student. The OECD mean is US\$ 6200. Between 1995 and 2001, the biggest increases in expenditure went on students at tertiary level. Much of this extra money was needed for the creation of so-called «universities of applied sciences» (UASs), which are referred to in some English texts as «HESs» (*hautes écoles spécialisées*) or «FHSs» (*Fachhochschulen*) (see section 2). One of the explanations for Switzerland's high educational spending is certainly the country's elevated wage levels: at all the non-tertiary levels the outlay on human resources is 85% of running costs, and at tertiary level it is 77% (OECD means: 81% and 67% respectively). The above-average expenditure is, however, also occasioned by the good quality of the educational infrastructure, the decentralised organisation of the education system and the existence of four language regions (OECD, 2004).

GENDER

In 2002, one woman in four but only one man in seven in the 25–64 age bracket had not completed any form of post-compulsory education. Despite the tremendous progress that has been made, women are still under-represented at tertiary level, which is accounted for primarily by their lower participation rates in studies at universities of applied sciences. The proportion of women completing an academic-type upper-secondary education by passing the *Maturité* examination (*Matura* in German, sometimes called *baccalaureate* in English texts),

on the other hand, is already higher than the proportion of men (Branger, Gazareth & Schön-Bühlmann, 2003).

Taking Switzerland as a whole, the proportion of women in gainful employment is approximately 15 percentage points lower than for men. In 2002, the proportion of women in the 25–64 age bracket who were actually gainfully employed (i. e. excluding those registered as unemployed) was 72% of the total (OECD, 2004b). Part-time employment is widespread amongst women; more than half of those in gainful employment work fewer than 35 hours per week.² More than eight out of ten part-time jobs are in the services sector (BFS/OFS, Swiss Federal Statistical Office, 2004c). In Switzerland, it seems to be particularly difficult for women to make their way into top managerial posts. Only 21% of such posts are occupied by women, and it is less usual for executives to work only part-time. Since the mid 1970s, the fertility rate has stabilised at around 1.5 children per woman. Many highly qualified women, in particular, deliberately decide not to have any children; in Switzerland, four out of every ten women who have completed tertiary-level education remain without children (op. cit.). Switzerland is one of only a handful of industrialised countries in which, firstly, there is still a relatively large difference between women's and men's earnings and, secondly, the narrowing of this gap is an exceedingly slow process. Sousa-Posa (2003) computes that, if there is no acceleration in the rate at which women's earnings catch up on men's, it will take another 68 years until Switzerland finally attains gender equity in this respect.³

SOCIO-ECONOMIC BACKGROUND

Fairly recent findings have established that short-term poverty is a relatively widespread phenomenon in Switzerland (Volken & Knöpfel, 2004). There also appears to be a high degree of stability in the highest and lowest echelons of the income hierarchy. Individuals with no post-compulsory education account for about one third of all the working poor. Successful completion of vocational education more or less halves the risk of falling into the poverty trap (Bauer & Streuli, 2001). For university graduates in gainful employment, this risk is less than 1%. Bauer and Streuli (2001) point out that the precarious economic situation of many individuals with migration backgrounds is caused primarily by their lack of post-compulsory education. Women are also affected by poverty in a specific way. The proportion of low-wage earn-

2 If the number of hours worked are converted into full-time equivalent (FTE) jobs, the adjusted figure for women in gainful employment turns out to be much lower, i. e. only 51% (OECD, 2004b).

3 He does, however, add that such rates of change do not normally remain constant, since they are inextricably linked to political changes in other fields too.

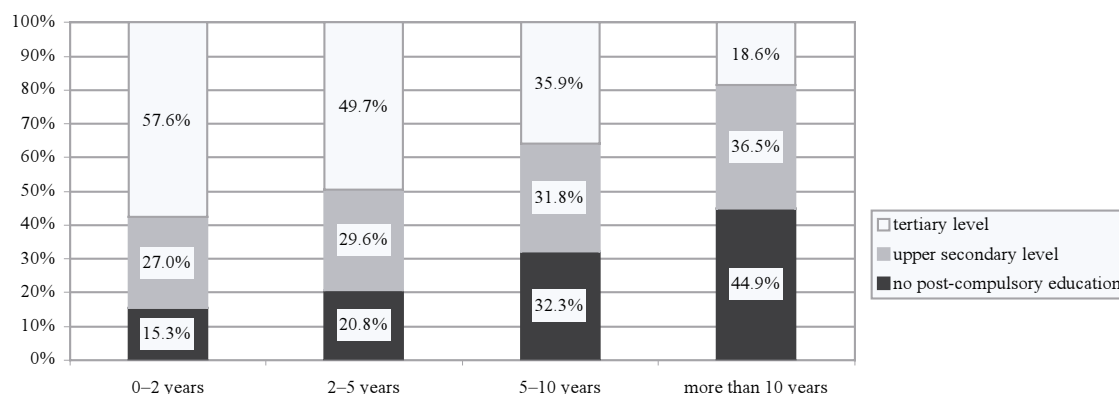
ers amongst women is very much higher than amongst men: 15% of all women in full-time jobs, as opposed to only 2.7% of all men in full-time jobs. Single mothers are particularly severely hit by financial problems: 44% of them are amongst the low wage earners. The situation is made even worse for them by the high demands on their time and the social burdens caused by having to look after a home and a family on top of their paid work (Branger, Gazareth & Schön-Bühlmann, 2003).

IMMIGRATION

Some 20.5% of Switzerland's inhabitants are foreigners who have taken up residence in the country. If the figure is expanded to include all those individuals who have a foreign passport at birth and become naturalised Swiss later on, then the proportion of people who have a nationality other than Swiss at birth rises to 27.9% (Wanner, 2004; Swiss national population census, 2000). More than half the foreigners resident in Switzerland have been in the country for more than fifteen years or were born there. The percentage of foreigners in the population varies greatly between the cantons. At one extreme, in Canton Geneva, more than half the population was not Swiss at birth; at the other extreme, in the cantons of Uri, Appenzell Innerrhoden and Nidwalden, the proportion is less than 15%.

Figures for the second quarter of 2003 show that one person in every five in gainful employment in Switzerland does not have Swiss nationality. More than half the short-stay or resident foreigners who have moved into Switzerland during the past two years hold a university degree or equivalent qualification. This proportion is markedly higher than for those non-Swiss in gainful employment who have been in the country for a longer period (see Fig. 2). Around a quarter of all gainfully employed foreigners who have moved into Switzerland in the course of the past two years have jobs in health care, teaching and culture or hold academic posts (BFS/OFS, Swiss Federal Statistical Office, 2004a).

Fig. 2: Employed foreigners who immigrated as adults (aged 18 or older), broken down by highest educational attainment and duration of stay in Switzerland, second quarter 2003



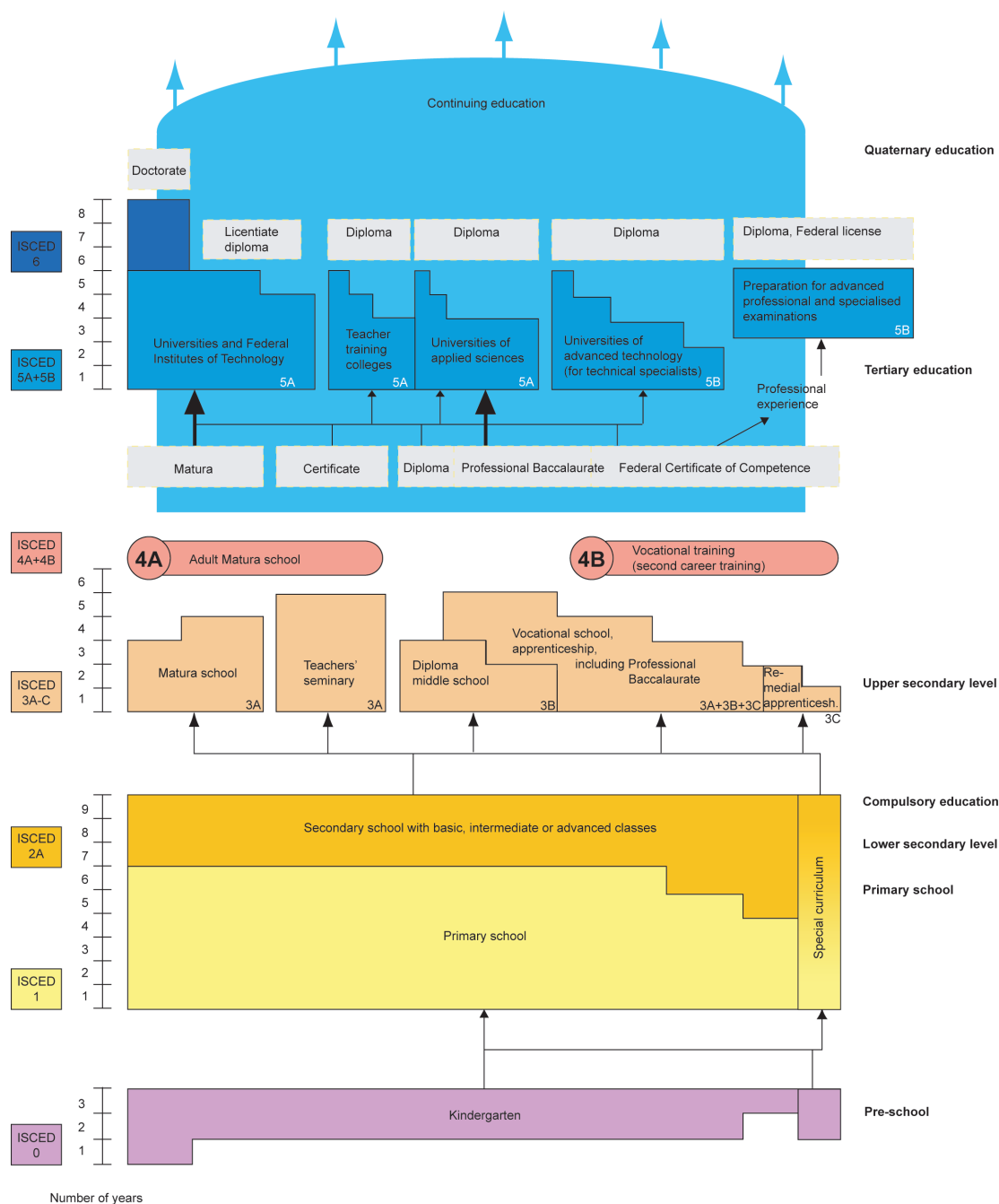
Source: BFS/OFS Swiss Federal Statistical Office, 2004

The socio-professional status and family lifestyles of migrants vary greatly depending on their origin. The vast majority of the highly qualified foreigners in gainful employment come from the northern and western European countries that are members of the European Union or EFTA. Most of the migrants from southern Europe and the Balkans have jobs in the secondary sector, especially in the building industry, or in hotels and catering. The majority of the last-named group live as families with their children. The proportion of people living alone is relatively high, on the other hand, amongst German and French-speaking immigrants (Wanner, 2004; Swiss national population census, 2000).

Structural characteristics of the education system

STRUCTURE OF SCHOOLS

Fig. 3: Simplified diagram of the Swiss education system (2001)



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www.edk.ch

The Swiss education system can be divided up into three levels: primary, secondary and tertiary. For children below the age of compulsory schooling, two different forms of care are available: day-care centres outside of the family for children aged 0–6 ⁴ and kindergartens for children aged from approximately four to six ⁵. Kindergarten attendance is free-of-charge for all children. Nearly all the money for kindergartens comes from the communes, with the cantons contributing to the wages of teaching staff. Children attend kindergarten for different periods of time, depending on where in Switzerland they live; in some cantons, the duration is as short as one year and in others it is as long as three years. Taking the extremes, it is possible for a child living in Canton Geneva to attend kindergarten for a mean of 1.7 years longer than a child living in Canton Obwalden (www.statistik.admin.ch). Children have a right to at least one year of kindergarten in all the cantons, but very few cantons have made kindergarten attendance compulsory. It is only in Canton Lucerne that kindergarten is compulsory from its first year onwards, and the second year is compulsory only in the cantons of Appenzell Ausserrhoden, Basel-Landschaft, Glarus, Lucerne and Nidwalden (www.ides.ch).

Most of the complementary daytime child care (i. e. outside of their own families) takes place in nurseries, at the homes of child minders, in play groups or (for some kindergarten children) in day homes. Whatever the type of facility, parents are required to contribute to the costs. Several groups complain that there are not enough child-care places available, especially in the German-speaking parts of Switzerland (EDK/CDIP, 2001; Marie Meierhofer-Institut für das Kind, 2002).

Primary education generally lasts six years.⁶ Secondary education is further divided into two sub-levels, and the lower-secondary level, which generally lasts three years, forms part of compulsory schooling. Following primary education, most pupils have to face their first selection and are then channelled in to one of the types of school that form a hierarchy at lower-secondary level (in the French-speaking parts of Switzerland, many young people now have the opportunity of attending a form of comprehensive school at this level). Compulsory schooling finishes for children when they complete the lower-secondary level. The upper-secondary level includes both vocationally-centred programmes and various programmes of general education (such as *lycées*, *Gymnasien* or

4 There is also a provision of care throughout the day for children of school age. Most of the centres providing this service are in the form of «day homes», some of which are open all day and others only outside of normal school hours (such as at lunchtime). The extent to which children of school age are still looked after by childminders cannot be worked out from the data available (Marie Meierhofer-Institut für das Kind, 2002).

5 In Canton Ticino, children can start attending kindergarten as of age three.

6 In two cantons it lasts only four years, and in four cantons five years (www.ides.ch; as at 31 December 2002).

equivalent establishments or *diploma middle schools*). About two-thirds of each cohort of lower-secondary school-leavers move on to enrol for some form of vocational education. Around one-in-four opt for one of the general-education tracks, and, since the late 1980s, the number of young people successfully completing one of the forms of upper-secondary general education has been increasing continuously (www.statistik.admin.ch). Nearly a quarter of all students start the upper-secondary level after attending short preparatory programmes, which may last up to a year (Meyer, 2003b). In 1993, the vocational-type *Maturité* was introduced. This qualification prepares young people going through a vocational upper-secondary track to move on to a university of applied sciences. In 1995, reforms were also introduced for the much more traditional «academic-type» *Maturité* examination, involving rationalisation into just one single type (whereas there had been five types before)⁷, a reduction in the number of subjects taught and examined and the requirement for *Maturité* candidates to submit a thesis too.

At tertiary level, distinctions have to be made between various types of institution. Table 1 summarises the situation and also shows which upper-secondary qualifications constitute preconditions for which forms of tertiary education.

Table 1: Final qualifications available at tertiary level and the upper-secondary credentials necessary for accessing them

School-leaving qualification at upper-secondary level	Options available at tertiary level
– «Anlehreausweis» (partial vocational diploma) – <i>Certificat fédéral de capacité</i> (CFC) / <i>Eidgenössisches Fähigkeitszeugnis</i> (EFZ) (full vocational diploma) – Diploma from a vocational college at upper-secondary level (recent introduction: possibility of taking a <i>Maturité</i> exam of the vocational type) – <i>Maturité</i> of the vocational type – <i>Maturité</i> of the academic type	– Higher technical exams, advanced vocational colleges, engineering colleges – Higher technical exams, advanced vocational colleges, engineering colleges, universities of applied sciences, vocational programmes outside of federal regulation – Universities of applied sciences, higher technical exams, higher vocational colleges, vocational programmes outside of federal regulation, conventional universities (subject to passing an additional exam) – Conventional universities, universities of applied sciences (subject to completion of a one-year practical training course), HEPs/PHSs («universities of applied educational studies», i. e. teaching training institutions at the same level as the UASs)

Source: OECD, 2004; supplemented with more recent data

⁷ The new model does, however, also include possibilities for specialisation – with syllabuses similar to the older separate *Maturité* types.

SPECIAL TYPES OF SCHOOL

Various different types of class exist within the system of special-purpose education (sometimes called «school classes following a special curriculum»), and these are grouped into two categories according to who pays for them. The category called «small classes» is funded by the cantons and communes, whereas the category called «special schools» or «special classes» is paid for out of the statutory invalidity insurance, which is a federal scheme. «Small classes» are provided school beginners with difficulties, for pupils with learning difficulties in general, for handicrafts, for seriously behaviourally disturbed children, for children whose first language is not one of the national languages, for those with physical handicaps and those with impairments of the senses and/or language impairments. «Special schools» may be subdivided into classes for children suffering mental disorders, physical disabilities, behavioural problems, impaired hearing, language impairments, impaired sight and protracted illnesses (Kronig, Haeberlin & Eckhart, 2000). Not all the cantonal education systems make provision for school classes following a special curriculum, and there are big differences between the cantons in this respect.

ADULT EDUCATION: MAKING UP FOR CREDENTIALS MISSED EARLIER IN LIFE AS WELL AS OCCUPATION-RELATED AND GENERAL FURTHER EDUCATION

Adults usually participate in educational programmes for one of two reasons: because they want to gain a formal qualification that is equivalent to one they failed to attain earlier in life (for instance, a certificate of vocational education or the *Maturité* exam), or because they want to further their learning. For the purposes of this report, the first of these is called «making up for credentials missed earlier in life» and the second «further education».

Today, the term «further education» is basically accepted as covering any type of organised formal, non-formal or informal learning following on from an initial qualification (Wolter et al., 2003). It is, however, normally necessary to make a distinction according to content in order to make the empirical data more precise. The term «general further education» is usually applied to programmes attended by adults primarily for reasons not related to their occupation. The concept of «occupation-related further education» is applied to programmes attended by adults primarily for motives related to an occupation.

One of the salient features of the further-education market in Switzerland is that it is predominantly organised by private bodies and is in the hands of institutions outside of the official educational structures. One third of all further-education courses are run directly by employers, one quarter by various associations, clubs or the like, and only 34% of the courses take place in private or publicly-run schools, colleges, etc. (Wolter et al., 2003; Lischer, 2001).

In recent years, numerous instruments and systems have been developed in Switzerland for recording and accrediting skills obtained through further education. Some of these are run by private bodies and others by associations and institutions. In addition, a special credentials body has been set up for institutions providing further education; it is supported both politically and by various private associations and is widely used (www.educa.ch).

DIVISION OF RESPONSIBILITIES BETWEEN THE CONFEDERATION, THE CANTONS AND THE COMMUNES

In Switzerland, the responsibilities for education are spread over the Confederation, the cantons and the communes. The extent of cantonal and communal autonomy varies according to the type of institution and the level of education. Kindergartens are funded first and foremost by the communes, with the cantons making contributions towards the wages of teaching staff. At primary level, it is, again, the communes that furnish most of the money, supplemented by cantonal contributions. Regulatory powers for the whole range of compulsory schooling (primary and lower-secondary levels) are, however, vested in the cantons. That means, for instance, that each canton has drawn up its own syllabuses. At upper-secondary level, the cantons are responsible for general education and the schools with high requirements (*lycées, Gymnasien*, etc.), whereas it is the Confederation that holds the regulatory powers in the field of vocational education. In order to ensure a good level of cooperation, however, it is the cantons that play the decisive part in the financing and implementation of vocational education too (www.educa.ch). The confederation and the cantons work together to determine the requirements for final upper-secondary qualifications. At tertiary level too, responsibilities are divided between the Confederation and the cantons. The Confederation regulates tertiary-level vocational education and education in the universities of applied sciences. It also holds the regulatory powers for both the Swiss Federal Institutes of Technology and has a role in promoting research. The cantons are responsible for the cantonal universities. They bear the main burden of financing the conventional universities and the universities of applied science, although the confederation does contribute a share too (OECD, 2004c).

The financially weaker communes and cantons receive compensatory payments from the richer ones. There is also a provision whereby communes and cantons whose schoolchildren and students study in neighbouring communes or cantons have to make compensatory payments to the latter.

GRANTS AND LOANS

The granting of subsidies to people in education is a matter for the individual cantons. That means that the cantons decide themselves on the criteria, the amount and the procedures for

paying grants (Von Matt, Wicki & Hördegen, 1999). The Confederation provides an annual sum of roughly 100 million Swiss francs for financing grants allocated to Swiss or non-Swiss students at upper-secondary or tertiary level (OECD, 2004a). The majority of the cantons subsidise students through grants, but loan schemes exist as well. Non-Swiss schoolchildren and students who hold a residence permit or have been granted refugee status have the same entitlement to grants as their counterparts with Swiss nationality.

Current equity debate in Switzerland

LACK OF GENDER EQUITY AND THE INTEGRATION OF GROUPS WITH MIGRATION BACKGROUNDS ARE THE PRIORITY ISSUES

For a long time now, the public debate in Switzerland regarding the topic of equity in education has been concentrating mainly on the equity discrepancies between males and females and the integration of groups with migration backgrounds. The impediments or barriers that exist within the education system for disadvantaged socio-economic groups are usually discussed as a *subset* of the debate on gender or immigration. This priority is also mirrored in the policy measures adopted to date to counter equity shortcomings (cf. section IV).

MULTIPLE DISADVANTAGES FACED BY IMMIGRANTS

The last time the issue of social inequity in primary and secondary education was discussed intensively in Switzerland in the 1960s and 1970s, the problem was mainly seen as one of the lack of integration and assimilation of groups with migration backgrounds. The issue of equity has come to the forefront of public debate in Switzerland again in recent years. A number of studies, in particular PISA 2000, also shed light on the socio-economic situation of the immigrant population. These studies repeatedly stress that most immigrants in Switzerland suffer from multiple disadvantages (poverty, lack of language knowledge, poor working conditions, and so on). Politically, however, there is no clear direction as to how to counter effectively these complex problems faced by individuals with a migration background. Traditionally, it is immigration itself that has been seen as the primary and biggest problem, whereas socio-economic discrimination has been regarded as only secondary, even if there are indications that other factors do come into play.⁸ This is a question which is unlikely to lose its topicality

8 Hutmacher (1987, 1990) points out, for instance, that the clusters of school failures amongst immigrant children in Canton Geneva can be explained to a large degree through their belonging to lower social groups. From this, he concludes that it is not an individual's nationality but his or her social position that is the decisive factor influencing school success.

in years to come, especially since the population of immigrant workers in Switzerland is currently going through a process of change.

