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**Irish Educational Expenditures –  
Past Present and Future**

A. DALE TUSSING

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Past, Present and Future*

A. DALE TUSSING

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My permanent position is Professor of Economics at Syracuse University, in Syracuse, New York. I spent the academic year 1972/73 as the guest of Professor Patrick Lynch, in the Science Policy Research Centre, University College, Dublin, engaged in work unrelated to the present paper. It is fair to say that Professor Lynch was responsible for my first coming to Ireland, and for this I am eternally grateful. In addition, as an acknowledged authority in the subject matter of this paper, he provided invaluable aid and advice in the research for this paper.

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None of the above are responsible for the final manuscript, for this I alone am accountable.

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## *General Summary*

This study examines educational expenditure in the Republic of Ireland. It reviews the structure of the Irish school system, with principal attention to questions of finance. It reviews the origins and recent history of the system, to uncover likely sources of changes to come. It examines the future of enrolments and expenditures, and makes recommendations for ways to deal with anticipated pressures and events. It looks for causal determinants of differences in educational expenditures as among regions of the country; the rich and the poor; pupils attending schools under Catholic and Protestant management, etc., and it makes estimates of private (i.e., non-State-financed) expenditure, on first and second-level schooling.

In our review of the structure of the system, four points stand out. First, the system is essentially an "aided" one. That is, relatively few schools are owned and operated by public authorities. Most schools are denominational in ownership and management. However, the State, through the general exchequer, provides the vast bulk of funds. Second, in terms of participation, the system is a pyramid, with a very large base and a very small peak. Considering first, second, and third-level pupils combined, two-thirds are in primary schools; roughly thirty per cent are in second-level schools; and fewer than four per cent are in third-level institutions.

Third, the school system in the Republic of Ireland is broadly and deeply developed. Participation is approximately one hundred per cent in the primary age groups, and very nearly so in the junior cycle of second level. Participation rates in second-level education exceed those in England and Wales, in Scotland, and in Northern Ireland.

The fourth point regarding structure is of a different order. In our study of financing, we reviewed the effects of the 'free scheme' for second-level schools, introduced in 1967/68. Our analysis shows that the main effect of the scheme was to relieve a great many parents from paying fees which they would otherwise have had to pay and, hence, to permit windfall increases in the levels of living of these families, rather than to provide the schools with more income. That is, most of the funds did not find their way into the educational system. Between the initiation of the 'free scheme' and 1974/75, we estimate that £31.7 million had gone in windfall benefits to the parents of Secondary School pupils.

No nation in Europe has a more firmly and deeply established educational tradition than Ireland, and the highly developed system of today undoubtedly owes a large part to this history. The structure of the modern system, which took shape in the nineteenth century, reflects two principal historic influences. One is the devout Catholicism of the large majority of Irish people, and the still larger majority of the population of the present day twenty-six county Republic. The other is the fact of centuries of foreign rule.

The schools were for several centuries an important arena for struggles over religion, language, and nationality. These two influences, devout Catholicism and the struggle over foreign rule, individually and in combination, produced today's aided, 'managerial' system. It has been remarked that the aided, denominational character of the Irish school system, which is, to a considerable extent, a reflection of the Roman Catholic hierarchy's traditional suspicion of the State and its institutions, serves today, perhaps ironically, more to protect the interests of the five per cent of pupils who are Protestants than to protect Catholic education from State influence.

When Ireland was still essentially a peasant society, every parish had at least one primary school, and some had more than one; the vast majority of children attended these schools, and learned something. Today, with the lowest income levels in the European Economic Community, Ireland has an educational system which is highly developed and, as noted, one whose participation rates are higher than those in Britain. These are remarkable achievements. The study examines how they came about.

Socially, the system was not developed for the purpose of encouraging economic growth. Individually, its main function was not seen as preparing pupils for careers. Rather, the major function of primary education, and of secondary education also, was religious, moral, and intellectual instruction. One implication is that education of girls has always been considered to be as important as education of boys, thus accounting for higher female (and hence total) participation rates than in most other countries. Another implication is that instruction has traditionally been overbalanced in favour of such subjects as English literature, religion, Irish and Latin — highly verbal subjects, with low technical and quantitative content.

How could Ireland *afford* such a highly developed system? A review of the development of the system suggests four kinds of answers. First, Ireland has operated the schools in a spartan and frugal manner, especially at the primary level, in the National Schools, with historically extremely large classes, taught by poorly paid teachers, in ill-equipped and poorly maintained schools. To say this is not necessarily a criticism; the alternative, in many cases, was not to have schools at all, or (as in other countries) to educate only an elite. Second, the Catholic Church, with its great interest in education, has had a major role in marshalling the nation's resources for educational purposes. An extremely large (but unknown) amount of money for education has come from (or through) the Church.

A third way of financing Irish education beyond ordinary expectations has been the contribution made by members of religious orders — brothers, nuns, and clerics — both in terms of actual cash contributions (they have built most of the Secondary Schools, largely from their own resources, for example), and, more important, in the contribution of their services. Religious teachers return their salaries to their communities, which (with

qualifications) means 'ploughing back' their salaries into the schools themselves. In some schools, religious work more hours per day and days per week than lay teachers. In a number of cases, especially in convent schools, religious have served as wholly unpaid assistant teachers.

And fourth, the Irish system of education has economised by having emphasised in the curriculum subjects with low technical content or which for various reasons have required little in the way of costly equipment.

It is worth considering these four sources and resources, first, because they have permitted extensive development of the system; second, because they have vitally influenced the character of Irish education, in nearly every non-financial respect as well; and third, for the very important reason that each of the four appears today either to be fading or to be entirely disappearing. As they go, Ireland will be left with a high developed — and expensive — school system.

