

chapter 1

DIVERSITY, INCLUSION AND EQUITY: INSIGHTS FROM SPECIAL NEEDS PROVISION

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SUMMARY

OECD countries are committed to ensuring that their education systems are equitable for all students, which requires them to provide for groups with diverse needs. An important part of this task is to structure programmes for students with disabilities, difficulties, and disadvantages in a way that respects and protects these groups' rights. This does not have clear-cut implications for the distribution of resources, since for many disabled students, for example, no amount of resources could produce outcomes equal to those of their non-disabled peers. Thus while this chapter provides an extensive international analysis of the allocation of resources to various groups (including by gender and age), these are indicators of the extent to which countries engage in a process of pursuing equity, rather than measuring progress towards an objective, well-defined standard.

What we can do, however, is to identify some key conditions that allow this process to be taken forward. The first is to recognise and plan for diversity. An indicator of whether this occurs is how many students attend special schools: this varies greatly across countries, and where it is high, this is a sign of mainstream schools' failure to accommodate diverse needs. Among a range of other conditions identified in the later part of this chapter, some relate to what is going on inside the school system, such as staff development and co-operation among schools, while others cover external relationships such as accountability and community involvement. The different national approaches documented in this chapter open up important questions about what works best for different types of students. Reforms in OECD countries are allowing understanding to accumulate on how best to address these issues, yet much remains to be done.

1. INTRODUCTION¹

Creating equitable provision for diverse student populations is a key feature of education policy in OECD countries. At the centre of this challenge lies the goal of inclusion, leading ultimately to improved social cohesion. Education systems are expected to play their part in these social aspirations and countries have initiated a range of approaches intended to contribute to them. In this regard Education Ministers have asked the OECD to:

“Review how education and training systems can increase their capacity to include all learners and to achieve equitable outcomes for all, while meeting the increasing diversity of learners’ needs, maintaining cultural diversity and improving quality.” (OECD, 2001a, p.5)

This chapter is intended to contribute to this task by drawing on international data and experience based on programmes for students with disabilities, difficulties, and disadvantages. As well as documenting the wide variety of country approaches, it makes two main arguments: (i) a “rights-based” conception of equity implies that, wherever possible, these students should be educated in regular, mainstream schools rather than in separate institutions; and (ii) the various national approaches to including students with disabilities in regular schools provide useful lessons for the wider debates about educational diversity and equity. In the main, these innovations are “systemic” enough in their own right to be generalisable to other students, *e.g.* those at risk from disadvantaged backgrounds, and those who would benefit from more individualised teaching and learning.

The chapter commences by examining, in Section 2, the concept of a rights-based approach to assisting children with special education needs. Section 3 then provides a cross-national overview of the forms in which countries allocate additional resources for students with disabilities, learning difficulties and disadvantages. This is a difficult area in which to compile comprehensive and internationally comparable indicators, and the discussion draws on the latest results from the OECD’s on-going collaboration with national authorities. In Section 4, evidence from a series of case studies and the wider research literature is used to identify key ingredients in making more

inclusive approaches to education work. The main conclusions are summarised in Section 5, along with priorities for future work.

2. EQUITY AND INCLUSION

Meeting the educational needs of students is part of the development of equitable provision in an inclusive society where individual rights are recognised and protected. The *United Nations Charter on the Rights of the Child*, for instance, states that all children have a right to education and as a consequence the right to make progress. Failure to provide education and create the conditions for individual progress may be seen as a denial of a child’s rights. Such thinking underlies the approaches to individual education planning for students with disabilities based on human rights legislation in the United States, for example. The call by Sen (1992) for efforts to ensure that people have equal access to basic capabilities such as the ability to be healthy, well-fed, housed, integrated into the community, participate in community and public life and enjoy self-respect has similarities to the rights-based approach of the UN Charter. Denial of these rights or capabilities with regard to children can be seen as a precursor of social exclusion (Evans *et al.*, 2002).

There are many discussions in the literature on the concept of equity (see Hutmacher *et al.*, 2001). There are four basic interpretations of equity which can be applied to educational policy and practice. Demeuse *et al.* (2001), based on OECD (1993):

- Equity of access or equality of opportunity: Do all individuals (or groups of individuals) have the same chance of progressing to a particular level in the education system?
- Equity in terms of learning environment or equality of means: Do all individuals enjoy equivalent learning conditions? This question is generally taken to mean: Do disadvantaged individuals or groups benefit from a learning environment equivalent to advantaged individuals or groups in terms of the level of training of their teachers

1. The work reported in this chapter would not have been possible without support from the United States Department of Education, Office of Special Education and Rehabilitative Services.

and other staff, and the quantity and quality of teaching resources and approaches?

- Equity in production or equality of achievement (or results): Do students all master, with the same degree of expertise, skills or knowledge designated as goals of the education system? Most particularly, do individuals from different backgrounds achieve, over the period of education or training, equivalent outcomes? Do all individuals have the same chance of earning the same qualifications when they leave, and can they do so, independent of their circumstances of origin? This concern about equality in achievement is founded on an ideal of corrective justice (Crahay, 2000) and is inevitably accompanied by a desire to narrow the gap between high and low performers from the start to the end of their programme of education (Bressoux, 1993).
- Equity in using the results of education: Once they have left the education system, do individuals or groups of individuals have the same chances of using their acquired knowledge and skills in employment and wider community life?

Rawls (1971) in his *Theory of Justice* argued that to achieve society's equity goals institutions should be biased in favour of the disadvantaged in terms of resource allocation. Brighouse (2000) takes up this issue from the point of view of disabled students. He points out that for many disabled students no amount of additional resources will assist them to achieve the same level of performance as many non-disabled peers. From this perspective it would clearly be inequitable to give all of an education system's resources to disabled students at the expense of the more able. However, some additional resources are required, *e.g.* signing interpretation for deaf students to help them access the curriculum. Thus, when taking account of the whole population of students, the question is how to decide the extent of the available resources that should be provided for students with disabilities.

From the point of view of thinking of equity as achieving similar outcomes or reducing the variance of performance across the student population, considering students with disabilities presents a similar challenge: the question is what degree of variance in outcomes is accept-

able. A rights-based approach can to some extent side-step this issue since from this perspective all children should be making progress and the problem becomes how to assess individual rate of progress across the curriculum in a way which can constructively promote learning, in contrast to a single group-based outcome measure. From this viewpoint variance in rate of progress might be a better indicator of the extent to which educational equity is being achieved.

Countries aim to meet these conditions by providing additional resources to assist students with the most difficulties. This may be seen as an application of positive discrimination under Rawls' model of social justice. His "difference principle" (Rawls, 1971) argued for institutions to be structured with a built-in bias in favour of the disadvantaged. It is now widely accepted that the education of disabled students could not be achieved without additional resources being made available for them if they are to access the curriculum on anything like an equal basis with non-disabled students. Disabled students need additional resources to be able to profit, as other students do, from "the benefits that education provides opportunities for" (Brighouse, 2000).

These arguments suggest that one way to start an investigation of equity for students with various forms of learning difficulty is through analysing the additional resources supplied to meet their needs. This approach has a number of advantages, especially in developing a method open to making valid international comparisons. First, it makes no strong prior assumptions about the national approach used to gather information on students with difficulties, focusing instead on the criterion that additional resources are provided for some categories of students. Thus the approach can include those with disabilities, those with learning difficulties or those with disadvantages. This is important, since countries have developed very different conceptual frameworks applying to such students, and as a consequence they use different models for defining and assessing their needs (see OECD, 2000, 2003). Second, resources and their distribution are important in educational policy making, and drawing together international data on resource allocation can help raise questions about priorities and the effectiveness of different forms of educational provision.

Box 1.1 Development of international indicators on students with disabilities, learning difficulties and disadvantages

The data presented in this chapter are part of an on-going collaboration with participating member countries that started in 1996 to develop comparative data on students with disabilities, learning difficulties and disadvantages. The task is made especially complicated because of the different conceptual frameworks and definitions relating to such students that exist across countries. A significant aspect of the collaboration is a continual process of refinement of data quality and quantity, checking and consultation. Countries are using the process to improve their national data collections to fill gaps and ensure greater consistency and clarity in definitions and coverage.

The approach to data collection that is agreed with the countries is to bring together national data sets which apply to students in schools who are receiving additional resources to help them access the curriculum. Data are collected from countries in as disaggregated a form as possible and then grouped into broad categories based on explicit definitions and agreement among the countries. Countries provided the data in a form that removed double-counting if students were in more than one type of programme. Details of the methodology and classifications are provided in OECD (2000, 2003). The full data set is provided on the OECD website so that other researchers can analyse the data and assess the implications of grouping them in different ways.

The data in this chapter focus mainly on the compulsory years of schooling, which is typically from around age 6-16 in most countries. The pre-school, upper secondary and tertiary levels are also very important for students with disabilities, learning difficulties and disadvantages, but generally there are fewer data available for those sectors.

Data are presented for those OECD countries and in the case of Canada, provinces, for which relevant data are available. If a country or province is not mentioned this does not mean that it does not provide additional resources for such students. It simply means that data are not available on the indicators concerned in an internationally comparable form. The data focus on 1999 and are the most recently available that have been through the verification process. They are a selection from a much more extensive set of information which is available in OECD (2003). More recent developments in national programmes and classification systems will be progressively verified for international comparative purposes and included in future OECD publications.

3. INTERNATIONAL DATA ON SPECIAL NEEDS PROVISION

The OECD has been working with national authorities since 1996 to develop internationally comparable data on students with disabilities, learning difficulties and disadvantages. A full account of the methodology and results is provided in OECD (2000, 2003). Box 1.1 summarises the processes involved and the current status of the work. In broad terms, countries have been asked to provide data on all students for whom additional resources are made available. The data have been disaggregated into three cross-national categories covering

students with defined disabilities, difficulties and disadvantages.² These are referred to as cross-national categories “A”, “B” and “C”, respectively. National representatives made this disaggregation, and the results were discussed and agreed at international meetings.

2. The Appendix to this chapter summarises the allocation of national categories to the three cross-national categories A, B, and C and provides their definitions as they appear in the Instruction Manual for data gathering and classification. OECD (2000) and OECD (2003) provide further details of the differences among the categories.

