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PREFACE

This is the second in a series of publications planned by the Further Education Funding Council's inspectorate on the post-16 vocational education and training systems in other countries. The purpose of these reports is to highlight those aspects which might inform thinking in England in particular and the United Kingdom in general.

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COMMENTARY

1 This report is based on a visit to Sweden in February and March 1994 by a team of three inspectors and one member of the education programmes division from the Further Education Funding Council and three officials from the Department for Education.

2 The purpose of the visit was to examine the roles of local and national government in Swedish post-16 vocational education and training and the governance, funding, management and responsiveness of Swedish post-16 education and training institutions. The team also looked at curricula, qualifications, training programmes, provision for students with learning difficulties and/or disabilities, student support, participation, progression, levels and standards achieved in post-16 education and training programmes, quality assurance, the arrangements for the training of teachers, the role of industry, commerce and public sector employers and physical resource provision.

3 It was not the team's intention to report on the quality of post-16 education and training in Sweden nor would it have been right to do so on the basis of such a short visit. Rather, the intention was to examine current reforms in Swedish post-16 education and to highlight those aspects which might inform thinking in England.

4 The Swedish education service is currently in the throes of great change as it moves to a more decentralised system. Features of the reformed education policy are:

- clear national aims and objectives for all aspects of education and vocational training
- an intention to strengthen the relationship between schools and the family
- the involvement of the municipalities in planning the location of vocational education and training programmes and of their colleges in the delivery of the curriculum
- the introduction of a voucher system for primary schools to ensure the rights of families and their children to choose the school they attend
- the establishment of the National Agency for Education to oversee the development of new curricula and qualifications for both the compulsory and upper secondary school sectors, to disseminate good practice and to provide support for education research projects; and a sister body, the National Agency for Special Education to ensure that students with learning difficulties and/or disabilities receive the support and assistance that their schooling requires
- the introduction of 16 curriculum programmes in the upper secondary school, including two academic and 14 vocational

programmes, which allow students to achieve specific vocational competence as well as to study the theoretical aspects of their chosen vocation

- the transfer of certain public universities and university colleges into non-public ownership.

5 There are other features of the Swedish education service which merit remark. These are:

- the high participation of young people and adults in post-secondary and adult education
- well-maintained and resourced colleges which provide an attractive environment for students and their teachers
- good careers guidance and counselling services for pupils and students at all levels
- a generously resourced provision for students with learning difficulties and/or disabilities
- the emphasis laid on general education in the training programmes for apprentices and the employment training of adults
- the work experience which is to be provided in the third year of each of the 14 vocational curriculum programmes
- the attempts to provide a realistic work ethos in school training restaurants and hairdressing salons by opening them to a paying public
- the emphasis placed on the acquisition of foreign language skills by all students.

6 There are no formal accreditation or quality assurance arrangements within the Swedish education service comparable to those found in England. The municipal inspection services, for example, are lightly manned and, in consequence, inspect only in response to complaints or to undertake specific commissions. There is no ongoing inspection programme. The National Agency for Education has a field staff but they are concerned more with curriculum, examinations, guidance, the analysis of statistical data and administrative matters rather than assessment of the performance of individual institutions and areas of work. However, the Swedes believe that they take the necessary steps to ensure that education operates within a coherent framework and is provided with the necessary means and resources to flourish and enable it to provide pupils and students with high quality, rewarding and meaningful educational experiences. For example:

- there is heavy investment in both accommodation and equipment reflecting a belief that pleasant, spacious and well-equipped accommodation is the first term in the quality assurance equation

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- all teachers are either graduates or have comparable vocational qualifications and are teacher trained
 - students are provided with allowances and under certain circumstances free travel up to the age of 20 to encourage participation
 - there is a commitment to the concept of lifetime learning which is reflected in upper secondary education curricula which contain core elements embracing Swedish and English, civics, science and mathematics, arts, physical education, health studies and religious education which provide a broad educational underpinning to both academic and vocational programmes.