Teachers' salaries are now almost in line with the rest of Irish incomes. Class sizes are falling, and the standard of amenity in National Schools is rising. There are signs of Church acceptance of an increasing State role in education, and of a corresponding decline in relative Church financial contribution. The most dramatic as well as the most easily quantified changes concern the decline in relative numbers of religious teachers. In Secondary Schools, religious as a percentage of all teachers was about 50 per cent as recently as 1966; the figure fell to 31 per cent by 1974 (and still lower if Comprehensive and Community School teachers are included); and, we predict, this number will fall to about 20 per cent by 1986, in the absence of a sudden and sharp reversal of existing trends. In National Schools, the percentage falls from about 23 per cent in 1966 to 15 per cent in 1974, and (we predict) to 9 per cent by 1986. And, finally, the 'arts' component of Irish education, and in particular the classical component, appears to be in decline, while the technical component is rising. A more costly education, per pupil, is implied.

These are important trends, which will affect not only the financing of education but its content and character as well. In the study, we point to still further reasons, arising out of special historic events, for increases to occur in per pupil educational costs in the coming decade. All of these changes appear to be coming at about the same time as enrolments are expected to rise very sharply, thus implying very considerable increases in overall educational expenditures.

This study forecasts enrolments in first, second, and third level institutions through 1986 by separately predicting population change in the relevant age group and predicting participation rates by year of age. Our population predictions rely primarily on the work of others, but three adjustments were found necessary. One reflected the high rate of child immigration, larger than elsewhere estimated, which has had the effect of increasing school

populations. The second was the shortfall in births, beginning in 1975, as compared with predicted numbers, presumably a consequence of the severe world-wide recession. Third, we rejected the assumption, made in several population forecasts, that zero net emigration for the State as a whole implies zero net migration in each age group as well. Instead, our predictions are based on the assumption that recent migration patterns, by age group, will persist in the future, though with moderating force. The results of these assumptions show Ireland to be one of the few States in Europe with a rapidly rising youth population.

If adequate school places are provided, we expect school participation rates to grow the fastest in senior cycle, second level, and in third level. Between 1974 and 1986, we predict an increase in enrolment in all three levels of 188,700, or a gain of 23 per cent over the twelve years. This breaks into growth of 80,200 (14 per cent growth) in the group aged through 12 years; 36,800 (23 per cent) in the group aged 13 through 15; 35,400 (50 per cent) in the group aged 16 through 18; and 36,300 (159 per cent) in the group aged 19 and over.

The expected increases in per-pupil costs, together with the predicted increases in enrolments, point to explosive growth in educational expenditures. First- and second-level total public expenditures, when adjusted for inflation, are expected almost to double in the twelve years, 1974-1986. In addition, it appears likely that third-level expenditures, also adjusted for inflation, will far more than double over the same time period.

Because these enrolment and expenditure pressures are liable to precipitate efforts to economise wherever possible, the study calls for a major national debate on educational priorities. It is suggested that careful consideration be given to the differences between public and private benefits from education, and that public funds go primarily for public purposes. A scheme based on this and other principles, and which involves extensive changes in the financing of senior cycle, second-level, and third-level education, is offered, mainly as background to the hoped-for national debate.

The study concludes with estimates of private expenditures on education, as well as some analysis of the determinants of differentials in per pupil expenditures. In 1973/74, we estimate total locally (i.e., privately) financed current expenditures of National Schools to have been approximately £1.4 million, or 3.0 per cent of total current National School expenditures. Our estimate for calendar year 1975 is only £0.4 million, approximately 0.5 per cent of the total, which we take to be a temporarily depressed, transitional figure, arising from the introduction of a new financing scheme. In the small Private Primary School sector, we estimate total expenditures of £1.3 million in 1973/74, and £2.4 million in calendar 1975, none of it from public sources. Per pupil expenditures in Private Primary and National Schools appear to be very similar. For example, our estimates for 1974/75 are £94



per pupil in National Schools and £95 per pupil in Private Primary Schools.

In the calendar year 1975, approximately £50.7 million in public funds were spent on Secondary School education. We estimate private expenditure at £4.6 million, or 8.3 per cent of combined public and private spending of £55.3 million. In these figures, boarding expense, estimated at approximately £3.0 million, is excluded. If it were included, the private component would rise to £7.5 million, or 13.0 per cent of total Secondary School expenditures.

Our study shows regional differences in per pupil expenditures in Secondary School, even when size of school, denominational affiliation, and other influences are held constant. Most striking, perhaps, is the difference within the high and low income sections of Dublin City and Dun Laoghaire. More is spent than elsewhere in the high income parts of Dublin, in Kildare/Wicklow and probably in Laois/Offaly/Carlow. Less is spent in the low income parts of Dublin, in Louth/Longford/Cavan/Meath/Monaghan, in Leitrim/Roscommon/Mayo/Sligo/Donegal, and (with respect to Catholic Day Schools only) in Tipperary and probably Clare/Limerick. In addition, significantly more is spent in respect of education of Protestant than Catholic Secondary School pupils, even where other variables — including the use of religious teachers, and the presence of a boarding component — are controlled for.

Our study also shows the influence on per pupil and per school current expenditures of a number of other variables. Of particular interest is the fact that the per cent of lay staff is strongly and positively related to both per pupil and per school expenditures, even where an imputed charge is included for the services of religious. We interpret this as a clear indication, if not measure, of the economic contribution of religious to education in Ireland. In addition, pupils per teacher, an indicator of class size, is positively related to both per school and per pupil expenditures, as regards Catholic day schools. We also find that schools not in the free scheme, i.e., fee-charging schools, spend very considerably more than schools in the scheme, on both per-school and per-pupil bases, even where other influences are controlled for.