One outcome of this procedure is summarised in the Appendix, which classifies the programmes through which countries indicated they provide additional resources for specified groups of students. The Appendix provides some indication of the complexity of the task. The number of categories used varies widely from country to country, as do their national labels. The Appendix also shows the classification of students in receipt of additional resources in the three broad cross-national categories of disabilities, difficulties and disadvantages. Those in the “disabilities” category have clear organic bases for their difficulties. Those in the “difficulties” category have learning and behaviour difficulties which do not appear to be due to either a clear organic basis or social disadvantage. Those in the “disadvantages” category receive additional educational resources due to aspects of their social and/or language background.

Countries also provided information on the place of education for those in receipt of additional resources (special schools, special classes in regular schools, and regular classes), the gender composition of students, and aspects of schools

and staffing. In addition they provided some qualitative material on legal frameworks and facilitators and barriers to inclusion and equity. In all, a very extensive set of information has been compiled to date, and only some of the indicators are presented in this chapter.

3.1 Students with disabilities

Figure 1.1 shows the variation in the proportion of students receiving additional resources for disabilities in compulsory education (cross-national category A). Among the 16 countries concerned the proportion ranges from 0.6% in Mexico to 4.6% in the United States. The median value is 2.1%, and the inter-quartile range is from 1.6% to 3.1%.

These differences in proportions are not easy to interpret. As can be seen from the Appendix, countries differ substantially in both the number and type of programmes included in the disabilities category. Since it is unlikely that the “organic” bases of disability differ greatly among countries, it seems most likely that the different proportions in Figure 1.1 reflect national differences in the conceptualisation of disability, identification

Figure 1.1 Students in compulsory education receiving additional resources for defined disabilities, as a percentage of all students in compulsory education, 1999



Note: For France, students in Ministry of Health programmes have been added to the data provided by the Ministry of Education. This probably slightly inflates the percentage for France relative to other countries that did not provide data on students with disabilities outside the education system.

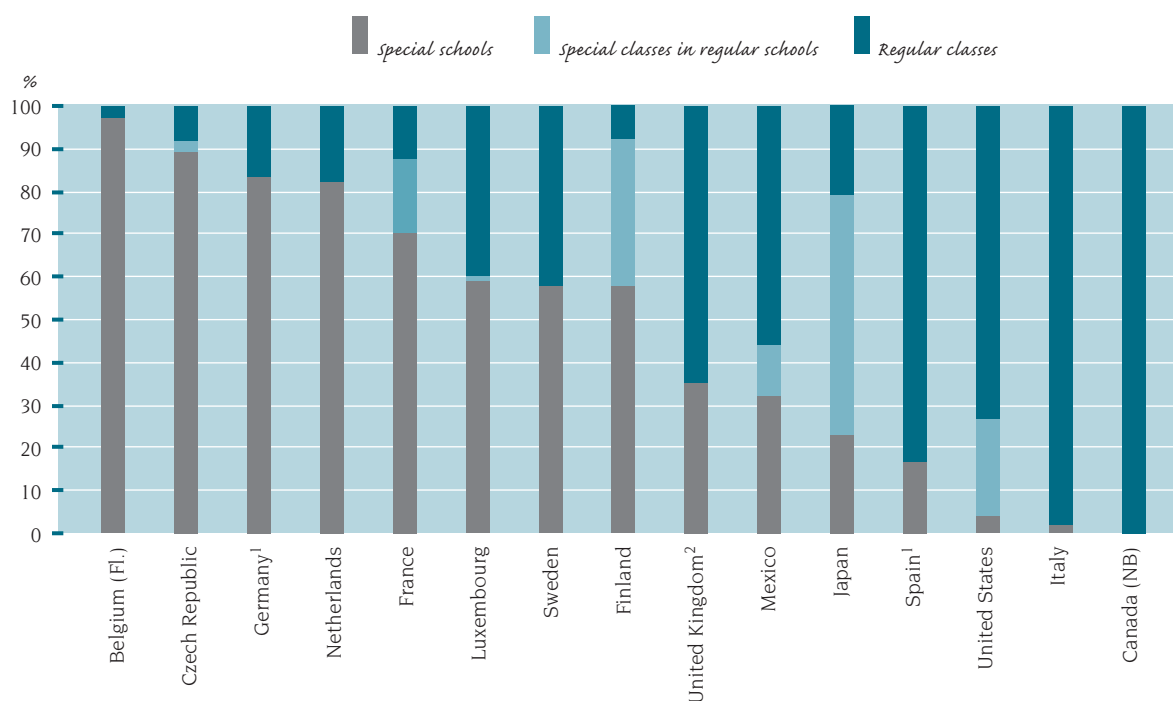
Source: Based on the classifications (category A) in the Appendix. For further details see OECD (2003).

procedures, educational practices, comprehensiveness of provision, and policy priorities. Such variation suggests that there are differences between countries in the ways in which they try to overcome the effects of disabilities, and this could in principle have an impact on the outcomes for different types of students.

Figure 1.2 shows where students with disabilities who are in receipt of additional resources are being educated – special schools, special classes in regular schools, or regular classes. What is immediately clear is that some countries, *e.g.* Spain, the United States, Italy and Canada (New Brunswick) make extensive use of regular classes while others prefer to use special schools, *e.g.* Belgium (Flemish Community), the Czech Republic, Germany and the Netherlands. Some countries make extensive use of special classes in regular schools, *e.g.* France, Finland and Japan.

There is not a clear statistical relationship between proportions identified in Figure 1.1, and the use of one or other of the school locations recorded in Figure 1.2. For example, it could be expected that countries with a relatively high proportion of students in the disabilities category may make relatively extensive use of regular classes since presumably the programmes of such countries would encompass more students with relatively “mild” disabilities. However, the data indicate that this is not the case. Differences will certainly reflect different national policies concerning inclusion, which may in themselves be influenced by features of regular schools and their curriculum, and the training and attitudes of teachers which may facilitate or obstruct inclusion. In addition, there may be features of special schools which are viewed by parents and educators as desirable. It is clear, however, that the same type of disabled students may be included in regular classes in

Figure 1.2 Percentages of students in compulsory education receiving additional resources for defined disabilities, by location, 1999



1. Students in special classes are included in special schools.

2. Students in special classes are included in regular classes.

Source: Based on the classifications (category A) in the Appendix. For further details see OECD (2003).

Data for Figure 1.2, p. 35.

one country, but in a special school in another. The substantial differences between countries in both the proportion of students who receive additional resources, and the location of their education, raise questions about potentially differential impacts on outcomes for individual students.

Gender differences among students with disabilities

Gender differences are especially notable for students with disabilities, as Table 1.1 shows. For almost all countries there is a male to female ratio of about 60 to 40. As is discussed later when data on age are presented, the preponderance of males among students classified as having disabilities is evident at all ages, and if anything the proportion of males tends to rise with age (*e.g.* in the Netherlands).

In all the countries for which data in cross-national category A are available, there are more males than females in programmes providing additional resources for defined disabilities, and more boys find themselves in some form of special provision (special schools, special classes or with extra

help in regular classes) than do girls. Some of the possible reasons for these gender differences are discussed later in the chapter.

3.2 Students with learning difficulties

Figure 1.3 shows the number of students receiving additional resources within the period of compulsory education who are considered to fall into the “difficulties” category for countries able to supply data (cross-national category B). Those countries that have no national categories falling into this classification are included in the chart and entered as a “zero”. The median proportion of students in the defined difficulties category is 2.3% and the inter-quartile range from 0.3% to 7.5% shows an amount of variability far in excess of that found in the corresponding data for students in the disabilities category (1.6% to 3.1%). If the analysis is limited to those countries with programmes in the difficulties category, data are available from 12 countries. They provide a median percentage of 5.9% and inter-quartile range from 1.8% to 8.8%. Several countries have particularly high proportions of students receiving additional

Table 1.1 Gender and disability: proportion of students in compulsory education receiving additional resources for defined disabilities who are male, by location, 1999 (%)

| | Special schools | Special classes in regular schools | Regular classes |
|------------------------|-----------------|------------------------------------|-----------------|
| Canada (Alberta) | a | a | 61 |
| Canada (New Brunswick) | a | a | 66 |
| Canada (Saskatchewan) | a | a | 61 |
| Czech Republic | 60 | 52 | 60 |
| Finland | 65 | 67 | 66 |
| Germany | 62 | x | m |
| Italy | 63 | 60 | m |
| Luxembourg | 61 | 87 | 65 |
| Mexico | 59 | 63 | 61 |
| Netherlands | 68 | m | m |
| Poland | 53 | m | m |
| Spain | 61 | x | 62 |
| Sweden | 59 | m | 56 |
| Switzerland | 65 | a | a |
| Turkey | 65 | 62 | m |
| United Kingdom | 68 | x | 68 |

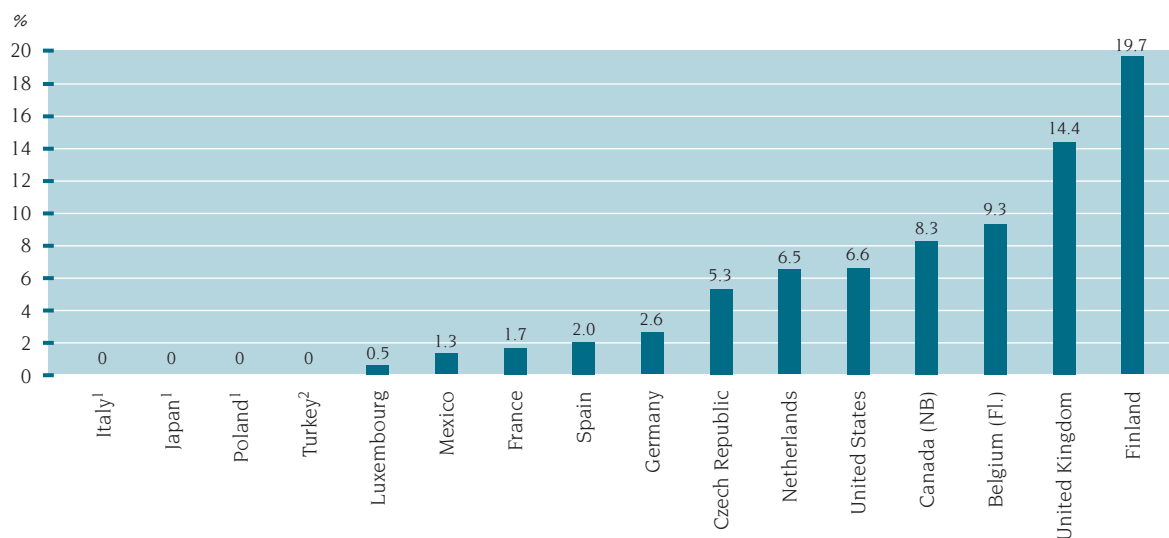
a: Data not applicable because the category does not apply.

m: Data not available.

x: Data included in another column: in Germany and Spain the data are included in the special schools column; in the United Kingdom the data are included in the regular classes column.

