

Comptroller and Auditor General

Report on Value for Money Examination

Department of Education

Planning of Second Level School Accommodation

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Report of the Comptroller and Auditor General

Planning of Second Level School Accommodation

I have, in accordance with the provisions of Section 9 of the Comptroller and Auditor General (Amendment) Act, 1993, carried out a value for money examination of the planning of second level school accommodation by the Department of Education.

I hereby submit my report of the above examination for presentation to Dáil Éireann pursuant to Section 11 of the said Act.

John Purcell

Comptroller and Auditor General

2 October 1996

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Summary of Findings

Background

The Department of Education spent £39m on the second level school building programme in 1995. Expenditure on the programme in 1996 is estimated at £30m. At the end of June 1996, the Department had approved 240 major capital projects for the provision or improvement of second level school accommodation, estimated to cost a total of £179m. A further 76 major projects had been approved in principle but their cost had not yet been estimated.

Nationally, enrolment in second level schools is expected to increase up to 1997/98 after which it is expected to decline significantly. Within the national trend, different patterns of change in enrolment level may occur in individual catchment areas. The complex pattern of changes in enrolment has implications for the extent and timing of provision or improvement of accommodation in second level schools.

Apart from changes in enrolment, the scale of capital investment in school building projects is influenced by a number of factors such as the condition of existing accommodation, proposals for amalgamation of schools and policies for curriculum expansion and development.

Focus of Study

This study focused on the adequacy of the Department of Education's systems for planning and managing the provision of second level school accommodation in the context of the projected long-term decline in enrolment levels and a continuing demand for building projects which far exceeds the available level of annual capital funding.

Recent Policy Developments

Following a wide-ranging consultation process about all aspects of education policy, including the holding of a National Education Convention and the publication of a White Paper entitled *Charting our Education Future*, a number of key policy decisions in relation to planning school accommodation were taken. These represent a major structural response to the issues dealt with in this report and are consistent with most of the recommendations on these issues made in the report.

Planning the School Accommodation Programme

The Department of Education has traditionally adopted a reactive approach to the provision of school accommodation in so far as it responds to demands for school places and building improvements rather than formulating and implementing a long-term strategic plan. Historically, the provision of school buildings usually resulted

from local or private initiatives. The Department sees itself as being a partner together with the local promoters in the provision of school places.

A Commission on School Accommodation Needs was established in March 1996 to examine and make recommendations about school accommodation issues at first and second level. In addition, it is likely that some of the Department's administrative functions in relation to accommodation projects will be transferred to the proposed regional education boards. The implications of these initiatives for the work of the Department's Planning and Building Unit are currently being assessed by independent consultants.

The Department's current approach to assessing proposed accommodation projects is designed to ensure that there is an identifiable need for each individual project which is approved. However, getting best value from the available resources requires that the most pressing needs are identified early enough for appropriate and timely action to be taken. A number of changes to its current procedures would assist the Department to do this more effectively.

Amalgamation of Schools

The Department should adopt a more proactive approach on the rationalisation of school accommodation.

Inventory of Accommodation

A comprehensive current inventory of second level school accommodation would enhance the Department's ability to assess the extent of current needs and to plan and evaluate the ongoing building programme. The extensive amount of information currently held in the Department's paper files cannot in practice be used for this purpose because it is not readily accessible and some of it is out of date.

Monitoring Occupancy Levels

The Department should monitor the level of occupancy in second level schools generally in order to help it to identify areas or schools where accommodation problems may exist or may be likely to arise.

Local Area Enrolment Projections

While national enrolment projections are prepared periodically within the Department, projections for individual school catchment areas are not produced. The availability of these projections would assist the Department in planning its accommodation programme by pinpointing areas with potential accommodation

difficulties in time to allow for considered action. However, the feasibility of producing such projections needs to be investigated because of the resources required and potential methodological problems.

Prioritisation of Projects

Since the total estimated cost of projects approved in principle exceeds the available annual funding, choices have to be made about which projects have the highest priority. Building projects are currently recommended for funding on the basis of consensus judgments by Department officials having regard to a number of factors including the availability, adequacy and safety of existing accommodation. However, no formal set of fixed quantified criteria exists. A list of recommended projects is submitted for senior management and ministerial approval and amendments may be made to the selection at this stage.

Without a proper prioritisation system based on predetermined objective criteria, the Department cannot demonstrate that the building programme addresses the areas of greatest need among the many projects proposed. While this report was being finalised, the Department indicated that it had commenced the development of a formal prioritisation procedure involving a points system based on relevant factors for ranking projects.

Setting Programme Targets

Setting targets in terms of the number of new or replacement school places to be provided or the average building cost per pupil place provided would assist in monitoring and evaluating the accommodation programme. The Department plans to introduce overall targets for the output of the school accommodation programme.

Management Information

Readily accessible and up-to-date management information about school building projects would enhance the Department's capacity to assess its operational efficiency and to highlight reasons for delays and backlogs in handling applications. It would also facilitate financial planning and monitoring and the control of expenditure on projects. In this regard, the Department is introducing a new computerised management system which it expects to be fully operational by early 1997.

Extensions to New Schools

The Department is currently funding the construction of large permanent extensions to a number of schools which themselves were built within the past three years. This suggests that the project appraisal process for the original school building projects seriously under-estimated the need for accommodation.

The Department states that it often provides accommodation on a phased basis because of budgetary constraints. It accepts that additional costs arise because there are two projects instead of one but considers that these are minimised by the imposition of cost and space limits for projects. However, keeping within the limits prescribed does not mean that appropriate accommodation is provided at the least possible cost.

Site Acquisition

In 1995, the Department attempted to sell an unwanted site valued at £1.1m but a local campaign for the retention of the land as an amenity area resulted in the local authority rezoning the land from residential to amenity status. This decision substantially reduced the market value of the land. Legal advice obtained on this matter is currently being considered by the Department.

Disposal of Schools

Secondary school authorities are required to undertake to refund to the Department the unexpired value of any grant received in the event that grant-aided buildings cease to be used for educational purposes. The amount of any such refund is negotiated on the basis of the amount of grant aid given and the period of time from when the funding was granted. An estimate of the value of the Minister's interest in all school buildings (and sites, where appropriate) would be desirable for control and accounting purposes.