As already mentioned, the level of education of those foreigners in gainful employment in Switzerland who entered the country in recent years is very high.⁹ One of the explanations for this is that more and more immigrants are coming from the countries of western and northern Europe. De Coulon et al. (2004) have studied whether these people with a good education also find corresponding jobs with commensurate pay or whether they, like the majority of immigrants in Switzerland, have to get by with lower earnings. The authors have discovered that if immigrants, whatever their origin, have qualifications obtained in another country, these are honoured to a lesser extent by the labour market than qualifications obtained in Switzerland.¹⁰ Highly qualified immigrants, however, hardly suffer any erosion of income at all. The main reason for this is that they generally attend supplementary or accelerated courses in Switzerland to adapt the formal qualifications they have acquired in their home country to the circumstances prevailing in Switzerland.

The fundamentally different situation of immigrant employees depending on their origin and education (see also Golder, 1999) reflects the findings of other studies, which diagnose an equity deficit in the education system, especially for immigrants from the Balkans and Turkey (cf. section II).

MIXED SITUATIONS IN SCHOOLS

The cultural and social heterogeneity of pupils constitutes a challenge that has long been a subject for both educational-policy and academic debate in Switzerland. A relatively large percentage (i. e. 23%) of pupils in compulsory schooling are of a nationality other than Swiss.¹¹ The proportions are particularly high in schools following a special curriculum (33%) and in

9 This should not, however, be permitted to conceal the fact that the majority of individuals who have immigrated into Switzerland are still relatively poorly qualified. For a long time to come, the Swiss education system is going to have to continue to face up to the fact that the majority of children with migration backgrounds also come from families belonging to disadvantaged socio-economic groups.

10 For workers from countries with an established tradition of emigration (such as Spain, Portugal, Turkey and the former Yugoslavia), any formal qualification they may have obtained prior to emigration is only put to use half as much as for foreign workers from all other countries.

11 The actual proportion fluctuates greatly between the cantons – namely between 9% and 42%. French-speaking cantons, Ticino and, more generally, those cantons with large built-up areas and strong industry have the highest proportions of foreign schoolchildren (BFS/OFS, Swiss Federal Statistical Office, 2004).

lower-secondary classes with only basic requirements (46%) (BFS/OFS, Swiss Federal Statistical Office, 2004c).

In this particular context, currently much attention is being paid to pre-school education. One fact repeatedly mentioned, for example, is that children from immigrant families are under-represented in institutionalised forms of care outside the family. For children with migration backgrounds, these complementary care facilities are seen as an opportunity for early language and cultural integration (Lanfranchi, 2002).

A proposal that has been under consideration for several years would combine the kindergarten and the first two years of primary school into a single «infants' level» (EDK/CDIP, 1997). In this way the upbringing and education of children in the 4–8 age bracket would take place at a single school level, designed to have a profile of its own. One of the essential arguments in favour of this restructuring is that such an infants' level would be able to cater better for the children's individual development patterns and support needs. This is linked to the hope of being able to counter the massive heterogeneity of needs in the period before children start primary school. Currently, several cantons are running coordinated school pilots with an infants' level (cf. section IV).

One question repeatedly discussed in relation to the poorer school achievements of children with migration backgrounds is whether or not the handing out of homework by teachers has the effect of aggravating inequity. Many immigrant parents or parents with low wages are not able to help their children with their homework, either because they have an inadequate knowledge of the language of tuition or because they do not have enough time available. Nor can they afford to pay for someone to help their children keep up with their classmates. When confronted with this sort of homework dilemma, the parents described tend not to react by taking a closer interest in the children's schooling but by interpreting it as confirmation of their belief that their children are not going to «make the grade» anyway. Experience in Canton Schwyz has, however, shown, that amongst the population as a whole there is considerable resistance to the abolition of homework.¹²

¹² In Canton Schwyz it was decided to abolish homework for primary-school children in 1993. This decision was, however, reversed in 1997, since a survey showed that many parents were unhappy with it.

SELECTION PROCEDURE AT THE END OF PRIMARY SCHOOL

Publication of the first PISA study intensified the debate concerning the procedure and timing of the first selection in the Swiss education system. As a general rule, this first selection, which channels pupils into different types of lower-secondary establishment forming a clear hierarchy, takes place after six years of primary school. The schoolchildren are then aged around twelve. The selection decision is based on appraisals of the children's school achievements up to then and a general assessment by the teacher. In several cantons, parents are also interviewed, so that they can express their wishes regarding their child's next school (www.ides.ch). Several research projects have, however, shown that this selection often leads to discrimination against children from disadvantaged socio-economic backgrounds or whose first language is not one of the national languages. More recent recommendations as part of the political reaction to the PISA study now propose that greater objectivity be brought into the selection decisions (cf. section IV).

LOANS INSTEAD OF GRANTS?

The cantons provide subsidies to fund the studies of those students who are unable to finance them themselves. One of the possibilities currently under discussion is to reduce the number of outright grants and increase the number of loans. This proposal is part of a concept that would increase tuition fees as a means of funding improved quality, especially in teaching. If this switch in systems is to be done in a socially acceptable manner, the state is going to have to provide an input of around 100 million Swiss francs annually to fund loans for about 50% of all the students, some to be paid back with interest, others interest-free. These loans would be provided to complement the system of grants (www.avenir-suisse.ch). There is massive controversy surrounding both these proposals – higher tuition fees and a shift in emphasis from student grants to loans.

Section II: Opportunities and outcomes

Equity in the Swiss education system – stock-taking

This report documents equity with reference to three different social groups. These are disadvantaged socio-economic groups, groups with migration backgrounds and women or men (or girls or boys). This chapter sets out to establish where there is a lack of equity using three criteria: access to the various education tracks or levels, achievements within these educational tracks or levels and, finally, chances on the labour market and the ensuing wages. The following are examples of the typical questions examined:

- Does a child with a migration background stand the same chance as a Swiss child of being assigned to a more demanding school type in the selection process at the end of primary school?
- Does a child from a disadvantaged socio-economic background stand the same chance as a child from a more privileged social-economic family background of achieving good reading literacy at primary school?
- Does a woman stand the same chance as a man of obtaining an academic job after qualifying at tertiary level?

This chapter tackles such questions systematically. It is based on research projects that focused specifically on the Swiss education system. It thus takes stock of the findings of research into the whole equity issue through all levels of education, but in relation to each of the social groups defined using the three identification criteria. It gives particular consideration to those research projects that are based on data for the whole of Switzerland.¹³ It is the availability (or otherwise) of research findings that has determined the structure of this stock-taking exercise; there are gaps in the findings, and this fact is inevitably reflected in lacunae in the description of the problem as a whole.

It must be stated unequivocally at the outset that this chapter does not constitute an analysis of causes; rather, doing first things first, it ascertains what knowledge and what information exist regarding equity. Section 3, which follows, collates this information and tries to pinpoint possible causes in a differentiated manner. In this context, it is important to bear in mind that the

¹³ It would go beyond the scope of this report to include research findings which differentiate between Switzerland's various language regions or the results of studies carried out at cantonal level.

equity deficits in the education system do not always run along clear-cut dividing lines between the various groups under study (disadvantaged socio-economic groups, groups with migration backgrounds and women or men). It is possible that multiple disadvantages and accumulative effects may result in specific forms of inequity. In the search for causes, this is a point that must be taken at least partially into account.

Equity as regards children, young people and adults belonging to disadvantaged socio-economic groups

COMPULSORY SCHOOL: ACHIEVEMENTS

The Swiss data in the IEA Reading Literacy Study diagnoses that social origin has a significant influence on the reading literacy of pupils in year three of primary school (Notter et al., 1996; Rüesch, 1998). Rüesch (1998) goes further and observes that the higher the socio-economic level of the class as a whole (i. e. the greater the proportion of pupils from higher social groups) the better the reading literacy of each individual pupil, regardless of his or her particular social origin.

Moving up to lower-secondary level, pupils' achievements continue to correlate significantly with their parents' socio-economic status. This link is established in the IEA Reading Literacy Study, the PISA study of reading literacy and the TIMSS survey of numeracy. The IEA Reading Literacy Study shows that the effect of socio-economic origin is greater for children in their eighth year of school than for those in their third year. This widening gap can be explained in part by the type of school attended at lower-secondary level. Pupils at lower-secondary level already have one big turning point in their lives behind them, namely selection into various types of lower-secondary school.¹⁴ If the type of school is also considered in the analysis, the effect of socio-economic origin on achievement becomes less, but it still remains significant. It would, however, be wrong to take the correlation just described as a statement regarding the equity situations at the two levels of school; rather it ought to be interpreted as a consequence of a deliberate selection procedure built into the Swiss education system (see section I). The fact that the influence of social origin remains significant, even after a statistical control has been applied in the form of school type, means that it is not possible to compensate for the influence of family background even within a single type of school.

The analysis contained in the TIMSS study includes a comparison of the social groups from which the 10% best pupils in mathematics originate. This comparison shows that only around

¹⁴ The effects of selection and its impacts on equity in general are dealt with separately in section I.

15% of the 10% best pupils in mathematics come from one of the lower social groups, whereas 57% come from one of the top social groups. TIMSS also brings out the effect that the socio-economic composition of a school class has on achievements in mathematics. These are significantly better in classes with a high average socio-economic status than in those with a low average socio-economic status (Moser & Notter, 2000).

SELECTION INTO DIFFERENT TYPES OF SCHOOL AT THE END OF THE PRIMARY LEVEL

The selection which takes place at the end of the primary level channels pupils into different types of lower-secondary school, which are structured in a very clear hierarchy.¹⁵ The type of school, in turn, has a big influence on the education to follow and thus also on the choice of occupation. The majority (80%) of pupils who are sent to a secondary school type with only basic requirements will find themselves serving a vocational apprenticeship two years after completing compulsory schooling. The same path is followed by half the young people who attend a type of school with intermediate requirements, whereas only 35% of these are going to be found two years later in a school providing a general education (*lycée, Gymnasium, teachers' seminary* or the like) (Hupka, 2003). These figures do not automatically have to mean that the selection into different types of school represents an equity problem. If the selection decision were to be based exclusively on achievement and if the young people in all types of school were to be given equal encouragement in accordance with their educational potential, then the differences after selection would correspond more or less to those before selection.¹⁶ In such a case, the fact just illustrated (that few young people actually depart from the «classical» route for their type of school) would be a sign that, generally speaking, the selection decision gave adequate consideration to the pupils' potential. If, on the other hand, the selection decision is indeed discriminatory and the climate of encouragement thereafter differs depending on the type of school, then selection is bound to represent a serious barrier to equity.

PISA 2000 brought out new findings as regards the transition to lower-secondary school. The PISA test was applied to young people in the ninth year of school, who had already been through the selection process at the end of primary school. Various authors report that migration status and socio-economic origin correlate significantly with the probability of being

15 Some new forms of lower-secondary school allow pupils to be taught in a cooperative setting, i. e. having different courses on different levels depending on their individual profile. However, only very few cantons have experiences with this setting so far.

16 That these differences in achievement prior to selection are already marked by children's migration and/or socio-economic background is elucidated further in section I and II.

assigned to a school type higher up the hierarchy and that this phenomenon is independent of any influence on (reading) achievement and also independent of actual reading literacy.

In an intensification follow-up study to PISA, a number of variables have been tested as regards their influence on the predictability of enrolling for a higher type of school by additionally considering the effect of said variables on reading literacy (Coradi Vellacott et al., 2003a). This analysis brings out an additional significant effect of socio-economic status, the extent to which the family context is conducive to learning or otherwise, and, in the German-speaking part of Switzerland, immigration status. Ramseier and Brühwiler (2003) also find a substantial lack of equity as regards the transition to lower-secondary school in the three cantons of St. Gallen, Berne and Zurich, based on considerations of basic cognitive skills and reading literacy. One of the factors they calculate is the relative chance of enrolling in a more demanding school type (*lycée, Gymnasium*, etc.) compared with a type of school with lower requirements (*Realschule*). According to this study, the relative chance of being given a place in a *lycée, Gymnasium* or the like correlates significantly with socio-economic origin, basic cognitive skills and reading literacy, but not with immigration status, first language or gender.

In parallel with the connection between socio-economic origin and school achievement, the observations also show that children from disadvantaged social groups do suffer discrimination in the selection decision. This discrimination has particularly far-reaching consequences, since in Switzerland the type of school a child attends at lower-secondary level plays in big role in access to post-compulsory education (see section III).

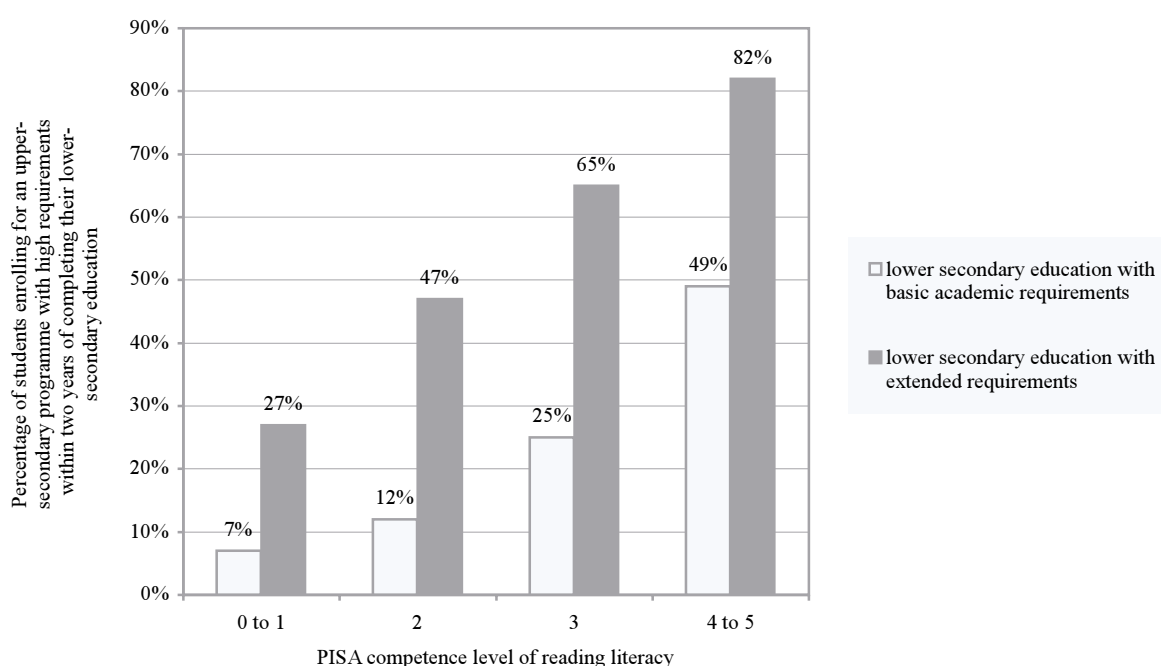
ACCESS TO POST-COMPULSORY EDUCATION

A study conducted under the name of TREE (*TR*ansition from *E*ducation to *E*mployment) has established that in Switzerland social origin still very strongly influences who has access to which form of post-compulsory education (Meyer, 2003b). TREE, a longitudinal follow-up study to PISA 2000, is investigating how young people in Switzerland cope with the transition from the end of compulsory schooling to the start of post-compulsory education and what sort of difficulties they encounter.

According to TREE, more than 50% of upper-class young people attend a *lycée, Gymnasium* or similar academically demanding school, whereas fewer than 10% of their lower-class counterparts do. It has been calculated that, for a student with a high socio-economic status, the likelihood of having enrolled for a *lycée, Gymnasium* or similar school (as opposed to vocational education with only basic or intermediate requirements) two years after completing compulsory schooling is five times greater than for a student with a low socio-economic status (the

likelihood of enrolment is calculated controlling for PISA reading literacy, type of school, gender, migration background, language region and urban/rural residence). What is more, the type of school attended at the end of compulsory schooling plays a central role as regards a young person's chances in post-compulsory education, regardless of his or her individual capacity to perform. This is shown clearly in Fig. 4. Meyer (2003a) even goes as far as to emphasize that the requirements profile of the type of school attended at lower-secondary level (basic requirements or extended ones) has a bigger influence on whether or not a student is allowed to enrol for vocational education than does his or her personal achievement at school.

Fig. 4: Enrolment for the more demanding upper-secondary education programmes, broken down by type of lower-secondary school and PISA reading literacy



Source: Meyer, 2003

So it has now been shown that in Switzerland both the type of school attended (as discussed in section I), which depends, *inter alia*, on socio-economic origin, and the socio-economic origin itself influence the chances of gaining access to post-compulsory education. The effect that socio-economic origin has on students' occupational aspirations ought also to be taken into consideration. This is a parameter for which few empirical findings are available, so that, as things stand at the time of writing, it is not possible to go beyond stating general trends. Initial indications of possible correlations emerge from a study carried out by Stamm (2004), although this work was focused on only a limited number of children belonging to a very speci-

fic group. For 99 students with above-average ability, the author found that the distribution of occupational goals (subdivided into vocational courses and the *Maturité* exam) tended to reflect the professional standing of their parents. For instance, 39% of those pupils with above-average ability who were aiming to pass the *Maturité* came from an academic background, whereas only 6% were from the working classes.

UNEQUAL ACCESS TO TERTIARY EDUCATION

A survey conducted amongst approximately 6000 students at Swiss universities (Diem, 1995) shows that around a third of those asked had at least one parent who was a university graduate. The corresponding proportion of academics in the 45–64 age bracket at the time the survey was carried out was a mere 7%. Just on 6% of the students questioned came from families where neither of the parents had completed post-compulsory education, whereas the corresponding proportion amongst the resident population in the 45–64 age bracket was nearly a quarter. One general finding was that the students' mothers had markedly lower educational levels than their fathers (which, however, is to be observed for the population as a whole (OECD, 2004a)). An analysis of the data from the 2000 population census carried out by Bauer and Riphahn (2004) shows very clear correlations between the educational levels of parents and those of their offspring. Taking just the Swiss population, 7% of the offspring of fathers with a low educational level complete an advanced educational programme, compared with 62% of the offspring of fathers with high qualifications.

It is also possible to establish a correlation between the discipline studied and socio-economic origin. Students from academic homes are thus over-represented in law studies (38%) and even more so in the various medical disciplines (44%) (Meyer et al., 1999). By way of contrast to this, students whose parents do not hold any post-compulsory qualification are to be found most frequently in the social sciences (9%) and theology (11%). Meyer et al. (1999) conclude that the class-specific selection mechanisms which shape university enrolments are probably already effective at earlier stages in individuals' educational careers.

Another question that has been investigated is whether students from disadvantaged socio-economic family backgrounds break off their studies earlier than others. This took the form of a survey involving approximately 3700 students, who were questioned as to their academic history and their employment situation, and they also provided additional data about themselves. A whole set of questions was put to individuals who had suspended or terminated their studies at the equivalent point in time. The results show that it is not possible to establish a direct correlation between the frequency of study dropouts and socio-economic origin (Diem & Meyer, 1999). However, the authors did diagnose correlations between the parents' level of

education and certain factors that are relevant for the dropout phenomenon. These factors include, for instance, a relatively late study start (aged 23 or older), low financial contributions from parents (less than 6000 Swiss francs per annum) or a high intensity of remunerated work in parallel with studies (more than 30%). Taking the criteria mentioned to form subgroups of students, it emerges that those from non-academic homes are clearly over-represented.

RECRUITMENT OF PROFESSORS DEPENDING ON THEIR BACKGROUND

Switzerland's academic elite, i. e. the professors at its universities, come from families where the parents have attained an above-average level of education. Buchmann, Rothböck and Sacchi (1999) looked into the recruitment of elites in politics, academia and the world of business and found a significant direct effect of the mother's level of education on the probability of holding a professorial chair (their results were statistically controlled for gender and education as well as the father's professional status and level of education). Given that, empirically, mothers rarely have a higher educational level than fathers, the authors interpret their results as an indication that the overwhelming majority of professors grew up in an academic setting (i. e. both their parents had completed higher levels of education).