Source: Based on the classifications (category A) in the Appendix. For further details see OECD (2003).

Figure 1.3 Students in compulsory education receiving additional resources for defined difficulties, as a percentage of all students in compulsory education, 1999



1. No national categories falling within the cross-national category of defined difficulties.

2. In Turkey, the only national category falling within the cross-national category of defined difficulties is "Gifted and talented", which has been excluded from the analysis.

Source: Based on the classifications (category B) in the Appendix. For further details see OECD (2003).

resources for defined learning difficulties: Canada (New Brunswick) (8.3%), Belgium (Flemish Community) (9.3%), the United Kingdom (14.4%), and Finland (19.7%). In general, it appears that when such categories are recognised in national systems the numbers of students receiving additional resources are considerable.

Compared with disabled students, those with defined learning difficulties are much more likely to receive their education in regular schools. Figure 1.4 shows the distribution of students by location for 12 countries which could provide the data. In Germany the majority of these students are in special schools, and all are in special classes in France. The Netherlands uses these two forms of provision more or less equally. In the other countries regular school provision is the most common pattern, and although there may be use of special classes in regular schools, the data often do not allow this breakdown to be made.

Gender differences among students with learning difficulties

Table 1.2 gives gender ratios for students with defined difficulties (cross-national category B) classified by location of programme. As was the case

for students with disabilities, there are more males in such programmes than females: the percentage of males is typically between 60% and 70%.

3.3 Students with disadvantages

Figure 1.5 shows the proportion of students receiving additional resources within compulsory education who are considered to fall within the "disadvantages" classification (cross-national category C) for different countries. Countries with no students included in this category are entered as a zero. The median for category C students as a percentage of all students in compulsory education is 0.3%. The inter-quartile range is from zero to 4.5%. This median percentage is substantially lower than that for students with disabilities and difficulties (2.1% and 2.3% respectively). Limiting the analysis to those nine countries with data on programmes providing additional resources falling within cross-national category C, the median percentage is 1.0% and the inter-quartile range is from 0.2% to 8.7%. These figures, with particularly high values for France (11.1%) and the Netherlands (16.5%), indicate that when categories of students with defined disadvantages are included in national systems the numbers of students receiving additional resources are considerable.

Figure 1.4 Percentages of students in compulsory education receiving additional resources for defined difficulties, by location, 1999



1. Students in special classes are included in special schools.

2. Students in special classes are included in regular classes.

Source: Based on the classifications (category B) in the Appendix. For further details see OECD (2003).

Data for Figure 1.4, p. 35.

Table 1.2 Gender and learning difficulties: proportion of students in compulsory education receiving additional resources for defined difficulties who are male, by location, 1999 (%)

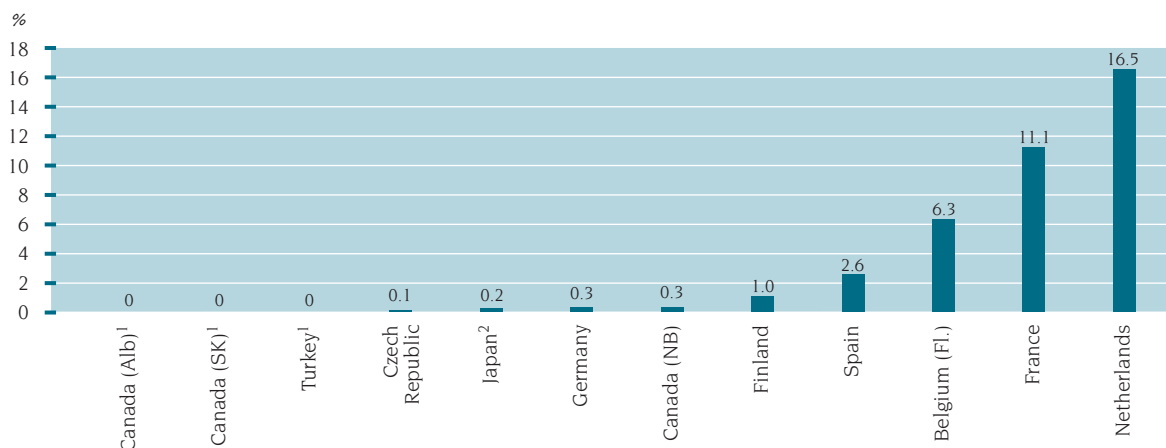
| | Special schools | Special classes in regular schools | Regular classes |
|-----------------------------|-----------------|------------------------------------|-----------------|
| Belgium (Flemish Community) | 69 | m | m |
| Canada (Alberta) | a | a | 67 |
| Canada (New Brunswick) | a | a | 69 |
| Czech Republic | 57 | 66 | 74 |
| Finland | 66 | 76 | 65 |
| France | m | 59 | m |
| Germany | 64 | x | m |
| Luxembourg | 66 | 55 | 60 |
| Mexico | 67 | 62 | 60 |
| Netherlands | 68 | 59 | m |
| Spain | m | x | 59 |
| Switzerland | m | 62 | m |
| United Kingdom | 68 | x | 69 |

a: Data not applicable because the category does not apply.

m: Data not available.

x: Data included in another column: in Germany and Spain the data are included in the special schools column; in the United Kingdom the data are included in the regular classes column.

Source: Based on the classifications (category B) in the Appendix. For further details see OECD (2003).

Figure 1.5 Students in compulsory education receiving additional resources for defined disadvantages, as a percentage of all students in compulsory education, 1999

1. No national categories falling within the cross-national category of defined disadvantages.

2. The data from Japan refer to students in public schools only.

Source: Based on the classifications (category C) in the Appendix. For further details see OECD (2003).

Figure 1.6 shows the locations of students receiving additional resources for defined disadvantages for the eight countries who supplied this data. The majority of countries educate all of these students in regular classes. The Czech Republic uses exclusively special schools. Belgium (Flemish Community) and France make some use of special classes in regular schools, although the large majority of students with defined disadvantages in these two countries are in regular classes.

Gender differences among students with disadvantages

Table 1.3 gives gender ratios for students in receipt of additional resources for defined disadvantages (cross-national category C) in compulsory schooling. The gender ratios are provided separately for different types of location where such distinctions apply and the data are available. For all of the countries concerned there are more males than females in such programmes. The proportion of

Figure 1.6 Percentages of students in compulsory education receiving additional resources for defined disadvantages, by location, 1999

Source: Based on the classifications (category C) in the Appendix. For further details see OECD (2003).

Data for Figure 1.6, p. 35.

Table 1.3 Gender and disadvantages: proportion of students in compulsory education receiving additional resources for defined disadvantages who are male, by location, 1999 (%)

| | Special schools | Special classes in regular schools | Regular classes |
|-----------------------------|-----------------|------------------------------------|-----------------|
| Belgium (Flemish Community) | m | m | 51 |
| Canada (New Brunswick) | a | a | 57 |
| Czech Republic | 68 | m | m |
| Finland | m | m | 53 |
| France | m | 56 | m |
| Ireland | 53 | m | m |
| Luxembourg | m | 58 | m |
| Mexico | 52 | x | m |
| Netherlands | m | m | 51 |
| Spain | m | x | 55 |
| Switzerland | m | 51 | m |

a: Data not applicable because the category does not apply.

m: Data not available.

x: Data included in another column: in Mexico and Spain the data are included in the special schools column.

Source: Based on the classifications (category C) in the Appendix. For further details see OECD (2003).

males is typically between 50% and 60%, but this is a more even distribution than for students with disabilities (Table 1.1) and learning difficulties (Table 1.2) where the proportion of males was often at least 60%.

The data show that for all three cross-national categories, the proportion of males generally exceeds the proportion of females by a ratio of about 3 to 2. The proportion of males is particularly high in the group with defined difficulties (category B). A number of possible reasons can be identified, and each may play some role:

- *Male children are more prone to illness and trauma.* There is some evidence that males are more vulnerable than females throughout the developmental years to the effects of illness and trauma. For example, low birth-weight females have a better chance of survival than low birth-weight males (Lemons *et al.*, 2001). Thus males may have a greater “natural” need for additional support in school. This outcome would be seen as equitable to the extent that males objectively need more support.
- *Males externalize their “feelings” in school more openly than females.* Males may make themselves more likely to be noticed in schools and consequently labeled. Recent examples of extreme violence perpetrated by males in schools highlights the point.

- *Schooling is becoming increasingly “feminised”.* The greater proportion of female teachers in schools, especially during the primary years, has been well documented (OECD, 2001*b*). Also the increased emphasis in some countries on the need for academic learning rather than practical skills may be moving schooling away from traditional types of male activity. The net result may be that males are having more difficulties in school; the fact, noted earlier, that the “difficulties” category generally has a higher proportion of males than do the disabilities and disadvantages categories may reflect these issues.

- *The education of males is given greater priority than that of females.* If this view is indeed taken, and leads to more resources being provided to assist males in need than females, the outcome would clearly be inequitable.

Further work is needed to determine the reasons for these gender differences, and whether they give rise to inequitable provision between male and female students. The gender differences in provision for students with disabilities, learning difficulties and disadvantages are sufficiently marked for this to be a priority focus when countries examine the basis by which children come to be identified for different programmes, and the long-term consequences of participation in those programmes.