7 The performance of the education service is continually monitored through the collection and analysis of statistical indicators and comparisons of performance with that of other countries in recognition of the need for a small country like Sweden to match the world's best if it is to survive in an increasingly competitive global business environment. The central approval of curricula, syllabuses and examinations ensures common expectations of both colleges and their students.

8 Swedish education has always put great trust in the teacher as the guardian of standards and quality. This faith was dented somewhat when international surveys of the performance of young people in the late 1970s revealed that the performance of Swedish children was rarely above and in a number of subjects was distinctly below the international average. This in spite of the fact that Sweden had consistently spent a higher proportion of its gross domestic product (GDP) on education than many other advanced nations.

9 The education reforms initiated in the early 1990s, with the emphasis on decentralisation and management by objectives, are causing Sweden to revisit its quality assurance arrangements. A new five-point marking scale has been introduced in which a mark of three indicates the average achievement of all pupils in the country. However, the average standard in a class may be higher or lower than the national average. Standardised tests aimed at measuring achievement corresponding to a scale-three mark have also been introduced.

10 Sweden still continues to invest heavily in education in its attempts to raise educational standards and the skills of its population. For example:

- by 1995, all upper secondary study programmes will be of three years' duration as opposed to two years' duration in many cases now
- in 1992-93, the number of higher education places was increased by 20,000 with the intention that 50,000 extra places would be created by the end of the century

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- an ambitious target has been set to double the number of those obtaining doctorates by the year 2000
 - a range of education programmes will be reorientated towards meeting the demands of the industrial and business sectors of the economy
 - educational institutions will be encouraged to work more closely with business
 - the proportion of young people taking the natural science programme in upper secondary schools should be increased from 20 to 25 per cent over the next few years to enable Sweden to meet the 50 per cent projected increase in demand for engineers over the next 10 years
 - steps will be taken to improve the quality of recruits to the teaching profession and to increase the numbers qualifying as teachers to meet the demands posed by the increased birth rate in the mid 1980s and the proposed expansion of upper secondary and higher education provision.

11 Sweden's curriculum reforms have been introduced with both suddenness and speed; teachers are asking for more guidance, staff development and teaching materials. This echoes issues arising in England over the similarly determined and expeditious introduction of General National Vocational Qualifications (GNVQs).

12 In spite of the emphasis on choice which underpins Sweden's compulsory and post-secondary education reforms, the policy of choice has not been carried through into higher education. This is particularly so in relation to progression to higher education from the vocational programmes. Sweden does not have a comprehensive vocational higher education provision and this disadvantages those who follow the upper secondary vocational programmes.

13 The team was struck by the language skills of the Swedes. Most students were at ease speaking English. Notwithstanding this, there is no let up in the Swedes' efforts to raise standards still higher. The intention is that foreign language studies should start even earlier in the school curriculum than at present. In the new upper secondary curricula, English is compulsory in all programmes and every student also has the opportunity to learn a second foreign language.

ORGANISATION OF VISIT

14 The arrangements for the visit were made by officials of the Department for Education in consultation with representatives of the Swedish Institute and the Swedish Ministry of Education. The upper secondary schools visited are shown in appendix 1. In each institution, discussions were held with senior staff and students on issues such as institutional governance and management, funding arrangements,

curricula, teaching and learning, links with employers, student support, quality assurance and the arrangements for meeting the needs of students with learning difficulties and/or disabilities. Discussions were also held with officials of the Ministry of Education and Science, the National Agency for Education and the Uppsala Education Department.