NO DISCRIMINATION AGAINST FEMALE OR MALE GRADUATES OF UNIVERSITIES OF APPLIED SCIENCES AT THE TRANSITION TO THE LABOUR MARKET

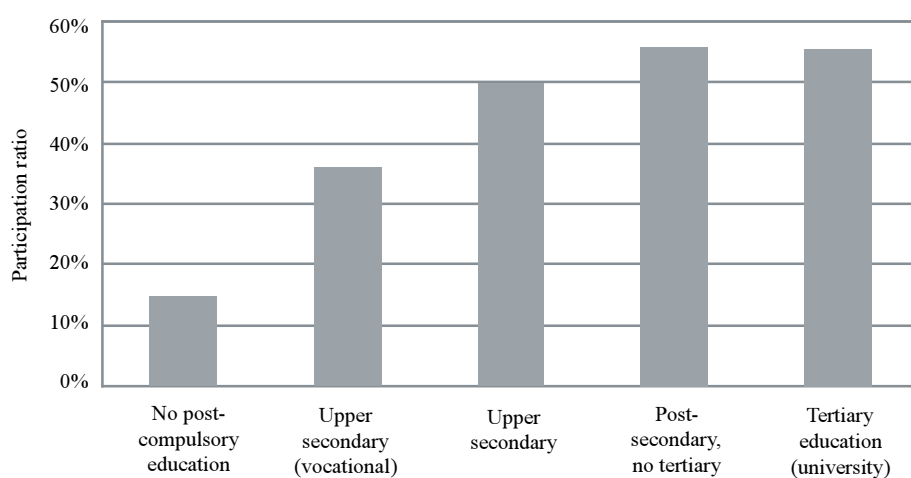
For a long time, no one showed any real interest in the question as to whether socio-economic origin is significant or not for a successful transition from a university or similar institution to the labour market. In the cohort surveys that are carried out every two years amongst graduates completing a conventional university or a university of applied sciences (Diem, 2000; Schmidlin, 2003) ¹⁷, no information about socio-economic backgrounds was collected until 1999. This information is thus only available for the surveys carried out in 1999, 2001 and 2003. Analyses of this data have now shown that, taking, for instance, those who have studied economics, the social origin of the graduates of the universities of applied sciences is lower than that of the graduates of conventional universities (Pätzmann, 2004). Moving attention to access to the labour market, the same author does not detect any disadvantages affecting graduates of universities of applied sciences. If they have the opportunity of rising to a top executive position, they even earn 14% more than their colleagues in comparable positions who completed a conventional university.

¹⁷ A longitudinal version of this questionnaire-based survey was launched in 2002: graduates were questioned for a second time four years after the initial survey.

IT IS ESPECIALLY WELL-EDUCATED INDIVIDUALS WHO JOIN IN LIFELONG LEARNING ACTIVITIES

Between 1996 and 2000, about 40% of the resident adult population (i. e. the 20–74 age bracket) in Switzerland enrolled for some form of further-education programme (Lischer, 2001). The likelihood of participating in further-education programmes in Switzerland is almost three times higher for individuals who have completed university than for those with no post-compulsory education.¹⁸ It is especially in occupation-related further education that educational levels and professional positions play an effective part in selection, as is shown clearly in Fig. 5.

Fig. 5: Participation ratios as a function of education level, 2000 (for those in gainful employment: vocational programmes)



Source: Lischer et al., 2001

Levy et al. (1997) make an interesting discovery in another empirical study: individuals whose education is relatively low for the position they occupy are less likely to attend further educational programmes than those who are overqualified for their current job.

Section III of this report includes an examination of the causes underlying the uneven distribution of enrolment for further education.

¹⁸ Purely internal further training provided by employers is also much better attended by well-educated employees than by those with no education or only a low level (Wolter, 2002; Prey & Widmer, 2003).

Equity as regards children, young people and adults with migration backgrounds

COMPLEMENTARY CHILD-CARE FACILITIES: UNEVEN PARTICIPATION

There is no representative statistical data available for Switzerland regarding the participation of different social groups in the various forms of institutionalised child care.¹⁹ In a comparison of such institutions in three Swiss towns, certain results did, however, emerge on the participation of children with migration backgrounds (Lanfranchi, 2002). Compared with the baseline of a population of four-year-olds included in the survey, it emerged that more than 70% of the Swiss children attended some form of institutionalised child care²⁰, whereas the figure was only 50% or so for children with migration backgrounds. According to Lanfranchi, the scale of non-institutionalised child care (for example with relatives or neighbours) too is much lower amongst immigrant families than Swiss ones. The significance of this finding is underscored still further by another of the conclusions from the study: children who, starting in their third year of life, are cared for and receive encouragement in other institutions in addition to their family (including kindergartens) get better assessment results as regards their cognitive, language and social skills by their teaching personnel than children who grow up solely within family bounds. Another clear finding is that, if children from immigrant families, in particular, benefit from some form of institutionalised pre-school care, they manage to cope significantly better with the transition to school than those who have not experienced such care.

TRANSITION TO COMPULSORY SCHOOL: LACK OF EQUITY IN INITIAL SCHOOL EXPERIENCE

In the majority of Swiss cantons, compulsory schooling for children starts at age seven (age six in the cantons of Ticino, Neuchâtel, Jura and Geneva). Children considered inadequately mature to start school stay on at kindergarten for a further year or are placed in special beginners' school classes, where the normal first-year curriculum is spread over two years. In his study of three Swiss towns already mentioned, Lanfranchi (2002) shows that children with migration backgrounds are more frequently judged to be too immature to start normal school than are Swiss children. In practice, the figures for children needing to repeat their first year of school also show that those with a migration background are over-represented compared with their Swiss schoolmates.

19 The term «institutionalised child care» is used in this report to cover various forms of care outside of the family and in addition to it.

20 This term covers a multitude of institutions, such as day nurseries, child minders, care centres, play groups and kindergartens (14% of all four-year olds in the three towns considered were already at kindergarten; most of these were in the town of Locarno in Canton Ticino).

SPECIAL SCHOOL CLASSES: OVER-REPRESENTATION OF CHILDREN WITH MIGRATION BACKGROUNDS

Children with migration backgrounds are very much over-represented in special types of school class ²¹ in Switzerland. Especially in the so-called «small classes» for children with learning impediments (which are not the same as the school-beginners' classes working at half-pace or small classes for children whose first language is not one of the national languages) more than half the children are not of Swiss nationality (in 1997/98, 54% of all pupils in these «small classes» were from immigrant families). This result has been confirmed by a survey of 1969 normal and special school classes in year two of primary school. Some 55% of the children in special schools (excluding special integration or slower beginners' classes) came from immigrant families (Kronig, Haeberlin & Eckhart, 2000).

Another facet of the same survey involves a longitudinal study of 54 pupils starting in their second year at primary school. It shows, *inter alia*, that immigrant children whose school achievements are admittedly low nonetheless learn faster in normal classes than in special classes.

One aspect that is striking in Switzerland is that there is a huge range of cantonal practices as regards placing children in special classes. Canton Ticino does not organise special classes at all, whereas the other cantons place between 1.3% and 7.1% of all pupils to them. These differences have big impacts on foreign children. The probability of a pupil with a foreign passport being assigned to a special class is highest in those cantons where there is the highest proportion of pupils in special classes. In the cantons of Zug, Schaffhausen and Aargau, one foreign child in six attends a special class (the precise figures being 15.8%, 15.2% and 15.2% respectively); the corresponding proportion for Canton Basel-Landschaft is 14.8% and for Canton Solothurn 14.3%. All of these cantons, however, have roughly average proportions of foreign children in their compulsory schools (i. e. around 23%). Those cantons that have the most foreign pupils tend to place significantly fewer of them in special classes (Canton Geneva: 42% of children are foreign, but only 4.8% are placed in special classes; Canton Basel-Stadt: 38% of children are foreign, with 10.8% of them placed in special classes) (Lischer, 2003).

COMPULSORY SCHOOL: ACHIEVEMENTS, MOTIVATION AND RESOURCE EFFECTS

In the IEA Reading Literacy Study, children with migration backgrounds performed on average worse than Swiss children from a comparable socio-economic origin. However, that was not

21 What is meant by the term «special class» («Sonderklasse» in German) is explained in section I.

the case for immigrant children with a high socio-economic status; for them, their migration background caused no difficulty (Moser & Notter, 2000). In achievements in mathematics too, significant differences have been established on several occasions between Swiss children and those with migration backgrounds. Despite that, pupils with migration backgrounds do not have less interest in their school performance or a more negative view of themselves. On the contrary, the PISA study diagnoses a significantly higher interest and self-confidence as regards mathematics and a significantly higher interest in reading amongst pupils with migration backgrounds in the ninth year of school (Moser, 2002).²²

Although the whole period of compulsory schooling is free-of-charge in Switzerland, it would appear that immigrant families are still at a disadvantage in terms of the availability of resources for educating their children. This emerges in a study which uses the PISA material to look into possible correlations between family size and reading literacy. It concludes that for children from families with migration backgrounds having a large number of siblings is disadvantageous for school achievement. The time that parents spend with their children and the financial resources available to them, *inter alia* for education, appear to play a role in school achievements. This thesis is borne out further by the finding that the social interaction between parents and individual children diminishes with an increasing number of siblings. The likelihood of a child having a room of his or her own also declines with an increasing number of brothers and sisters (Wolter & Coradi Vellacott, 2002). Table 2 provides a good illustration of these findings.

22 In an OECD study probing the PISA material in greater depth, it was found that, amongst young people from disadvantaged socio-economical family backgrounds, pupils with low reading motivation are over-represented. At the same time, the study found out that a high reading commitment (which also includes a high motivation) can, in certain circumstances, compensate for the disadvantages of the family's socio-economic background. According to the study, committed and highly motivated readers whose parents belong to the lowest socio-economic groups attain better achievements than young people whose parents have the highest socio-economic status but who hardly do any reading and have little interest in it (OECD, 2002). These particular results tend to paint a different picture to the one that emerges from the Swiss PISA report. The major importance of motivation and interest as diagnosed in the OECD study would make it appear evident that motivated young people ought to be amongst the good readers too. However, the corresponding passages in the Swiss PISA report deal with young people with migration backgrounds, who are not necessarily going to be able to compensate for their language disadvantages through an intense commitment.

Table 2: The influence of social origin and the number of siblings on reading literacy: estimated mean values for Switzerland

	Swiss family	Migrant family
Family of higher social standing with 2 children	568.8	492
Family of lower social standing with 2 children	483.8	443
Family of lower social standing with 5 children	475.0	379

Source: Wolter & Coradi Vellacott, 2002

Whereas the mean reading literacy of a child from a Swiss family seems to be hardly impaired at all by the number of siblings (even if the family has a low social status), the effect in the case of a child with a migration background is particularly marked. One feasible explanation for this might be that the parents' lack of financial and time resources in Swiss families tends to be compensated for by interactions between brothers and sisters of a kind that promotes school achievement more so than in immigrant families. On average, a child living with four siblings in an immigrant family in Switzerland has a reading literacy poorer than the average for Brazil (the weakest country in PISA 2000).

A comparison of various countries (analysed separately for each one and including numerous control variables) showed that countries with generally more homogenous test results also brought out similar effects of family size on reading literacy (Finland, Canada, France). A comparison of the group of children who were not tested in their first language with the group that did use its first language shows that the number of siblings has a greater impact on them in France, Belgium and Switzerland (Wolter & Coradi Vellacott, 2003).

An analysis of Switzerland's nationwide population census of 2000 also shows an effect due to family size. Bauer and Riphahn (2004) show that both the highest formal educational achievement as well as upwards mobility (offspring going on to a higher level of education than parents) have a significant (negative) correlation with the number of siblings especially for second-generation immigrants.

SELECTION INTO VARIOUS TYPES OF SCHOOL AT THE END OF PRIMARY SCHOOL

The transition to lower-secondary school may also bring disadvantages for pupils with a migration background, especially if they also come from a family with a low socio-economic status. In the type of school with only basic requirements, young people with a migration background are clearly over-represented compared with young Swiss. A study using a random sample of 1367 children in their sixth year of school in the German-speaking part of Switzer-

land also discovered discrimination in the selection process against boys with a migration background and an average skill level (Haeberlin, Imdorf & Kronig, 2004). The authors point out that a Swiss girl with a school achievement equal to the average has a likelihood of 83% of being recommended for a school with extended requirements (compared with a type of school with only basic requirements); for a boy with a migration background and the same level of achievement, however, the likelihood of a similar recommendation is only 37%. A further conclusion from the same study is that the recommendation is more likely to reflect a child's individual school achievement the further this is away from the mean. Taking the mid-range, on the other hand, school achievement is not a clear predictor of whether a child will be assigned to a type of school with only basic requirements or one with extended requirements.

DISADVANTAGES CAUSED BY CONCENTRATIONS OF YOUNG IMMIGRANTS IN CERTAIN SCHOOL ESTABLISHMENTS

Concentrations of pupils with a migration background constitute problems not only for types of school with only basic requirements, but also generally for schools in disadvantaged geographic areas. The proportion of pupils whose first language is not one of the national languages in any one school establishment of lower-secondary level has an impact on achievement levels. An analysis of the PISA data shows that the reading literacy in a school where more than the apparently modest rate of 20% of the pupils attending the ninth year have a first language which is not one of the national languages is already significantly poorer than in a school where the proportion of such pupils falls within the range of 0–5% (taking schools of the same type and with an otherwise similar social composition of pupils). This deterioration in reading literacy comes about primarily because pupils whose first language is not a national language perform less well in a school where they account for a high proportion of the total compared with a school where they would form only a small proportion (Coradi Vellacott et al., 2003a).

UNEQUAL ACCESS TO POST-COMPULSORY EDUCATION PROGRAMMES

When making the transition from school to vocational education, young people with a migration background living in Switzerland are confronted once again with equity problems. The TREE study (described above in more detail) shows that young immigrants have reduced chances of gaining access to post-compulsory education programmes, even if they are as good as the other pupils according to the PISA achievement criteria. The TREE study shows that young people with a migration background are actually affected by the lack of equity in the distribution of opportunities in several ways. Both socio-economic origin and the type of lower-secondary school attended have an additional influence on the possibilities of enrolling

for an education programme at upper-secondary level – and young immigrants come predominantly from the lower social classes and more frequently attend types of school with only basic requirements. An analysis of the risk of not having been able to enrol for any more advanced form of education or training (vocational education, general education or something between the two) two years after completing compulsory schooling confirms this diagnosis. The risk, for example, of not having been able to enrol for any form of education or training at all (compared with participating in vocational education with only a modest or intermediate requirement level) is, in particular for young people from Turkey, Portugal or the Balkans, 3.7 higher than for young Swiss (with statistical controls applied for gender, type of lower-secondary school, PISA reading literacy, socio-economic status, urban/rural residence and the language region) (Meyer, 2003b).

A survey of the search for apprenticeships by around a thousand young people from the German-speaking part of Switzerland who were in the ninth year of school in 2001 adds further to the results already mentioned; it stresses that the type of school attended at lower-secondary level is decisive for finding an apprenticeship especially for first-generation-immigrant pupils (i. e. who were born abroad) (Haeberlin, Imdorf & Kronig, 2004). For this group, the chances of finding an apprenticeship are generally greater if they attended the school type with extended requirements (compared with the school type with only basic requirements). According to the same survey, second-generation young immigrants (i. e. born in Switzerland) may be able to compensate for the disadvantages due to their origin if they have good marks in mathematics. The fact is, however, that at the end of compulsory schooling, young people with a migration background have poorer mean marks in mathematics than their Swiss counterparts. Given that, at the same time, their marks in mathematics are more closely scrutinised than those of young Swiss, it is also possible for this to give rise to a sort of covert inequity mechanism. The authors have compiled a table to summarise the differences in the likelihood of finding an apprenticeship.

Table 3: Likelihood of finding an apprenticeship, broken down by national origin (generation status) and gender for comparable credentials (school type, school marks)

Disadvantaged group	Privileged group	Factor by which the privileged group has a greater likelihood of finding an apprenticeship compared with the disadvantaged group with the same credentials
Young persons with one Swiss parent	Young persons with two Swiss parents	1.5
Second-generation young immigrants	Young persons with two Swiss parents	1.9
First-generation young immigrants	Young persons with two Swiss parents	4.4
Young females	Young males	2.8

Source: Haeberlin, Imdorf & Kronig, 2004

One of the survey's other findings is that foreign secondary-school students switch over to diploma-type middle schools more frequently than do their Swiss counterparts. The assumption is that this is a form of fallback strategy, making it possible for them to keep open the option of eventually finding a good occupation.

SELECTION AT THE TRANSITION TO THE LABOUR MARKET

As just mentioned, young people from Turkey, Portugal or the Balkans face considerably greater difficulties in trying to find an apprenticeship than do young Swiss (Meyer, 2003b). Young males with a migration background from these regions who have completed vocational education in Switzerland are still confronted with major problems when they first try to enter the labour market. In a semi-experimental study, Fibbi, Kaya and Piguet (2003) found clear discrimination especially against male applicants from Kosovo and Turkey. In the situation they simulated, in which two men, one Swiss and the other from Kosovo or Turkey, applied for the same job, it very often happened that only the Swiss was invited for an interview or that the immigrant applicant was only offered the job once the Swiss applicant had turned it down. The following table also shows the differentiated situation in Switzerland's various language regions.

Table 4: Extent of discrimination by origin and language region

	French-speaking Switzerland		German-speaking Switzerland	
	Male applicant from Portugal	Male applicant from Kosovo	Male applicant from Turkey	Male applicant from Kosovo
N	177	179	163	133
Discrimination	9.6%	23.5%	30.1%	59.4%

Source: Fibbi, Kaya & Piguet, 2003

How to read the table (example): Of 133 male applicants from Kosovo in the German-speaking part of Switzerland, 59.4% suffered discrimination. For this purpose, discrimination is defined as an incident in which both applicants otherwise have identical profiles, but the immigrant applicant is not invited for an interview although the Swiss applicant is.

DISCRIMINATION AGAINST FOREIGN WORKERS

On the Swiss labour market there is a considerable wage differential between Swiss and foreign employees. One factor accounting for this differential is that immigrant workers are generally less well educated than Swiss ones. This applies, in particular, for workers from southern Europe and from outside of Europe. Both the workers' position under employment law and their geographic origin have effects on their wages, even if all the other parameters are kept constant. For the same level of education (as well as for some other factors) nationals of countries of western European have incomes that are not significantly different from those of Swiss employees; Africans, however, by way of example, earn nearly 40% less (De Coulon et al., 2004). Levy et al. (1997) and Golder (1999) also show that there is clear salary discrimination affecting foreign employees. De Coulon et al. (2004) go so far as to speak of a «wage penalty» for foreign workers. Immigrants from non-European countries, in particular, thus act on the labour market as a sort of cyclical buffer, making it possible for the low-wage industries to postpone overdue structural reforms.

Equity as regards the genders

COMPULSORY SCHOOL: GENDER-SPECIFIC DIFFERENCES IN ACHIEVEMENT, INTEREST AND SELF-CONFIDENCE

Numerous research projects, including some carried out in Switzerland, have confirmed the importance of gender for school achievement. In reading, girls have been universally certified to be better. The Swiss appraisals for various collections of achievement data (including the IEA Reading Literacy Study and PISA) look, *inter alia*, into the gender effect. In the IEA

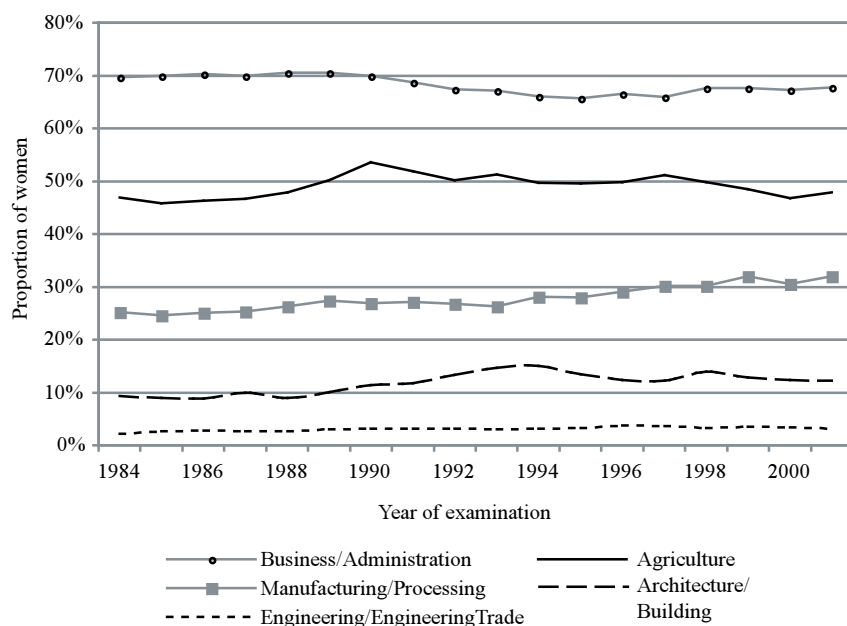
Reading Literacy Study, girls were already found to be ahead of boys in reading in the third year of primary school, especially in the reading of narrative texts. In reading documents, on the other hand, the boys were marginally better. No significant difference was found amongst 14-year-old pupils (Moser & Notter, 2000). The test on pupils in the ninth year of school reported on in the PISA study once again found an effect favouring the girls, which is particularly marked in the fields of reflection and text appraisals.

In mathematics and the natural sciences, it is still the boys who are turning in the better performances. This is confirmed by various studies (TIMSS, PISA) concerned with the age groups at lower and upper-secondary level. TIMSS and PISA compare not only performances but also self-confidence in the young person's own ability to perform in mathematics and the girls' and boys' interest in mathematics. It emerges very clearly that girls are less interested in mathematics than boys and that they also have less self-confidence as regards mathematics (Moser & Notter, 2000; Malti, 2002). The TIMSS study also shows that these differences in Switzerland are very big by comparative international standards. The gender difference in self-confidence even remains if girls and boys with the same achievement are compared with one another. Self-confidence, motivation and interest are related to the achievement differences between the genders and might sometimes act as barriers to subsequent educational careers (see section III).