Table 1.4 The number and size of special schools in compulsory education

| | Number of special schools per 100 000 students enrolled in compulsory education | Size of special schools (average number of students enrolled) |
|-----------------------------|---|---|
| Belgium (Flemish Community) | 37 | 132 |
| Canada (New Brunswick) | 0 | 0 |
| Czech Republic | 58 | 70 |
| Finland | 45 | 45 |
| France | 22 | 65 |
| Germany | 29 | 121 |
| Italy | 1 | 26 |
| Mexico | 82 | 12 |
| Netherlands | 50 | 99 |
| Poland | 15 | 71 |
| Spain ¹ | 11 | 35 |
| Sweden | 62 | 17 |
| Switzerland | 46 | 37 |
| Turkey | 2 | 68 |
| United Kingdom | 16 | 64 |

1. The data for Spain refer to all levels of school.

Source: OECD (2003).

3.4 Provision in special schools

It was seen earlier that countries differ markedly in the extent to which students with disabilities are located in special schools (see Figure 1.2). Table 1.4 provides another perspective on this issue by documenting the number of special schools per 100 000 students enrolled in compulsory education. It confirms the results of the data on location of education as presented in the previous figures. Canada (New Brunswick) has no special schools at this level, and in Italy there are only very few special schools. On the other hand, in the Czech Republic, Mexico and Sweden there are a relatively large numbers of special schools: 58, 82 and 62 per 100 000 students in compulsory education, respectively.

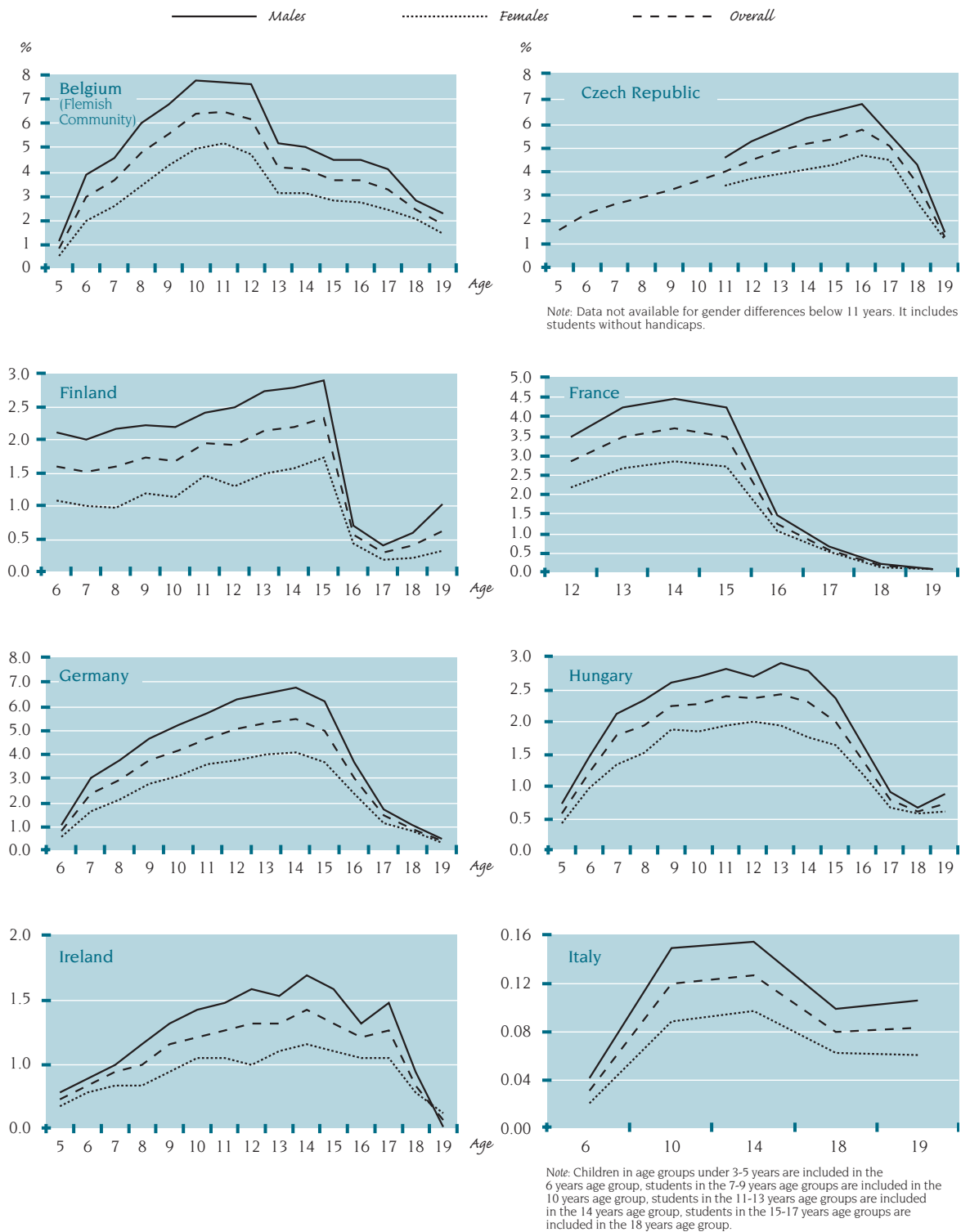
To avoid providing a misleading picture the size of these schools must be taken into account. For instance, as Table 1.4 shows, Sweden has a relatively large number (62 per 100 000 students) of rather small special schools (17 students on average). This contrasts to France with relatively few (22 per 100 000 students) but comparatively large special schools (65 students, on average). Two countries with relatively large special schools, Germany (121 students on average) and the Netherlands (99 students), also happen to be the two countries

where special schools include a large proportion of students with learning difficulties. These are further examples of where the marked differences among countries can help to raise questions about the basis of special needs provision, and the substantial variations provide scope for the effects of different approaches to be evaluated.

Figure 1.7 shows data from 15 countries on the age distribution of students enrolled in special schools. In general, only about 1% of 5-6 year-olds are in special schools in most countries, and the proportion starts to rise from around 8 years of age before reaching a plateau around the ages 12-15 and then declining rapidly. These increases in the proportion of students in special schools, which are quite substantial (in Germany it increases six-fold between the ages 6 and 15) presumably reflect the movement of students out of regular schools and special classes into special schools. The decline beyond around age 15 most likely reflects the fact that most such students do not continue with their education beyond the compulsory years, a conclusion generally supported from the inspection of data on individual categories of disabilities (OECD, 2003).

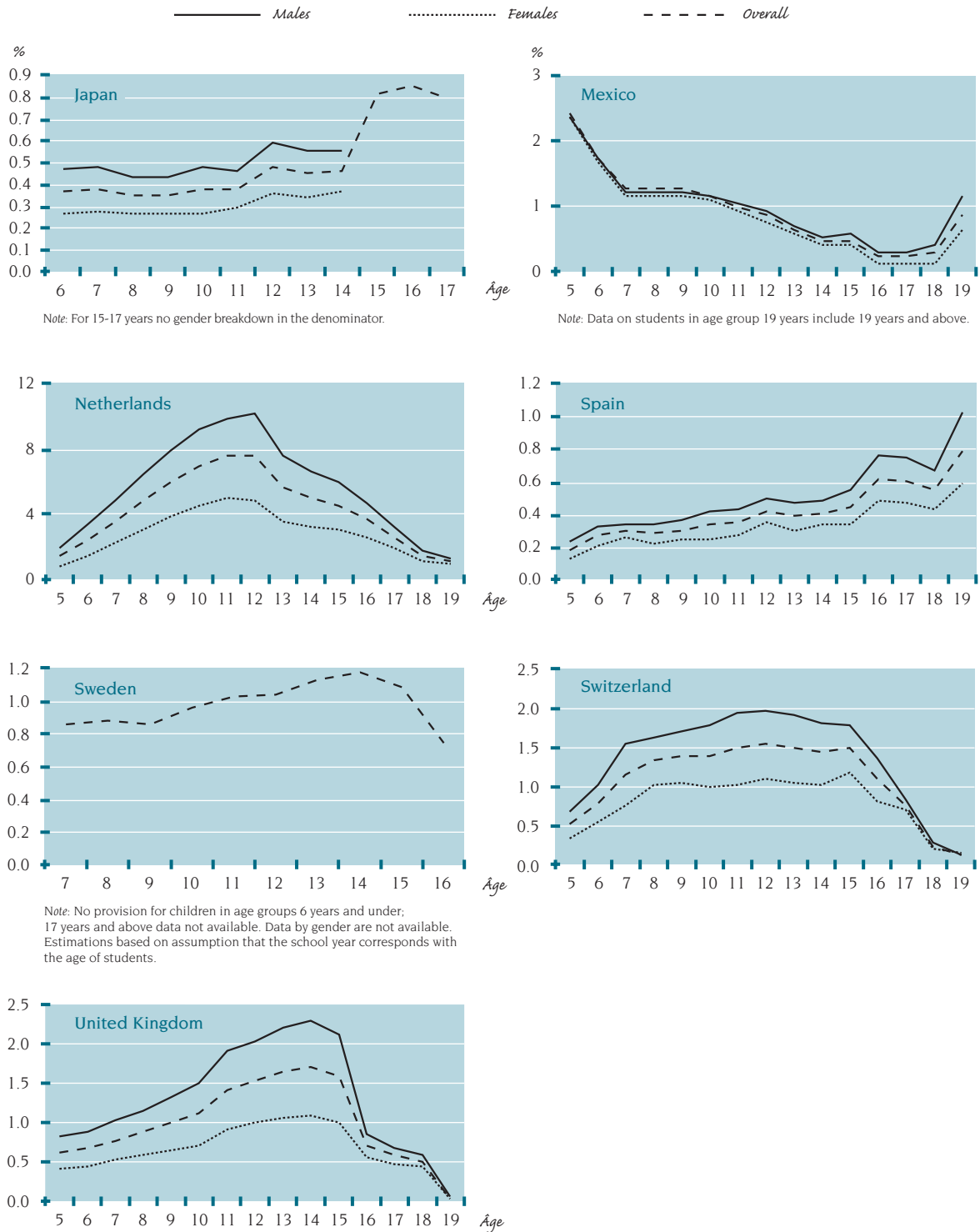
There are some notable exceptions to the general pattern in Figure 1.7. Japan shows a flat gradient

Figure 1.7 Number of students receiving additional resources in special schools as a proportion of all students by age, 1999 (%)



Note: The scale on the vertical axis differs from country to country.
Source: Data have been supplied by the Ministries of Education.