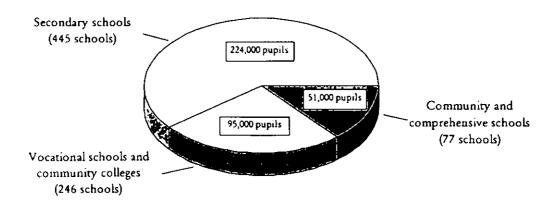
Planning of Second Lev	vel School Acco	ommodation



1 Introduction

1.1 Almost 370,000 pupils attended a total of 768 publicly-funded second level schools in the 1995/96 school year. Secondary schools catered for 60 per cent of pupils. Vocational schools and community colleges were attended by 26 per cent of pupils. The remaining pupils attended community and comprehensive schools.¹

Figure 1.1
Enrolment in Second Level Schools, by Type, 1995/96



Source: Department of Education

Trends in Enrolment

- 1.2 Total enrolment in the second level school sector increased significantly over the past two decades as a result of both population growth and increasing participation in second level education. The upward trend in enrolment is expected to continue until 1997/98. Although the rate of participation in second level education is expected to increase further, the sharp decline in the number of births in recent years is expected to lead to a significant reduction in school enrolment levels in subsequent years. Enrolment in the school year 2015/16 is projected by the Department of Education to be around 77 per cent of the peak level.
- 1.3 The scale of the expected change in enrolment has significant implications for the provision of accommodation in second level schools. The overall number of second level schools may decline as a result of closures or the amalgamation of individual schools serving the same population catchment.

Appendix A outlines differences between the separate categories of school.

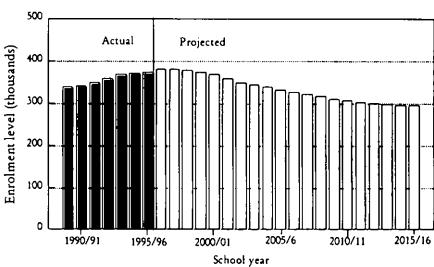


Figure 1.2
Full-time Enrolment in Second Level Schools, 1989/90 to 2015/16

Source: Department of Education

- 1.4 Trends in enrolments in school catchment areas across the country may be quite different from the national trend. In some areas, enrolment is already in decline. In other growing centres of population, demand for school places may increase (or at least remain constant) for many years to come.
- 1.5 Within each catchment area, trends in enrolment in individual schools may also differ. This may be due to local perceptions of the relative quality of education provided or the range of subjects on offer. In other cases, enrolment in individual schools may increase because of greater demand for education through Irish or in multidenominational or non-denominational schools. As a result, enrolments may be increasing in some schools in an area and decreasing in neighbouring schools. For this reason, proposals to provide new school accommodation or for improvements to existing accommodation are generally assessed in relation to a catchment area rather than in relation to individual schools.
- 1.6 The projected fall in enrolments suggests that fewer school places will be required in the future. However, other factors are likely to give rise to a continuing demand for significant capital investment in second level school accommodation. These include
 - the physical condition of the accommodation currently in use
 - demand for new accommodation to facilitate amalgamation of schools
 - demand for new facilities so that schools can offer a varied curriculum suitable for a student population based on high participation rates
 - the introduction of a transition year option in additional schools.

Departmental Policy

- 1.7 The Department of Education has a crucial role in ensuring adequate and efficient provision of school places. Its approach to that task is based on the view that it provides school places in partnership with other promoters in response to locally based initiatives.
- 1.8 The partnership approach reflects policy dimensions such as diversity of needs and the plurality of the system as well as the fact that, historically, most of the provision of school buildings has been the result of local or private initiative and that school managers exercise a great deal of autonomy.

The Planning and Building Unit

- 1.9 Responsibility for the planning, implementation and management of both the first and second level school building programmes rests with the Planning and Building Unit (PBU) of the Department of Education.
- 1.10 A total of 34 staff, including both general, professional and technical grades, are employed in the PBU in dealing with the planning and provision of second level school accommodation. Allowing for work undertaken by those staff in respect of other education sectors, it is estimated that the equivalent of 29.3 whole-time staff are employed on planning and management of the second level capital programme. The estimated total cost in 1996 of this level of staff resources (including overheads) is £900,000.

Focus of this Examination

- 1.11 This study focused on the adequacy of the Department of Education's systems for planning and managing the provision of second level school accommodation in the context of the projected long-term decline in enrolment levels and a demand for capital projects which far exceeds the available level of annual capital funding. In particular, it examined
 - the quality of the Department's strategic planning for meeting future accommodation needs
 - the evaluation and planning of individual capital projects.

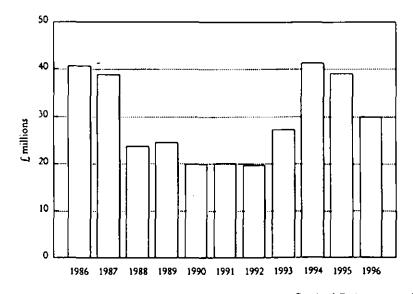
2 Expenditure on Second Level School Building

- 2.1 The Department of Education provides most of the funds to meet the general running costs of schools in all three categories of the second level education sector. The management authorities of the schools are also entitled to apply to the Department for funding of proposed capital projects.
- The amount of funding made available to school management authorities for capital projects varies according to the type of school.
 - The Department pays grants equivalent to 90 per cent of the cost of capital projects, excluding site purchase, in secondary schools.
 - For community schools, the Department provides 95 per cent of the cost of capital projects, including the cost of site purchase.
 - For schools run by Vocational Education Committees (VECs), the Department provides 100 per cent of the cost of capital projects, including site purchase costs.

Pattern of Expenditure

2.3 In setting expenditure levels in 1987, the Government decided that a thorough review of policy in relation to the planning and provision of new and replacement school accommodation should be carried out. It also decided to cut back the level of funding for second level capital projects (see Figure 2.1).