Much of the information estimated and published in this study is more or less routinely gathered and published by the public authorities in many other countries. So should it be in Ireland. This would include periodic publication of a document explaining and describing the organisational and fiscal structure of the system; enrolment and possibly expenditure forecasts; and total (public and private) educational expenditures, and their distribution.

## Chapter 1

### *Introduction*

The purpose of this study is to examine educational expenditures in the Republic of Ireland. Educational expenditure data are routinely published in a number of places<sup>1</sup>, and it is not our purpose to duplicate this effort. In recent years, two studies of education expenditures in Ireland have been published: the important two-volume survey, *Investment in Education*<sup>2</sup>, which itself is a milestone in Irish educational history; and, more recently, The National Economic and Social Council, Report No. 12. Our purpose is to add to this literature, by focusing on unknown, unexplored, or ill-understood questions concerning educational expenditures in Ireland.

Among these questions are the following:

#### 1. *Structure of the system.*

While the 26-county State of Ireland is small, as is its educational system, the system is none the less exceedingly complex. This is particularly true of the financing of Irish education. Essentially, the system is an 'aided' one. That is, the educational institutions are not themselves 'public,' in the usual sense, but they are provided with substantial amounts of public funds. One evident need in the literature of Irish educational expenditures has been a working out of the essential structure of the system, especially as regards finance, in sufficient detail as to be useful and realistic, and yet without excessive legalistic complexities.

In working out the structure, a number of anomalies — inefficiencies, inequities, and what can only be called peculiarities — came to light. These anomalies were not the object of the study; but they are reported also.

#### 2. *The future of enrolment.*

The implications of population growth have been widely discussed in Ireland since the publication of The National Economic and Social Council Report No. 5. One major purpose of the present study is to investigate the implications of probable future patterns of population growth for enrolment in Irish schools, particularly first and second levels, as well as third level.

In the process of working up enrolment forecasts, we discovered other

1. The Department of Education publishes expenditure data periodically in its *Tuarascail Staitistiúil*. Educational expenditure data are also found in the annual *Estimates* and in *Appropriation Accounts* (see Chapter 4, below); and in *National Income and Expenditure* (annually) and the *Household Budget Survey* (see Chapter 5, below). Information on grants from the Higher Education Authority, to the universities and certain other third-level institutions are contained in the Authority's 1974 *Progress Report* and in its *Annual Accounts*. All the foregoing are published by the Stationery Office, Dublin. See also Kevin McDonagh, "The Way the Money Goes," *Oideas* 17, 1977, which was received after the present manuscript had been completed.

2. *Investment in Education*, Dublin, Stationery Office, 1965. See Chapter 3, below.

interesting phenomena, such as the (then) unexpectedly large occurrence of child immigration,<sup>3</sup> which has obvious significance for enrolments.

### 3. *The future of educational expenditures.*

The large expected growth in child population in Ireland has obvious and important implications for educational expenditures. Our considerations of the subject of the future of educational expenditures turned up a number of other important sources of rather explosive potential future growth in the demand for resources.

To put the matter most succinctly, Ireland has had, for a variety of historic reasons, an unusually cheap school system. Its cheapness, in turn, encouraged a deep and broad expansion of the system. But the historic reasons for its cheapness are, one by one, falling away, threatening to leave Ireland with a highly developed, and extremely costly, education system, at just the same time as its largest enrolment growth ever is occurring. For example, the decline in religious vocations of the recent past is now catching up with the school system, implying higher expenditures in a variety of ways. For another, Irish education has traditionally been high on verbal and low on technical content; but today's labour markets require school leavers with at least technical potential, if not technical skills.

On top of these forces, there are special circumstances applicable only in the next few years, which will account for additional cost rises. Among these are the coming of equal pay in education, and a 'bulge' in the age distribution of second-level teachers, which will travel up the increments structure and bring disproportionately large salary increases.

### 4. *Determinants of expenditure differentials.*

It was decided to use as much cross-sectional data on the schools as was available, in order to see whether statistical methods would indicate sources of differences in educational expenditures. Our questions were such as these: Are there regional variations in per-pupil school expenditures? If so, are these explained by region (and, by implication, by regional income differences); or are they explained by other variables, such as school size, religious affiliation, extent of boarding function, etc.? Is more spent per pupil in Private Primary Schools than in National Schools? In Protestant than Catholic Schools? And so on. Our regression analysis also permits us to examine the net economic contribution of religious teachers.

Our purpose in the regression analysis is not hypothesis testing *per se*. Instead, it provides us with a more useful and rigorous way of reading the data. The method permits us to look at the relationship between expenditures

3. The Population Office of the Central Statistics Office makes intercensal population estimates by age group. The Department of Education collects data on school enrolment annually, by year of age. We discovered that in many age groups, actual reported enrolments exceeded estimated numbers of children in the State; and, moreover, annual increases in school enrolments in age cohorts were fairly substantial. This information led to CSO revisions of population estimates and forecasts.

and each of a number of other variables, whilst holding constant ('controlling for') the influence of the other variables. Thus it is a high-powered alternative to tables with endless cross-tabulations. As there is no record of any prior 'determinants' studies of Irish educational expenditures, the results are of considerable interest. The data include some heretofore unavailable information on private sources of funds, adding further novelty and interest to the material. We examine not only the determinants of per-school and per-pupil school expenditures, but also the determinants of per-pupil and per-school expenditures out of non-public funds, which reflects the differential ability of schools in different circumstances to raise and spend funds from other sources.