ECONOMY AND GOVERNMENT

15 Sweden has a population of about 8.6 million, a workforce of 4.5 million and an unemployment level of about 10 per cent. There are 835,000 foreign-born people living in Sweden and of these just over 400,000 are citizens of other countries. There are a further 500,000 Swedish citizens who are first-generation immigrants. Sixty-seven per cent of the working population are employed in the service sector, 29 per cent in industry and 4 per cent in agriculture. In 1990, Sweden had a GDP of £150 billion, a GDP per capita of £18,000 and a balance of payments surplus of £4.4 billion. Fifty-five per cent of its trade is with the European Union and its main trading partners are Germany (15 per cent) and the United Kingdom (10 per cent), closely followed by Norway, the USA and Denmark. Its main imports are manufactured goods, machinery and transport equipment, fuel and energy, food, beverages and tobacco. It is an exporter of natural resource-based products, such as pulp and paper, metal products, motor vehicles and machinery. Sweden's exports account for about 2.5 per cent of world trade. The public sector accounts for 70 per cent of GDP and many in Sweden believe that this has become too large. Some comparative statistical data for Sweden and the United Kingdom are shown in table 1.

16 Sweden has a small central government administration which operates through central agencies. One such agency is the National Agency for Education. Regional administration is conducted through the 24 counties and local administration through the 286 municipalities. Three-quarters of the municipalities have fewer than 30,000 inhabitants and only 11 have 100,000 or more.

17 The elected county councils are responsible for health care, some cultural affairs, nursing and related health care training programmes, certain schools of agriculture and the folk high schools. County councils are allowed to raise revenue through income taxes.

Table 1: Statistical data for Sweden and the United Kingdom (1990)

	<i>Sweden</i>	<i>UK</i>
Population (million)	8.6	57
Workforce (million)	4.5	27
GDP (£ billion)	150	650
GDP per capita (£)	18,000	11,000

18 The municipalities operate such public services as schools, child care and care for the elderly, housing and cultural and leisure activities. They are entitled to raise taxes and charge fees for services. Since January 1993, the municipalities have received a block grant from central government instead of the former earmarked grants.

EDUCATION AND TRAINING

19 Education in Sweden is compulsory between the ages of seven and sixteen. Post compulsory education takes place in upper secondary schools, which are equivalent to English further education sector colleges.

20 Following many years of centralised control in education the Swedish government introduced legislation in 1991 which redefined the roles and responsibilities of central and local government. Parliament and the government now make general policy decisions on the objectives, activities and finances of the education service. A National Agency for Education has been established. It is charged with three main tasks: assessment, follow-up and supervision of all aspects of school education. Every three years, the Agency is required to report on the state of education in Sweden. It has also been charged with syllabus and curriculum development, the dissemination of good practice and supporting education research projects. It has a regional field force based in eight regions. A sister body, the National Swedish Agency for Special Education, has been set up to ensure that children and young people with learning difficulties and/or disabilities receive the support and assistance that their schooling requires.

21 At the local level each of Sweden's 286 municipalities has to draw up an education plan outlining how schools in the locality are to be organised, funded, developed and assessed. Every school in the municipality has to draw up its own working plan outlining its curriculum intentions and the syllabuses underpinning the curriculum. Every teacher, in consultation with pupils, then defines teaching targets. Each municipality is also required to appoint a local education committee to oversee the work of schools and to carry forward education policies.

22 The National Agency for Education has proposed radically new curricula for both the compulsory and upper secondary school sectors along with new methods of assessment. These require the government to approve and issue syllabuses, to specify the time devoted to individual subjects, and to ensure that pupils' achievements are assessed at the end of the fifth and ninth years of compulsory schooling. Terminal awards at the end of compulsory schooling are on a six-point scale from A (excellent) to F (insufficient achievement). For entry to upper secondary schools pupils have to obtain a pass mark of E or above in Swedish, mathematics and English.

Compulsory Education

23 In Sweden, school attendance is compulsory for children between the ages of seven and sixteen. Since autumn 1992, children have had the option of starting school at the age of six instead of seven. Compulsory school is divided into three levels, junior, intermediate and senior, each of which comprises three school years. However, these levels will be done away with from 1995.