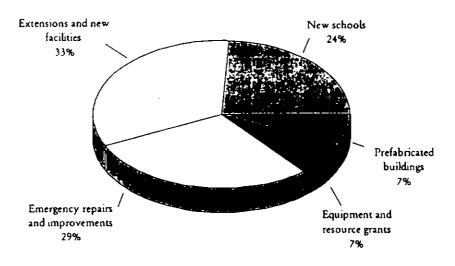
Figure 2.1
Exchequer Expenditure on Second Level Education Capital Projects, 1986 to 1996



Sources: 1986 to 1995 - Appropriation Accounts; 1996 - Revised Estimates Book

- 2.4 Commitments made to projects already underway resulted in only a slight reduction in spending in 1987. A significantly lower level of expenditure was maintained over the following five year period. Capital expenditure increased again in 1993 and 1994.
- 2.5 Capital expenditure on second level schools in 1996 is estimated at £30m around three-quarters of the 1986 level. Taking account of price increases in the intervening period, the 1996 level of expenditure is around 57 per cent of the 1986 level. Allowing for additional duties assigned over the period 1986-1996, the level of staffing involved in provision of second level school accommodation declined to around 50 per cent of its 1986 level.
- 2.6 Figure 2.2 shows the breakdown of expenditure on second level capital projects between the various main categories i.e. new school buildings, permanent extensions and new facilities in existing schools, emergency repairs and improvements and provision of temporary accommodation in prefabricated buildings.

Figure 2.2
Exchequer Expenditure on Second Level School Capital Projects, by Type, 1995



Source: Department of Education

- 2.7 The main features of the breakdown of capital spending in 1995 are
 - Around 57 per cent of capital expenditure was on major projects to provide new schools, or permanent extensions or new facilities in existing schools. The extent to which this kind of project adds to the overall stock of school places depends on how many of them replace existing places (for example, where the new facility allows the amalgamation of a number of schools) and how many provide additional places to meet increasing enrolment in a school catchment area.

- Emergency repairs and improvements to existing facilities accounted for 29 per cent of capital expenditure. The extent to which projects of this kind are required depends largely on the age of the stock of buildings, the adequacy of ongoing maintenance programmes, health and safety requirements, and the incidence of vandalism and random events such as storm or flood damage.
- Projects to provide prefabricated accommodation accounted for a small proportion of capital expenditure. Prefabricated building projects are generally funded so as to provide replacement school places in an emergency situation or extra places to meet short-term peaks in enrolment.

Current Building Projects

- 2.8 The total estimated cost of school building projects which have been submitted to the Department greatly exceeds the funding available in any one year. The Department's ability to respond to requests for new or improved accommodation is consequently limited by the amount of funding available.
- In July 1996, the Department had approved in principle and prepared estimates of the cost of 240 major building projects. The total estimated cost of undertaking all these projects, which were at various stages of progress, was £179m (see Table 2.1). A further 76 major projects had been approved but had not yet been costed because the exact format of the projects had not been determined at that stage.

Table 2.1
Second Level School Building Projects, by Stage and Estimated Cost — July 1996

Project status	Number of projects	Estimated project cost £m
Approved but awaiting design	65	46
Design underway or awaiting construction	148	110
Under construction	27	23
A'll live projects	240	179

Source: Department of Education

Note: 'The Department was awaiting final accounts in respect of a further 106 projects where construction had been completed. The estimated outstanding amount was £4m.

3 Planning the School Accommodation Programme

- 3.1 The effectiveness of a programme for the provision of school accommodation within the constraints of available resources is unlikely to be maximised unless a strategic approach is taken to planning and implementing the programme. Such an approach includes
 - the identification of needs
 - the setting of programme objectives to meet those needs
 - the establishment of quantified targets for the programme
 - the prioritisation of projects which meet the greatest needs.
- 3.2 Systems to gather relevant data on an ongoing basis would facilitate monitoring of programme achievements and adjustment of the programme, if necessary. They would also facilitate regular evaluation of the effectiveness of the building programme.

Current Approach to Planning

- 3.3 The Department of Education has traditionally adopted a reactive approach to the provision of school accommodation in so far as it responds to proposals by school authorities for additional or improved buildings. As a result, the resources of the PBU are directed primarily at appraising and approving individual projects which are submitted by local promoters, rather than formulating and implementing a long-term strategic plan.
- 3.4 The Department contends that the effective planning of a school accommodation programme ideally requires an assured level of capital funding over a pre-determined period. It pointed out that difficulties arise in planning and implementing what is in effect a multi-annual programme (because of the nature and duration of building projects) within a framework of annual budgetary allocations.
- 3.5 A 1988 report by an interdepartmental committee of officials recommended that the Department should undertake the following tasks as an input to planning the provision of school accommodation.
 - Rationalisation of second-level schools should continue to be pursued actively.
 - An inventory of school accommodation, detailing the location, size and condition of all school buildings should be prepared as a matter of urgency.
 - Projections of school enrolments for 15 to 20 years ahead on a local-area basis should be prepared annually.

- The Department of Education should identify criteria to facilitate the establishment of a clearly defined order of priority for school building projects and a clear queuing system for projects.
- The provision of accommodation in pre-fabricated or semi-permanent form should be considered in all cases except where it can be demonstrated that the long term needs of the school demand that all accommodation be of permanent construction.

Programme Targets

- 3.6 Each year, the Department draws up its building programme based on the level of funding available. Its overall target is to implement that programme within the given budget.
- 3.7 Individual building projects are planned to provide a target number of school places within set space and cost limits (see Appendix B). These limits provide a benchmark against which the economy and efficiency of individual projects can be measured. However, the Department does not set overall targets for the output of the accommodation programme or its impact on the stock of second level school accommodation generally.
- 3.8 The following types of performance measures might usefully be adopted to facilitate monitoring and evaluation of the efficiency and effectiveness of the school accommodation programme as a whole.

Accommodation targets for building stock

- overall utilisation rate of existing stock of all school buildings
- targets for programmes of improvements to meet health and safety standards
- average space per pupil enrolled.

Targets for programme of new building

- total number of new and replacement places to be provided
- average capital cost per pupil place provided.
- 3.9 The Department has stated that it intends in the future to set output targets which will facilitate the evaluation of the overall effectiveness of the second level building programme.