#### *5. Private educational expenditures.*

There are virtually no data on private educational expenditures. All education expenditure data published on a regular basis occurs as a by-product of budgeting for and operating the system. None of it is specially collected for purposes of publication. As a consequence, *public* education expenditure becomes a proxy for *total*, social educational expenditure. Of course, this is true not only in the Republic of Ireland, but in many, perhaps the majority, of other countries. What is different is that in most of these other countries, public expenditure is a good proxy for total expenditure, as their school systems are primarily public. In Ireland, publicly-owned, operated, and supported schools are exceptional; as noted, the system is an 'aided' one. This means, at least potentially, that public expenditure is not a good surrogate for total expenditure.

We set out to gather information about private expenditure of three sorts: the local contribution to the operating costs of National Schools; the total costs of operating Private Primary Schools, which receive no public funds; and the total expenditures, less State grants, of Secondary Schools. We were provided access to the audited accounts of Secondary Schools affiliated with the Catholic Secretariat of Secondary Schools. In addition, valuable survey data were given us by the Catholic Primary School Managers' Association, and the Conference of Convent Primary Schools. These data were supplemented by our own surveys of income and expenditures of Catholic National Schools, Protestant National Schools, Private Primary Schools, lay Catholic Secondary Schools, and Protestant and Jewish Secondary Schools.

#### *What is not Covered*

There still remains much primary work to be done on education expenditures in Ireland. Limitations on time, resources, and data, together with our own set of priorities, precluded examination of a number of important subjects.

We do not deal, for instance, with the issue of the 'returns' to 'investment' in Irish education. Such a study would require, in our view, a large national

survey, or a considerable improvement in household income data in conjunction with educational attainment data. Some such kind of survey is well worth doing, to focus primarily on the question: What are the educational determinants, controlling for background (socioeconomic status, sex, region, etc.) variables, of success in the labour market? For example, is the recent criticism of the 'arts' emphasis in Irish education justified? That is, what is the differential return to different kinds of education in Ireland?

We have not been able to develop estimates of future educational requirements in the labour force, though we devoted some time and effort to the question. In order to develop such estimates, one requires fairly accurate forecasts of the pattern of future economic growth; and no such forecasts were available, though we were led to believe that they exist, in the Department of Finance. Moreover, in spite of the criticism we heard repeatedly of the curricula of the Irish educational system, we arrived at the judgement that product demand, both domestic and export, together with macro-economic problems, constitute the present limits to Irish economic growth, and that educational requirements scarcely enter in. That is, restructuring of Irish education along lines of forecast requirements seems unlikely to influence growth or employment significantly.

None the less, an improved use of both educational and labour resources could be brought about by an improved monitoring of current labour market developments, and perhaps anticipation of specific, near-term developments, and communication of these to the schools and universities, and through them to the students. The openness of the Irish economy, especially as regards migration, has permitted education and the labour market to develop somewhat independently. Where the education system provides trained personnel not needed by the economy, they can simply emigrate. Where the economy needs skills not provided by the education system, they can be attracted from abroad. While some such cross-emigrational pattern is inevitable in any case, and perhaps even desirable, there is very considerable latitude for bringing the education system and the economy into harmony. Complete success in this endeavour may require educational institutions to surrender some of their independence; but some progress could be made simply by the Department of Labour providing all second- and third-level institutions with quarterly or semi-annual reviews of prospects and problems in the labour market-areas with inadequate or excessive supply, relative to demand.

Finally, we have focused mainly on first- and second-level education, at the expense of third-level institutions, and to the complete exclusion of adult education and other programmes outside the conventionally bounded 'education system'. A survey of the Irish education system in its entirety, including, for example, all those institutions for which the Department of Education has no responsibility and over which it has no authority, would seem a useful thing to do. It would amount essentially to an assessment of

Irish educational resources, something which has never been done (though *parts* of the system have been subject to very searching examination); and such an assessment would be invaluable to the makers of educational decisions and policies, not only in the government, but in the educational institutions, and in the country at large.

### *Plan of the Work*

An attempt has been made to make this study useful to specialists, and accessible and, possibly, even interesting to non-specialists. Thus an effort is made to explain the analytical and statistical techniques used. Similarly, the study is addressed primarily to the Irish reader, but an effort has been made, in terms of the discussion of the history, curriculum, institutional structure, etc., to make the study accessible and meaningful to the non-Irish reader.

The plan of the work is as follows:

Chapter 2 is titled, 'The Structure of the System.' It discusses each major type of educational institution, at each level, with particular attention to the role of public and private funds. Chapter 2 also includes an analysis of the distributional consequences of the 'free scheme' in second-level education.

Chapter 3 concerns 'Sources and Resources of the System.' It is argued in Chapter 3 that the characteristics, resources, and circumstances which made Irish education cheap and which, hence, induced its very considerable development, are in the main disappearing. The historical roots of a number of the characteristics of the unique Irish school system are also surveyed in the process. Recent educational policy changes are also discussed.

Chapter 4 deals with 'Enrolments and Expenditures: the Coming Explosion.' In order to forecast school enrolments in all three levels, Chapter 4 examines and modifies population projections prepared by others, and by predicting a future pattern of school participation rates, produces predicted enrolments. An illustrative plausible pattern of teacher requirements and expenditures is also set forth. As the title of the chapter suggests, the next decade is seen to be one of explosive growth in per pupil costs, in enrolments, and in the product of the two, educational expenditures.