24 There are 4,600 compulsory schools attended by nearly 900,000 children with a teaching force of 90,000 of whom two thirds are women. Class sizes average 21. All pupils take the same subjects at junior and intermediate levels. At senior level, optional subjects, normally French or German, are available for three or four periods per week. English is compulsory from the third or fourth year. Children attend school in their local area and free transport is provided. Junior and intermediate schools have between 150 and 300 pupils and senior schools between 150 and 600.

25 The school year comprises 40 weeks divided into two terms. Schools have a five-day week from Monday to Friday. The centrally-framed school curriculum provides general aims and objectives and specifies the time to be devoted to individual subjects. Emphasis is placed on reading, writing and arithmetic. Similarly, attention is also paid to civics, science, technology, cultural affairs and art. The curriculum also provides opportunities at intermediate and senior level for pupils to engage in associations and other out-of-school activities.

26 During their compulsory schooling, Swedish children must complete up to ten weeks pre-vocational training. At senior level this takes the form of work experience at various workplaces.

27 About 10 per cent of the Swedish population are immigrants or the children of immigrants. Such children are entitled to be taught Swedish as a foreign language and as their mother tongue. This instruction is provided at pre-school level as well as in compulsory and upper secondary schools.

28 Pupils with learning difficulties and/or disabilities are normally provided with support to enable them to be taught in normal classes. Pupils with more serious difficulties can attend special day schools or be given an adjusted course of study. The aim is to allow the pupil with learning difficulties to return to normal classes as soon as possible.

Independent Schools

29 Sweden's 150 independent schools cater for just over 8,000 pupils. Most employ alternative education methods such as Montessori or Waldorf and many are denominational. Legislation passed in June 1992 requires the municipalities to fund independent schools at a level equal to at least 85 per cent per pupil of the cost of a pupil attending a municipal school. The allowance is referred to as the 'school voucher'.

Independent schools are no longer required to employ alternative teaching methods in order to obtain approval.

Upper Secondary Schools

30 About 300,000 students attend Sweden's upper secondary schools, which are generally located in the larger communities. Student enrolments at these institutions vary between 300 and 1,500. Upper secondary schools employ nearly 30,000 teachers, just over half of whom are men. Class sizes normally do not exceed 30 for theoretical studies and 16 for practical work. More than 90 per cent of pupils completing the final grade of compulsory school apply for and are accepted by the upper secondary school.

31 New curricula are being introduced into the upper secondary schools based on the 16 programmes of study shown in appendix 2. Two of these programmes – social science and natural science – are primarily for those intending to proceed to university. The other 14 are vocational programmes. All programmes have a core of general subjects and are of three years' duration. Vocational programmes require students to spend at least 15 per cent of their programme at workplaces.

32 Upper secondary schools normally tend to specialise in relatively few of the 16 new programmes of study. For example, *Katedralskolan* has an academic tradition and much of its effort is in the two academic programmes. It has just started to diversify into the childcare and leisure vocational programmes. The three programmes are taught almost entirely separately. Swedish upper secondary schools are significantly less comprehensive than large further education colleges in England.

33 Vocational curricula offered by the upper secondary schools comprise core subjects and general education (30 per cent), vocational subjects (50 to 60 per cent) and individual or local options or project work (10 to 20 per cent). The options and project work cater for students' individual interests and local needs. The time allocations to the various subjects in a typical vocational programme are shown in appendix 3. A programme consisting primarily of courses preparing for higher education is designed to involve at least 2,180 study hours; a vocational programme normally requires 2,400 study hours. A seventeenth study programme is being developed in which students will compile their programmes from the core units and the other 16 programmes. These developments are similar to the General National Vocational Qualifications (GNVQ) reforms now being introduced in England, but have a stronger vocational emphasis than English GNVQ programmes. The introduction of these reforms is being phased in, at the discretion of municipalities. For the 1995-96 teaching year, all admissions will be to these new programmes. These programmes will be available also in adult education and in the special upper secondary schools for those with learning difficulties and/or disabilities. In the

special upper secondary school, every student receives a minimum of 3,600 hours tuition.