Planning Structures

- 3.10 Over the period 1992 to 1995, the Department engaged in a wide-ranging process of consultation about all aspects of education policy including issues related to the provision of school accommodation. Following that process, education policy was set out in a Government White Paper entitled Charting our Education Future. A number of structural changes proposed in the White Paper have substantial implications for the planning of school accommodation.
- 3.11 A Commission on School Accommodation Needs was established in March 1996 to examine school accommodation issues at first and second level.² The Department views this as a major policy initiative intended to develop the policy framework for the provision of school accommodation.
- 3.12 The Commission's remit includes the following functions
 - to undertake comprehensive statistical and demographic analysis to assist in policy formulation on rationalisation of accommodation
 - to provide information on the current and projected position in relation to school provision
 - to recommend criteria and procedures for school provision and planning.
- 3.13 The White Paper also proposed the establishment of regional education boards. Draft legislation for the establishment of the boards is currently at an advanced stage of preparation. It is proposed that the statutory responsibilities of the boards will include evaluation and planning for the provision of school accommodation. The Boards will also have authority within their regions to own school accommodation which will be leased to school promoters.
- 3.14 The Department intends that the proposed education boards will take over the functions of the Commission on School Accommodation Needs after a period and will be responsible for the development and updating of catchment area studies in their regions.
- 3.15 The Department has appointed independent consultants to review and make recommendations on its own organisation and structure and those of the proposed regional education boards. This review will include the implications of the establishment of the Commission and the regional education boards for the work of the PBU.

The Commission has also been asked to examine the existing VEC structure, to make recommendations on VEC rationalisation and to review the criteria for the recognition of new primary schools.

Rationalisation of School Accommodation

Programme of Rationalisation

- 3.16 When local promoters propose new accommodation projects, the option of dealing with the accommodation need by the amalgamation of schools in the catchment area is examined by the Department. Where this is the preferred option, the Department proposes the creation of a new amalgamated school (perhaps using the best of the available accommodation) and seeks local agreement. Occasionally, school amalgamation proposals are initiated by school authorities who then bring proposals to the Department.
- 3.17 The Department's policy in relation to the rationalisation of second-level schools is to provide schools of sufficient size to enable a broad curricular choice to be available to all students. An enrolment of 800-1,000 pupils is seen as the optimum school size.
- 3.18 The Department indicated that, in September 1996, a total of 25 projects related to rationalisation proposals were on hands. The projects involved a total of 59 schools of which 37 had enrolments of 250 pupils or less. These 37 schools account for 25 per cent of the total number of schools with enrolments of 250 pupils or less.
- 3.19 Eighteen of the 25 rationalisation projects were at a stage where an estimate of cost could be prepared and this amounted to a total of £32m. Amalgamations occur on an ongoing basis as funding allows.
- 3.20 Participants at the National Education Convention held in October 1993 identified the lack of clear Departmental policy as the main problem in relation to the management of school rationalisation. The report on the Convention recommended that the Department should play a more proactive role in bringing about successful amalgamations. It also suggested the publication of
 - detailed enrolment projections for each school catchment area and region
 - the Department's expectations for school amalgamations
 - the Department's order of priority for such amalgamations.
- 3.21 The report on the Convention also recommended that where amalgamation projects were low on the list of priorities, the Department (or the proposed regional education boards) should develop a clearly defined policy to promote co-operation amongst the schools in a catchment area and to moderate potential destructive competition. The Department states that its long standing policy has been to promote co-operation between schools through various mechanisms including common enrolment. However, in many cases, it has proved extremely difficult to secure co-operation because of local circumstances.

3.22 The Department expects that the Commission will review and make policy proposals in relation to school rationalisation and that each regional education board will introduce arrangements for managing the rationalisation process in accordance with the national framework for policy development.

Closure of Second Level Schools

- 3.23 Vocational schools are owned by the relevant VECs while community and comprehensive schools are owned by the Minister for Education. In the event of closure of a vocational, community or comprehensive school, the use or disposal of the school buildings is under the control of the Department. Buildings may be retained in public ownership and assigned for alternative uses e.g. in another educational sector or for use by community groups. Alternatively, the property could be sold.
- 3.24 Secondary schools (58 per cent of all schools) are privately owned and the cost of providing sites is not grant-aided. Before they can avail of grant-assistance for capital projects, secondary school authorities are required to undertake to refund to the Department the unexpired value of the grant should the accommodation cease to be used for educational purposes. The unexpired value is negotiated on the basis of the amount of grant-aid and the period of time elapsed from the date funding was provided.³
- 3.25 The Department has pointed out that most, if not all, of the market value of school property generally relates to the development potential of the school site, rather than to the school buildings themselves. Nevertheless, the Minister's interest in grant-aided buildings is an asset which needs to be protected and managed. The aggregate current value of the Minister's interest is not known and cannot readily be estimated because
 - the rate of grant aid paid has changed over time.
 - changes have occurred in the procedures for securing the agreement of school authorities to refund the unexpired value of grant-aided assets and in the circumstances in which refunds must be paid
 - the unexpired value of grant-aided assets is negotiated rather than calculated on the basis of a fixed formula.

Appendix C describes the arrangement for refund of grant assistance for capital projects in secondary schools in more detail.

- 3.26 An estimate of the value of the Minister's interest in all school buildings (and sites, where appropriate) would be desirable for control and accounting purposes. In the absence of that overall estimate, estimates of the Minister's current interest in individual schools could be prepared when capital grant applications are being assessed or when the closure of schools is being considered. The relevant information to be gathered includes
 - amount of grant-aid paid each year since the capital grant scheme for secondary schools was introduced in 1967
 - amount of grant-aid in respect of which refund undertakings were given
 - refundable unexpired value of grant-aided assets
 - a year-by-year forecast of refundable value until the school's liability expires.

Inventory of Accommodation

- 3.27 The Department assesses the extent of usable accommodation and the need for new pupil places in individual schools before approving accommodation projects. However, the PBU does not have a comprehensive current inventory of the overall stock or condition of second-level school accommodation.
- 3.28 An extensive amount of information on school buildings is contained in the Building Section's paper files. However, it is not practical to use the information for programme planning because
 - Some of the information is out of date. Records in relation to an individual school are revised only when a building project is undertaken. As a result, there may be little useful information about schools, and particularly about the condition of accommodation, where projects have not been undertaken in recent years. In addition, files may not reflect the true position where local fund-raising had been used to finance building or improvement work.
 - Data is dispersed and not readily accessible because a number of files may exist for one school.
- 3.29 The 1988 report of the interdepartmental committee recommended that an inventory of the existing stock of accommodation in both primary and second level sectors should be compiled. It was considered that the inventory should include
 - the number of classrooms by type of accommodation (permanent, semi permanent, prefabricated) and estimated pupil capacity
 - the type of school
 - the use of available accommodation
 - other facilities (e.g. general purpose room, physical education hall, offices)