Chapter 5 is titled, 'Private Current Expenditures on Education.' It presents estimates of total current expenditures on private, non-aided, primary schools; total and private National School current expenditures; and total and private Secondary School expenditures. This chapter also examines educational expenditure data as published in *National Income and Expenditure*, and the *Household Budget Survey*. And Chapter 5 also presents the results of cross-sectional multiple regression analysis of Secondary School expenditures, under the following headings: all Secondary Schools; Catholic Secondary Schools; Catholic day Secondary Schools; and all boarding Secondary Schools.

Chapter 6 presents a 'Summary and Concluding Remarks.'

## Chapter 2

### *The Structure of the System*

The Irish system of education has points of difference and similarity to systems in other countries. In this chapter the system will be described and discussed, with special focus on economic aspects, particularly sources and use of funds.

Like most education systems, the Irish system can be described as consisting of three levels:

*First level* (or primary), beginning at the age of six (the age of compulsory attendance) and consisting of six years of study (in addition to which there is, usually in the same schools, a non-compulsory pre-primary or infants' division beginning at the age of four attended by some 85 per cent of children aged 4 and 5);

*Second level* (or post-primary — the term 'secondary' is reserved in the Irish system for a particular type of second level institution), consisting of two sub-levels or 'cycles', viz:

*Junior cycle* normally requiring three years of study (compulsory schooling ends at age 15), culminating in examinations for the *Group Certificate* after two years, and/or the *Intermediate Certificate* after three years' study; and

*Senior cycle*, normally requiring two years' study beyond the Intermediate Certificate, and culminating in the *Leaving Certificate*;

*Third level* (or post-secondary), whose time requirements vary, depending on the degree or qualification sought.

The schools making up these categories are listed, with their 1973/74 enrolments<sup>4</sup> and relative importance in the system, in Table 2.1. While a great many types of institutions are listed, it is evident from Table 2.1 that only five types merit extended attention on grounds of size alone: National Schools, which enrolled 62.8 per cent of the full-time pupils at all levels in the State<sup>5</sup>; Secondary Schools, which between junior and senior cycle enrolled 20.4 per cent; Vocational Schools, which enrolled 7.4 per cent in junior and senior cycles; Private Primary Schools, which enrolled 2.9 per

4. As this is written, the most recent published data on enrolments, etc. is for 1973/74 as contained in the Department of Education's *Tuarascail Staitistíúil*, which ceased annual publication in 1967/68 and has been published (with annual data) only twice in the subsequent six years.

5. If Secondary Tops (second-level courses offered in National Schools) are included, the figure rises to 63.1 per cent.

Table 2.1: *Number of persons receiving full-time education on 1st February 1974, by type of institution, and number as per cent of total.*

<i>Type of Institution</i>	<i>Number attending</i>	<i>As per cent of students, at same level<sup>e</sup></i>	<i>As per cent of students, all levels<sup>e</sup></i>
<i>First Level:</i>			
National Schools	512,461	94.1	62.8
Special Schools	7,018	1.3	0.9
Special Classes	1,689	0.3	0.2
Private Primary Schools	23,260	4.3	2.9
Others	11	0 <sup>a</sup>	0 <sup>a</sup>
<i>Total first level</i>	<i>544,437</i>	<i>100.0</i>	<i>66.7</i>
<i>Second Level:</i>			
Secondary Schools, Junior Cycle	114,916	47.5	14.1
Secondary Schools, Senior Cycle	51,680	21.4	6.3
Secondary Tops, Junior Cycle	1,924	0.8	0.2
Secondary Tops, Senior Cycle	325	0.1	0 <sup>a</sup>
Comprehensive Schools, Jr. Cy.	4,322	1.8	0.5
Comprehensive Schools, Sr. Cy.	1,374	0.6	0.2
Community Schools, Jr. Cycle	3,154	1.3	0.4
Community Schools, Sr. Cycle	956	0.4	0.1
Vocational Schools, Jr. Cycle	48,927	20.2	6.0
Vocational Schools, Sr. Cycle			
General	5,757	2.4	0.7
Secretarial	3,997	1.7	0.5
Technical	353	0.1	0 <sup>a</sup>
Regional Technical Colleges <sup>b</sup>	526	0.2	0.1
Other Aided	1,416	0.6	0.2
Non-Aided <sup>c</sup>	2,030	0.8	0.2
<i>Total second level:</i>	<i>241,679</i>	<i>100.0</i>	<i>29.6</i>
<i>Third Level:</i>			
Universities	20,360	68.7	2.5
Aided Teacher Training <sup>d</sup>	2,368	8.0	0.3
Vocational Technological	2,907	9.8	0.4
Regional Technical Colleges	1,600	5.4	0.2
Other Aided	1,491	5.0	0.2
Non-Aided Teacher Training	232	0.8	0 <sup>a</sup>
Non-Aided Religious	787	2.7	0.1
<i>Total third level:</i>	<i>29,640</i>	<i>100.0</i>	<i>3.6</i>
<i>Grand Total:</i>	<i>815,763</i>		<i>100.0</i>

Source: Dept. of Education, Statistical Report, 1972/73, 1973/74.