SELECTION IN THE SEARCH FOR APPRENTICESHIPS

Young females (with equivalent educational qualifications) move less frequently into an apprenticeship immediately after completing compulsory school than do young males and are more frequently to be found in interim solutions (Haeberlin, Imdorf & Kronig, 2004). The risk of not having enrolled for any further-reaching education two years after completing compulsory schooling (compared with participating in an educational programme with a basic or intermediate requirements level) is twice as high for a young woman as for a young man (applying statistical controls for migration background, type of lower-secondary school, PISA reading literacy, socio-economic status, urban/rural residence and language region) (Meyer, 2003b). Women are especially under-represented in apprenticeships leading to occupations enjoying a high reputation. This unequal distribution is brought out particularly clearly in the diagram (Fig. 6) showing the proportions of women successfully completing apprenticeships in the various sectors.

Fig. 6: Proportion of women successfully completing apprenticeships, broken down by sector



Source: BFS/OFS, Swiss Federal Statistical Office

The gender-specific distribution over various occupations arrived at through apprenticeships may, in certain circumstances, be attributable to unequal treatment on the part of the organisations recruiting apprentices. Another possible cause might be the behavioural differences between women and men when it comes to deciding on an occupation (see section III).

RELATIVELY FEW WOMEN IN SCHOOLS LEADING TO THE VOCATIONAL-TYPE *Maturité* AND AT THE UNIVERSITIES OF APPLIED SCIENCES

Women remain in a minority amongst those young people who successfully take a vocational-type *Maturité*. Over the past five years, however, their share has grown from 24% to 36%. As shown above, when it comes to successful completion of apprenticeships, the distribution over the various sectors is very different. Taking the economic and administrative segment, the women's share of those sitting the vocational-type *Maturité* is in excess of 50%, in the more technical occupations, on the other hand, it is less than 5%. However, these proportions ought not to be allowed to conceal the fact that it appears to be particularly difficult for women to continue their studies with a vocational-type *Maturité* or to go on to a university of applied sciences in those fields in which they are well represented. In 2000, for instance, 67% of those completing a commercial apprenticeship were women; at the level of the vocational-type *Maturité*, the figure still stood at 56%; but it fell to 35% in the first semester at the universities

of applied sciences. In the technical professions, the share of women increases as the level of education increases too – the relative likelihood of attaining a vocational-type *Maturité* following an apprenticeship is higher for women in these occupations than for men (Coradi Vellacott et al., 2003b).

Table 5: Proportions of women in vocational education (2000)

	Occupational apprenticeship	School leading to a vocational type <i>Maturité</i> (BMS)	Relative probability	University of applied sciences	Relative probability
Business and administration	67%	56%	0.84	35%	0.63
Manufacturing	31%	41%	1.32	–	–
Architecture	12%	19%	1.58	15%	0.79
Engineering	3%	4%	1.26	4%	0.86
Agriculture	47%	30%	0.64	21%	0.70

Source: BFS/OFS, Swiss Federal Statistical Office

SPECIALISATION IN INDIVIDUAL DISCIPLINES

The proportion of women completing a university course is very different depending on the discipline. In 1999, the share of women amongst those obtaining qualifications in the social sciences and the humanities was around 63%, in medicine (including pharmacy) around 57% and in the natural sciences around 45% (where it had doubled since 1981). The proportions of women are very low in the engineering sciences (with the exception of architecture, where 40% of students are female) and the precise sciences (with just over 10% in each of them). A low proportion of women is also to be observed amongst graduates of the economic sciences (25%). The fastest growth rate in the proportion of women graduates is to be found in the field of economics in the universities of applied sciences. In the engineering disciplines, it remains persistently low at less than 2% (Coradi Vellacott et al., 2003b).

MORE DROPOUTS AMONGST WOMEN STUDENTS

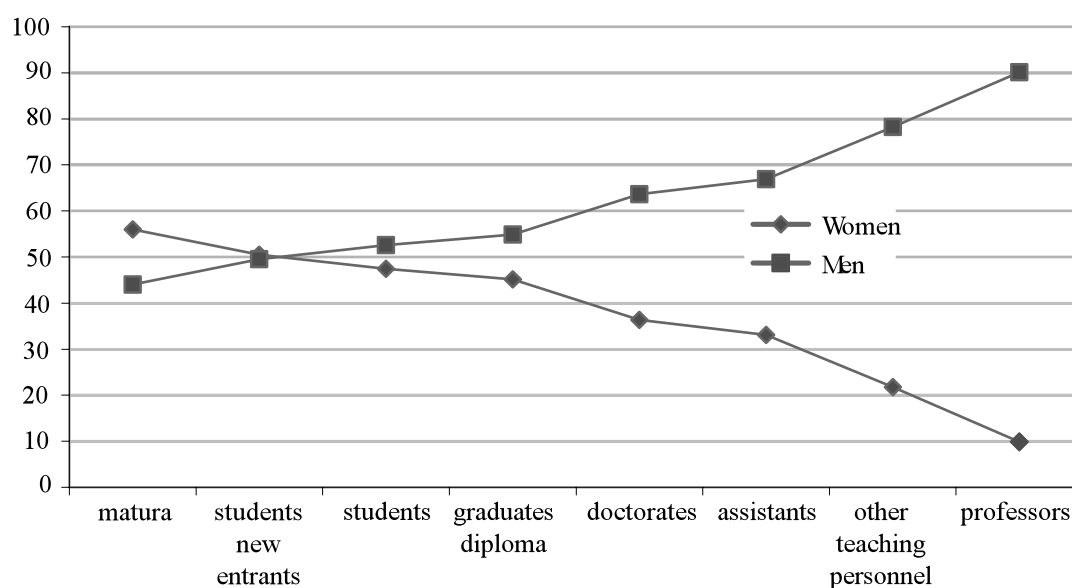
Between 1980 and 2002 the proportion of new female students entering universities rose from around 32% to 47% and the proportion of women amongst university graduates from approximately 26% to 45% (Rehmann, 2004). Despite that, women are over-represented amongst university dropouts. This is one of the findings of a longitudinal study into former students who abandoned their university studies, taking 1999 as the base year (Diem & Meyer, 1999; Meyer et al., 1999). The big difference in the dropout rate between women and men over the

various disciplines can presumably be partly explained by the fact that one woman in two, compared with only one man in five, opts for a subject in the humanities and social sciences, which are characterised by higher overall dropout rates. However, no systematic analysis of possible causes has been carried out to date.

UNDER-REPRESENTATION OF WOMEN IN THE ACADEMIC ELITE AND INEQUALITIES IN THE TRANSITION TO CAREERS IN ACADEMIA

Following the completion of university studies, the proportion of women entering an academic career falls more and more as the prestige of the posts increases, and this is the same for all disciplines (Fig. 7). The chances of women being recruited as professors in Switzerland is only around one ninth of that of men according to Buchmann, Rothböck and Sacchi (1999). In 1999, 38.4% of the assistants and academic employees at Swiss universities were women, whereas 21.1% of the lecturers and 8.3% of the professors were women (Bachmann, Rothmayr & Speyermann, 2004). Figure 7 shows a snapshot for 2002.

Fig. 7: University careers in Switzerland broken down by function and gender, 2002



Source: BFS/OFS, Swiss Federal Statistical Office

Forecasts suggest that women are, however, going to gradually make good their deficiency in the middle and professorial ranks. An insufficient number of cohort studies has been carried out, so the data is simply not available for ascertaining with certainty why there are so few women at an advanced stage of an academic career: whether the cause lies in direct discrimination during recruitment for the next higher level, whether it is a consequence of discrimination experienced earlier in life or whether the women themselves act pre-emptively to avoid finding themselves in a situation of likely disadvantage sometime in future. Possible causes of the gender-specific lack of equity in the transition to an academic career are dealt with in section III.

Lack of gender equity at the transition to careers in academia has been diagnosed by various authors (Leemann, 2002; Spiess Huldi, 2002; Buchmann, Rothböck & Sacchi, 1999). In Switzerland, far fewer women than men embark upon a PhD project once they have attained their first university degree. In the course of the year after graduation, the gap between the genders widens still further: men actually complete their PhDs twice as frequently as do women. Leemann (2002), however, stresses that those women who do not abandon their PhDs complete them on average in the same time as men. The author also notes the women's chances of entering an academic career are not limited to the same extent in all disciplines. The chances of integration are particularly poor in the natural sciences. There are also certain disciplines in which women are over-represented as students, where they have a lesser chance of proceeding with PhD studies than their male fellow students: namely in the linguistic, literature and social sciences. Similar findings as regards female school-leavers with a vocational-type *Maturité* have been mentioned in section III of this report. In those sectors in which an above-average number of women manage to complete an apprenticeship it would appear to be difficult for them to continue their education up to the level of the vocational-type *Maturité* or even to go on to study at a university of applied sciences.

Table 6 brings out the differences between the various disciplines regarding the disadvantaged position of women and groups with a low social status.

Table 6: Determinants for embarking upon a PhD study five years after obtaining a first university degree: differences between disciplines

	Negative effect for women	Negative effect for lower groups in society
Linguistic and literary sciences	ooo	
Humanities and cultural sciences		
Social sciences	ooo	
Economic sciences		o
Law	ooo	oo
Precise sciences		ooo
Natural sciences	ooo	
Medical and pharmaceutical sciences	ooo	
Engineering sciences		o

Legend:

- ooo strong negative effect
- oo moderate negative effect
- o weak negative effect

Source: Leemann, 2002; limited to the data from the survey five years after graduation

Leemann (2002) also finds effects of interactions between gender and the parents' level of education: the chances of a woman embarking on a doctoral project are significantly higher if her mother holds a university degree. The same applies for men and their fathers. Her father's level of education does not, however, seem to have any influence on whether or not a woman tackles a doctorate.

Similar gender effects emerge on looking into the probability of obtaining a job in academic research following graduation. It has also been established that there are combinations with social-origin effects: for a man, his father's educational qualification is important for his likelihood of finding a job in an academic position; a woman would only seem to benefit from a well-educated father if her mother is a university graduate too. Leemann (2002) also notes that the extent of the resources provided by the socio-economic origin (such as the parents' professional standing) makes it easier for men both to have access to academic networks and to publish more actively. The actual structures of contact networks and publication activities might perhaps provide indications regarding the causes of the under-representation of women in the academic system. These causes are examined in more detail in section III.

LACK OF EQUITY IN PROMOTION AT WORK AND UNEQUAL EARNINGS PROGRESSIONS FOR WOMEN AND MEN ON THE LABOUR MARKET

Levy et al. (1997) diagnoses a distinct discrimination against women as regards both their earnings and their promotion prospects on the Swiss labour market. They stress, for instance, that women have to be able to show higher qualifications than men in order to attain the same professional positions and salaries. Women suffer discrimination in Switzerland as regards both their wages and their promotion prospects. Several authors show that the earnings difference between men and woman cannot be explained only by the gender-specific segregation of occupations; there is still a residual difference that cannot be explained solely in terms of different educational histories, choices of occupation, types of job (full-time or part-time) and employees' other gender-specific preferences (Levy et al., 1997; Sousa-Poza, 2003).²³ According to estimates, there would still be no explanation for 50% of the difference in wages (OECD, 2004b). So women suffer discrimination, regardless of their occupation. Their overall situation is made worse still by the fact that their choices of occupation and a higher rate of part-time paid employment place large numbers of them in the poorly paid segments of the labour market.

In Switzerland, the chances of promotion for those holding a tertiary qualification are also different for women and men. Schmidlin (2003) has questioned university graduates twice (one and four years after completing a conventional university) and, in evaluating the results, establishes numerous gender inequalities. After the first four years of a professional career, for instance, 24% of the male university graduates, but only 19% of the female ones, have climbed one or more rungs up the career ladder. Almost identical differences are to be observed for the graduates of universities of applied sciences. Around half the women who have successfully completed a course at a conventional university or a university of applied sciences opt for part-time paid employment only. A relatively large number of female graduates from conventional universities decide in favour of a job arrangement that enables them to work even less than 50% of normal time – and they do this twice as frequently as female graduates from the universities of applied sciences. Male university graduates are rarely employed in jobs at less than 50% and, if they have a part-time position at all, it falls within the range of 50–90%. Men and women have very different reasons for working part-time, and these must be looked into carefully when it comes to finding out why women have poorer chances of promotion than men. The possible causes are examined in more detail in section III.

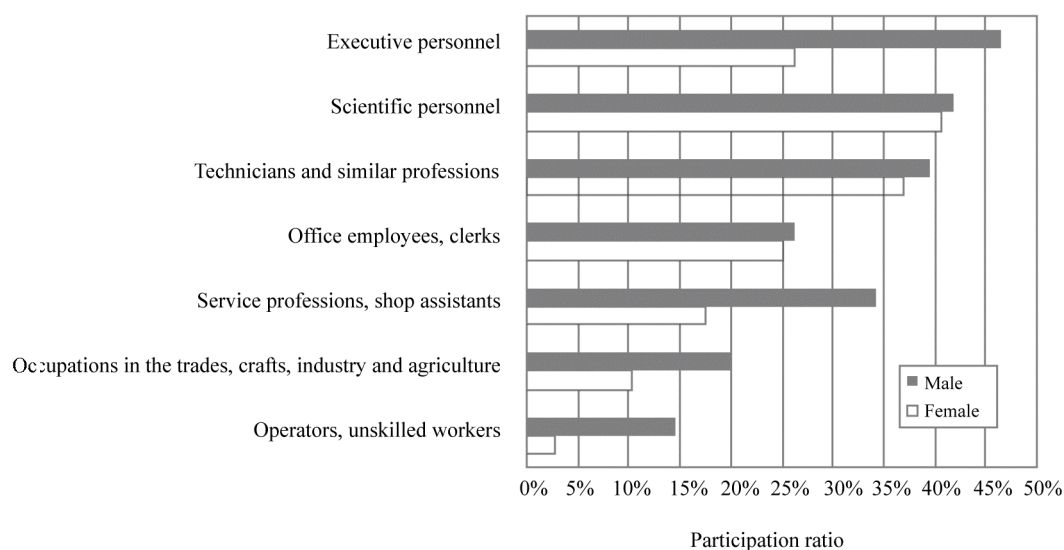
23 Sousa-Poza expresses doubt as to whether future shifts in gender ratios in the various occupations will have the effect of reducing the earnings differential between men and women.

Trends in earnings over time are also generally less favourable for female university graduates than for their male counterparts. It is not only that women have to content themselves with lower initial salaries in most sectors; they do not receive the same wage increments as men either. There is no complete explanation as to what these different wage increments might be linked to.

WOMEN RECEIVE LESS FURTHER EDUCATION FROM THEIR EMPLOYERS

A survey carried out into the further-education activities of the resident adult population in Switzerland between 1996 and 2000 reveals that women and part-time employees enjoy less support from their employers in matters of further education or training (Lischer, 2001). It is men in top managerial positions who enjoy the most intense support from their employers in this respect. Women in all professional categories are under-represented in the further education supported by their employer, as is shown clearly in Fig. 8. Women are also given only a pittance of further education compared with men in the professional categories of «machine/plant operator» and «unskilled labourer».

Fig. 8: Further education supported by employers, 1999



Source: Lischer et al., 2001

Turning to personally financed further education, women, on the other hand, are more active than men. A survey of around 6500 female and male employees and their participation in further education funded either by their employer or by themselves between 1996 and 1999 found that women participate significantly more frequently in such activities paid for by

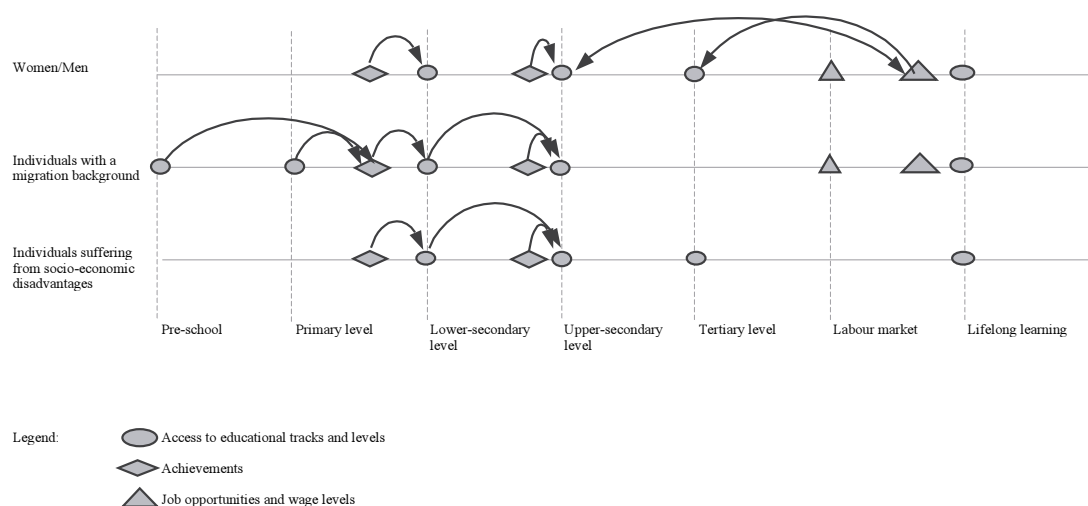
themselves than do men (Wolter, 2002). Bänziger (1999) comes to the same conclusion. This finding suggests that women try in part to compensate for the lack of further-education support from their employers by taking their own initiative. A study of advanced vocational education for cooks and watchmakers of both genders in the French-speaking part of Switzerland focuses on yet another problem. It emerges that many women only go in for further education between the ages of 20 and 30, since they see no possibility of continuing it after that on account of difficulties in reconciling work and family (Marti, 2004). Other possible reasons for the lower participation of women in further education/training (especially at their place of work) are examined in detail in section III.

Section III: Causes and explanations

Equity in the lifelong perspective

Earlier on, in section 2, this report already mentions three criteria that can be used to diagnose lack of equity in education: access to the various tracks and/or levels of education, performances within the tracks and/or levels of education and the chances of finding a paid job, in combination with the level of pay after completing a particular education programme. These three decisive criteria for measuring equity may be interlinked with one another in different ways from individual to individual or from group to group. The manner in which the effects between the three criteria are correlated can now be regarded as a fourth criterion for measuring inequity. It becomes clear in section 2 that the points in educational careers that are pertinent for equity are not the same for individuals with a migration background as for women or men. It can be observed that it is not only these focal points themselves that are different but also the ways in which they affect the educational careers of the various social groups. For instance, discriminatory selection at the end of the primary level may predetermine to a very considerable degree the subsequent school careers of young people from disadvantaged socio-economic family backgrounds. Again, discrimination in the likelihood of being recruited to certain jobs to begin with or the pay the labour market accords to women in certain occupations may have the effect on women that, when they take decisions earlier on in life, such as choosing an apprenticeship or a higher level of school, they already aim for those occupations where discrimination is least. Figure 9 illustrates the various chronological points that may be used to determine equity problems (see section II) as well as the different ways in which they interact.

Fig. 9: The focal points for inequity and how they interact



Source: own diagram

It would be wrong to take this representation as a complete appraisal of all the problematical areas that are of relevance for considering equity in Switzerland's education system. It should be seen as no more than an attempt to collate research results concerning the three social groups covered by this report (disadvantaged socio-economic groups, groups with migration backgrounds and women or men). The absence of a symbol in the chart does not automatically signify that no equity problems exist at that point or that there are no interactions, it could as well be the consequence of a deficit of research into particular points. Where, on the other hand, there is a concentration of symbols involving all three groups, the observations can be taken as indications that these are crucial points in the whole equity issue.

There is one aspect brought out particularly clearly by the diagram, namely that the existing research findings into gender equity diagnose a number of problematical interrelationships, particularly as regards post-compulsory education. The choice of occupations and study disciplines is still strongly gender-specific. This section sets out to elucidate where the causes for this may reside. That the various diagnosed points are interlinked is, however, something that can already be ascertained as a matter of fact. On the one hand, it is possible for subject-specific differences in achievement (which may, for instance, have been measured in the final year of compulsory schooling) to influence a young person's choice of occupation or study discipline. On the other hand, it seems reasonable to assume that one of the important causes for the gender-specific choices of certain occupations or disciplines is to be sought *after* the education process has been completed. As already suggested, it seems probable that discriminating conditions on the labour market percolate through to younger girls and women and that they attempt to avoid them preemptively through their choice of occupation or study discipline. It seems reasonable to assume that the same phenomenon may affect careers in academia.

Whereas at the post-compulsory stage it tends to be women who are at a disadvantage, the second focus of the research literature brings out that it is boys who are at a disadvantage in another area, namely on the primary level and the selection for the lower-secondary level. Boys, especially those with migration backgrounds, are being increasingly regarded as the real risk group both in achievement comparisons and analyses of selection decisions.

Children with migration backgrounds are affected by the lack of equity at a very early stage in the education system. Although attending institutionalised forms of pre-school child care improves the subsequent school performance of children whose first language is not one of the national languages, they participate in such facilities less than Swiss children. At the start of primary school, children with migration backgrounds are increasingly being treated separately: many are assigned to special classes for slow beginners or other types of special class. The picture already

painted earlier on in this report is one of a fateful concatenation of inequalities of opportunity right from the very beginning of school life. The selection into different types of school at the end of the primary level has the effect of amplifying this inequity and, at the same time, prepares the way for inequity to occur again at the transition to post-compulsory education. Pre-school contacts with education, the first year or two at primary school and the selection into different types of lower-secondary school thus represent the crucial points for children with migration backgrounds.

Similar focal points and interactions between them have also been observed for children from disadvantaged socio-economic backgrounds. However, it is not possible to diagnose anything about this group's experience of pre-school and the first year or two of primary school, given the absence of specific research. Inequity has, however, been diagnosed in the way primary-school achievements are taken into account in selection decisions. Given that the chances of enrolling for a good vocational education in Switzerland depend significantly on the type of lower-secondary school attended, young people from disadvantaged socio-economic backgrounds, like young immigrants, carry a sort of «built-in encumbrance» with them.