34 Concurrent with these curriculum changes, a new marking system is being introduced. Each programme is made up of a number of courses or modules, each of which is designed to require a certain number of hours study. The shortest courses are designed for 30 hours. Longer ones may involve several hundred hours and in these cases they are broken down into shorter courses. Successfully meeting the standard required in each module yields study points equivalent to the notional study hours, regardless of the time taken. There are four grades in the marking system: passed with high distinction, distinction, pass or fail. The final award shows the aggregate study points. Grade criteria are being published and central tests are being developed in certain subjects. Resits will be available for those who fail or those who wish to improve their grades. The upper secondary leaving certificate contains a record of grades for all the courses undertaken and is more a profile of achievement than a single qualification.

Higher Education

35 Two hundred and five thousand students attend Sweden's 35 institutes of higher education. There are 191,000 undergraduate and 14,000 postgraduate students. Thirty-five per cent of young people in Sweden proceed to higher education within five years of completing upper secondary schooling. Forty-five per cent of undergraduates are aged 24 years and under, 33 per cent between 25 and 34 and the remaining 22 per cent are 35 years of age and over. Entrants to higher education must fulfil both the general and special admission requirements. In certain study programmes, such as medicine and engineering, the numbers admitted are controlled by the government.

36 The university sector, like the other sectors of education, is in the process of change. A new funding system has been introduced involving three types of grant. The first is based on the number of students registered. The second is based on the number of study credits achieved by the student. The third is a special grant to encourage work of high quality and is based on quality gradings made by the chancellor's office with the help of external assessors.

37 To encourage both competition and pluralism in higher education, universities and university colleges have been offered the opportunity to turn themselves into private trust funds outside the public sector. Two institutions have taken advantage of this offer.

38 About £1 billion is made available to higher education institutions each year. Of this just over 50 per cent is devoted to undergraduate education, about one third to research and postgraduate education and about one fifth to premises.

Adult Education

39 About 50 per cent of Sweden's adult population pursue adult education studies. Adult education appears in many forms. These include municipal adult education which offers courses at compulsory and upper secondary school level; adult education for those with learning difficulties and/or disabilities; basic education for adults; Swedish instruction for immigrants; 130 or so folk high schools, which offer residential courses ranging from two days to two years in length; correspondence courses; retraining of both the employed and the unemployed; study circles organised by voluntary educational organisations; and in-house education provided by companies and administrative authorities. In a typical year about 3.5 million Swedes are involved in adult education as the data in table 2 illustrate.

Access, Participation and Drop-out

40 Access and equal opportunities have played a key role in the formulation of Sweden's educational policies over the last 50 years, with great emphasis being placed on social, gender and ethnic equality issues. At compulsory school level, these policies have been fostered through common curricula for all pupils and the absence of streaming. However, in the upper secondary school the majority of vocational programmes has an uneven distribution of the sexes. Engineering and construction programmes are dominated by males, and commercial, retail, care, health and teacher training courses by females. Participation rates in upper secondary education by young people born outside Sweden are lower than those of Swedish-born students. Students of first-generation immigrants are also more likely to be found in vocational courses than their Swedish counterparts. In adult education programmes immigrants and their children are over-represented in programmes at compulsory school level and under-represented in vocational programmes. Those with an immigrant background have found it more difficult to find employment during the present recession. Such people are also over-represented in manufacturing and service professions and under-represented in white-collar occupations and in private business enterprises.

Table 2: Participation in adult education by type of provision (Sweden 1993)

<i>Type of provision</i>	<i>Number of students</i>
Voluntary educational associations	2,900,000
Folk high schools	230,000
Municipal adult education	160,000
Employment training	100,000
Total	3,390,000

41 Of those admitted to upper secondary school, about 10 per cent fail to complete their programme for a variety of reasons. Men are more likely than women to drop out of the theoretical programmes of study and more women than men fail to complete the vocational programme.