- Notes: a: less than 0.05 per cent  
b: General, 201 pupils; secretarial, 165; technical, 160.  
c: Commercial, 1,738 pupils; religious, 20; radio schools, 272.  
d: National, 1,847 pupils; vocational, 248; domestic science, 173.  
e: Detail may not sum to 100 per cent because of rounding.



cent; and Universities, which enrolled 2.5 per cent. In addition, it is appropriate to attend somewhat to Comprehensive and Community Schools, and Regional Technical Colleges, because of their rapid rates of recent (and anticipated future) enrolment growth. The other types of institutions will not receive much discussion below. In their relationship to public authorities, the institutions listed in Table 2.1 can be described as in three categories: public, aided; and non-aided. The non-aided institutions in Table 2.1 are the Private Primary Schools and the handful of institutions listed as 'non-aided' in second and third levels. All of these combined enrolled only about 3 per cent of all pupils, and their share is declining. Comprehensive, Community, and Vocational Schools and Regional Technical Colleges, among them enrolling fewer than 10 per cent of all students, may be described as public institutions. More than 87 per cent of pupils, then, attend 'aided' institutions. It is fair, then, to describe the system as essentially a State-aided one. In important respects, however, the structure of the system has been such as to blur the distinction between public and private, and this blurring regrettably has also affected the nature of statistical data available. The complex interweaving of public and private is summarised in Table 2.2 and is suggested by a description of the system.

*National Schools:* With minor exceptions, the National Schools are owned and managed either by Church bodies or religious orders. In spite of their names, they are not public educational institutions in the usual sense. As shown in Table 2.2, their principals and teachers, however, are paid directly by the State. The theory is that the State acts as 'agent' for the Management Committee (see below) in paying teacher salaries. In a practical, if not nominal, sense, the teachers are State employees. As Roman Catholic, Church of Ireland, and other Protestant National Schools are distributed around the country in proportion to the distribution of pupils of these faiths, the vast majority of National Schools are under Catholic management. In 1973/74, 92.6 per cent of schools, enrolling 97.5 per cent of pupils, were under Catholic management. Each School's Manager has been nominated by the 'Patron' of the school i.e., the Bishop; (There are trivial but interesting exceptions to the rule that the Patron is the appropriate Bishop of the Diocese. A few Protestant National Schools are under 'lay Patronage', where the Patron is a member of the landed gentry, e.g., an Earl. And the Minister for Education is Patron for Model National Schools) and traditionally the Manager has been the Parish Priest or Rector. In 1975, Managers were replaced by seven-member Committees of Management, four of whose members are appointed by and represent the Patron, one of whom is the principal teacher, and the other two of whom are elected by and from among the parents. The Chairman of the Committee of Management is usually the Parish Priest or Rector. In larger schools, committees can be as large as ten members, the Patron always maintaining an overall majority of

direct appointees. To muddy the waters still further, the teachers — public employees in private institutions — are appointed by the Committees of Management. The Department, in negotiation with INTO (The Irish National Teachers' Organisation) sets salaries. It also establishes the curriculum and must approve all text books used.

The Constitution (Article 44.4) guarantees that "The State shall provide for free primary education". Current provisions, however, require substantial amounts of expenditure on National Schools from 'local sources', i.e., raised by Committees of Management from sources other than the Exchequer. Since 1975, the State provides a grant of £6.00 per pupil, provided that there is also a contribution of at least £1.50 per pupil from local sources. At time of writing the scheme has been in effect only one school year, little is known about how the £1.50 is raised; but from our own survey it is indicated that many schools ask parents to 'contribute' £1.50 per pupil.<sup>6</sup> Moreover, local sources must pay about 15 per cent on average, of school construction costs and 100 per cent of site acquisition costs. There is nothing in the Constitution or statute which limits organisation of National Schools to religious bodies; but these burdensome local costs of establishing a school make it difficult for an unaffiliated group of local parents or neighbours to organise a school.<sup>7</sup> In addition, it is not automatic that a new school is recognised as a National School by the Minister. (Prior to this scheme, the State paid grants toward cleaning, heating, and painting of schools, and any shortfall in covering the costs of running the school was made up by local sources; the new scheme required a local contribution that had in many cases already regularly been made.)<sup>8</sup>

There are no centrally-collected data on privately-raised funds for current National School expenditures or on actual school expenditures (as opposed to State expenditures); and the data on privately financed portions of capital expenditures are limited to the 'matching' portion of construction expense. These gaps in the published data are particularly serious because the system is an aided rather than a public one. Prior to 1975, National School Managers were not even required to keep separate books as between school and parish (or religious community) accounts; the new requirement that separate accounts, subject to inspection and audit, be kept, will make it possible in

6. The survey, which is discussed in Chapter 5, indicates that just under 20 per cent of local funds are from parents' or pupils' contributions.

7. There might seem to be antagonism between these required forms of local contribution and the constitutional guarantee of free primary education. Evidently the interpretation of the statement, 'The State shall provide for free primary education', is that the State will assure that every child *can* without charge receive a primary education, not that the State will necessarily pay for that education. So long as a free primary education is available to all children, the constitutional guarantee may be said to be fulfilled, at least according to this interpretation.

8. According to a 1973/74 sample survey of Catholic National Schools, government grants under the old system covered only about 20 per cent of the year's expenditures for medium and large schools (six to nineteen classrooms), about 25 per cent for smaller schools and about 16 per cent for larger schools. The survey was conducted by Rev. Leo Quinlan, Secretary of the Catholic Primary School Managers' Association and the results are published under the heading, 'The Cost of Running a Primary School', in the *Education Times*, July 25, 1974.