The same diagram shows clearly that lack of educational equity in Switzerland generally arises at an early stage in educational careers. Achievements at primary school and selection decisions bring with them a massive potential for all three analysed groups to find themselves placed at further disadvantages later on. The transition to the upper-secondary level, which takes place three years after this first selection, must also be recognised as a crucial point in the whole equity problem.

The following chapter goes on to take a separate look at each of the individual interactions summarised here and to describe the consequences for each level of education arising out of the lack of equity. This more detailed analysis makes it possible to give greater consideration to the phenomenon of overlapping between the three social groups (disadvantaged socio-economic groups, groups with migration backgrounds and women or men).

Causes of equity problems

As this report has already stated many times over, it is possible to consider the causes of equity problems and the ways in which they interact from various different perspectives. Section II identifies the points at which equity or inequity have particular impacts in the Swiss education system, by analysing the findings of research literature, and section III shows how these points interact over time. This chapter now moves on to pinpoint the various substantive *causes*. It distinguishes between institutional, economic and motivational causes as well as those that have

social or cultural roots. Examples of problems with institutional causes or «institutional *barriers*» to equity (as they are called below) include the established school-enrolling process, the timing of selection and the frequent practice of limiting further-education opportunities to employees in full-time posts. Examples of economic barriers are cuts in the sums of student grants or women's pre-emptive actions to avoid lower wages later on. Motivational barriers are understood to be psychological processes moulded by belonging to a particular social group and include, for instance, gender-specific choices of occupations and the lower incidence of further-education activities for individuals with a low socio-economic status. «Social or cultural barriers» is the term used, by way of example, for prejudices internalised by teachers or the priority attached to forms of institutionalised care for young children in the minds of women and men.

The points making up this chapter are structured according to the various levels of education and the social groups under review (with a certain amount of overlapping).

The pre-school stage and the transition to compulsory schooling

Very little research has been carried out in Switzerland into the equity phenomenon at the pre-school level and when children first start school. So most of the analysis presented here is based on the findings of just one study, which concentrates primarily on children with migration backgrounds (Lanfranchi, 2002). It does, however, seem reasonable to assume that children from disadvantaged socio-economic family backgrounds and, all the more so, children suffering multiple disadvantages (migration background and disadvantaged socio-economic background) have poorer chances of accessing institutionalised pre-school care places than do other children.

ECONOMIC BARRIERS FACING CHILDREN FROM LOW-INCOME CLASSES

Most of the institutionalised care facilities for young children are to be found in nurseries, with child minders, in play groups or (for some kindergarten children) in care centres. Parents have to pay a share of the costs for all care facilities. In the case of private care institutions, not supported by a municipality, a commune or a commercial undertaking, the parents pay 100% of the costs. In those cases in which a municipality or commune co-finances or subsidises the nursery, child minder, play group or care centre, the part of the residual costs charged to the parents is generally related to their income. Parents with low wages only have to pay a small amount. If, however, there is a shortage in the supply of subsidised care facilities (as currently repeatedly reported from various sources, especially for the German-speaking part of Switzerland) (EDK/CDIP, 2001; Marie-Meierhofer-Institut für das Kind, 2002), then it is no longer the case that each and every child has the same likelihood of being given a place. It

often happens that parents with a low socio-economic status are already over-represented in the queue for subsidised child-care places, since they cannot afford them without the municipality or commune defraying part of the costs. This group of parents has no means of turning to private providers if the number of places on offer falls below demand. One consequence of this is that many children remain without adult care during the time their parents are out at work.²⁴

To date, there has been no study that has concentrated on this particular problem. In looking at children with migration backgrounds, however, Lanfranchi (2002) finds that they attend institutionalised care facilities less frequently than Swiss children of the same age. On the same point, he also draws attention to the fact that older surveys may already have mentioned possible explanations for this state of affairs. This would show that very many immigrant families simply see it as beyond their means to pay for institutional child care and are thus very heavily dependent on the local provision of such care.

MOTIVATIONAL BARRIERS FACING WORKING PARENTS AND FAMILIES WITH MIGRATION BACKGROUNDS

In only one of Switzerland's 26 cantons is the first year of kindergarten compulsory, and only a few of them have made the second year compulsory (see section I), which means that in nearly all cases it is the parents alone who decide whether or not to send a child to kindergarten. Depending on circumstances, parents may well not feel very motivated to do so, especially since far from all the regions in Switzerland offer fixed core times. Arranging for their children to go to kindergarten can thus mean a very considerable additional organisational effort for working parents. So children who do not attend kindergarten have their first-ever contact with the education system at the age of six or seven. This may well have negative effects for them, especially where the language of tuition is not the language spoken at home – firstly, because they might not even understand the language of tuition and, secondly, because their parents still lack experience in communicating with teachers. Lanfranchi (2002), however, shows that it is advantageous for the school success of children with migration backgrounds if good, early cooperation is established between their parents and their teachers, since that facilitates a mutual narrowing of the gap between the *mores* of the family and those of the school.

24 Other possible consequences are that parents might switch to night work or be forced to abandon a paid job altogether, which is something that many families are scarcely able to afford.

INSTITUTIONAL BARRIERS ON STARTING SCHOOL FACING CHILDREN WITH MIGRATION BACKGROUNDS

Lanfranchi (2002) has discovered that children with migration backgrounds are, on average, more frequently placed in special beginners' classes, where the material that would normally be learned in the first year is spread over two years. It is possible to view this measure as an institutional cause for inequity later on. An evaluation of these slower beginners' classes in Canton Solothurn shows that they do not actually lead to improved integration of children with migration backgrounds (Hermann & Nay-Cramer, quoted in Lanfranchi, 2002). Even after two years in such a class, most children of immigrant families still have significantly weaker cognitive skills and a poorer knowledge of the language of tuition than the average, and many of them are still not ready to be integrated into normal school classes. This problem has been shown to be less acute for children who repeat a year at kindergarten instead.

The same applies to children repeating their first year of school. Once again, there is an over-representation of those with migration backgrounds. This, however, is another measure which does not produce any significant improvement in this group's cognitive and language skills. These problems led the Swiss Conference of Cantonal Ministers of Education (EDK/CDIP, 1997, 2000a) to develop new models for the transition to compulsory schooling. These models are under discussion at the time of writing, and several cantons have already initiated projects to adapt them to their specific situations. The same organisation has also published a study on the subject of training primary-level teachers (EDK/CDIP, 1999), which puts forward a number of new ideas (see section IV).

Primary level and the transition to lower-secondary level

The achievements of primary-school children are significantly shaped by the social groups to which they belong. Section II shows that primary-school children from disadvantaged socio-economic family backgrounds perform less well at reading. The poor readers include, in particular, children who have both a disadvantaged socio-economic family background *and* a migration background. Gender, however, also has an effect. The selection decision at the end of the primary level, taken by the teacher in the light of the child's achievements and an interview with the parents, thus acquires a very particular focus. Research findings point to real discrimination occurring through this selection. The question as to the possible causes for the equity deficiencies or even discrimination is thus a central theme of this chapter.

INSTITUTIONAL BARRIERS FACING CHILDREN FROM A DISADVANTAGED SOCIO-ECONOMIC BACKGROUND AND THOSE WITH A MIGRATION BACKGROUND

The selection decision is taken after 4–6 years of primary school by the teacher in consultation with the parents. It is possible to regard such an early point in time as an institutionally rooted cause of inequity. It means that the school has a period of only 4-6 years available to it to compensate for the disadvantages suffered by children from poor or immigrant families. If the unequal starting conditions for school learning have not been cancelled out by this point in time, they will affect the selection decision.

SOCIAL/CULTURAL BARRIERS FACING CHILDREN FROM DISADVANTAGED SOCIO-ECONOMIC BACKGROUNDS AND THOSE WITH MIGRATION BACKGROUNDS

The fact that the teacher plays a central role in the selection decision must lead to the question as to whether discrimination is in fact practised against certain children. Section II of this report describes various investigations whose findings point to discrimination against children with a low socio-economic status in the selection process to the lower-secondary level. Ever since the thesis of cultural reproduction (Bourdieu, 1983) and the idea of linguistic-cultural mismatches (Bernstein, 1971) were first formulated there has been discussion of the possibility that, because of their social origins, teachers fundamentally «speak a different language» from that of children from disadvantaged socio-economic backgrounds and tend, for that reason, to be harsher in their judgement of them. The point must be clearly made that it is extremely difficult to combat discrimination if its root cause really lies in such discrepancies in perceptions and communication.

A further point that may be problematical is teachers' communication with parents regarding selection decisions. Differences in parents' cultural capital and that of teachers make it more difficult for them to work together. It often happens that parents with a high social status are more intensively involved in the school processes than are those with a low status or/and a migration background. Depending on circumstances, high social-status parents are also more likely to be in a position to secure a favourable selection for their children by exercising a certain amount of pressure on teachers.

25 A survey of pupils' achievements in the final year of the primary level in Canton Zurich diagnoses, for instance, a significant dependency of these performances on social origin – applying statistical controls for gender and native/foreign tongue (Moser & Rhy, 2000).

FINANCIAL BARRIERS AFFECTING SCHOOLS IN POOR COMMUNES

Given the way in which primary schools are funded in Switzerland, it is also plausible that there may be financial barriers to equity too. It is a country in which most of the money needed for primary schools is paid by the communes, but these by no means all have the same financial resources available to them. Decisions on the acquisition of additional resources (such as computers, laboratory equipment and the like) are taken at gatherings of communal assemblies. The outcome of this may be that schools in poor communes have fewer educational resources available to them than schools in rich communes. However, to date nobody has carried out an analysis of the possible scale of such differences between the communes and whether they have a significant effect on the quality of learning in their schools.

Transition to upper-secondary level

At the end of their period of compulsory schooling, many young people face the decision as to whether to opt for an occupation arrived at through a vocational apprenticeship or whether to take their education further. This decision is never free from various social, structural or psychological influences, which may have an encouraging or discouraging effect. The following paragraphs take a look at those influences that could turn out to constitute barriers at the transition to the upper-secondary level for various groups of young people.

FINANCIAL BARRIERS FACING YOUNG PEOPLE FROM DISADVANTAGED SOCIO-ECONOMIC BACKGROUNDS

A number of teenagers simply cannot go on to a higher level of education following the lower-secondary level unless they receive financial assistance for the purpose. The cantons do make grants available for such young people to ensure that they can complete their vocational education or continue at a school providing a general education. The figures show, however, that there has been a continuous decline in the numbers of recipients of such grants since 1993. It is students at upper-secondary level who are most severely affected by this (Von Matt, Wicki & Hördegen, 1999). In 2001, 9.5% of all students at upper-secondary level were in receipt of grants (BFS/OFS, Swiss Federal Statistical Office, 2004b).

In the case of Switzerland it is impossible to assess how many young people decide against a further-reaching general education lasting a matter of years and opt instead for an apprenticeship, because their apprentice pay will enable them to contribute to the family's income. A survey carried out in Austria, however, has shown that this sort of situation is far from rare (Schlögl & Lachmayr, 2004).

A problem of a different nature is the shortage of places for apprentices. The more advanced education at upper-secondary level for which grants may be given is fundamentally free-of-charge. However, many private alternatives exist alongside these free possibilities, and they have to be paid for, including, for instance, private commercial colleges, private computer schools or private *lycées*, *Gymnasien* and the like. During a phase when there is a shortfall in the number of available apprenticeships (i. e. when not all capable young people are able to complete free education) this constellation may lead to an equity problem. Students with affluent parents can resort to private facilities if there is a shortage of places for apprentices, whilst others, however, cannot.²⁶

MOTIVATIONAL BARRIERS AFFECTING THE CHOICE OF OCCUPATION OF GIRLS AND BOYS AS WELL AS YOUNG PEOPLE FROM DISADVANTAGED SOCIO-ECONOMIC BACKGROUNDS

In Switzerland, women and men still behave extremely differently in choosing their occupations. Over the last ten years, there has been no really perceptible change in gender-specific behaviour in this respect as far as the various sectors of the economy are concerned («bbaktuell», May 2004). Haeberlin, Imdorf and Kronig (2004) observe that young women adapt their occupational aspirations in their final year of education to the gender-specific dictates of the labour market and move at an above-average rate into the female-dominated office and service occupations.

Now it is possible to name various potential causes for the unequal gender ratios in the various occupations and professions, but all of these are to be placed in the realm of motivational processes:

- a) In deciding on whether or not to continue with an educational career, achievements at the end of compulsory schooling play an important role. No less important is a young person's self-perception, i. e. whether or not they rate themselves as competent in a particular area. It is a fact that achievement and the perception and interpretation of this achievement are closely linked with the interest in and motivation for a given type of occupation. As already presented in detail in section II, such close correlations of self-confidence, motivation and interest with achievements in reading and mathematics are also established in the PISA and TIMSS studies. Anyone announcing that they have little interest in a particular subject generally performs less well in it (and the bad performers claim to have little interest).

²⁶ The sort of situation can currently be observed in vocational education in the informatics sector («bbaktuell», August 2004).

Now the fact is that both the PISA and TIMSS studies find clearly diagnosed gender-specific differences in self-confidence, motivation and interest as regards reading and mathematics. They establish that girls are significantly less motivated and interested in mathematics and the natural sciences, whilst boys display significantly less motivation and interest as regards reading.

The TIMSS data points to one essential cause for the stubborn persistence of these gender differences. It has been shown that gender stereotypes regarding mathematics and natural sciences exist in the *attitudes* of both thirteen-year-olds and their teachers. In this way, mathematics and, even more so, physics carry masculine connotations, whereas language carries feminine ones. These stereotypes influence not only teachers' perceptions of pupils' individual achievements but also the way in which they interact with children and teenagers and the way in which they give them encouragement. One consequence of this is that girls' self-confidence in mathematics is significantly lower if their teachers present the subject in a strongly masculine stereotyped manner (Keller, 1997). Given that, in the final analysis, self-confidence as well as motivation and interest for specific school subjects are all inputs into the process of choosing an occupation (Zwick & Renn, 2000), the gender-specific makeup of the various occupations is remaining more or less static.

- b) Numerous surveys into the behaviour of young people in Switzerland when choosing an occupation show, in addition, that girls are continuing to decide in favour of occupations to which they ascribe a good degree of compatibility with family commitments (Hurni & Stalder, 1994). One of the indicators they take for likely compatibility is the proportion of women already in a given occupation (Hagemann-White, 1992).
- c) A number of studies show that many young people have at best only vague ideas as to what the various occupations entail. When confronted later on with choosing an occupation, young women, in particular, tend to opt for a pragmatic approach; the evident occupations to go for are then those that are generally well-known and recognised (for a summary, see BBT/OFFT, Swiss Federal Office of Vocational Training and Technology, 1998).

SOCIAL/CULTURAL BARRIERS FACING YOUNG PEOPLE WITH A MIGRATION BACKGROUND AND WOMEN

One third of all the young people with a migration background from the Balkan countries and Turkey who were interviewed for the purposes of the TREE study referred to above (cf. section II) report that they suffered discrimination compared with Swiss applicants when looking for an apprenticeship opportunity (Meyer, 2003b). Various findings also demonstrate that young people with a migration background, in particular, encounter problems during the

transition to vocational education (Meyer, 2003b; Haeberlin, Imdorf & Kronig, 2004). This experience of discrimination when looking for an apprenticeship opening may, in certain circumstances be due to cultural barriers. Haeberlin, Imdorf and Kronig stress, that when looking for apprenticeships, so-called symbolic resources may play a major part. These symbolic resources include the prospective apprentice being able to signal to the organisation providing the apprenticeship that he or she possesses attributes such as team skills, diligence, a sense of duty, punctuality, cleanliness and care (Stalder, 2000, quoted in Haeberlin, Imdorf & Kronig, 2004).²⁷ If an applicant does not behave in the manner described, the result may in some cases be a «self-fulfilling prophecy»: the «deviant» behaviour leads the apprenticeship provider to an attitude of rejection. The applicant perceives this as discrimination, which, in turn, leads him or her to act in a particularly conspicuous manner when making subsequent applications.

In addition to the way the young people present themselves, intermediation through informal networks (references) helps the training organisation to obtain information about symbolic resources. Opportunities to sample apprenticeships may well also play an important role in this respect; however, access to such sampling programmes in many instances depends on informal contacts. Young people with a migration background have fewer informal contacts than young Swiss to help set up a chance to sample an apprenticeship for them, as a freshly published study by Haeberlin, Imdorf and Kronig (2004), shows, but such an opportunity is more important precisely for young people with a migration background than for young Swiss in helping them eventually find a full apprenticeship. So it would appear that a lack of social capital, coming on top of cultural differences, is a further cause exacerbating the chances for young people with a migration background of being accepted into an apprenticeship.

Women are also at a disadvantage in the search for apprenticeships (Haeberlin, Imdorf & Kronig, 2004; Meyer, 2003b). Just like the case of young people with a migration background, it must be assumed that there are social barriers which manifest themselves in the form of attitudes based on prejudices within the organisations offering apprenticeships.

The general point must be underscored at the end of this chapter that delays in starting an apprenticeship or even not being able to embark upon one at all might have severe repercussions on the standing of the affected individuals on the labour market and thus on their eventual wages. Depending on circumstances, poor prospects of promotion and low wages may be the long-lasting consequences of discrimination in access to apprenticeships.

27 A study carried out in the canton of Basel-Stadt confirms the significance of symbolic resources. It concludes that «personal impressions» are decisive for people offering apprenticeships once the organisation's requirements have been satisfied by applicants in prior written applications (Schmid & Storni, 2004).

Transition to tertiary education

Traditionally, the equity debate in Switzerland has focused very particularly on the tertiary level. In each case, the main concern here has been ensuring equal opportunities for women and men. This same priority is reflected in the research literature. Virtually no research has been carried out into possible barriers facing individuals from a disadvantaged socio-economic and/or migration background. The economic barriers described below are thus to be taken as more of an observation of political processes, whose implications for those with such disadvantaged backgrounds may well be reasonably assumed, but cannot be reliably confirmed.

ECONOMIC BARRIERS FACING INDIVIDUALS FROM DISADVANTAGED SOCIO-ECONOMIC BACKGROUNDS

In Switzerland tuition fees vary from one university or equivalent institution to the next and, in part, also depend on which canton the student comes from.²⁸ It is possible for students to apply for grants or loans to offset these costs and also their outlay on study materials and subsistence. In 2001, 13% of students attending conventional universities as well of 13% of those at universities of applied sciences were in receipt of grants to support them. According to figures published by Wolter (2001), such grants from the cantons and federal authorities cover 54% of the total costs incurred by their recipients. Between 1997 and 2001, the annual sum paid out per student fell from 6400 to 5500 Swiss francs (baseline year = 2001) and the total budget for this purpose was reduced by 20 million Swiss francs (BFS/OFS, Swiss Federal Statistical Office, 2004b). It is possible, depending on circumstances, that this reduction in grants might make access to tertiary education more difficult for potential students from disadvantaged socio-economic backgrounds.

MOTIVATIONAL (AND ECONOMIC) BARRIERS FACING WOMEN CHOOSING A PROGRAMME OF STUDY

The proportion of women in disciplines traditionally occupied by men remains small in Switzerland. One of the explanations proffered for this is that women bring less self-confidence and motivation into play, for instance, in mathematics, engineering or physics. The gender differences in achievements in these subjects are indicators of the presence of such processes. Several authors confirm that interest and motivation for both the content and the discipline

28 There are very considerable differences in the annual tuition fees charged by the universities of applied sciences too; for Swiss students, they charge between 1000 and 9800 Swiss francs (BBT/OFFT & SBBK/CSFP, 2004a).

per se are decisive for the choice of a particular study programme and occupation (Zwick & Renn, 2000; Prenzel, 2002). Surveys from the perspective of educational economics, however, show that external factors, such as career prospects and earnings, have a significant influence on the choice of disciplines and occupations. Different durations of study programmes, salaries, the likelihood of finding a job, the risk of unemployment and promotion prospects lead to big differences in the dividends students reap from university studies. Various surveys conducted to date have indicated that income expectations influence study and occupation choices (for the case of Switzerland, in particular, see, by way of example, Wolter, 2000). The choice of typically «female» disciplines by numerous women might thus be the outcome of a rational weighing-up process and the attempt to pre-empt drawbacks or even discrimination on a male-dominated labour market. On the other hand, opting for a study programme dominated by women, such as training to become a teacher, might be a consequence of anticipating a (relatively) advantageous position on the labour market (Wolter, Denzler & Weber, 2003).

INSTITUTIONAL BARRIERS DIMINISHING

The report on Switzerland's tertiary-education policy (OECD, 2004c) includes a recommendation for greater flexibility as regards access routes to various forms of tertiary education (especially to the conventional universities and the universities of applied sciences). Whereas there is no agreement yet on some of the proposals, one change has already been implemented since the report was published. As a fundamental right, students who have completed an occupational apprenticeship and passed the vocational type of *Maturité* exam can enrol at a university of applied sciences. The vocational type of *Maturité* alone, however, does not entitle them to enrol at a conventional university or equivalent institution; to do that, according to a new law which took effect on 1 April 2004, they must pass an additional exam. The first round of these new university-entrance exams is to be held in 2005.

Generally, however, it still remains the case that the only way into a conventional university is to pass an academic-type *Maturité* at a *lycée*, *Gymnasium* or equivalent. Very few Swiss universities (Geneva and Fribourg being the only exceptions) offer applicants aged more than 25 or 30 not holding either an academic or vocational *Maturité* the chance of taking an entrance exam instead.

Access to careers in academia

Social inequalities are to be observed not only at the transition to tertiary education but also for any graduate wishing to remain in academia, and there is, in particular, a lack of gender equity in access to academic careers.