42 The participation rate in higher education of the children of unskilled workers is low: 11 per cent compared with the 59 per cent amongst the children of university graduates. The largest enrolments in university programmes are in technology and business studies followed by medicine and education. A survey carried out in 1988 showed that 18 per cent of the entrants to higher education in 1981 had not graduated. Employment and family pressures were the main reasons given by students for dropping out of higher education programmes.

STUDENTS WITH LEARNING DIFFICULTIES AND/OR DISABILITIES

43 Acts passed by the Swedish parliament relating to the health, social and education services place responsibility for meeting the needs of people with learning difficulties and/or disabilities at the county and municipal levels. These acts also emphasise the importance of equal opportunities for such people. Organisations such as the National Association of the Disabled are consulted at the policy, planning and implementation phases of legislation.

44 In 1991, the National Agency for Special Education was established to monitor and develop provision, provide training, produce materials, run resource centres and to offer guidance and support to individual students. The National Agency is funded by the state and has a field force of 130 consultants in 33 local offices who provide careers and other guidance services for young people with disabilities and/or learning difficulties.

45 The majority of young people with learning difficulties and/or disabilities are taught in upper secondary schools, either in separate classes or integrated in normal classes with support. There are also a number of specialist national centres for students with certain disabilities. Examples are a centre for the profoundly deaf and hearing-impaired at Orebro, at which students are taught in small groups in local upper secondary schools and four national centres for students with severe disabilities where the same model is followed. The municipal authority in which they are located is responsible for these centres and receives grant aid from the state to enable them to fulfil their duties.

46 In the upper secondary school, most students with severe learning difficulties and/or disabilities are taught in separate classes by their own teachers. Students with learning difficulties and/or disabilities are able to follow two main programmes: one concentrates on handicrafts, music, drama and art; the other prepares students for working life. The content of the latter programme varies according to the specialist facilities of the college and local employment prospects. Such programmes often

include training in gardening, or restaurant and hotel work, or in the cleaning industry. At an upper secondary school visited by the team, a variety of programmes for young people with learning difficulties and/or disabilities was offered. Programmes include a therapeutically-based course for students with challenging behaviours, a vocational course for students with profound disabilities, where each student was supported by a care attendant and a work-orientated course for students with moderate learning difficulties. Opportunities for integration were being developed, but were mainly on a social basis. Young people were able to follow such programmes for up to four years. Flexibility within the upper secondary school programme allows students to follow individual programmes of study and training where this is appropriate.

GUIDANCE, COUNSELLING AND STUDENT SUPPORT

47 In the compulsory school sector, every school has a specialist guidance teacher. Additionally, class teachers stay with the same class for a number of years. This allows class teachers to get to know their pupils and build up a relationship which enables them to offer both personal and careers guidance as appropriate. As part of their preparation for adulthood and working life all school pupils undertake six to ten weeks of practical working life orientation which includes a spell of work experience during their senior years at compulsory school.

48 In the upper secondary sector there is a student support team in every college. This includes a *Kurator* who provides personal and careers guidance for all students. The support team may also include a nurse, social welfare worker and a youth leader. Again, it is the normal practice for the class teacher to remain with a group for at least two years and this class teacher is also able to provide guidance and counselling as appropriate. Upper secondary curricula also contain elements such as personal and social education, which contribute to the guidance process. Admissions to upper secondary programmes are in the hands of municipalities rather than the upper secondary schools. Municipalities seek to meet students' wishes. Specialisation after the first year is managed by schools. Students are involved in evaluating not only their own programme of study but also the overall curriculum offered by the upper secondary school.