Table 2.2: Types of expenditure financed from public and private sources, national schools, private primary schools, secondary schools, comprehensive, community, and vocational schools, 1975/76

Type of school	Current expense		Capital expense	
	Public	Private	Public	Private
Classification National schools	Teacher salaries. £6 per pupil per year toward other current expenses.	Current expense in excess of grant aid, equal to at least £1.50 per pupil per year.	84 per cent of construction costs <sup>a</sup>	16 per cent of construction costs <sup>a</sup> ; 100 per cent of site acquisition costs
Capitation National schools	Same as above in all respects except additional capitation grant (see text) paid to school instead of direct payment of teacher salaries.		Same as above	
Private primary schools	None	All private	None	All private
Free secondary schools (Catholic)	'Incremental' teacher salary and responsibility allowances. Capitation Grant of £18-£24 per pupil in attendance previous year; plus Supplemental grant of £50 per pupil in current year (amount payable for boarding students in low-fee (£265 boarding fees) boarding schools).	'School salary', £400 p.a. All current expense in excess of grant aid.	80 per cent of building equipment costs.	20 per cent of building, equipment costs; 100 per cent of site costs; 100 per cent of costs of boarding facilities
Fee-charging secondary schools (Catholic)	Incremental salary and Capitation grant, same as preceding, but no Supplemental grant.	Same as preceding	These schools eligible for building grants same as preceding, but in practice less often receive them.	
Secondary schools (Protestant)	Incremental salary and Capitation grant, same as Catholic schools, above. Block grant equivalent in total funds to Supplemental grant, given to inter-church committee which distributes aid according to pupil means.	Same as Catholic schools	These schools eligible for building grants but do not always agree to design specifications and hence do not always receive aid. Otherwise, same as Free secondary schools (Catholic) above.	
Comprehensive and Community schools <sup>c</sup> (State schools)	All current expenditures paid by State	No private expenditures <sup>d</sup>	All capital expenditures are by State.	Nominal private expenditures by religious orders
Vocational schools (Vocational Education Committee schools)	Of all current expenditure, for salaries, administration, maintenance, or whatever purpose undertaken by VEC's, the sources are as follows: Rates, approximately 13 per cent Grant from Department of Education to VEC's, 85 per cent	Fees - collected only from post-secondary students and evening adult students, about 2 per cent	All capital expenditures are by State	

Note: 'Public' expenditures are those financed by taxes, rates, or borrowing by the state or by local authorities; 'private' expenditures are those financed by fees, contributions, fund-raising events, etc., and by grants, subventions, etc. from church bodies, religious orders, etc.

- Footnotes:
- a: Figures given are effective average; State share can vary between 66 per cent and 99 per cent.
  - b: Depending on number of students, number of attendances per year
  - c: There are differences in ownership, organisation between Comprehensive and Community schools but they are similar with regard to matters contained in this Table.
  - d: Comprehensive, Community, and Vocational schools are free to receive contributions from parents and others, and to undertake fund-raising campaigns to pay for items not covered in the Department's expenditure programme.

future to collect and publish data on school expenditures and on local sources. There has been no announcement that such data collection is contemplated, but it is most desirable that the State begin to collect and publish data on school expenditure. In 1978 it is none too soon to begin to report such fundamental type of data. Our own estimates of private expenditure on first and second-level education are reported in Chapter 5.

In 1973/74, 150,482 pupils or 29.4 per cent of the total attended convent or monastery National Schools and of these 52,227 (or 10.2 per cent of all National School pupils) attended institutions in which the State paid a capitation grant to the school, rather than paying salaries to the teacher. (In that year the grant ranged from £41.80 to £43.27½ on the first 100 pupils and from £27.92½ to £29.40 on the remainder.) The capitation option arose originally out of the needs of religious whose vow of poverty prevented them from taking salary cheques; in addition, these schools have been able to employ teaching religious who lack full qualifications. The 140 teachers in capitation monastery and convent schools in 1973/74 are presumably not even *de facto* State employees; that is, the State does not, either as employer or 'agent' give them salary cheques.

The State bears the full expense for operating a small number of schools. There are eight 'Model National Schools' managed just as others are, but fully financed by the State.<sup>9</sup>

Table 2.1 also indicates a number of pupils attending Special Schools and Classes: these are for such handicapped as deaf, blind, emotionally disturbed, physically handicapped, and mentally impaired.

*Private Primary Schools* receive no State funds of any kind. As a consequence, the State collects no data concerning them, except their enrolments. Thus, there are no available data on either their current or their capital expenditures.<sup>10</sup> And, accordingly, there is no State control or supervision over curriculum, teacher qualifications, number of hours per day or days per year in instruction, etc. Even in these most private of private-sector schools, however, there is a certain blurring with the public and aided sectors, in that the vast majority of private primary schools are operated jointly, and share school grounds, with National Schools or aided Secondary Schools. Moreover, in many cases parents are said to enrol children in these Private Primary Schools, rightly or wrongly, to be more certain of securing a place in a Secondary School when the child is older. Thus the fees they pay are viewed by them as an entry charge which will subsequently gain the child access to a second-level education. Not only are Secondary School places limited in

9. These eight Model Schools are remnants of the system established here between 1831 and 1861 by the Board of National Education, which were the first public primary schools established anywhere under the Crown, and are regarded as a 'pilot' for the British system. They were to be multi-denominational in character. The Irish Catholic Hierarchy opposed the Model Schools, which eventually numbered 28, both on the grounds of their multi-denominationality and on the grounds that they were State schools. They were boycotted by Catholics and ultimately the National Schools' system under denominational management was established. See Chapter 3.

10. See, however, Chapter 5, where we report our own estimates of their expenditures.

some areas, but some Secondary Schools, even in the 'free scheme' will not admit National School pupils. Pupils from lay National Schools have the lowest rate of entry into Secondary School.<sup>11</sup> In some cases, religious orders, who run most Private Primary Schools, are said to use superannuated teachers from other schools in their Private Primary Schools, thus implying another link.