ECONOMIC BARRIERS FACING WOMEN EMBARKING UPON AN ACADEMIC CAREER

This report has already ascertained that women less frequently complete university theses than do men. This skewed ratio is particularly evident in the natural sciences. In an analogous manner to the low number of women in programmes traditionally occupied by men, this might also be a consequence of women acting in anticipation of subsequent discrimination on the labour market. The low proportion of women in intermediate academic positions or holding professorships might, for example, be taken as a signal that embarking upon a scientific career is not worthwhile for women, which leads many women to abandon work on a thesis or not to start it in the first place.

SOCIAL BARRIERS FACING WOMEN IN THE INITIAL YEARS OF AN ACADEMIC CAREER

Leemann (2002) has established that building up networks of specialist contacts seems to be more difficult for women in junior academic positions than for their male counterparts. In the initial years of their academic careers, their networks are fundamentally smaller, which might have the effect of excluding them from important information, cooperation opportunities and so on. Depending on circumstances, this may lead women to abandon their thesis project. As the years go by, women, however, manage to expand their contact networks faster than men. Female academics who do complete their PhD manage to close the differential compared with men more and more as their careers advance.

This social barrier is particularly massive for women with small children: they have even fewer contacts than their colleagues with older children or no children at all. No similar effect has been detected for fathers. In training posts (such as research assistants) there are two times more women without children than women with children (Spiess Huld, 2002). One finding that is of particular interest, however, is that women's publication rates are not affected either by the total number of children they have or by the need to look after small children (Leemann, 2002). Basically, however, all women in junior academic positions in Switzerland have a lower rate of publication output than men. Nonetheless, once the women have completed their doctorates, they are no longer less productive (as regards publications) than men (Leemann & Heintz, 2000).

Transition to the labour market, opportunities for professional advancement and salary increases

For the various individuals and groups, the move onto the labour market occurs at different points in time. The majority of young people going through the Swiss education system start looking for jobs, once they have completed an apprenticeship. Most of the students who opt to

continue to higher levels of education do not make this transition to the labour market until a much later age, once they have completed tertiary education.

Section II diagnoses the lack of equity affecting newcomers to the labour market, especially young people with a migration background and women. As also already mentioned, this leads to long-lasting consequences. Poorer chances of finding a position as an apprentice work their way through to subsequent positions on the labour market and wage levels. Even if the first move onto the labour market succeeds without any difficulty, women still find themselves at a disadvantage in many occupations when it comes to opportunities for promotion or increasing their wages. This chapter is dedicated to looking for answers to the question as to where the reasons for such inequalities in the labour market might reside.

SOCIAL BARRIERS ON THE LABOUR MARKET FACING WOMEN WITH CHILDREN

This report has already described how very many more women than men have only part-time jobs after having successfully completed a university or similar programme (section II). Women with degrees from conventional universities have jobs equivalent to less than 50% of full-time posts twice as often as women with degrees from universities of applied sciences. The fact that women have part-time jobs more frequently than men also has its effect on their chances of promotion and salary increases on the labour market. This is related, *inter alia*, to the fact that few senior managers are taken on with only part-time posts. Women working part-time have to abandon certain opportunities for career advancement as the price for so doing. The reasons given by female university graduates for taking on jobs for less than 50% of full-time posts suggest that this particular situation of inequity might be a consequence of socially rooted barriers. The reason stated most frequently, according to a survey carried out by Schmidlin (2003), is the need to look after children. Schmidlin stresses that male university graduates rarely work for less than 50% of the time and, if they have a part-time job at all, it is much more likely to be in the range of 50–90%. An essential point is that men rarely indicate the need to look after children as the reason for working only part-time. The most important reasons given by men (especially those who have completed university) are not connected with looking after children at all, but the pursuit of further learning or the need to have more time for personal interests. These findings confirm what Levy et al. (1997) established some years ago, namely that the general public perception currently tends to overestimate the extent of the shifts in gender imbalances. The fact that inequalities are diminishing, especially in education, and that alternative forms of lasting partnerships are becoming more prevalent (such as unmarried couples) should not be allowed to conceal the fact that many factors remain stubbornly unchanged.

CULTURAL BARRIERS FACING INDIVIDUALS WITH A MIGRATION BACKGROUND WHEN ENTERING THE LABOUR MARKET

The blatant discrimination against male job applicants from Kosovo and Turkey when they enter the labour market (Fibbi, Kaya & Piguet, 2003) adds further weight to the presumption that it would be wrong to underestimate the role played by cultural barriers to employees' recruitment. Attitudes in Switzerland, particularly toward Kosovars, seem to be moulded by distrust and negative cultural stereotype images.

Access to adult education

Institutional, motivational or economic barriers also make it more difficult for many people in Switzerland to have access to adult education. Whereas there are no research results at all regarding access to opportunities to make up for qualifications not obtained as teenagers, certain causes have already been crystallised for the uneven participation in adult education, both occupation-related and of a general nature.

INSTITUTIONAL BARRIERS FACING WOMEN

In Switzerland, women attend occupation-related further education programmes less frequently than men. Gonon and Schläfli (1998) list a number of institutional hurdles which play a part in determining what forms of education are offered: the low ratio of female participation is quite probably related to the fact that further education opportunities exist primarily for those in full-time jobs, but 46% of working women in Switzerland have only part-time jobs. One further reason might be that the timing of courses often clashes with women's family commitments. Furthermore, the occupation-related further-education programmes are tailored more to higher managers and the more highly qualified specialists, which are two groups in which women are under-represented to begin with.

In an empirical analysis, Bänziger (1999) succeeds in showing that practically the whole difference between women and men as regards access to employer-supported further education can be explained in terms of so-called ascriptive differences (less education, lower professional standing, smaller sizes of enterprise, and so on). The author also makes the point that there is a widespread assumption that women leave jobs after a shorter time than men, which might explain why businesses spend less on further education for them. Empirical surveys, on the other hand, do not produce any uniform picture regarding the likelihood of employees remaining with the same employer. Bänziger thus supposes that enterprises work on the assumption that, by offering further education and career opportunities to their male employees, they are likely to encourage them to stay longer, whereas, with women, their assumption is that the decision to stay or not will be driven by external motives.

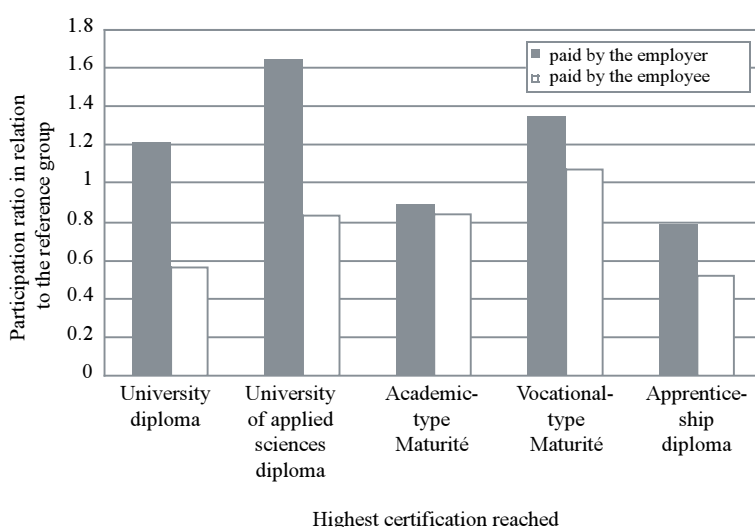
MOTIVATIONAL BARRIERS FACING ADULTS WITH A DISADVANTAGED SOCIO-ECONOMIC OR IMMIGRANT BACKGROUND

Access to further education and training, be it occupation-related or general in nature, is especially difficult for individuals with inadequate reading and writing literacy. Through the International Adult Literacy Survey (IALS), a study carried out by the OECD, it emerged that 9% of the resident population in Switzerland and 63% of the immigrant population in the 16–65 age bracket have only a very modest reading literacy (OECD, 2000). This study also produced evidence of significant correlations between participation in gainful employment, structured (formal) adult learning and informal learning at the place of work, on the one hand, and the level of literacy, on the other hand.

ECONOMIC BARRIERS FACING ADULTS WITH A DISADVANTAGED SOCIO-ECONOMIC BACKGROUND

The fact that highly qualified workers participate very much more in further education activities than less qualified ones (Wolter et al., 2003), might be related to the way in which such activities are funded. If a distinction is made between further education paid for by the employer or for which the employee has to pay himself or herself, it can be shown that the employee's level of formal education plays a major role here too. The probability of having further education paid for by the employer is six times greater for employees with a university degree than for employees with no post-compulsory education (Wolter et al., 2003). These findings were arrived at giving consideration to various other factors that might be decisive for further education (sector of the economy, hierarchical position within the business, company characteristics, and so on). As regards further education paid for by the employees themselves, it does appear that those individuals who have completed some form of post-compulsory education are more active (compared with those with no post-compulsory education), but there are no significant differences between those who have gone through the various tracks of post-compulsory education (see Fig. 10). One of the things that this means is that those individuals who are at a disadvantage as regards further education paid for by the employer (for instance those with no more than a vocational diploma following an apprenticeship), don't cancel out such a disadvantage by investing in their own further education.

Fig. 10: Difference in the participation in further education of groups with no post-compulsory education compared with the reference group



Note: The values are taken from a multi-nominal Logit estimate, with statistical controls applied for other characteristics, such as age, gender, sector of the economy, position within the enterprise, etc.

Source: Wolter, 2002

One of the impediments to funding one's own further vocational education is presumably, in part, the high costs. In Switzerland, the costs vary very considerably depending on the sector, the training establishment and the canton. Public subsidies are the rule for universities of applied sciences and conventional universities but not for private institutions, which include the vast majority of bodies providing occupation-related further education courses. For them, their course fees are an important source of revenue. It is true that some of the occupation-related further-training schemes receive financial support from professional associations, but even so the costs in many sectors still remain high (Weber, Stämpfli & Gerlings, 2001). It is then especially those from disadvantaged socio-economic backgrounds who cannot afford such high costs for undergoing further education, since following the programme itself often means foregoing considerable earnings too. One further reason why individuals are not willing to pay much for their own further vocational education could be that there is an inadequate subsequent return on their outlay (Wolter & Weber, 1999).

Section IV: Policies, programmes and initiatives

Measures in the field of educational policy to promote equity

In Switzerland's federally organised education system, it is not only the financial and legal powers that need to be considered at the three levels of Confederation, cantons and communes, but political interventions too. At the federal level, however, there is no all-embracing policy for promoting equity in the education system. Social policy as well as policies aimed at promoting culture and languages (both of which enjoy very considerable weight at federal level) are pursuing objectives other than combating the lack of equity faced by groups with an immigration and/or disadvantaged socio-economic background. In Swiss federal politics, the term «equal opportunities» has to date been equated with the policy of gender mainstreaming. No programmes applicable throughout the country have so far been developed to promote equity for groups from different socio-economic or migration backgrounds. This section of the report contains separate presentations of the measures and projects at the federal and cantonal levels. The projects described for the federal level deal predominantly with vocational education, since that is a field in which the Confederation holds the regulatory powers. Certain measures affecting the conventional universities and the universities of applied sciences are also mentioned in the parts dealing with projects at the federal level. The reason for this is that these tertiary-level institutions receive federal support channelled through specific programmes, although they are actually run by the cantons. The cantonal projects concern compulsory schooling (primary and lower-secondary levels) as well as the general-education tracks at the upper-secondary level, the implementation of federal recommendations concerning vocational education and the cantonal universities. It would, however, be a virtually impossible task to catalogue all the cantonal projects, especially since there are no official central records of them. Experience has shown that the cantons do not always respond fully to questionnaires, and the outcome is generally a serious lack of uniformity in the quality of the information. In the majority of cases, there is simply no information about what thinking led to the initiation of the project in the first place and what effects it has. This is almost certainly linked, in part, to the fact that Switzerland has never formulated a targeted and coordinated equity policy. In part, it is also a consequence of problems of data capture, which is inevitable when 26 cantons are asked to reply to questions on all sorts of different topics. It is important to realise that the analysis in this section of the report is thus incomplete and reflects both Switzerland's federalist diversity and its political priorities, which, for a long time have concentrated predominantly on and been limited to achieving gender equity and the integration of immigrants.

Gender equity

As far as gender equity is concerned, numerous programmes have been set up and institutions created at both federal and cantonal level. The educational-policy goal underlying them is in each case the formal and factual equality of the genders (Lehmann, 2003). The basis for this is to be found in the «Equality before the Law» article of the Swiss federal constitution²⁹ and the corresponding law on the equal standing of men and women.³⁰ Political measures at federal level deal primarily with vocational training and the tertiary level of education. Cantonal measures are concerned, as already mentioned, with compulsory schooling (primary and lower-secondary levels) and the general-education tracks at upper-secondary level, with the execution of federal recommendations and with the cantonal universities.

POLITICAL MEASURES AT FEDERAL LEVEL

Vocational education

The first federal decree concerning measures to improve the availability of apprenticeship opportunities for the 1997, 1998 and 1999 educational years was adopted on 30 April 1997. Its declared objective was to maintain and expand the number of apprenticeship places, to prepare young people without an apprenticeship for a vocational apprenticeship and to bring information about occupations up-to-date. It also includes increasing the representation of women in vocational education in general and broadening the scope of occupations chosen by young women. The subsequent evaluation of the effects of the federal decree, however, have not established that there has been any direct impact on the participation of women and men in vocational training or on the occupations chosen; the timeframe for the measures was too short for that to happen. However, the federal decree has had the important effect of repositioning the equity issue as a central concern of vocational education, which serves to change or at least mitigate traditional attitudes and patterns of thinking and acting. The federal decree also made it possible to gather experience on suitable forms of intervention, to create new types of programme with a specific potential for encouraging women and to make a contribution to developing the necessary infrastructure for the durable promotion of equity (Gertsch,

29 Article 8 paragraph 3 of the Swiss federal constitution states «Men and women have equal rights. Legislation shall ensure equality in law and in fact, particularly in family, education, and work. Men and women shall have the right to equal pay for work of equal value.»

30 The Swiss federal law on the equal standing of men and women adds the following further specification to the prohibition on discrimination (Article 3, paragraph 3): «Suitable measures for achieving real equality shall not constitute discrimination.»

Gerlings & Weber, 2000). For example, a demanding, wide-ranging project («16+»), submitted by the Swiss Conference of Gender-Equality Delegates contains specific proposals for creating an apprenticeship registry of enterprises operating in technical fields who would be willing to take on young women («LENA-Girl»), a composite programme for training women at the head of small businesses («KLUB+»), didactic materials for learning the local language and culture along with an interactive CD-ROM for assisting immigrant women in their choice of occupation («Cybilla»), a guidebook with specific instructions, and assistance in achieving the equity required by the federal decree and for creating numerous materials for the purposes of information, sensitisation and motivation. For the French and Italian-speaking regions of Switzerland, the *Conférence des offices cantonaux de formation professionnelle de la Suisse romande et du Tessin* (CRFP) has also launched a motivation campaign under the name of «tekna», the aim of which is to encourage young women to go into engineering professions.

A second federal decree concerning the financing of measures to improve the availability of apprenticeships and to develop vocational education was adopted on 8 June 1999 and this anchored the equity imperative more firmly still. Of the available total budget of 100 million Swiss francs, ten million have been specifically earmarked for equity projects, whilst all the other project applications are also required to show what they are doing in terms of working towards equity. Some 60 local, regional and cantonal equity projects have been implemented by the time of writing. At federal level, four bodies have assumed responsibility for projects, of which, once again, the «16+» project from the Swiss Conference of Gender-Equality Delegates already referred to is the one most worth mentioning. This project is now continuing some of its part-projects launched earlier in a revised and widened form and has also started a number of new activities. For instance, it has set up a project week with special offers for girls and boys («Avanti»), made video films about young professional women and men working in atypical jobs (under a title which translates as «young working women [men] with prospects») and provided documentation on sampling apprenticeships. The available materials now include tuition units showing that engineering and informatics are far from being male reserves («Bits and bytes for girls») and tuition ideas for taking the first steps towards choosing an occupation (translating as «The journey»). On the subject of choosing an occupation, cooperation with parents has been intensified as one of the crucial points, and a set of documentation has been created for this purpose (translating as «Choosing an occupation – a matter for teamwork»). Recently, a project called «Daughter's Day» was introduced: one day a year, schoolgirls are allowed to leave their classroom to find out about their parents' place of work and occupation, whilst the boys stay in school and work their way through questions concerning equity. Various projects have also already been developed for women in the final phase of their vocational education to encourage them to look seriously into career prospects

(Swiss Conference of Gender-Equality Delegates, 2004). These projects and materials are already being used intensively in the cantons.

In order to enhance the equity skills of vocational trainers, one of the projects launched in the ambit of the second federal decree deals with «tuition meeting gender needs at vocational colleges». It is targeted on lecturers working at WEG (the advanced education facility for the health-care professions in Aarau) and ISFPF/SIBP (the Swiss institute for the pedagogy of vocational education) and also on individual lecturers in vocational colleges. The project's goals are to enhance the lecturers' gender skills as regards contents, methodologies, didactics and interactions and to promote tuition in vocational colleges in tune with specific gender needs (Grünewald-Huber et al., 2003).

In parallel to these activities, the Swiss federal legislation on vocational education was amended. The new law, which came into force in 2004, makes the achievement of «actual equality of women and men» into a statutory objective (article 3, point c). For the first time, all professions (including those in the health-care and social fields that are exercised predominantly by women) have been brought together under a single legislative umbrella. The law now contains a new formulation, namely «recognition of other learning achievements», which is aiming to provide recognition for skills acquired other than in relation to one's occupation and does justice, in particular, to women's educational and occupational curricula. The promotion of occupation-related further education and the further development of modular educational programmes, which are one of the law's express targets, also militate in the same direction.

Occupation-related further education

In the field of advanced vocational education, efforts to achieve equity for women have also been reinforced since the 1990s. Some of these efforts are mentioned below (but the list makes no claim to be complete):

- As part of the «advanced training offensive» (which, officially, has a much longer designation translating as «special measures in favour of advanced training and university-level education as well as to promote the use of new technologies in manufacturing») of 28 June 1989, a special appropriation was accorded for the further education of women and for facilitating women returning to work after prolonged absences.
- The evaluation of specific further-education efforts for women, which were run by federal and cantonal administrations, resulted in a manual for further training at the place of work with a title which translates as «The specifics of encouraging women» (*Frauenförderung konkret*) (Stalder et al., 1997).

- Following a motion tabled in the Swiss federal parliament in 1993 (by Judith Stamm, a member of the larger house, the National Council) calling for more modular approaches to advanced vocational education, efforts were launched to make such schemes more modular, to coordinate them and to ensure their recognition (see www.moduqua.ch, German only). By no means the least effect of this change has been to facilitate access to advanced education for women.

*Universities*³¹

The demand for gender equity at tertiary level started to become vociferous back as long ago as the 1970s, but it was not until the 1990s that there were finally signs of this demand obtaining an institutional and political anchorage.³² The driving force for this movement is the desire to overcome the discrepancy between formally equal access for both women and men to tertiary education and the actual position of the genders in this segment of education (see sections II and IV).

In the early 1990s, two programmes were launched at federal level to encourage people in junior academic posts and to provide support for women returning to paid employment after prolonged absences. One of these programmes was designed to facilitate the advancement of the lower academic ranks at universities through the creation of senior-assistant posts and assistant professorships to be funded out of the federal budget. This programme started with a minimum women's quota of at least 33%, which was raised to 40% in the final phase. This programme, which is being discontinued as part of a savings drive at the time of writing in 2004, can be regarded as a success insofar as the percentage of women in those posts that fell within its ambit is now substantially greater than in the other categories of personnel. The qualitative evaluation, however, sheds light on the sort of structural barriers (and, in places, even outright discrimination) that women have to contend with, and it has also become clear that it is not going to be possible to eliminate them solely by applying quotas of this nature (Meyer & Nyffeler, 2001). The second programme concerning grants for women returning to medi-

31 Fundamental responsibility for the universities lies with the cantons (as regards both funding and regulating them). The federal programmes presented here are so-called «framework programmes», which have a clearly defined thematic mission, namely the use of federal funds to achieve gender equity. Implementation is in the hands of the cantons and universities.

32 In the early 1990s, for instance, the first universities created units for encouraging women, appointed special officers to deal with matters concerning women and set targets for increasing the proportions of women. Since 2001 all conventional Swiss universities as well as the Federal Institutes of Technology have special gender-equality officers or equity units. Since 1992, the women's officers of Swiss universities have been working together in a standing conference known as CODEFUHES or KOFRAH.

cine and the natural sciences has been set up by the Swiss National Science Foundation under the name of the Marie-Heim-Vögtlin Programme. Its aim is to make it possible for well-qualified female scientists (PhD students and PhDs) to resume careers that had been interrupted generally on account of family commitments. In 2003, it was extended to supporting PhD students in the humanities and social sciences too.

The Swiss National Science Foundation runs various other programmes which provide support to researchers too: it provides research grants (women's quota: 40%), promotes research professorships (women's quota: 30%) and supports women returning to an academic activity. As far as support measures benefiting individuals are concerned, the maximum age limit for women was removed in 2001. By way of reaction to the report from a working party («GRIPS Gender 2001»), an equity committee was set up (to act as an advisory body to the Research Council) and an equity officer for research support was appointed. Gender mainstreaming was then anchored as an organisational and decision-making principle in the 2004–2007 multi-annual programme and also laid down specifically in the annual targets. A preference rule was added to the regulations governing the selection of the Research Council, stating that women are to be preferred amongst candidates with equivalent applications (Rehmann, 2004).