- a brief report on the condition of the available accommodation.
- the date of provision of accommodation and its estimated remaining lifespan.
- 3.30 The Department undertook a survey of primary school accommodation in Autumn 1994 by issuing a questionnaire to all primary school principals. According to the Department, a response rate of over 90 per cent has been achieved. A database of accommodation has been created which, according to the Department, can easily be accessed and interrogated by PBU staff. It is intended that the database will be archived as a benchmark. A version of the database will also be continuously updated as further building projects are carried out. Comprehensive updates will be carried out periodically.
- 3.31 The Department's ability to plan and evaluate its building programme would be enhanced if it had a comprehensive current inventory of second level accommodation. Following initial compilation of the inventory, periodic surveys would be required to ensure that the information is kept as up to date as possible. Information about new building projects should also be recorded in the inventory on an ongoing basis.
- 3.32 The Department accepts that an inventory of the second level school building stock is an important tool for a thorough evaluation of future building and maintenance programmes. However, it considers that statistics in relation to accommodation are of limited value without a professional assessment of the condition of such accommodation and believes this would require an objective examination of each second level school. The Department is considering seeking the assistance of the Office of Public Works for this purpose.

Occupancy of School Accommodation

- 3.33 In 1991, the PBU drew up a listing of all schools from information on file, showing the estimated number of places in each school and the current enrolment. In the course of this examination, the data was analysed to establish the extent to which school places matched enrolment at that time.
- 3.34 The estimated overall number of places available at second level in 1990/91 was slightly higher than the total number of pupils enrolled. On average, enrolment was 97.3 per cent of total places available. However, there were significant disparities between the numbers of pupils and places in individual schools.
 - One school in four had enrolments which were less than 85 per cent of the available places. In total, these schools had 18 per cent of enrolled pupils and nearly 26 per cent of school places.

- Nearly one school in five had enrolments more than 15 per cent higher than the number of available places. In total, these schools had nearly 23 per cent of enrolled pupils but only 17 per cent of school places.
- 3.35 The Department is not aware of the current level of occupancy of second level school buildings generally.
- 3.36 Capacity utilisation measures are concerned with how efficiently accommodation is used in terms of level of occupancy and frequency of use of classrooms across the time-tabled week. They would assist in identifying schools where overcrowding occurs or where significant spare capacity may be starting to emerge.
- 3.37 Data on capacity utilisation is more difficult to collect than data on occupancy of schools. While occupancy levels are not direct measures of capacity utilisation, monitoring of occupancy levels could be used as a means of identifying schools or areas where accommodation problems may exist or be emerging. If basic data about pupil places and enrolment was available, analysis of occupancy patterns would be a relatively straightforward process.

Enrolment Projections

3.38 National enrolment projections for each education sector are periodically prepared by the Department's statistician based on various assumptions about the flows into and out of full-time education and the pattern of transition within the education system. However, projections of enrolment in each school catchment area are not produced.

Current Projection Methodology

- 3.39 Enrolment projections for individual catchment areas are prepared by the Planning Section of the PBU when accommodation proposals are being assessed. These take into account the number of children currently enrolled in primary schools in the catchment area and the pattern of transfer of children from those primary schools to each of the second level schools in the area where the building project is proposed. They also take account of the pattern of transfer of children from outside the catchment area into these second level schools. Local baptismal figures in recent years and proposed major housing developments are also taken into consideration.
- 3.40 No formal system is in place for monitoring and reviewing catchment area projections in the light of experience i.e. against actual enrolments.

3.41 Periodic reviews of projections against enrolment outturns would ensure that the methodology and assumptions used are appropriate. Refinements to the methodology or assumptions could be made if patterns of significant variation emerged.

Area-by-Area Projections

- 3.42 The 1988 report of the interdepartmental committee recommended the preparation each year of projections of enrolment for each catchment area for 15 to 20 years ahead. The report on the National Education Convention endorsed the need for the preparation and publication of long-term projections for all catchments.
- 3.43 The Department has an existing projection methodology for enrolments in individual catchment areas. This could provide a basis for designing a methodology to produce periodic projections for each catchment area. However, the methodology would have to take into account the complex patterns of transfers between primary and second level schools in urban areas and the need to ensure that the catchment area projections, when aggregated, are consistent with the corresponding national enrolment projections.
- 3.44 The Department already collects and stores in computer format much basic data about pupils in the education system. This data, which is currently used in making projections for specific building project proposals, would also facilitate the preparation of second-level enrolment projections by catchment area for up to eight years ahead. Preparation of longer term projections would require the incorporation of forecasts about future enrolments at primary school level and about birth rates.
- 3.45 The Department's ability to plan the school building programme and to evaluate its effectiveness would be improved if periodic enrolment projections by catchment area were available. However, the feasibility of producing such projections needs to be investigated because of the potential methodological problems and the likely resources required.
- 3.46 Combined with information from the proposed inventory of accommodation and monitoring of occupancy levels, area-by-area projections of enrolment would enable the Department to identify areas for potential rationalisation and where accommodation difficulties are likely to arise and allow for prioritisation of areas of greatest need and for timely action.

4 Planning of Individual Projects

4.1 Proposals for new, additional or improved accommodation are submitted to the Department by the relevant local promoters e.g. school management board or principal.

Stages in Planning Projects

- 4.2 Proposals are referred first to the Planning Section of the PBU which is responsible for assessing the likely future pupil numbers in each school in the local area. All options are considered including the possibility of amalgamation with neighbouring schools. The relevant local interests including school authorities, parents, teacher representatives and local authorities are consulted. Where necessary, agreements in principle between interested parties are concluded. When all the relevant assessments and consultations have been completed to the Department's satisfaction, a project is regarded as having been approved in principle.
- 4.3 Subsequently, the Building Section of the PBU appraises the project in terms of the proposed curriculum and subject options and identifies how to meet these requirements in the most cost-effective manner.
- A schedule of the suggested future use of existing accommodation (including any necessary refurbishment) and new accommodation is prepared and agreed with the relevant school authorities. The type of new accommodation to be provided permanent masonry construction or temporary prefabricated accommodation is determined by reference to the projected duration of the need for additional places.
- 4.5 The next step is the appointment of a design team (by the Minister, the relevant VEC or school board, as appropriate) and the commencement of architectural planning. However, all projects do not automatically progress to this stage. Progress to the appointment of a design team which has cost implications is largely dependent on the priority attaching to a project and overall budgetary considerations.
- The PBU has drawn up design team procedures which specify in detail the various stages of the design and planning process. The brief of the design team is to provide a design solution which meets the accommodation requirements within the limits of the Department's space and cost limits for second level school projects (see Appendix B). If these limits are not adhered to, the design team is required to revise the architectural plans. Departmental approval is required before a project can progress from one stage to the next and before tenders are invited.