Figure 1.7 (continued) Number of students receiving additional resources in special schools as a proportion of all students by age, 1999 (%)



Note: The scale on the vertical axis differs from country to country.
 Source: Data have been supplied by the Ministries of Education.
 Data for Figure 1.7, p. 36.

rising quickly at age 14-15. Mexico's declines with a slight increase at age 18 and Spain's continues to rise with age. In the case of Mexico the declining numbers are difficult to explain unless the students are returning to regular classes or leaving the education system altogether. The data from Japan deserve further comment since they show a pattern very different from other OECD countries. The data show only a very slight increase in the proportion enrolled in special schools between 6 and 14, and furthermore Japan reports only a very low proportion of students with defined disabilities (see Figure 1.1).

4. MAKING EQUITABLE EDUCATION WORK

The previous section provided some basic data on students with disabilities, difficulties and disadvantages. These broad categories have been discussed separately in order to highlight important policy issues such as the extent of provision for these students across the age range and the degree of inclusion of students with disabilities.

Developing equitable education for the growing diversity of students is not an easy task to achieve, and it is made more difficult because of a lack of clarity over what equitable provision would look like. As noted earlier, Brighouse (2000) has pointed out that no matter what level of resources are provided, students with severe learning disabilities are unlikely to attain the same outcomes as non-disabled students. As a result he argues that equity, conceived of as the attainment of equal outcomes for all students is flawed. Thus, a simple measure of reduction in inequality in performance cannot be considered an adequate indicator of equity. What is needed is a focus on the degree of inequality that is acceptable.

At this stage possibly the best way forward is to consider equity as a process, and in doing so to make sure that full consideration is given to providing additional resources for those who need them during the period of education. Cost-effective methods of achieving equity for all students still need to be fully evaluated. What follows provides some indication of the kinds of ingredients that need to be in place to meet the needs of the most challenging students.

Following visits to eight countries and intensive case studies of schools where inclusion appears to be working well, OECD has identified a number of conditions which are important in developing inclusive schools for students with disabilities. These features also seem generally relevant to improving provision for other students. They are outlined below, with more details provided in OECD (1999).

4.1 Recognising and planning for diversity

In many countries systems of special education have developed separately in a context of regular schools being unable to adapt themselves to the special needs of certain categories of students. In effect, the educational problem was seen as existing within the student, requiring the student to adapt to the demands of the school. A failure on the part of the student to make this adaptation often led to placement in special provision.

The concept of inclusion challenges this practice and puts the onus on schools to show that they cannot meet the needs of the students before separate provision is agreed to. The experience from New Brunswick in Canada shows that separate provision does not have to happen even for students with the most extreme difficulties. Thus the first principle is that educational systems must recognise the diversity that exists and should plan accordingly for it.

Following 10 years of reform of Spanish schools intended to make them more inclusive, Marchesi (1997) speaking from his experience as Secretary of State for Education, came to the following conclusions. First, it is important to reform the arrangements whereby provision for students with special needs, and especially those with disabilities, has been developed separately; the necessary innovations cannot be fully undertaken if changes to the whole school system are not made. Second, he stresses that inclusion requires a new perspective whereby the school must be able to respond to all students. This is not just the responsibility of some teachers but of all of them working in the context of the school as a whole, which requires rethinking of the school's educational aims, organisation, teaching and

assessment methods to properly provide for all students. Third, the education system must be sensitive to changes in society and be able to adapt to them as quickly as possible in new and evolving economic and social environments which include the greater presence of different cultures, increases in racist and xenophobic movements, and changes in family structure and social organisation.

4.2 Using accountability and evaluation for improvement

Accountability is a policy issue of great importance which can be furthered by school inspection systems or the comparison of examination results based on nationally (or internationally) standardised tests of academic achievement. These practices can however work against inclusion if for instance they do not take account of students' abilities at school entry. Accountability mechanisms need to focus on the difference that schools and teachers are making, and not just absolute measures of student outcomes. A "value added" perspective on accountability and evaluation can also help justify additional resources in the context of inclusion. In Italy, for instance, inclusion is predicated on smaller class sizes and smaller class sizes are associated with improved performance for students with disadvantages. The benefits of smaller classes for disadvantaged students have also been shown in the United States (Nye, 2001).

Accountability procedures may also have the incidental effects of discouraging schools from taking on children who are likely to perform poorly in examinations, of encouraging schools to expel children they find difficult to teach, or of tempting schools to omit children with learning difficulties from testing programmes. Thurlow (1997) refers to some two-thirds of students with disabilities in schools in the United States as having been excluded from the 1992 administration of the National Assessment of Educational Progress (US Federal Law now requires their inclusion). Other countries also point out that flexibility in the examination process is important for inclusion and schools should be willing to keep disabled students in school beyond the normal school leaving age if this is requested.

4.3 Professional development of staff

The professional development of teachers and other staff through pre-service and in-service training is a key issue in the development of inclusive schooling systems. A survey of training programmes in OECD countries (Magrab, 1999) identified this area as high priority, an immense challenge and in need of considerable extension. Teachers must develop what Marchesi (1997) describes as interest and competence in inclusion. By interest he means teachers' attitudes, their theories about the education of students with disabilities, difficulties and disadvantages, and their willingness to contribute to their education. Inclusive attitudes should certainly be formed during initial training, and renewed and extended throughout teachers' careers. By competence he is of course referring to their skills. Based on discussions in the eight countries visited, the following practices are particularly important for making inclusive education effective: working as the special education co-ordinator; team teaching; developing mutual support between teachers; effective collaboration through discussion and a problem-solving approach; the pedagogy of curriculum differentiation; the development of individual education programmes; and the monitoring of progress.

Developing the skills required for such practices were prominent features of the training programmes in Canada (New Brunswick) and Italy. In Canada (New Brunswick), for example, all initial teacher training courses included assignments designed to introduce trainee teachers to working with children with disabilities. Once appointed to a school, regular class teachers had on-going access to further in-service training for working with students with disabilities, difficulties and disadvantages. In addition to the training of teachers, the co-ordinated development of other professionals to work in inclusive settings is also required (Magrab, 1999).

4.4 External support services

In all the countries visited, schools received substantial additional support for their work with students with disabilities. There are a wide range of professionals identified by countries who serve in

support roles. These include: peripatetic teachers with a wide range of specialisations, special needs co-ordinators, teacher assistants and aides, school counsellors, educational psychologists, clinical psychologists, youth service psychologists, psychotherapists, social workers, physiotherapists, speech therapists, occupational therapists, and doctors and nurses. Parents and voluntary bodies are also often closely involved in supportive roles. In Germany and Sweden, young people can meet their national service obligations by working in special needs settings rather than in the armed forces.

Important roles are also played by local education authority advisers and officers who work with schools specifically in the field of special education. These services provide front-line support for students and teachers and are also closely involved in the formal assessment arrangements that all countries undertake in order to allot additional resources to, and make special arrangements for, students with special needs.

In using these additional services to develop effective inclusive provision it is important to consider how they work with the school. One possibility is that they work with the students themselves on a one-to-one basis isolated from the school as a whole. Another is that they support schools and staff efforts to developing effective approaches to teaching disabled students in the school. This latter approach was strongly preferred and the schools visited were working in this way usually having identified a teacher or teachers to co-ordinate support for special needs students in the school. Nevertheless, there were still large differences between the schools in the approach taken by external support services, particularly in the degree to which they explicitly saw themselves as encouraging and supporting schools to solve their own problems. This can be dramatically illustrated by referring to the three districts visited in Iceland. In the first the ratio of special needs students to external support staff was 47:1, in the second 520:1 and in the third 1 320:1. In the last two districts there had been substantial investment in within-school support thus changing the form of the external support. One school indicated that relying on external experts to sort out problems can often involve inordinate delays and inconsequential advice: "if

a school can handle the sparks the fire brigade is not required".

4.5 Within-school support services

The extent to which class teachers are able to provide support for special needs students depends not only on their own skills and experience but also on the way in which the organisation of the school helps them to become familiar with the students' needs. In Germany and Italy, for instance, classes containing students with disabilities were smaller than those without such students. In Denmark and Iceland, class teachers stay with the same children during the children's year by year moves up the school. Training given to individual teachers to support particular needs can then be used efficiently across a number of school years.

In effective examples of inclusive practices class teachers and their assistants have access to a network of support provided within the school by teachers with advanced qualifications and associated expertise in special education. In the United Kingdom, special education co-ordinators have the task of co-ordinating the school's work in supporting special needs students. They may assist class teachers in setting individual targets within the context of flexible lesson plans and help in assessing progress. These specialist teachers may also adapt curriculum materials designed to help successive cohorts of children with learning difficulties at particular stages of the syllabus in particular subjects. In addition they from time to time withdraw children for individual work or to cope with crises.

At their best, these special education specialists were fully integrated into the school as a whole, both sharing in the teaching and being members of the school's management team. Their contributions to school management could be as problem-solvers, not just with respect to special education, but in regard to problems generally. They might also have some expertise in aspects of school life affecting all students, for example in assessment of students' progress or in staff appraisal. Where these roles were developed fully, the posts of special education specialists were highly regarded, much sought after, and recognised as stepping stones to school leadership positions.

4.6 Co-operation between schools

Co-operation between schools is often a feature of good practice in inclusive schooling. In developing inclusive practices, the skills of special school teachers are frequently used to support and train teachers in regular schools through outreach practices. The smooth transition of students between the various phases of schooling is also viewed as important. Schools can help children by assuring a free flow of information about those who are moving from one stage of education to the next. Some systems have the flexibility to allow teachers to cross the primary/secondary boundary and carry on giving support to disabled children in the new setting. In one of the German case study schools, for example, primary teachers follow their students for short periods into the comprehensive secondary school in order to help them settle into their new environment.

4.7 Parent and community involvement

The involvement of parents in the successful education of students with disabilities is well documented in the literature (*e.g.* Mittler, 1993). Parents may be involved in schools at many different levels. In Canada (New Brunswick) for instance, they are strongly represented in the school governance process and can influence school policy.

But parents may also have a more direct role. They are often closely involved in the decision making concerning assessment arrangements and in Denmark they can effectively prevent certification of their child as in need of special education. Elsewhere they can support children in classroom work in areas like reading and mathematics. However, in other countries, parents may have relatively little involvement.