As part of one of its central programmes called *Zukunft Schweiz (Future Switzerland)*, the Swiss National Science Foundation launched the first of a series of lectures for postgraduates in 1998. One of the eight such series organised to date was dedicated to the theme of «Knowledge – gender – greater professionalism / gender relations and social order». Since 2002, the universities of Basel, Berne/Fribourg, Geneva/Lausanne and Zurich have each organised a postgraduate lecture series in the field of gender studies.³³ These networks, which are also networked with one another offer doctoral and postdoctoral students an interdisciplinary environment for encouraging them in their work and supporting them with their theses. In communicating its intentions for promoting education, research and technology for the period 2004–2007, the Swiss Federal Council (i. e. cabinet) has called on the Swiss National Science Foundation to set up a total of 14 such postgraduate lecture series with 15 grants for each of them during the three-year period up to the end of 2007. This measure is intended to benefit the humanities and social sciences to begin with, and its target is to achieve a women's quota of 40% (Rehmann, 2004).

33 Gender studies were initiated by committed female students, assistants and lecturers in the 1980s and were at first subjected to repeated attempts to marginalise them. Today, it has become impossible to think of the universities without them. A number of professorships were created one after the other and undergraduate and postgraduate courses set up.

The year 2000 saw the launch of a federal programme called «Equal opportunities for women and men at the universities» with the aim of doubling the proportion of female professors from 7% to 14% by 2007. The programme is subdivided into three modules:

- an incentive system for the universities to recruit women as ordinary and extraordinary professors.
- financial support for universities to set up mentoring programmes for women students writing theses or studying for a PhD.
- contributions to universities for expanding child-care facilities to make it easier for both students and teaching staff to reconcile profession and family.

This programme has now entered its second period in 2004–2007, and another 16 million Swiss francs have been made available. The evaluation following the programme's first period showed that it had contributed to the institutionalisation of equity work in the universities, in that it had made it possible to create new equity offices and to strengthen the position of those already existing (Rehmann, 2004). The fact that it is the top management of universities that is responsible for requesting projects and reporting on them and that the universities generally have to fund 50% of the costs themselves, means that equity is repeatedly an issue that has to be dealt with at the highest level. Whereas the child-care part of the programme was already showing clear signs of success during the first period and there seemed to be the necessary assurance that it would be continued, the situation for the mentoring part of the programme was less clear-cut. There was some evidence that it had helped women with their academic career planning, but its continuation was uncertain. The incentives part of the programme was the least incisive, and it was only at the universities of Geneva, Lucerne and Neuchâtel in the disciplines of law, the humanities and the social sciences that the milestones were reached in 2002. One positive remark in the evaluation, however, was that the proportions of women appointed to lecturing and professorial posts had become publicly visible since the launch of the programmes (Bachmann, Rothmayr & Spreyermann, 2004).

Universities of applied sciences

For the universities of applied sciences (UASs), the equity targets for the build-up phase, 1996–2003, were laid down in the federal agreement setting up those institutions. The actual implementation is the responsibility of the body running each UAS, and the details are governed by cantonal laws. The federal equity programme for Swiss UASs launched its first action plan in 1999 and entered its second phase, lasting to 2007, in 2004. For each of the two periods, 10 million Swiss francs of federal funds have been made available. Equity work has been successfully institutionalised. All the UASs now have officers and committees in charge

of equity questions. The nationwide conference of UASs (CSHES/KFH) has also set up a specialist equity committee, whose members are the officers or delegates responsible for the equity programme at each of the UASs. All those active in the equity field at the UASs are organised in an interest group.

Since women are severely under-represented in the disciplines of engineering, economics and informatics at the UASs, one of the things the programme is setting out to do is to motivate more women to study, research and teach at the UASs. Another of its aims is for equity to become firmly anchored in the UASs as a quality criterion. Between 2000 and 2003, the Swiss Federal Office of Vocational Training and Technology (BBT/OFFT) approved more than sixty projects. These are projects (such as sampler courses in engineering departments) whose aims are to motivate women to study at UASs, to create and improve networks and new courses, to try and increase the proportion of female lecturers and to set up projects for funding child-care places. Individual projects are also aimed at enhancing gender skills or facilitating the implementation of equity as a quality criterion. Moreover, the Swiss Federal Office of Vocational Training and Technology has arranged for the drawing up of recommendations and practical proposals for increasing the proportion of women lecturers at the UASs (Barben & Ryter 2003).

The evaluation of the first programme period showed encouraging results. The equity officers had done a good job in a short period of time, despite limited resources, and the lecturers had taken note of it as important, while the students were aware of it too. However, the fear was expressed that the intense commitment of the equity officers might suffer under the pressure of success and lead to equity work being isolated and personified. As far as acceptance is concerned, the evaluation brought out that both the students and lecturers wanted more integrated measures, to ensure that the women would no longer appear like «exotic individuals» and that equity would be practised without the need for excessive fuss. To achieve this, students recommended measures at earlier stages in the education process (in lower-secondary schools and vocational colleges). Lecturers were particularly in favour of increasing the proportion of women studying and teaching in the more technical programmes. To this end, they expressly approved of extending recruitment procedures to enhance women's chances (Stamm & Landerdt, 2003). The results of this evaluation were one of the inputs for formulating the strategic goals for the second period of the federal programme. These targets include increasing the proportion of female students in the engineering and economics programmes, increasing the number of female lecturers in general, improving the general environment for reconciling family and profession, developing gender skills in lecturers, managers and students, introducing gender equity as a quality criterion, applying gender mainstreaming and equity control-

ling as managerial tools and providing support for research into gender issues (www.offt/bbt.admin.ch/fachhoch/dossiers/chancen/d/index.htm).

Out-of-home child care

In order to give mothers and fathers equal opportunities of having paid jobs, the Swiss Confederation provides financial support for the setting up of out-of-home care facilities for children. This is a promotional programme limited to eight years, which is intended to encourage the creation of additional day-care places for children. Interim stocktaking after just one year shows that there is a big need, in that no fewer than 462 applications for programme funding were submitted. Of these, 167 are for care facilities to supplement schools.

POLITICAL MEASURES AT CANTONAL LEVEL

Primary and lower-secondary levels and the general-education part of upper-secondary level

Of relevance to the cantons' educational policies, even if not legally binding, are the recommendations issued in 1993 by the Swiss Conference of Cantonal Ministers of Education (EDK/CDIP). The recommendations encompass all the levels and tracks of education that fall within the purview of the cantons, i. e. the pre-school, primary and lower-secondary levels as well as upper-secondary schools providing a general education and *lycées*, *Gymnasien* and the like. The following are the most important of these recommendations:

- Principles: same access to all education programmes for both genders as well as same targets and same contents; a gender balance to be striven for in the teaching professions and in administration.
- Coeducation: tuition to be basically coeducational; gender-segregated education to be permissible, however, where this serves the equity cause.
- Equity of value: the living and working environments of both genders to be dealt with frankly and in different ways in tuition and didactic materials; equity of value also to be practised in communication and the use of language too.³⁴
- Teacher training (initial and in-service): equity to be a compulsory subject, teachers to acquire the skill to detect disadvantages and to rectify them.
- Career and study guidance: young people to receive careers' counselling to make it possible for them to choose an occupation without considering gender stereotypes.

³⁴ The EDK/CDIP issued guidelines on the use of language on 17 September 1992.

- School organisation: reconciliation of profession and family to be made possible through fixed duty periods in blocks, daily timetable structures, etc.
- Educational development and research: cantons to promote studies and projects dealing with equity.

In 2004, the Swiss Coordination Centre for Research in Education (SCCRE/SKBF/CSCRE) carried out a survey of the cantons regarding implementation of the recommendations from the EDK/CDIP.³⁵ This includes legal provisions, targets set in curricula, guidelines on the use of language, further-training opportunities and other measures. The survey reveals that 13 cantons have included provisions concerning the gender issue in their legislation on schools or education. In ten cantons, gender equity is mentioned in guiding principles and the formulation of targets in the curricula. Five of these cantons overlap with those that have adopted binding statutes on the matter. The spectrum in the guiding principles ranges from very general and brief formulations to detailed paragraphs spelling out in further detail the principles contained in the recommendations from the EDK/CDIP. Eight cantons have set up some form of specialist working party to deal specifically with questions concerning the implementation of the equity principles. In order to make it easier for teachers to apply gender equity, 14 cantons (six of them in the western (French-speaking) part of Switzerland) have created short manuals. These include, for instance, specific ideas for day-by-day classroom practices dealing with aspects such as expectations, evaluations, interactions, use of language, teaching and learning resources, access to learning and classroom atmosphere. In a further attempt to support teachers in implementing equity, 18 cantons have created advisory services. Groups of specialists (in 13 cantons) and individual experts (in 14 cantons) have been placed in charge of overseeing the various tasks of equity implementation.

A number of cantons have also put a particular effort into the learning and teaching resources to make sure that the genders are presented in a balanced manner in both texts and illustrations avoiding all forms of stereotyping. One example of a specific measure is the circulation of guidelines to help teachers make or select teaching materials.

One measure which the majority of the Swiss cantons (17) mention explicitly is the provision of in-service training courses for teachers on the subject of equity. This measure is aimed at enhancing the awareness of teachers (and other specialists involved in the education sector) and seeks to improve so-called «gender skills». A number of institutions providing advanced

³⁵ At the time of writing, the Swiss Coordination Centre for Research in Education is preparing a report on this subject, and it is likely to be published in the course of 2005.

vocational education offer regular courses on the methodological/didactic aspects of implementing equity in teaching. More than half the cantons (17) also regard preparing young people to choose their occupations as being a task for the schools with a direct bearing on gender equity. Various protagonists play a part in this process. Young people have the possibility of seeking advice from careers-information units or careers and study guidance centres or of simply using them as sources of information. They also have the opportunity of thinking more deeply about their ideas for the future and occupational aspirations in special school classes devoted to the subject of choosing an occupation. In order to encourage young people to think seriously about such matters and to seek out the pertinent information, various equity offices have in recent years created a whole range of materials, which the schools are now using intensely. The «16+» project set up by the Swiss Conference of Gender-Equality Delegates has already been referred to earlier in this report; it also includes a number of sub-projects concerned with choosing a profession. The cantons readily make use of these projects and materials. Reference has also already been made to two federal decrees. The second of these introduced scope for cantonal projects to be submitted too, and 15 cantons have indeed made use of the funding possibility offered. These projects are often targeted on young people still at school, and the cantonal ones are specifically targeted on girls. A relatively large number of them have led to special organised events and the structured provision of information (such as opportunities to sample courses, exhibition stands and campaigns) or courses and the provision of advice (such as accompanying or monitoring services for schools, courses, project weeks or even individual counselling). Finally, it is also worth mentioning advanced training programmes for multipliers (for instance, key individuals in the process of choosing an occupation). The hoped-for effects are in three planes: sensitisation, shifts in skills and structural adaptations (Gloor & Meier, 2003).

The recommendations from the EDK/CDIP referred to above also state that, in the interest of equity, the school organisation ought to take flexible account of the fact that both mothers and fathers might have a paid job to attend. Measures to assist in this respect include fixed core school-attendance times, the provision of school lunches, homework assistance, flexible opening times for school buildings at the start of the day, all-day schools and flexible terms and conditions for the employment of teachers. The database operated by the EDK/CDIP's information service (IDES)³⁶ reveals that 24 of Switzerland's 26 cantons have rules regarding

36 More details are available on the Internet in German and French. For the German version, follow the link www.edk.ch -> Das schweizerische Bildungswesen -> Grundlegende Informationen zum Bildungswesen in der Schweiz und im Fürstentum Liechtenstein.

fixed core attendance times (as at the end of 2002). Unfortunately, however, the actual hours concerned vary from commune to commune and from school to school, and in several cantons this core time is no more than 2–3 hours or 2–3 lessons and only applies on 2–4 half-days per week. Of the 18 cantons which provided data on the extent to which fixed core times are practised, half replied that 100% of their primary schools were already functioning on that principle. Of the 26 cantons, 20 replied that school lunches are available, but the real extent of this service is modest. The lunches are provided by individual communes, school centres or private organisations. The lunch service is most intense in those localities where children have a long way to travel to school, and returning home at lunchtime would be prohibitive. One interesting comment in connection with both these measures (fixed core times and lunch services) comes from Canton St. Gallen and complains that hardly anyone has been using the lunch service, because the fixed core times are not long enough. In 11 cantons there are all-day schools, although in six of these there is just a single such school serving the whole of the canton's territory. Three other cantons estimate the extent of this service to be around 3%.

A number of cantons have based their gender-equity activities on internal reports or stock-taking on the subject; they are, however, a minority.

Training teachers at HEPs/FHSs (universities of applied educational studies)

Working on the basis of the recommendations from the Swiss Conference of Cantonal Ministers of Education, the committee on teacher training along with the pedagogical working party set up by the conference itself presented a paper in 1996 on equity aspects of teacher training (EDK/CDIP, 1996). The paper's starting point is that the education system, being a mirror of the existing social circumstances, restricts development and educational opportunities. It criticises that the masculine world is at the heart of the syllabus, that girls and boys are treated differently in lessons and that girls might suffer under the dominance of boys. It also draws attention to the unequal chances of the genders as regards education opportunities. The paper presents the view that teachers play a central role in setting examples and as figures to be looked up to and also as individuals who place their mark on school life and lessons. From this, it concludes that the theme of equity ought to play an important part in teacher training. Teachers ought to know about the historical contexts that determined the relationships between the genders and how these can be changed and ought also to be fully conscious of their own role as a woman or man. It would be their duty to take a critical look at their own set of values and their own learning history, to ensure that they have the necessary sensitivity for gender issues and to form a clear view of the scope available to them for acting to provide tuition doing justice to gender. That being so, gender relations and equity would have to be a

compulsory subject in teacher training. The paper postulates that the subject ought to be dealt with in all the pedagogical disciplines and should also be part of teaching exams. In subject-specific didactics, there ought to be a discussion of the potential and limits of coeducation, with consideration of the possible scope of gender-segregated lessons. Particular weight would be attached to the perception and analysis of communication and interaction within the class in order to detect discriminatory mechanisms and to rectify them. In order to be able to ensure training in this sense, the paper demands that equity must become an element of school culture and quality control in teacher-training facilities and that lecturers must also be made aware of the equity problem through appropriate in-service training. The subject would also need to be examined in depth in the context of research and development in teacher training (EDK/CDIP, 1996).

In the teacher-training facilities, initiatives have been taken to pursue the subject in various areas; this has often happened upon the insistence of individual female lecturers, individual male lectures (less frequently) or particular heightened-awareness groups. With the reform of teacher training in Switzerland and the setting up of the universities of applied educational sciences (HEPs/FHSs), the gender issue has become firmly anchored as an element in teacher training. Many of the individual gender questions are often processed in the context of more general modules on the subject of «heterogeneity». The universities of applied educational sciences have set up equity committees or appointed equity officers whose remit is to ensure that the subject becomes and remains an integral part of the institution's culture and its quality development. In the research and development activities that form an integral part of the universities of applied educational sciences, a number of projects have already been completed on this subject or the corresponding central themes have at least been fixed.

Groups with migration backgrounds

Political measures to improve equity in education for groups with migration backgrounds also need to be analysed distinctly for the federal and cantonal levels. Most of the measures launched by the Confederation concern the area for which it holds regulatory powers, namely vocational education. Cantonal measures may be categorised into those concerning primary, lower-secondary and the general-education part of upper-secondary education, on the one hand, and those that concern the implementation of federal recommendations concerning vocational education, on the other hand.

POLITICAL MEASURES AT FEDERAL LEVEL

Vocational education

Most of the information contained in this section about (both federal and cantonal) measures affecting the upper-secondary level has been taken from the expert report on «education and integration at upper-secondary level of young people whose first language is not a national language», which was produced for the Swiss Conference of Cantonal Ministers of Education (EDK/CDIP, 2000b).

The new federal law on vocational education, which came into force at the start of 2004, gives vocational education at federal level a clear new orientation, offering better opportunities for young people with a migration background. Standardisation of the foundation training for certain occupations means that, for some of the training blocks, apprentices spend 100% of their time at their vocational college. These «classroom» blocks are viewed as a positive opportunity for young people with a migration background, since it ought to be possible to rectify their linguistic and educational weaknesses more effectively through targeted measures than was possible in conventional training schemes in the past.

In 2000, the Swiss Federal Office of Vocational Training and Technology (BBT/OFFT) also drew up new guidelines for setting up so-called «bridging courses» (BBT/OFFT, 2000). These courses constitute interim programmes between the time spent in compulsory schooling and the commencement of upper-secondary education. They have existed in various forms for many years as means of facilitating the integration of young people whose first language is not one of the national languages who have only recently arrived in Switzerland and they are also, in particular, a reaction to the shortage of apprenticeship places. Since young people whose first language is not one of the national languages have particularly poor chances of securing an apprenticeship after completing lower-secondary school (cf. section II), many of them attend these courses. Organising and providing such bridging courses is a matter for the cantons.

POLITICAL MEASURES AT CANTONAL LEVEL

Vocational education

In providing bridging courses, the cantons invoke both the OFFT/BBT guidelines referred to above and the «recommendations on the schooling of children whose first language is not one of the national languages» issued by the Swiss Conference of Cantonal Ministers of Education (EDK/CDIP, 1991). These recommendations are predicated on the principle that «all children living in Switzerland whose first language is not one of the national languages are to be integrated in the publicly-run schools». All forms of discrimination are to be avoided. This integration is to respect the right of the child and to foster the language and culture of his or

her country of origin. In this respect, the cantons offer various general courses as well as specific courses for particular occupations.³⁷ The general courses give young people, especially those who immigrated at a later age, the opportunity of bringing their knowledge of the local language as well as their school and general education up to the level necessary to proceed to a vocational-training programme or to enter the world of work directly. These general courses tend to emphasise school subjects but also include other elements, such as practical experience in firms, sample apprenticeships, and so on, as well as intercultural topics, such as the behavioural norms expected in their new home. Bridging courses specific to given occupations give participants the chance to find out much more about one or several vocational apprenticeships. This type of course is predominantly practical, but includes language elements too. Language and support courses are also provided for young people whose first language is not one of Switzerland's national languages during their period of vocational apprenticeship or general education at upper-secondary level. In *lycées*, *Gymnasien* and similar establishments, special tuition of this nature is, however, very rare. For those in vocational education, such courses are generally offered by the vocational-training institutes. The arrangements vary considerably depending on the canton.

It is also possible for political measures to counter the lack of equity in training for young immigrants whose first language is not one of the national languages by attempting to work through didactics and teaching methodology. Switzerland's vocational colleges are required to follow a framework curriculum as far as the general-education element in their programme is concerned, i. e. they have to draw up their *own curriculum* on the basis of the framework. As far as integration and bridging courses are concerned, however, it is very seldom that curricula are drawn up with didactic particulars as regards targets, contents and procedures, although detailed conceptual descriptions do exist. There is a very broad range of varied *teaching resources* on offer for *language*, especially for the years of compulsory schooling. However, second-language teaching resources tailored to the needs of training for a particular occupation are rare. Moreover, the materials most widely used for teaching languages at upper-secondary level have been criticised because their contents contain virtually no reference to multi-culturalism and multi-lingualism. Intercultural knowledge for teachers is promoted through specific in-service training courses organised by several institutions at federal or cantonal level. Most of these courses, however, are targeted predominantly on teachers in charge of beginners' classes, classes catering for particular needs or language classes for pupils or students whose first language is not one of the national languages.

37 These bridging courses are not to be confused with courses accompanying vocational education programmes.

Compulsory schooling

Political recommendations and catalogues of measures for improving equity and integration of pupils whose first language is not one of the national languages have also been developed for the compulsory stages of schooling (i. e. the primary and lower-secondary levels). The lead in each case was taken by the Swiss Conference of Cantonal Ministers of Education. Its recommendations in this field (EDK/CDIP, 1991) have already been mentioned. In the same year (1991), the conference also issued a declaration on racism and school. The complementary report from its committee on pedagogy proposed measures addressed to various groups and institutions: cantonal authorities, teacher training, in-service training and counselling for teachers, school authorities, teachers' organisations and individual teachers themselves. The report stresses, for instance, that a basic foundation in intercultural education ought to be included in teacher training. The school authorities are urged to consider individuals belonging to other linguistic or cultural groups when deciding on recruitment and promotions. The teachers' organisations are recommended to encourage international teacher exchanges. However, there is no systematic monitoring of the effect of these recommendations.

Various cantonal projects considering the introduction of a separate «infants' level» are focused specifically on the start of school. These would create a single new level out of the normally two years of kindergarten and either the first two years of primary school (the so-called *Basisstufe*) or just the first year of primary school (the so-called *Grundstufe*). This proposal was given a thorough airing in 1997 in a report produced by the Swiss Conference of Cantonal Ministers of Education on the subject of «the education and upbringing of 4-to-8-year-old children in Switzerland». In 2000, that conference went on to issue its first recommendations on that subject. It calls on the cantons to work together in planning and implementing school-development projects. This led to the launch of a so-called joint development project with the involvement of all those cantons that are interested in introducing an infants' level. Since 2003, a coordination group has been concerned with a regular analysis and evaluation of the cantonal developments regarding the infants-level project. One part of the project is the setting of targets, which might be able to improve the equity chances of children with migration backgrounds. Some examples of what this might entail are the integration of the reduced-speed beginners' classes into the (three or four-year) infants' level, the formation of mixed-age learning groups, bringing down the age for starting the compulsory, publicly-run school system and greater flexibility in moving on to the next-higher class at primary level (Grossenbacher & Maradan, 2004). At the time of writing, 18 cantons are participating in developing this new model for starting school. In Canton Geneva a comprehensive infants' level has already been put into practice. The first two years («*école enfantine*») have not been made

compulsory, but 97% of children attend them. The learning targets and the assessment of pupils' achievements have been divided over two cycles of four years each. Canton Ticino offers a somewhat different structure: all children aged three to five have the right to attend an institutionalised day-care facility (and the vast majority of them do), and these coordinate their pedagogical work with that of the primary schools to follow (op. cit.).