Management Information

- 4.7 The PBU does not routinely collect or record operational data concerning the handling of applications for second level school building projects. As a result, it cannot readily identify
 - the number of project applications received in specific time periods
 - the number of applications approved or rejected in a specific time period
 - the length of time each application was on hands before a decision was taken
 - the number of applications being considered at any given time
 - general information about the type and current status of projects approved or underway
 - output measures such as unit costs or the number of new or replacement school places being provided, by catchment area or nationally.
- 4.8 Quick and easy access to management information about school building projects would enhance the PBU's capacity to appraise its own efficiency and management effectiveness and to take remedial action where significant delays or backlogs are occurring. It would also facilitate the PBU's tasks of financial planning for the school building programme and the monitoring and control of expenditure on projects.
- 4.9 A computerised management information system for the Department's building programmes was purchased in 1985/86. Despite the considerable cost incurred, including the cost of staff engaged on systems development work, the planned system never became fully operational. With the subsequent development of the Department's information technology strategy and the selection of standard systems for the Department's overall management information system, it became apparent that the system which had been chosen for the Building Section was incompatible and it became obsolete.⁴
- 4.10 A basic computerised database of projects which had been approved and costed was subsequently developed within the PBU. This was maintained up to August 1995 when staff changes occurred arising from the decentralisation of the PBU to Tullamore, Co. Offaly. Replacement staff were not trained in the use of the database because development of a more comprehensive management information system was being considered. As a result, only some functions of the database have been available since August 1995.
- 4.11 A feasibility study has been undertaken on the introduction of a computer system to assist in project management, document control, management information and

This matter was raised in the Report of the Comptroller and Auditor General on the 1990 Appropriation Accounts (pages 46 to 48).

correspondence. The first phase of the system is now in operation and the Department intends to have it fully operational by early 1997. The Department expects that the system will also be capable of recording the inventory of second level school accommodation and catering for a proposed new project prioritisation system.

Time Spans for Appraising and Planning Projects

4.12 The time involved for individual projects to move through the various stages of assessment and planning varies widely. Different factors affect the lapse of time at different stages.

From Identification of Need to Project Approval

- 4.13 The time which elapses between the initial proposal of a school accommodation project and its approval as a desirable project depends on the circumstances of the case. Projects can be grouped into three broad categories.
 - Greenfield: The possible need for a school on a 'greenfield' site normally comes to the attention of the Department when a local authority is preparing a draft action plan for a developing area. The Department meets with local authorities as necessary to identify and anticipate such school accommodation needs. The Department's general aim is to ensure that the school is only provided when the need has clearly emerged. The extent of existing school provision in the general area and the length of time it takes the area to mature are critical factors in determining when a new school should be provided. Normally, several years elapse between the time that a possible need for a school is identified and the time it is approved.
 - Rationalisation: Where it is considered that amalgamation of the applicant school with one or more adjacent schools is desirable, lengthy discussions with the parties involved usually ensue. The timescale involved in approving projects in this type of case typically varies from six months to several years.
 - Other: Appraisal of other projects may involve the Planning Section examining the availability of facilities in all second level schools in a particular catchment area where an application for additional accommodation is made by one of the schools. The majority of applications are processed within six months but delays can arise where it is necessary to await up-to-date statistics, enter into discussions with school authorities or because of pressure of work in the PBU.
- In the course of this study, 22 building projects were selected from the Department's July 1995 database of projects. The selected projects were at various stages of progress and included major extensions and new school buildings. For each project, the time

that elapsed between the date the need for accommodation was first raised with the Department and the date the project was approved by the Department was identified.

- 4.15 The pattern which emerged in relation to the sample of projects generally confirmed the timescale described above.
 - Three of the projects involved building new schools in greenfield sites. In these
 cases, the Department was aware of the possible requirement for the schools for
 a very considerable time before it was satisfied that a new school was needed.
 - The remaining 19 cases involved 'rationalisation' or 'other' projects. Of these, 15 were approved in principle within one year of first being raised with the Department. Approval of the remaining proposals took longer, including one case which was approved three years after the proposal was received.

From Project Approval to Commencement of Construction

- 4.16 Fourteen of the projects examined had proceeded to the construction stage. In these cases, the time which elapsed between the approval in principle of the project and the granting of permission to place a construction contract was identified. The average elapsed time involved was six and a half years. Three major projects each went through from approval to start of construction in less than twelve months, while two others took twelve and thirteen years, respectively.
- 4.17 According to the Department, the factors which can influence the speed of a project through the planning/design phase are
 - the availability of funding
 - the priority accorded to the project
 - problems with site acquisition or planning permission
 - design revisions required to comply with the Department's space and cost limits
 - design revisions required following review of enrolment projections.

Prioritisation of Approved Projects

4.18 The 1988 report of the interdepartmental committee recommended that a clearly defined order of priorities should be established for all school building projects and that no project should proceed to any stage of architectural planning or construction except by reference to the priority list. While the report acknowledged that there might be difficulties in drawing up criteria by which relative priorities would be established, it considered that such a system was absolutely essential in allocating scarce resources in an equitable way among the large number of projects on hands.

4.19 Choices about which projects have highest priority are made by the PBU at two points in time — when a project is approved in principle and when a group of projects is selected for funding.

Priority Coding

4.20 The PBU assigns a priority code to each major capital project once it is approved in principle. The priority classification used is as follows

Priority 1: essential and very urgent projects

Priority 2: replacement of bad accommodation

Priority 3: desirable but less urgent projects

Priority 4: major projects not yet prioritised

Priority 0: projects not being prioritised.