Community involvement also seems to be an important feature of effective inclusion, although its incidence varies greatly across countries. In Colorado, in the United States, accountability committees ensure community involvement in the development and evaluation of school improvement. An on-line database forms part of the work of PEAK (Parent Education and Assistance for Kids) the local branch of which also publishes Colorado-based resources for parents and educators wanting to promote inclusion. In Colorado,

too, Americacorps volunteers were working in the classroom with children at risk. In Italy, in Rome, professionals and parents and other members of the community work with churches and other voluntary agencies in local provision.

The benefits of wider community involvement are also seen in professional development programmes. In Colorado again, education department, university and parent body representatives had collaborated to implement a project providing in-service training for school leadership teams in developing strategies for inclusive education. In this endeavour they catered for ethnic, cultural and intellectual diversity.

4.8 School organisation and management – opportunities for whole school development

Educating students with disabilities is an issue for the whole school, not just for individual teachers. Furthermore, planning successful inclusion has to go beyond the teaching of traditional subjects and to give close attention to the social and affective side of development.

For example, under the whole school approach in the United Kingdom, head teachers and the school management have to be committed to innovations especially as they are accountable for how the school works, its ethos and in motivating teachers to work for all the children on the roll. In one case study school the head of the upper secondary school and the chairman of the Board of Governors both had experience and strong interest in education for special needs students. Coherence of practices and pastoral care³ were of particular interest. They had implemented an “assertive discipline” programme across the school adhered to by all teachers. When students transgressed the rules of acceptable behaviour there were constructive punishments which often involved parents. The programme was also associated with rewards for good behaviour on a group and individual basis. If students felt that they had been unfairly treated there were appeals procedures. There was evidence that this approach was very useful in preventing “exclusions” from school, since it provided a means of dealing with

3. In the United Kingdom, pastoral care refers to that aspect of school life concerned with the students’ general non-academic well-being.

poor behaviour before it crossed the threshold of unacceptability.

The benefits of a whole-school approach are also evident in decisions about student allocation to groups. For example, in a particularly effective UK school careful attention was given to allocating students to tutor groups so that they would be with other tolerant students and also more accepting teachers. The learning support team in the school also provided a safe haven for students with disabilities, difficulties and disadvantages which was extensively used at recess times. A secondary school in Colorado ran the school within a school called "Choice". This alternative provision, housed in the same school building, gave students more control over their curriculum and teachers reported that it had proved very effective for students, including those with disabilities, who struggled with the structure of the regular school.

4.9 Curriculum development

Curriculum development is another key area in sustaining inclusion and meeting diversity. In Australia for instance, the National Strategy for Equity in Schooling (1994) identified curriculum and assessment as key areas for development for special needs students. In New South Wales, outcomes based education (a structured approach to education stressing the outcomes students should achieve in making progress through the curriculum) has been emphasised and the State's Board of Studies has developed generic life-skills courses to complement the key learning areas of the regular curriculum and to help in the development of individual education programmes. In the United Kingdom and Canadian examples special needs students follow the standard curriculum and teachers make the necessary adjustments for them. In Colorado, a federally funded "systems change project" (Supporting Inclusive Learning Communities) was being used to improve schools through changes in the way they were functioning via action research methods. Progress towards agreed goals is reviewed monthly. In one high school, affective education was part of the curriculum for students with disabilities, difficulties and disadvantages, and covered areas such as socio-emotional development and conflict management. Life-skills and functional independence were also stressed for those with severe learning disabilities.

The use of teachers' time has also been subject to change where inclusive schooling has been effectively implemented. In Italy, for example, primary teachers work on modules comprising two teachers per three classes or three teachers per four classes, with each teacher taking responsibility for a cluster of subjects for two or three years. This approach offers the possibility of providing coherence in curriculum planning for diversity, and enables the teachers to follow students' progress over an extended period.

A key feature of curriculum planning is the provision of teaching materials. In no country was this carried out comprehensively through central services or via private sector publishers, and teachers were left to develop their own supplementary materials. In the United Kingdom, for example, teachers supplemented the regular curriculum with additional resource material especially prepared for each curriculum subject, which allowed for classroom based differentiated teaching. These materials were made accessible to all teachers in the school.

4.10 Classroom organisation

In delivering inclusive education classroom teachers usually had the assistance of at least one other adult who might be assigned for students with moderate or severe disabilities, but who would also work in the classrooms more generally. Often these posts were part-time and appealed to certain people, mothers with children of primary school age for example, whose other activities make it difficult for them to take on full-time employment. A common pattern is for the assistant to work in the class with special needs students planning work within the context of the general curriculum. It would be targeted to meet specific needs, with progress being monitored regularly and the plan adjusted in the light of progress made, *i.e.* an application of formative evaluation. Research showing the benefits of small classes for disadvantaged students was noted earlier.

5. CONCLUSIONS

Creating equitable provision for an increasingly diverse student population is a key policy objective for OECD countries. This is an area in which cross-national analysis can be particularly helpful

in informing policy development and debate since there are markedly different national approaches to defining and assisting students with disabilities, difficulties and disadvantages. These cross-national differences, which in many respects are greater than the differences that exist within countries, have great potential for improved understanding about what works best for different types of students. These differences, though, make the task of international analysis particularly challenging. The indicators presented in this chapter are the result of extensive international collaboration, but there is on-going work to improve their coverage and comparability. Nevertheless, even with their limitations, the indicators can help raise questions about current policy and practice.

The data presented in this chapter provide some indication of the extent to which countries make additional resources available for students with defined disabilities, difficulties or disadvantages. Countries vary widely in the numbers of such programmes and the proportions of the student population involved. These differences reflect a range of factors, including identification procedures, educational practices, comprehensiveness of provision, and perceived policy priority.

Countries also vary substantially in the extent to which they include students with disabilities in regular schools or in special schools, and whether they mainly use special classes within regular schools or students are integrated into regular classes. This is a difficult area in which values as well as empirical evidence are strongly contested. Section 2 argued that equity considerations lead to the position that, wherever possible, students with disabilities be educated in regular, mainstream schools rather than in separate institutions. The data presented in Section 3 indicate that the same type of child could be in a special school in country X and fully included in a regular school in country Y. It is inevitable that the educational and social experiences of special schools and regular schools will be different, and this could well be inequitable in terms of students' access to post-compulsory education, the labour market and the wider society. Countries which make extensive use of special schooling need to continually monitor how children come to be referred to them, and at the nature and consequences of the provision in

such schools. As well, countries that place a strong emphasis on inclusive education in regular schools need an on-going evaluation process to ensure that its objectives are being achieved.

The qualitative data based on school case studies in eight OECD countries identified a number of dimensions that appear to be important in making inclusive education work (OECD, 1999). In broad terms these ingredients are all found to be important for allowing schools to become learning organisations in the sense that they could adapt themselves more easily and quickly to a wide diversity of student needs, including those with severe disabilities. The resultant flexible provision can provide additional support to all students in the school, and Manset and Semmel (1997) have shown how non-disabled students also benefit from this extra support.

Countries provide considerable additional resources for special education needs and this may be seen as positive discrimination aiding the goal of greater equity. For many students these additional resources can be quite substantial. Using student-teacher ratios as a proxy of costs indicates that students with disabilities in special schools are provided with at least twice the resources of their non-disabled peers in regular schools. Effective inclusive provision requires that these resources are maintained in regular schools which enrol students with disabilities. One thing is clear. If extensive and expensive provision is made in special schools, the skills of the staff concerned cannot at the same time be used in regular education. For instance, in Italy where there are very few special schools, the use of team-teaching in regular schools with disabled students has improved the resources available to all students. Introducing such reforms is of course not straightforward, but the steady accumulation of experience from OECD countries is showing how it can be done.

Despite these encouraging results, there is still a great deal more work ahead. National databases are often inadequate for more sophisticated analyses, especially in regard to linking types and costs of provision to outcomes measures for students with disabilities, difficulties and disadvantages. The OECD is working with member countries to help strengthen the information and research base in this vital policy area.

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APPENDIX: Allocations of categories of students with disabilities, difficulties and disadvantages included in country resource definitions, 1999

Country categories of students to whom additional resources are allocated:

| | Disabilities (cross-national category A)¹ | Difficulties (cross-national category B)² | Disadvantages (cross-national category C)³ |
|---------------------------------------|--|---|--|
| Belgium (Flemish Community) | <ul style="list-style-type: none"> – Minor mental handicap – Moderate or serious mental handicap – Physical handicap – Protracted illness – Visual handicap – Auditory handicap – Support at home for temporarily ill children | <ul style="list-style-type: none"> – Serious emotional and/or behavioural problems – Serious learning disabilities – Extending care – Remedial teaching | <ul style="list-style-type: none"> – Educational priority policy – Reception classes for non-Dutch speakers – Travelling children – Children placed in a sheltered home by juvenile court – More favourable teacher/pupil ratios in the Brussels region – Additional resources for schools in some municipalities around Brussels and at the linguistic border between the Flemish and Walloon regions |
| Canada (Alberta) | <ul style="list-style-type: none"> – Severe mental disability – Severe multiple disability – Severe physical/medical disability – Deafness – Blindness – Severe communications disorder – Mild mental disability – Moderate mental disability – Mild/moderate hearing disability – Mild/moderate visual disability – Mild/moderate communication disability – Mild/moderate physical/medical disability – Mild/moderate multiple disability | <ul style="list-style-type: none"> – Severe emotional/behavioural disability – Mild/moderate emotional/behavioural disability – Learning disability – Gifted and talented | |
| Canada (New Brunswick) | <ul style="list-style-type: none"> – Communicational – Intellectual – Physical – Perceptual – Multiple | <ul style="list-style-type: none"> – Behavioural exceptionalities | <ul style="list-style-type: none"> – Immigrant |
| Canada (Saskatchewan) | <ul style="list-style-type: none"> – Intellectual disabilities – Visual impairments – Orthopaedic impairments – Chronically ill – Multiple disabilities – Deaf or hard of hearing – Autism – Traumatic brain injury | <ul style="list-style-type: none"> – Social, emotional or behavioural disorder – Learning disabilities | |
| Czech Republic | <ul style="list-style-type: none"> – Mentally retarded – Hearing handicaps – Sight handicaps – Speech handicaps – Physical handicaps – Multiple handicaps – Other handicaps – Weakened health (kindergarten only) | <ul style="list-style-type: none"> – Students in hospitals – Development, behavioural and learning problems | <ul style="list-style-type: none"> – Socially disadvantaged children, preparatory classes in regular schools |