QUALITY ASSURANCE

49 Quality assurance at the national level is the responsibility of the National Agency for Education, which is charged with analysing national statistics and providing feedback to the municipalities; advising the government on the performance of the school system using the national statistics and information from its field organisation; the development of syllabuses; and, through its field organisations, maintaining day-to-day contact with both the municipalities and individual schools.

50 The National Agency also plays a key role in the development of syllabuses. It brings together trade union and employer representatives to determine the competencies required in each vocational area. With the aid of practising teachers, these are then converted into teaching/training syllabuses.

51 Evaluation by the National Agency of individual programmes is largely through analysis of the results of national tests and examinations and destination statistics. There is little internal quality assurance at the school level beyond an assurance that the national curricula are being followed and that the results of national tests are being considered and interpreted in relation to the school's own performance.

TEACHERS AND THEIR CERTIFICATION

52 All teachers in compulsory schools are required to undertake a course lasting between three and a half, and four and a half years. Common to all students is a one-year course of 40 weeks' duration in the theory and practice of teaching. The programme for years 1-7, which takes three and a half to four years to complete, requires teachers to study one of the three variations of the basic curriculum and one or two specialist subject areas. Those wishing to teach in years 4-9 may specialise in one of five areas and study for up to four and a half years depending upon the specialist subject chosen. They may also extend their studies to qualify as an upper secondary teacher. A points scoring system is used in the teacher certification process (see appendix 4).

53 Upper secondary teachers are required to undertake one year's training in the theory and practice of teaching subsequent to three years' university study or the successful completion of a vocational programme of study which may be of a theoretical or practical nature.

54 All teachers are obliged to take part in school-based in-service training for five days each year as well as in training courses during the holidays. A major thrust in the in-service training of teachers in upper secondary school and adult education is to supplement their subject qualifications to bring them more in line with the requirements of the 16 new programme areas referred to in paragraph 31.

APPRENTICESHIPS AND EMPLOYMENT TRAINING

55 Parallel to the 16 programmes offered by the upper secondary schools, a new three-year apprenticeship training programme has been established. In the apprenticeship programme, vocational training is organised by the employer and the apprentice is provided with support by the upper secondary school in the study of the core subjects: Swedish, English, civics, mathematics and religious studies. As yet very few young people participate in this programme.

56 Access to employment training is restricted to those who are either unemployed or are likely to become unemployed and who are at least 20

years of age and registered with the employment service as a job seeker. Training lasts for between 25 and 30 weeks and focuses on manufacturing industry, caring services or office/administrative occupations. Training is provided by a national training authority, the AMU, upper secondary schools or higher education establishments. Each year about 100,000 people receive employment training and currently just over 50 per cent of those who receive training are employed six months after completion.

57 Some employment training is directed at those in employment with the intention of improving and updating their skills to prevent them being laid off. In these cases, the employer, normally a small or medium sized business, receives a training grant and training can be either in-house or be provided externally by a training provider. Employees continue to receive wages from their employer during training. Such training courses are of 300 hours duration and the numbers taking part have been about 30,000 per year.

58 In-house training provided by companies has been one of Sweden's biggest training growth areas in recent years. It is estimated that each year about two million people receive at least one day's staff training, of whom 60 per cent receive over three days training per year. Additionally, the Swedish Trades Union Confederation and the Central Organisation of Salaried Employees offer their own study programmes in union affairs and social matters. These are generally residential and last between one week and six months. These programmes are not subsidised by the state.

EDUCATION FINANCE

59 Sweden spends a higher proportion of its GDP – 7.5 per cent – on education than any other OECD country. In 1990-91 it spent £10 billion which includes capital expenditure of about £1 billion. Of the £9 billion recurrent expenditure, the state was responsible for 65 per cent, the municipalities for 30 per cent and the county councils for the remaining 5 per cent. Recurrent expenditure on the different sectors of education was compulsory schools (50 per cent), upper secondary schools (20 per cent), employment training (9 per cent), adult education (7 per cent) and higher education (13 per cent). The remaining 1 per cent was spent on special provision for those with learning difficulties and/or disabilities.