- 4.21 Priority codes are assigned on the basis of consensus judgments by Building Section staff. There are no set quantified criteria for assigning priority codings to projects and there is no basis for distinguishing between projects within priority categories.
- 4.22 Half of the 46 projects under construction in July 1995 had been categorised as 'essential and very urgent projects' (see Table 4.1). Between them, they accounted for almost 77 per cent of the total estimated cost of projects under construction. Almost all the remaining projects under construction had not been prioritised (i.e. given a priority 4 or 0 code).
- 4.23 The Department was asked why some of the projects underway in July 1995 were not prioritised. It stated that
 - Some projects may emerge without warning and become the highest priority for funding e.g. emergency maintenance or improvement work or the provision of prefabricated buildings. Ten of the projects not prioritised involved such cases. All were relatively small, estimated to cost an average of £67,000.
 - The remaining projects had been selected for funding on the basis of their relative priority by reference to the Department's project selection criteria. These projects involved the construction of permanent extensions and the provision of new facilities, at an average cost of £863,000 per project.
- 4.24 On this basis, it is clear that the priority codings assigned to projects in the Department's database did not reflect the relative priority of projects.

Table 4.1
Estimated Total Cost of Projects under Construction,
by Type of Project, July 1995

Priority of Project	Number	Estimated cost of projects			
	of projects	New schools	Extensions and new facilities	Other projects	All
		m3.	£m	£m	£m
Essential and very urgent	23	21.9	13.3	2.7	37.9
Replacement of bad accommodation	2	-	1.3	•	1.3
Desirable but less urgent	-	-	•	-	-
Major projects not yet prioritised	2		1.2	-	1.2
Not being prioritised	19	<u> </u>	8.3	0.7	9.0
All projects	46	21.9	24.1	3.4	49.4
(Number of projects)		(10)	(24)	(12)	(46)

Source: Department of Education database of projects

Selecting Projects for Funding

- 4.25 Recommendations about priority projects for funding in a particular year are made by staff in the Building Section of the PBU. In arriving at a selection, the factors which are considered include the availability, adequacy and safety of existing accommodation. However, there are no fixed quantified criteria for identifying the highest priority cases.
- 4.26 Consultations with relevant staff are undertaken at regular meetings where progress on the building programme is reviewed. Further consultations take place when estimates applications are being prepared and when global funding allocations are known. This process results in the compilation of a list of recommended new projects. The list is subsequently submitted for senior management and ministerial approval. Amendments may be made to the selection at that stage.
- 4.27 The Department's appraisal system is designed to ensure that there is an identifiable need for each individual project which is approved. However, without a prioritisation system based on pre-determined criteria, the Department cannot demonstrate that the building programme addresses the areas of greatest need among the many projects proposed.

- 4.28 A quantified points system based on the factors which are currently used in selecting projects for funding would allow the relative priority of every project to be identified at a point in time. Properly constructed, it should be flexible enough to ensure that emergency or unforeseen cases could emerge as the highest priorities. With so many projects competing for scarce resources, such a system would help to demonstrate that all the relevant factors are taken into account in selecting projects for funding and make the decision-making process more transparent. It would also provide a rough indication to project promoters of how long they may have to wait before their projects are likely to be selected for funding.
- 4.29 The Department accepts that the present system of prioritisation is not sufficiently developed to cover all contingencies. Nevertheless, it believes that the current system, used in conjunction with the project selection criteria outlined above, has ensured that only the most deserving cases from a large pool of projects on hands advance to construction. The Department has started to develop a points-based prioritisation system to identify clearly the relative priority of each project.

Extensions to New Schools

- 4.30 In July 1995, the Department was funding the construction of extensions for three schools which themselves were only completed in the period 1993/95. The combined estimated cost of the extensions is £1.3m. Four other similar cases have been approved since then.
- 4.31 The need to build extensions for newly built schools raises two main issues.
 - It suggests that planning and enrolment projections for the original school building projects may have seriously under-estimated the need for accommodation.
 - The overall cost of providing the necessary accommodation at such schools may
 be increased because of a loss of economies of scale and the need to have two
 building projects instead of one.

Community schools built in Castlerea, Co. Roscommon (1993), Cashel, Co. Tipperary (1994) and Gort, Co. Galway (1995).

Reliability of Planning Process

- 4.32 The Department was asked why the project planning process had not anticipated the full requirement for accommodation in the three new schools where extensions were being funded in July 1995. In reply, the Department stated that educational planning involves making predictions based on a combination of facts and assumptions which makes it a complex and inexact process. It identified the following factors as the causes of the under-estimation of enrolments in the new schools
 - the proportion of pupils in the catchment areas who enrolled in the new schools was higher than projected
 - the introduction of a six year cycle which occurred after the original projections were prepared
 - the expansion of post-leaving certificate courses
 - the improvement in the pupil/teacher ratio from 20:1 to 19:1 in the 1993/94 school year created a demand for additional accommodation
 - the continuing improvement in participation rates, particularly from junior to senior cycle.
- 4.33 The requirement to build extensions in these three schools suggests that the catchment area enrolment projections which were prepared may have been seriously inaccurate. This underlines the need to systematically evaluate projections against enrolment outturns to establish if the enrolment projection methodology or assumptions can be improved.
- 4.34 If the projection methodology produces inaccurate projections, there is also a risk that excess accommodation may be provided in some schools or that permanent accommodation may be provided where less costly prefabricated accommodation would have been more appropriate. Over-provision or the wrong mix of temporary and permanent accommodation may not come as readily to the attention of the Department unless the level of occupancy of pupil places is monitored or systematic post-project evaluation is carried out. However, the Department has stated that it tends to err on the side of caution in relation to the amount and type of accommodation to be provided to counteract the possibility of over-provision.
- 4.35 Delays at the project appraisal and design stages could result in enrolment projections being out of date by the time projects reach the point of being approved for construction. Regular review of enrolment projections and other relevant factors during the architectural planning process should ensure, as far as possible, that the right scale of project is being undertaken. The Department has stated that it generally reviews enrolment projections during architectural planning and before beginning construction where there is any significant delay.

Phasing of Construction

- 4.36 When this report was being finalised, the Department pointed out that accommodation is often provided on a phased basis due to budgetary constraints. Following the reduction in capital funding in 1988, a decision was taken by the Department to make an across-the-board reduction of approximately one-third in the size of all projects in planning. As a result, a number of projects proceeded to construction on the basis that the expected increase in the long-term enrolment would be catered for by means of an extension at a later stage.
- 4.37 The Department considers that additional costs arising because there are two projects instead of one are minimised by the imposition of space and cost limits and by payment of design fees as a percentage of the overall cost of a project. However, keeping expenditure within the limits set does not ensure that the required accommodation has been provided at the least possible cost. In addition, extension projects required to complete schools may have the first claims on whatever capital resources are available in subsequent years.