There is one further contribution to the political sensitisation for educational equity which was launched by the Swiss Conference of Cantonal Ministers of Education in the wake of the 2000 PISA study. This specifically formulates measures for improving equity and language skills in Swiss schools. The conference's main concern is with compulsory schooling, but it repeatedly stresses that the recommendations are applicable for the upper-secondary level too. In addition to improving language skills for everyone, one further main focus is on language-learning support for young people from circumstances not really propitious to learning (EDK/CDIP, 2003). The following measures are targeted especially on pupils whose first language is not one of the national languages:

- Targeted language-improvement measures for those whose first language is not one of the national languages:
 - Specific language-support tuition to be offered at all levels (including upper-secondary).
 - Teaching resources for learning the local language as a second language to be developed (or further developed).
 - Teacher training (initial and advanced) to include not only first-language didactics but second-language didactics too.
- Making use of the first language of foreign-language children: these children's first language is to be encouraged by applying existing, well-tried means.
- Support for classes with a high proportion of young people from circumstances not propitious to learning: special resources to be made available to schools with a large proportion of such pupils (starting from the existing support models).
- Preparing teachers for cultural and social heterogeneity: initial training in interculturalism and social heterogeneity. Corresponding elements to be included as part of in-service training too.
- More intense cooperation with parents: parents and anyone else connected to the school in some way or other to be actively informed about school matters. Information material to be translated into the languages most commonly spoken by immigrants.

Further recommendations contained in the action plan concern pupils with migration backgrounds as well as those with low socio-economic backgrounds, such as improving equity of opportunity:

- appropriate, objective examination techniques to be introduced at the transition points which lead to the lower-secondary and the upper-secondary levels; selection to be made more dependent on measurable school achievements.
- processes underlying the selection decisions to be reviewed.
- guarantees of permeability between the various tracks at lower-secondary level.

Out-of-school care facilities have now also been integrated in the catalogue of measures adopted by the Swiss Conference of Cantonal Ministers of Education. The emphasis here is clearly on doing more to assist children and young people whose first language is not one of the national languages:

- Out-of-school care facilities to be set up and expanded: care centres, organised lunches, supervised homework, etc.
- Integration of young people from immigrant families: there is to be an expansion in the programme of local-language courses for children from immigrant families.
- More intensive cooperation with parents of other languages: courses in the standard version of the local language for parents whose first language is a different one to be organised in cooperation with the world of work.

As part of this action plan, the cantons are called on to check which of these measures they have already implemented and to set about ensuring the implementation of the others. The measures adopted by the individual cantons are, however, to be explicitly complemented by measures by the Swiss Conference of Cantonal Ministers of Education (given its role a nationwide body providing coordination for the whole of Switzerland) and by other partners in politics and business. Examples are:

- The Confederation's integration fund to be used to support language courses for adult immigrants.
- The Confederation and other public bodies concerned with immigration and social policy are to provide support through suitable measures for schools' endeavours to achieve integration.
- The world of work and the Swiss Federal Office of Vocational Training and Technology are to support efforts to improve the transition to upper-secondary level.

- Within the resources available to them, employers are also to support the setting up and expansion of pre-school and out-of-school child-care facilities.

The information service of the Swiss Conference of Cantonal Ministers of Education (IDES) has carried out a survey to establish whether the cantons have already reacted to these recommendations and, if so, how (EDK/CDIP, forthcoming). The survey wanted to know about promotional measures for pupils whose first language is not one of the national languages at the pre-school, primary-school and lower-secondary-school levels and also about the provision of special resources for schools with high proportions of such pupils as well as cantonal projects for the promotion and/or integration of such pupils. The following analysis is based on the evaluations of this survey (op. cit.). For the pre-school level, 22 cantons practise support measures for children with non-national first languages, and 25 do so for the primary level. The majority of these measures are in the form of courses to learn the language of tuition, i. e. German, French, Italian or Romansh. For immigrant pupils who have just arrived in Switzerland with no prior knowledge of the language of tuition, special courses (even full-time ones) are provided at primary level and these often take up several months. Many cantons provide homework assistance for pupils for whom the school language is foreign as well as courses in the language and culture of the pupils' original home and/or programmes in their first language. As far as the pre-school and primary levels are concerned, very few reliable figures exist as regards the extent of measures to assist pupils with a foreign language as their first one.

24 cantons report that they have support measures at lower-secondary level. Most of these measures are in the form of full-time beginners' classes and/or intensive language courses for immigrant children and teenagers who have just arrived in Switzerland as well as language courses occupying 2–4 lessons per week. Other measures include individual tuition and homework assistance and, in some cases, courses in the language and culture of the young person's original home may still be offered at this level.

Few figures are available regarding the proportions of pupils with a foreign language as their first one receiving support measures at lower-secondary level. It is to be assumed, however, that the overwhelming majority of children needing such support do have access to it in practice.

Over the past two years, 11 cantons have provided special resources for schools with high proportions of pupils whose first language is not one of the national languages: eight cantons report that they have created additional classes and lesson pools and/or have recruited additional teachers, whilst four cantons report the addition of special new elements to the programmes of in-service teacher training.

More than half the cantons have measures for the support and/or integration of pupils with a foreign language as their first one. These measures are primarily channelled through the schools and set out to enhance the schools' capacity for integration and the quality of multi-cultural schools. One example of such a project, which has already been running for several years, is presented below.

A project known as «QUIMS» (quality in multi-cultural schools) has been running in Canton Zurich since 1997. Its aim is to sustain the educational quality of schools with high proportions of children from families speaking foreign languages or homes not conducive to learning. As far as possible, all children should have the same opportunities for developing their school achievements, and high performance levels are to be made possible. At the time of writing, 21 schools satisfying the above-mentioned criteria are participating in the project. The main emphases at present are language support, measures to encourage learning and achievement and cooperation with parents. The method is comprised of modules and sub-modules, which the schools can work through according to a predefined programme. A manual focusing on practicalities accompanies the modules and sub-modules, and there are a number of other publications too. The experience accumulated thanks to this project has been through a process of structured evaluation (www.quims.ch, German only).

Groups from disadvantaged socio-economic backgrounds

For a long time, an individual's socio-economic background was not considered in Swiss educational policy as being of primary relevance for equity. There are no recommendations from any of the central federal offices or from the Swiss Conference of Cantonal Ministers of Education on this subject. This contrasts strongly with gender equity and the integration of immigrant offspring, which have been repeatedly placed on the political agenda in Switzerland. Since publication of the first PISA study, however, there has been a growing awareness of the problems affecting groups from disadvantaged socio-economic backgrounds. One reaction to this has been the action plan adopted by the Swiss Conference of Cantonal Ministers of Education (see above), which proposes a number of measures aimed at assisting pupils from disadvantaged socio-economic backgrounds. The measures concerned here are those explained above, plus some others for improving equity for all pupils entering the learning process from unpropitious circumstances (primarily children whose first language is not a national language, children from disadvantaged socio-economic backgrounds and those suffering multiple disadvantages). The survey of the implementation of these recommendations did not, however, ask specifically about measures to arrive at greater equity for pupils from disadvantaged socio-economic backgrounds.

Back in 1980, a provision governing adult education was introduced for the whole of Switzerland and it is worth mentioning it here in the equity context. The federal legislation on vocational education offers the possibility for adults to obtain a qualification equivalent to a teenage diploma following an apprenticeship that they failed to obtain in their younger years.³⁸ One of the purposes of this measure is to improve the socio-economic situation of working adults with no formal vocational qualification. Unskilled and semi-skilled employees with many years of occupational experience can make use of this offering to pass an exam giving them the vocational qualification through the route of adult learning. An evaluation of the effect of this measure has shown that those who manage to complete it are very happy with it, but that the real target group makes hardly any use of it at all. Most of those going through this form of adult training are setting out to change their occupation or to give themselves the foundation for moving on to a higher qualification. Although the proportion of immigrants amongst those with no post-compulsory education is very high, very few of them make up for missed vocational qualifications in their adult years (Schröder-Naef & Jörg-Fromm, 2004). The authors report on various barriers which make it difficult for individuals with no post-compulsory education to make use of the opportunity offered:

- Unskilled employees are often assigned to activities which only cover a part of their trade and so are not able to acquire the necessary occupational practice;
- In many cantons there are no preparatory courses, and, in some of the cantons and occupations, the existing preparatory courses are expensive;
- Prospective participants receive no support from their employer, their regional labour exchange or the compulsory nationwide invalidity-insurance scheme;
- Participation means a big burden on time.

It is rare to find cantonal projects targeted specifically on assisting children and adults from disadvantaged socio-economic backgrounds. Some experience has, however, been gathered thanks to a project run in the canton of Geneva, and this is presented briefly below.

38 With the introduction of the new federal law on vocational education (January 2004), there is now a lack of clarity as to how adults are to accede to a vocational qualification. The new law still permits the previously existing procedure but opens up other ways of obtaining a vocational qualification, (such as through credits from modules). However, depending on circumstances, the provision of information regarding the various possibilities could become more complicated (Schröder-Naef & Jörg-Fromm, 2004).

Since 1997, the canton of Geneva has been trying out a new measure aimed at increasing the participation in *adult education* of individuals from disadvantaged socio-economic backgrounds. The project has been given the French name of «Chèque annuel de formation» or CAF (roughly: «annual training voucher»). Individuals whose earnings fall below a set ceiling receive an annual sum up to a maximum of 750 Swiss francs if they attend a further-education programme. Although the aim of the project is to reach those who would not otherwise participate in further training, most of the CAF participants are already well qualified and fully trained. So far, it has not been possible to find out whether this form of payment has motivated individuals to go in for further training who would not have done so without a financial incentive (Wolter et al., 2003).

Non-educational policies that affect outcomes in the education sector

In Switzerland, the interplay between the protagonists of educational policy and those active in other policy fields is increasingly coming to be regarded as important, especially where equity is at stake. However, there are still very few tangible examples of such forms of cooperation. The comments in this chapter are thus to be taken as no more than illustrations of this relatively young process.

Immigration policy

It would be wrong to underestimate the influence that Switzerland's immigration policy has on equity in education. In deciding on whether or not to admit immigrants up until 1998, Switzerland relied on a model of three concentric circles. The innermost circle concerned recruitment of people from the countries of the European Union and EFTA, for whom the labour-market and residence restrictions have been eased in stages. The middle circle included countries that were members of neither the European Union nor EFTA but which were allowed to assume the function of traditional recruitment territories (such as the USA and Canada); highly qualified workers from these countries were allowed access to Switzerland under relaxed conditions. The outer circle included all other countries, whose nationals would only be granted residence and work permits in exceptional circumstances (BIGA, Swiss Federal Office for Industry and Labour; BFA, Swiss Federal Aliens Office, 1991). On 1 November 1998, this model was replaced with a two-circle recruitment system. The only remaining distinction is between individuals from the countries of the European Union and EFTA and all the rest. The new model is leading to a restrictive admissions policy towards specialised and qualified workers from non-EU countries. The increase in the immigration of highly-qualified individuals from the countries of western and northern Europe is to be seen in the light of this shift

in immigration policy. Despite this, it must still go on record that the majority of foreign workers in Switzerland are still relatively poorly educated and belong to the groups with disadvantaged socio-economic backgrounds. According to recent findings (Wanner, 2004), most such immigrants live in family homes, whereas the proportion of immigrants from western and northern Europe who live alone is relatively high. This means that, in future, the Swiss education system is going to have to continue to contend with a high proportion of immigrant children and teenagers from disadvantaged socio-economic family backgrounds, whose home is not conducive to learning.

The question as to the age ceiling for children to be permitted to follow their immigrant parents to Switzerland is currently the subject of a debate, which is receiving inputs from protagonists in the fields of both immigration and education policy. In the aftermath of the PISA study, in particular, there has been a more intensive discussion on the issue between the Swiss Federal Office of Immigration, Integration and Emigration (IMES) and the Swiss Conference of Cantonal Ministers of Education.

Housing policy

In Switzerland, there is no generalised freedom of choice as regards which primary school a child is to attend; children are assigned to the school nearest to where they live. The social composition of a neighbourhood or a commune is thus bound to affect that of the school. The dynamics of this situation have a particular impact on those schools that are near to «council flats», i. e. flats with low rents provided by the commune or municipality to those in disadvantaged socio-economic positions. It has long been the practice in Switzerland to design whole blocks of flats for the provision of such low-cost rented accommodation, and one observable consequence of this is that it may lead to concentrations of individuals and families with a low socio-economic status, and often with a migration background too, living in the catchment areas of certain schools. This may produce many different effects. It has been observed, for instance, that the overall attractiveness of such neighbourhoods and communes declines, and that even «normal» flats no longer have families of a better socio-economic status moving into them, but largely families who have no other choice (often immigrant ones). The PISA study has clearly made the point that the school achievements of immigrant children, in particular, may be adversely affected by concentrations of those from similar circumstances in the same school (see section II). The disadvantages faced by immigrant children in embarking upon the school-learning process may thus, in certain circumstances, be made worse still.

Since the danger of real ghettos coming into being has been recognised, projects have been launched in recent years, especially in Switzerland's bigger cities, aimed at bringing about a

better social mix in such neighbourhoods. This situation makes it increasingly important for the fields of housing and education policy to work closely together.

Fiscal policy

It is also possible for fiscal policy to affect the social composition of a commune. Part of the income tax payable in Switzerland is fixed by the communes, and they impose vastly differing rates on their residents. So those people who are in a position to choose where they want to live do so according to this criterion, and those who have a good socio-economic position, in particular, opt to reside in those communes where they have the lowest taxes to pay. This triggers off a dynamic process, which has been observed to lead to real social segregation. It seems reasonable to assume that school concentrations of children from homes with a high social status will have an effect on the achievements of certain pupils.

Social segregation and, linked to it, the advantages or disadvantages of certain schools, constitutes an important topic for education policy, which must be tackled jointly with other policy fields. To date, however, there are very few scientific analyses of this theme which might form suitable bases for such joint projects.

Conclusions

This report looks into equity in education in Switzerland. It begins by describing dimensions that can be applied for assessing equity or the lack thereof, goes on to analyse the known or assumed reasons for them and finally elucidates policy measures by means of which Switzerland is trying to move nearer to the equity goal.

The report is restricted to three main dimensions in the characterisation of equity, which are defined along lines of gender, nationality and socio-economic origin. A complete separation of these three dimensions is not always without its problems, since a combination in one human being of more than one of the characteristics causing disadvantages might impair his or her chances of experiencing equity. This interlinkage of factors is bound to influence any research into causes, since such research often does not manage to analyse each influence separately or to bring out what additional problems arise for those affected through combinations of multiple disadvantages.

Having established such social characteristics, which is the focus of the preceding analysis of the equity situation, the documented research findings are presented along the chronology of an educational career. The aim of this part of the exercise is to pick out those points in such a career where equity problems are observed with particularly high frequencies. From this, it

emerges, firstly, that the problematical points do not necessarily have to be the same for all the social groups included in the study and, secondly (and perhaps not very surprisingly), that these focal points are particularly concentrated at the transitions between the various levels of education, i. e. in those phases of an individual's educational career when he or she moves from one type or stage of education to another.

Even just the purely descriptive presentation of the lack of equity confronting particular groups or individuals (along the lines of the characteristics described) brings out fairly clearly at particular points along the educational career that evidence of lack of equity is to be found along the lines of gender and national origin but not along the dimension of socio-economic origin. One of the explanations for this is that the statistical information on socio-economic origin (as opposed to that for the two other distinguishing types) is more frequently not available. Another explanation is that, even where this information might potentially exist, the two other criteria are regarded as priorities – even exclusive priorities. Although there are pointers to suggest that socio-economic factors might play just as big a role in educational equity as gender or nationality, the question of the family's economic standing has rarely been looked into as a determinant in the children's educational success. This also explains why the findings produced from research into causes are few and far between, since research has concentrated on those factors which already appeared to be in the foreground from the purely statistical and descriptive view.

Simplifying the situation, the description of the equity dimensions in the education system in Switzerland brings out three conclusions. Firstly, it is clear that there are equity problems in relation to all three of the characteristics surveyed. Secondly, the point must be made that equity problems are liable to occur at practically all stages in the education system (i. e. throughout the whole of an individual's educational career). Thirdly, taking just the strong way in which inequity manifests itself suggests that it is a problem that must be taken seriously and, furthermore, that it is one that is still not resolved, despite (at least partial) efforts towards that end. At a time when education itself is more and more becoming a crucial factor for an individual's social and economic success throughout life, lack of equity in access to education is, of course, becoming increasingly important for those affected. The exclusion of social groups from education produces social consequences too, but this particular report is, however, not able to delve any further into them.

That part of this report which is dedicated to research into the causes makes extensive use of the literature in trying to find explanations along the potential barriers to equity (economic, motivational, institutional and socio-cultural) as to why it should be that bigger or smaller

equity violations are observed at particular points in an educational career. That there is often no literature at all on socio-economic origins is a point made in the body of the report. This circumstance has consequences for assessing the importance of economic barriers. Generally speaking, however, it can be shown that it is not just one of the barriers named acting alone that can be considered responsible for the observed equity shortcomings but that, as a rule, it is the simultaneous effects of various barriers encountered at the same point in time in the educational career that may lead to one social group being placed at a disadvantage relative to others. Even if the research base is not adequate for all of these points, especially for clarifying the question of the causal effect of barriers on the behaviour of individuals or institutions, it does paint a multi-faceted equity picture, which logically triggers a very broad range of policy countermeasures.

In the summary description of the policy measures and initiatives for attaining equity towards the end of the report, two points emerge clearly:

Firstly (and independently of the problem that it is difficult in a country with a federal organisation to maintain a complete overview of all the policy measures and strategies), no real political concept of equity seems to exist. What seems to come nearest to being able to stake such a claim is the gender mainstreaming, which not only has a bearing on many facets of life but also systematically tests political actions or situations for their gender-related ramifications.

Secondly (as a consequence of the [persistent] lack of a global concept for an equity policy), observations show policy interventions to be piecemeal rather than strategically guided, which, in turn, means that there are many areas in which there is no political intervention. Alongside this (and perhaps no less decisive), the absence of an overall strategy increases the risk that policy measures adopted in fields other than education (where some aspects of social or fiscal policy could be instanced) produce negative impacts on equity in the education system, almost as by-products, without there being a sufficient awareness of such dynamic knock-on effects.

As a final remark, it seems likely that, if there were to be a more conscious social and political articulation of the goals and values of equity in the education system, that would create a situation in which there would be a more systematic check of their attainment, in which the causes of dysfunctions were more fully explained, and in which a better foundation could be laid for a more effective policy for attaining equity throughout the education system.

Glossary and list of acronyms

BBT/OFFT Swiss Federal Office of Vocational Training and Technology

BBW/OFES Swiss Federal Office of Education and Science (FOES)

BFS/OFS Swiss Federal Statistical Office (FSO)

EDK/CDIP Swiss Conference of Cantonal Ministers of Education

SBBK/CSFP Swiss Conference of Departments of Vocational Training

IEA Reading Literacy Study: This study was carried out in 1991 by the International Association for the Evaluation of Educational Achievement (IEA) with the aim of appraising the reading literacy of schoolchildren in the 9–14 age bracket and of comparing this on an international basis. Switzerland participated in this study, and all its cantons were involved.

International Adult Literacy Survey (IALS): The IALS was carried out in 1994 under the leadership of the OECD and Statistics Canada. Its aim was to arrive at an international comparison of the reading and arithmetical skills of the active population. In Switzerland, the German and French-speaking regions joined in the study; the Italian speaking regions were included in a later round.

Programme for International Student Assessment (PISA): PISA is a decentralised project set up by the OECD. It provides a framework for the organisation's members (and a number of non-member states) to perform regular assessments of the achievements of schoolchildren aged 15. Measurements are made in three-yearly cycles, and the main emphasis rotates round three different disciplines (reading, mathematics and natural sciences). The first PISA study was run in 2000, Switzerland participated, and all its cantons were involved.

Transition from Education to Employment (TREE): TREE is a longitudinal follow-up study to PISA 2000 being carried out in Switzerland. Its aim is to find out how young people cope with the transition from the period of compulsory schooling into post-compulsory education and to establish what difficulties they encounter in the process. Up until at least 2007, TREE is going to be following up approximately 5000 young people who completed their compulsory schooling in 2000. The participants were chosen so as to constitute a sample that would be representative of both the country as a whole and of its three main language regions (those speaking German, French and Italian). At the time of writing, data is available for the years 2001 and 2002.

Third International Mathematics and Science Study (TIMSS): TIMSS was carried out in 1995 by the International Association for the Evaluation of Educational Achievement (IEA). Switzerland participated in the following comparisons of school performances at lower-secondary level and in the final upper-secondary year:

- comparison of achievements in mathematics and natural sciences at lower-secondary level,
- comparison of basic knowledge of mathematics and the natural sciences in the final upper-secondary year,
- comparison of achievements in mathematics and physics of students at lycées, Gymnasien or equivalent establishments in their final upper-secondary year.

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