Country categories of students to whom additional resources are allocated:

| | Disabilities (cross-national category A) ¹ | Difficulties (cross-national category B) ² | Disadvantages (cross-national category C) ³ |
|---------|--|---|---|
| Finland | <ul style="list-style-type: none"> – Moderate mental impairment – Severe mental impairment – Hearing impairment – Visual impairment – Physical and other impairment – Other impairments | <ul style="list-style-type: none"> – Mild mental impairment – Emotional and social impairment – Speech difficulties – Reading/writing difficulties – Speech, reading and writing difficulties – Learning difficulties in mathematics – Learning difficulties in foreign languages – General learning difficulties – Emotional/social difficulties – Other special difficulties – Remedial teaching | <ul style="list-style-type: none"> – Remedial teaching for immigrants |
| France | <ul style="list-style-type: none"> – Severe mental handicap – Moderate mental handicap – Mild mental handicap – Physical handicap – Metabolic disorders – Deaf – Partially hearing – Blind – Partially sighted – Other neuropsychological disorders – Speech/language disorders – Other deficiencies – Multiply handicapped | <ul style="list-style-type: none"> – Learning difficulties | <ul style="list-style-type: none"> – Non-Francophone students – Disadvantaged children (ZEP priority zones) |
| Germany | <ul style="list-style-type: none"> – Partially sighted or blind – Partially hearing or deaf – Speech impairment – Physically handicapped – Mentally handicapped – Sickness – Multiple handicaps – Autism* <p>* No statistical data are available, but programmes are provided</p> | <ul style="list-style-type: none"> – Learning disability – Behavioural disorders – Remedial instruction* | <ul style="list-style-type: none"> – Travelling families* – German for speakers of other languages* |
| Hungary | <ul style="list-style-type: none"> – Moderate mental retardation – Visual – Hearing – Motor – Speech – Other disabilities | <ul style="list-style-type: none"> – Mild degree mental retardation | <ul style="list-style-type: none"> – Children of minorities – Disadvantaged pupils/ Pupils at risk |
| Ireland | <ul style="list-style-type: none"> – Visually impaired – Hearing impaired – Mild mental handicap – Moderate mental handicap – Physically handicapped – Specific speech and language disorders – Specific learning disability – Severely and profoundly mentally handicapped – Multiply handicapped | <ul style="list-style-type: none"> – Emotionally disturbed – Severely emotionally disturbed – Pupils in need of remedial teaching | <ul style="list-style-type: none"> – Children of travelling families – Young offenders – Children in schools serving disadvantaged areas – Children of refugees |
| Italy | <ul style="list-style-type: none"> – Visual impairment – Hearing impairment – Moderate mental handicap – Severe mental handicap – Mild physical handicap – Severe physical handicap – Multiple handicap | | <ul style="list-style-type: none"> – Students with foreign citizenship (no statistical data available) |

Country categories of students to whom additional resources are allocated:

| | Disabilities (cross-national category A) ¹ | Difficulties (cross-national category B) ² | Disadvantages (cross-national category C) ³ |
|-------------|--|---|--|
| Japan | <ul style="list-style-type: none"> – Blind and partially sighted – Deaf and hard of hearing – Intellectual disabilities – Physically disabled – Health impaired – Speech impaired – Emotionally disturbed | | <ul style="list-style-type: none"> – Students who require Japanese instruction |
| Luxembourg | <ul style="list-style-type: none"> – Mental characteristic – Emotionally disturbed – Sensory characteristic – Motor characteristic | <ul style="list-style-type: none"> – Learning difficulties | <ul style="list-style-type: none"> – Social impairment |
| Mexico | <ul style="list-style-type: none"> – Blindness – Partial visual disability – Intellectual disability – Auditory or hearing disability – Deafness or severe auditory disability – Motor disability – Multiple disability | <ul style="list-style-type: none"> – Learning difficulties – Outstanding capabilities and skills | <ul style="list-style-type: none"> – Compensatory educational needs – Community educational needs – Indigenous community educational needs – Migrant educational needs |
| Netherlands | <ul style="list-style-type: none"> – Deaf children – Hard of hearing – Language and communication disabilities – Visual handicap – Physically handicapped/motor impairment – Other health impairments (no long hospitalisation) – Profound mental handicap/severe learning disabilities – Deviant behaviour – Chronic conditions requiring pedagogical institutes – Multiply handicapped | <ul style="list-style-type: none"> – Learning and behaviour disabilities – Children in vocational training with learning difficulties | <ul style="list-style-type: none"> – Children from disadvantaged backgrounds |
| Poland | <ul style="list-style-type: none"> – Light mental handicap – Multiple and severe mental handicap – Profound mental handicap – Blind – Partially sighted – Deaf – Partially hearing – Chronically sick – Motion handicapped – Autistic | | <ul style="list-style-type: none"> – Social disadvantages, behaviour difficulties |
| Spain | <ul style="list-style-type: none"> – Hearing impaired – Motor impaired – Visual impaired – Mental handicap – Emotional/behavioural problems – Multiple impairment | <ul style="list-style-type: none"> – Highly gifted – Students in hospitals or with health problems – Learning difficulties | <ul style="list-style-type: none"> – Students with compensatory educational needs – Itinerant students |
| Sweden | <ul style="list-style-type: none"> – Impaired hearing, vision and physical disabilities – Mental retardation – Impaired hearing and physical disabilities | | <ul style="list-style-type: none"> – Students receiving tuition in mother tongue (other than Swedish) and/or Swedish as a second language – Students in need of special support (not included in other categories) |

Country categories of students to whom additional resources are allocated:

| | Disabilities (cross-national category A) ¹ | Difficulties (cross-national category B) ² | Disadvantages (cross-national category C) ³ |
|----------------|---|--|--|
| Switzerland | <ul style="list-style-type: none"> – Educable mental handicap: Special schools – Trainable mental handicap: Special schools – Multiply handicapped: Special schools – Physical disabilities: Special schools – Behaviour disorders: Special schools – Deaf or hard of hearing: Special schools – Language disability: Special schools – Visual handicap: Special schools – Chronic conditions/prolonged hospitalisation: Special schools – Multiple disabilities: Special schools | <ul style="list-style-type: none"> – Learning disabilities/introductory classes: Special classes – Learning disabilities: Special classes – Learning disabilities/vocationally oriented classes: Special classes – Behavioural difficulties: Special classes – Physical disabilities: Special classes – Sensory and language impairments: Special classes – Students who are ill/hospital classes: Special classes – Others of the group “special curriculum”: Special classes | <ul style="list-style-type: none"> – Foreign first language |
| Turkey | <ul style="list-style-type: none"> – Visually impaired – Hearing impaired – Orthopaedically handicapped – Educable mentally handicapped – Trainable mentally handicapped – Speech impairment – Chronically ill | <ul style="list-style-type: none"> – Gifted and talented | |
| United Kingdom | <ul style="list-style-type: none"> – Children with statements (records) of special educational needs | <ul style="list-style-type: none"> – Children with special educational needs without statements (records) | |
| United States | <ul style="list-style-type: none"> – Mental retardation – Speech or language impairment – Visual impairments – Orthopaedic impairments – Other health impairments – Deaf/blindness – Multiple disabilities – Hearing impairments – Autism – Traumatic brain injury – Developmental delay | <ul style="list-style-type: none"> – Emotional disturbance – Specific learning disability | <ul style="list-style-type: none"> – Title I – Disadvantaged students |

1. **Definition of CATEGORY A:** Refers to educational needs of students where there is substantial normative agreement – such as blind and partially sighted, deaf and partially hearing, severe and profound mental handicap, multiple handicaps. Typically, adequate measuring instruments and agreed criteria are available. Typically considered in medical terms to be organic disorders attributable to organic pathologies (*e.g.* in relation to sensory, motor or neurological defects).

2. **Definition of CATEGORY B:** Refers to educational needs of students who have difficulties in learning which do not appear to be directly or primarily attributable to factors which would lead to classification as A or C.

3. **Definition of CATEGORY C:** Refers to educational needs of students which are considered to arise primarily from socio-economic, cultural and/or linguistic factors. There is some form of disadvantaged or atypical background for which education seeks to compensate.

New definitions and changes in national categories, and updates in data, will be reflected in future OECD publications.

Source: Responses by national authorities to questionnaire administered by OECD; see OECD (2003).

Data for the Figures

CHAPTER I

Data for Figures 1.1, 1.3 and 1.5 are shown on the Figures.

Data for Figure 1.2

Percentages of students in compulsory education receiving additional resources for defined disabilities, by location, 1999

| | Special schools | Special classes in regular schools | Regular classes |
|-----------------------------|-----------------|------------------------------------|-----------------|
| Belgium (Fl.) | 96.8 | 0.0 | 3.2 |
| Canada (NB) | 0.0 | 0.0 | 100.0 |
| Czech Republic | 89.1 | 2.6 | 8.3 |
| Finland | 57.5 | 34.9 | 7.5 |
| France | 70.3 | 17.2 | 12.5 |
| Germany ¹ | 83.6 | 0.0 | 16.4 |
| Italy | 1.7 | 0.2 | 98.1 |
| Japan | 23.2 | 56.0 | 20.8 |
| Luxembourg | 58.7 | 1.3 | 40.1 |
| Mexico | 32.2 | 11.8 | 56.1 |
| Netherlands | 82.4 | 0.0 | 17.7 |
| Spain ¹ | 16.5 | 0.0 | 83.5 |
| Sweden | 57.7 | 0.0 | 42.4 |
| United Kingdom ² | 35.1 | 0.0 | 64.9 |
| United States | 4.3 | 22.3 | 73.4 |

1. Students in special classes are included in special schools.

2. Students in special classes are included in regular classes.

Source: Based on the classifications (category A) in the Appendix. For further details see OECD (2003).