Site Acquisition

- 4.38 For many projects, the provision of a site is a matter for the project proposer e.g. the school board of management. In other cases, where it is intended that the accommodation built will be retained in the ownership of the Minister for Education, sites for building are acquired by the Department. The Department's policy is that sites should only be acquired where the corresponding building project has been approved in principle.
- 4.39 The Minister currently owns four sites where the building projects for which they were purchased have been deferred indefinitely or cancelled. The sites were purchased in the period 1978 to 1983 at a combined total cost of £1.3m (see Table 4.2).
- 4.40 The position in relation to each of the sites is
 - The Kingswood/Castleview site is being retained by the Department pending a decision by the PBU on the necessity for a school in this area.
 - The Department has recently designated the site in Kilnamanagh for a new all-Irish school serving the Tallaght area.
 - The sale of the Knocklyon site has been considered and in that context, it has been valued at £2.5m. However, its disposal has been deferred pending a decision on the provision of another educational facility in this area.

• Following the decision not to proceed with building a school at the Beechpark site, the Department decided to sell it. At that point the estimated value of the site was £1.1m. However, this decision gave rise to a local campaign for the retention of the land as an amenity area. Subsequently, the local authority rezoned the site from the residential to the amenity category. The Department has said that as a result of the rezoning, the site now has almost no market value. The Department has consulted the Chief State Solicitor on the legal options available and is currently considering his advice.

Table 4.2

Sites in Department of Education Ownership at end 1995,
where Original Projects have not proceeded

Site	Date acquired	Size of site	Purchase price ^a
	•	(acres)	(£m)
Kingswood/Castleview	1978/80	14.5	0.3
Kilnamanagh	1980	12.0	0.2
Scholarstown Road, Knocklyon	1982	11.5	0.4
Beechpark, Castleknock	1983	6.2	0.4
Total		44.2	1,3

Source: Department of Education

Note: * The Department does not normally revalue sites unless it is intended to dispose of them.

Appendices

Appendix A

Categories of Second Level Schools

Secondary Schools

Secondary schools account for over half (445) of all second level schools and are privately owned and managed. In most cases, schools are owned by religious communities with the remainder owned by boards of governors or by individuals. In order to be eligible for State funding, these schools must be recognised by the Department of Education and are subject to its regulations. Over 95 per cent of the cost of teachers' salaries is met by the State. Other operating expenses of secondary schools are financed largely through allowances and a flat-rate capitation grant.

Vocational Schools

Vocational schools and community colleges account for a third (246) of all second level schools. They are owned and administered by the Vocational Education Committees (VECs) which are elected by the relevant local authority. Many of these schools have boards of management, including parent and teacher representatives, which are responsible for the day to day running of the schools. VECs receive up to 93 per cent of the cost of running their schools from the State. The balance is provided from receipts generated by the committees.

Comprehensive Schools

Comprehensive schools, which were precursors to the community schools, account for two per cent (16) of second level schools and are owned and financed entirely by the State. They are administered by boards of management comprising representatives of a religious authority, the relevant VEC and the Department. The Department does not currently envisage the establishment of any new comprehensive schools.

Community Schools

Community schools account for eight per cent (61) of second level schools which are owned by the State but are administered by boards of management. These boards normally comprise representatives of the relevant VEC, a religious authority, parents and teachers. They receive 95 per cent of their current funding from the State, with the balance being raised locally by the board of management.

Appendix B

Cost and Space Limits for Second Level School Building Projects

Space Limit

Where a new school is being built, the space limit is a maximum of 6m² per pupil. For extensions, the amount of space in existing buildings is taken into account, with extra space being provided subject to an overall maximum in the school of 6m² per pupil.

The space limit includes classrooms, administration, toilets, social areas and circulation areas.

Cost Limits

The cost limits for all second level schools consist of two elements

- basic building cost limit
- external works allowance.

The basic building cost limit is currently set at £556 per square metre. This includes the cost of the superstructure and substructure of the building in addition to the appropriate proportion of associated costs, insurance and VAT.

The external works allowance refers to site works related to the provision of accommodation and is set at a maximum of 12.5 per cent of basic building cost. The average paid is around 10 per cent.

In situations where the Department provides grant assistance towards the cost of sites, no specific cost limits for site acquisition are set. However, the cost assessment of the Valuation Office is never exceeded in calculating the Department's contribution.

Design fees are not included in the cost limits set out above.

The Department of Education for Northern Ireland has set a cost limit for schools with a range of subjects equivalent to that of a Community School at Stg £758 per square metre for basic building cost. No limit is set for the cost of external works allowance but this, on average, represents 15 per cent of basic building cost.

Appendix C

Disposal of Secondary School Buildings

Secondary schools are privately owned, usually by religious orders. While the cost of providing a site is not grant-aided, capital grants may be payable towards the cost of building, furnishing and equipping new secondary schools or major refurbishment of existing schools.

Grant-aid Rate

The grant scheme towards the capital cost of secondary schools was introduced in 1967. The initial rate of grant assistance was 70 per cent but this had increased to 90 per cent by 1985 (see table). The balance of the capital cost is payable by the school authorities.

Rate of Grant Assistance Payable			
1967-1975	70%		
1975-1982	80%		
1982-1985	85%		
1985 to date	90%		

Refund Mechanism

Under the regulations of the grant scheme, one of the conditions which must be fulfilled before a grant can be given is that the school trustees must give an undertaking that the grant-aided buildings will be maintained in good order and continue in use as a secondary school for a period of 99 years. The regulations further specify that, in default of these conditions, a refund of grant aid must be made. The amount of any such refund is to be determined by the Minister.

In practice, refunds of grant aid are not sought by the Minister where the buildings involved are retained in publicly-funded educational use.

The Department is currently in negotiation with the Secretariat of Secondary Schools on a standard form of lease on school property. The Department intends that this lease will provide for a refund to the Minister of the unexpired value of grants in the event of closure of the school. Where grant-aid is provided for new secondary schools or major extensions, the school authorities are required to provide a declaration to the effect that the school site will be vested in accordance with the standard lease, when it is agreed.

Refunds are sought where the school buildings cease to be used for educational purposes prior to the expiration of the period of the lease.

Where a refund is to be recovered, the amount is negotiated on the basis of the amount of grant aid given and the period of time from when the funding was granted. No fixed formula is in place for calculating the unexpired value of grants paid.