60 Both compulsory and upper secondary schools are funded through the municipalities. In the case of upper secondary schools, the municipalities decide the programmes which upper secondary schools offer and the schools are funded on the basis of enrolment levels.

STUDENT GRANTS AND LOANS

61 All students aged between 16 and 20 years attending upper secondary school or undertaking upper secondary level studies receive

study grants. This grant is effectively a continuation of the child allowance, which is payable until the child is 16 years of age and accounts for 95 per cent of the local expenditure for this type of financial aid. Boarding allowances are also available for students living away from home as is an increment for children from families in the lowest income bracket.

62 Students attending university or those aged 20 and over attending upper secondary school or other forms of upper secondary level education are eligible for a study grant plus a larger repayable loan. Both grants and loans are means tested in relation to the income of the grant recipient but do not depend on the income of either the recipient's parents or spouse. The grant normally accounts for about 29 per cent of the total assistance. Loan repayment begins six months after study assistance ceases and must be repaid at the rate of 4 per cent of annual income. Interest rates are fixed by the government annually.

63 Adults can receive study assistance for either long-term or short-term studies. The grant for long-term studies is related to previous income. Levels of compensation for short-term studies are related to loss of hourly earnings entailed by educational study.

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- 7 *The New Upper Secondary School*, National Agency for Education, Sweden (1993)

APPENDIX 1

INSTITUTIONS AND ORGANISATIONS VISITED

- 1 Aso Gymnasium, Blekingegatan 55, Stockholm.
- 2 Enskede Gards Gymnasium, Palmfeltsvagen 111, Enskede.
- 3 Ekebyskolan, Ekeby Bruk, Uppsala.
- 4 Katedralskolan, Skolgatan 2, Uppsala.
- 5 Linneskolan, Vastra Strandgatan 11, Uppsala.
- 6 Grafiskt Utbildningscenter, Palmbladsgatan 14, Uppsala.
- 7 Ministry of Education and Science, Drottninggatan 16, Stockholm.
- 8 National Agency for Education, Kungsgatan 53, Stockholm.

APPENDIX 2

NATIONAL PROGRAMMES AVAILABLE IN SWEDISH UPPER SECONDARY SCHOOLS

Arts

- Art and design
- Dance and theatre
- Music

Business and administration

Construction

- Building and construction
- Constructional metalwork
- Painting

Child recreation

Electrical engineering

- Automation
- Electronics
- Installation

Energy

- Energy
- Heating, ventilation and sanitation
- Shipbuilding

Food

- Baking and confectionery
- Fresh and cured meat products

Handicraft

Health care

- Health care
- Dental nursing

Hotel and catering

- Catering
- Hotel
- Restaurant

Industry

- Industry
- Process industries
- Textiles and clothing manufacturing
- Woodwork

Media

- Information and advertising
- Printed media

Natural resource use

Natural science

- Natural science
- Technology

Social science

- Economics
- Humanities
- Social science

Vehicle engineering

- Aircraft engineering and maintenance
- Coachwork
- Vehicle repairing
- Transport

APPENDIX 3

THREE-YEAR VOCATIONAL PROGRAMMES AVAILABLE IN SWEDISH UPPER SECONDARY SCHOOLS

Core subjects and general education – 680 hours

- Swedish 200
- English 110
- Civics 90
- Religious education 30
- Mathematics 110
- Natural science 30
- Arts 30
- Physical education 80

Individual and local options and project work – 350 hours

- Individual options 190
- Local options 130
- Special projects 30

APPENDIX 4

DIAGRAMMATIC REPRESENTATION OF TEACHER TRAINING PROGRAMMES FOR DIFFERENT LEVELS OF THE SWEDISH SCHOOL SYSTEM

Year Group (forms)