Data for Figure 1.4

Percentages of students in compulsory education receiving additional resources for defined difficulties, by location, 1999

| | Special schools | Special classes in regular schools | Regular classes |
|-----------------------------|-----------------|------------------------------------|-----------------|
| Belgium (Fl.) | 12.7 | 0.0 | 87.4 |
| Canada (NB) | 0.0 | 0.0 | 100.0 |
| Czech Republic | 12.6 | 14.8 | 72.6 |
| Finland | 5.9 | 4.2 | 89.9 |
| France | 0.0 | 100.0 | 0.0 |
| Germany ¹ | 88.1 | 0.0 | 11.9 |
| Luxembourg | 9.7 | 22.1 | 68.2 |
| Mexico | 1.9 | 10.3 | 87.8 |
| Netherlands | 52.7 | 44.8 | 2.5 |
| Spain ¹ | 0.0 | 0.0 | 100.0 |
| United Kingdom ² | 0.6 | 0.0 | 99.4 |
| United States | 3.2 | 18.4 | 78.4 |

1. Students in special classes are included in special schools.

2. Students in special classes are included in regular classes.

Source: Based on the classifications (category B) in the Appendix. For further details see OECD (2003).

Data for Figure 1.6

Percentages of students in compulsory education receiving additional resources for defined disadvantages, by location, 1999

| | Special schools | Special classes in regular schools | Regular classes |
|----------------|-----------------|------------------------------------|-----------------|
| Belgium (Fl.) | 0 | 2.7 | 97.3 |
| Canada (NB) | 0 | 0 | 100 |
| Czech Republic | 100 | 0 | 0 |
| Finland | 0 | 0 | 100 |
| France | 0 | 0.5 | 99.5 |
| Germany | 0 | 0 | 100 |
| Netherlands | 0 | 0 | 100 |
| Spain | 0 | 0 | 100 |

Source: Based on the classifications (category C) in the Appendix. For further details see OECD (2003).

Data for Figure 1.7

Number of students receiving additional resources in special schools as a proportion of all students by age, 1999 (%)

| | Age | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| Belgium (Fl.) | | | | | | | | | | | | | | | | |
| Males | | 1.1 | 3.9 | 4.6 | 6.0 | 6.8 | 7.8 | 7.7 | 7.6 | 5.2 | 5.0 | 4.5 | 4.5 | 4.1 | 2.8 | 2.3 |
| Females | | 0.5 | 2.0 | 2.6 | 3.5 | 4.3 | 5.0 | 5.2 | 4.7 | 3.1 | 3.1 | 2.8 | 2.7 | 2.4 | 2.0 | 1.5 |
| Overall | | 0.8 | 2.9 | 3.6 | 4.8 | 5.6 | 6.4 | 6.5 | 6.2 | 4.2 | 4.1 | 3.7 | 3.6 | 3.3 | 2.4 | 1.8 |
| Czech Republic | | | | | | | | | | | | | | | | |
| Males | | | | | | | 4.6 | 5.3 | 5.7 | 6.2 | 6.5 | 6.8 | 5.5 | 4.3 | 1.5 | |
| Females | | | | | | | 3.5 | 3.7 | 3.9 | 4.1 | 4.3 | 4.7 | 4.5 | 2.8 | 1.2 | |
| Overall | | 2.2 | 2.6 | 2.9 | 3.3 | 3.6 | 4.0 | 4.5 | 4.8 | 5.2 | 5.4 | 5.8 | 5.1 | 3.5 | 1.3 | 0.7 |
| Finland | | | | | | | | | | | | | | | | |
| Males | | | 2.1 | 2.0 | 2.2 | 2.2 | 2.2 | 2.4 | 2.5 | 2.7 | 2.8 | 2.9 | 0.7 | 0.4 | 0.6 | 1.0 |
| Females | | | 1.1 | 1.0 | 1.0 | 1.2 | 1.1 | 1.5 | 1.3 | 1.5 | 1.6 | 1.7 | 0.4 | 0.2 | 0.2 | 0.3 |
| Overall | | | 1.6 | 1.5 | 1.6 | 1.7 | 1.7 | 2.0 | 1.9 | 2.1 | 2.2 | 2.3 | 0.6 | 0.3 | 0.4 | 0.6 |
| France | | | | | | | | | | | | | | | | |
| Males | | | | | | | | | 3.5 | 4.3 | 4.5 | 4.2 | 1.5 | 0.7 | 0.2 | 0.1 |
| Females | | | | | | | | | 2.2 | 2.7 | 2.9 | 2.7 | 1.1 | 0.5 | 0.2 | 0.1 |
| Overall | | | | | | | | | 2.9 | 3.5 | 3.7 | 3.5 | 1.3 | 0.6 | 0.2 | 0.1 |
| Germany | | | | | | | | | | | | | | | | |
| Males | | | 1.0 | 3.0 | 3.8 | 4.7 | 5.2 | 5.7 | 6.3 | 6.6 | 6.8 | 6.2 | 3.7 | 1.7 | 1.1 | 0.5 |
| Females | | | 0.6 | 1.6 | 2.1 | 2.7 | 3.1 | 3.6 | 3.8 | 4.0 | 4.0 | 3.6 | 2.4 | 1.2 | 0.8 | 0.4 |
| Overall | | | 0.8 | 2.4 | 3.0 | 3.7 | 4.2 | 4.7 | 5.1 | 5.3 | 5.4 | 5.0 | 3.0 | 1.4 | 0.9 | 0.4 |
| Hungary | | | | | | | | | | | | | | | | |
| Males | | 0.7 | 1.5 | 2.1 | 2.3 | 2.6 | 2.7 | 2.8 | 2.7 | 2.9 | 2.8 | 2.4 | 1.6 | 0.9 | 0.7 | 0.9 |
| Females | | 0.4 | 1.0 | 1.3 | 1.5 | 1.9 | 1.9 | 1.9 | 2.0 | 2.0 | 1.8 | 1.6 | 1.2 | 0.7 | 0.6 | 0.6 |
| Overall | | 0.6 | 1.2 | 1.8 | 1.9 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.3 | 2.0 | 1.4 | 0.8 | 0.6 | 0.7 |
| Ireland | | | | | | | | | | | | | | | | |
| Males | | 0.4 | 0.6 | 0.7 | 0.9 | 1.1 | 1.2 | 1.3 | 1.5 | 1.4 | 1.6 | 1.4 | 1.1 | 1.3 | 0.6 | 0.1 |
| Females | | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.4 | 0.2 |
| Overall | | 0.4 | 0.5 | 0.6 | 0.7 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.3 | 1.1 | 0.9 | 1.0 | 0.5 | 0.1 |
| Italy | | | | | | | | | | | | | | | | |
| Males | | | 0.0 | | | | 0.1 | | | | 0.2 | | | | 0.1 | 0.1 |
| Females | | | 0.0 | | | | 0.1 | | | | 0.1 | | | | 0.1 | 0.1 |
| Overall | | | 0.0 | | | | 0.1 | | | | 0.1 | | | | 0.1 | 0.1 |
| Japan | | | | | | | | | | | | | | | | |
| Males | | | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | | | | | |
| Females | | | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | | | | | |
| Overall | | | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.8 | 0.9 | 0.8 | | |
| Mexico | | | | | | | | | | | | | | | | |
| Males | | 2.4 | 1.8 | 1.3 | 1.3 | 1.3 | 1.2 | 1.1 | 1.0 | 0.8 | 0.6 | 0.6 | 0.4 | 0.4 | 0.5 | 1.2 |
| Females | | 2.4 | 1.7 | 1.2 | 1.2 | 1.2 | 1.2 | 1.0 | 0.9 | 0.6 | 0.5 | 0.5 | 0.2 | 0.2 | 0.2 | 0.7 |
| Overall | | 2.4 | 1.8 | 1.3 | 1.3 | 1.3 | 1.2 | 1.1 | 0.9 | 0.7 | 0.6 | 0.6 | 0.3 | 0.3 | 0.4 | 0.9 |
| Netherlands | | | | | | | | | | | | | | | | |
| Males | | 2.0 | 3.5 | 4.9 | 6.4 | 8.0 | 9.2 | 9.9 | 10.3 | 7.6 | 6.7 | 6.0 | 4.6 | 3.3 | 1.8 | 1.3 |
| Females | | 0.8 | 1.5 | 2.3 | 3.0 | 3.9 | 4.5 | 5.0 | 4.9 | 3.6 | 3.2 | 3.1 | 2.6 | 2.0 | 1.2 | 1.0 |
| Overall | | 1.4 | 2.5 | 3.6 | 4.8 | 6.0 | 6.9 | 7.6 | 7.6 | 5.6 | 5.0 | 4.6 | 3.7 | 2.6 | 1.5 | 1.1 |

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Data for Figure 1.7 (continued)

| | Age | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Spain | | | | | | | | | | | | | | | | |
| Males | | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.8 | 0.7 | 0.7 | 1.0 |
| Females | | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.6 |
| Overall | | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.8 |
| Sweden | | | | | | | | | | | | | | | | |
| Overall | | | | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.1 | 0.7 | | | |
| Switzerland | | | | | | | | | | | | | | | | |
| Males | | 0.7 | 1.0 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 1.9 | 1.8 | 1.8 | 1.4 | 0.8 | 0.3 | 0.1 |
| Females | | 0.3 | 0.5 | 0.8 | 1.0 | 1.1 | 1.0 | 1.0 | 1.1 | 1.1 | 1.0 | 1.2 | 0.8 | 0.7 | 0.2 | 0.1 |
| Overall | | 0.5 | 0.8 | 1.2 | 1.3 | 1.4 | 1.4 | 1.5 | 1.6 | 1.5 | 1.4 | 1.5 | 1.1 | 0.8 | 0.2 | 0.1 |
| United Kingdom | | | | | | | | | | | | | | | | |
| Males | | 0.8 | 0.9 | 1.0 | 1.2 | 1.3 | 1.5 | 1.9 | 2.0 | 2.2 | 2.3 | 2.1 | 0.8 | 0.7 | 0.6 | 0.1 |
| Females | | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 | 0.6 | 0.5 | 0.4 | 0.0 |
| Overall | | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.4 | 1.5 | 1.6 | 1.7 | 1.6 | 0.7 | 0.6 | 0.5 | 0.0 |

Source: Data have been supplied by the Ministries of Education.