Table 2.3: *Geographic distribution of private primary schools and pupils, by religious affiliation, 1975-76*

Place-County	Number of schools			Number of pupils		
	Catholic Schools	Protestant Schools	Total Schools	Catholic Schools	Protestant Schools	Total Pupils
Dublin	70	9	79	15,070	1,158	16,228
Louth/Kildare/ Wicklow	12	1	13	*	*	2,259
Cork	11	1	12	*	*	1,858
Rest of Country	15	2	17	*	*	1,348
<b>Total</b>	<b>108</b>	<b>13</b>	<b>121</b>	<b>20,355</b>	<b>1,338</b>	<b>21,693</b>

\*Withheld to preserve confidentiality.

Source: Department of Education

Table 2.4: *Secondary schools by ownership or affiliation, 1973/74 (unofficial tabulation)*

Ownership, affiliation	No. of schools	Ownership, affiliation	No. of schools
<b>Orders of Nuns</b>		<b>Orders of Priests</b>	
Sisters of Mercy	108	Society of Jesus	4
Presentation Sisters	53	Holy Ghost Fathers	6
Loreto Sisters	22	Others, fewer than 5 each	24
Irish Sisters of Charity	14	<b>Total</b>	<b>34</b>
Holy Faith Sisters	12		
Dominican Sisters	10	Diocesan Colleges, total	35
Others, fewer than 10 each	81		
<b>Total</b>	<b>300</b>	Lay Catholic, total	32
<b>Orders of Brothers</b>			
Christian Brothers	85	Protestant, total	26
De La Salle Brothers	20		
Presentation Brothers	11	Jewish	1
Others, fewer than 10 each	14	<b>Total</b>	<b>58</b>
<b>Total</b>	<b>130</b>		

Source: Compiled from information furnished by Catholic Secondary Schools' Secretariat.

11. A significantly greater proportion of Secondary School entrants come from Catholic religious, Protestant, and Private Primary Schools than from lay Catholic National Schools. (Gearey (1973)).

As Table 2.1 indicates, the Private Primary Schools enrolled only 4.3 per cent of first level pupils, and but 2.9 per cent of all pupils, in 1973/74. Moreover, both percentages have been, and seem destined to continue, dropping. But they are none the less important institutions. Table 2.1 also shows that they enrolled more students in 1973/74 than the Universities, a somewhat striking statistic. Table 2.3 which is based on 1975/76 data, shows the Private Primary Schools to be clustered in two main areas: County Dublin and its immediate environs, Counties Louth, Wicklow and Kildare, and to a lesser extent in County Cork. Indeed, 65 per cent of the schools and 75 per cent of the pupils are in County Dublin alone, and 76 per cent of the schools and 85 per cent of the pupils are in Dublin, Louth, Wicklow and Kildare. When County Cork is added, the figures rise to 86 per cent and 94 per cent of the pupils. Three reasons might be offered for this concentration. First, these areas contain more wealthy persons who might be able to afford fees more easily. Secondly, certain middle-class families, especially in Dublin City, might not wish their children to mix with economically disadvantaged and educationally deprived children, who would be found in a relatively greater concentration in National Schools in those areas. Thirdly, there is more demand for Secondary School places relative to supply, and hence more competition for entry, in these areas than in the rest of the country, and hence more motivation for parents to seek secure places by enrolling children in affiliated Private Primary Schools. Whatever the reason, these schools obviously enrol a much larger percentage of all first level pupils in Dublin, its environs, and Cork, than would be suggested by the 4.3 per cent figure for the State.

*Secondary Schools:* Until the fairly recent introduction of Comprehensive and Community Schools, second-level schooling in the Republic of Ireland had been (with small exceptions) either in voluntary Secondary Schools, which have emphasised academic or 'arts' education, similar to that in grammar schools in other countries, and Vocational Schools, which have emphasised trade and technical education. In 1963/64, Secondary Schools (with Secondary Tops) enrolled 73 per cent of all second-level pupils; in 1973/74, the figure was 70 per cent.<sup>12</sup> Since Secondary School leavers have traditionally been stronger in verbal areas (English, Irish, Latin, history, non-laboratory science) than in technical areas, the domination of second level by these schools has meant an 'arts' emphasis greater in Ireland than elsewhere in Europe, and one which has been the object of considerable criticism. Critics contend that the system has traditionally produced ample numbers of able candidates for such positions as civil servant or bank clerk but too

12. Most of the data in the study are taken either from *Investment in Education*, Stationery Office, 1965, or from the Department of Education *Tuarascail Staitistiúil* various years. The 1963/64 data cited are from the former and the 1973/74 from the latter.

few technically and technologically competent leavers. The curriculum also strongly reflects University matriculation requirements.

In the event, second-level education began to change in a number of respects, essentially beginning in the late 1960s. Vocational Schools' curricula were expanded to include Intermediate and Leaving Certificate courses (q.v., below), and in theory a vocational pupil can today take a programme of study similar to that found in Secondary Schools. The examinations themselves, as well as the Secondary School curriculum, began to be altered, to provide for more technical content, a point to which we shall return in the next chapter. And Comprehensive and Community Schools, incorporating both 'arts' and 'vocational' education, were established for the first time.

Secondary Schools are denominational with minor exceptions — e.g., three schools are regarded as 'non-denominational Protestant' — and are of five general types. The most numerous are owned and maintained by Catholic religious orders, who have long dominated Irish second-level education. In 1973/74, 443 of a total of 534 Secondary Schools accounted for were operated by religious. Second, there are parochial or diocesan schools, called "Diocesan Colleges" of which there were 31 in 1973/74, which were originally established to prepare boys for seminary, and still serve that purpose. Third, there were 33 'lay Catholic' Secondary Schools, owned and operated, in effect, as businesses by individuals.<sup>13</sup> Fourth, there were 26 Protestant Secondary Schools, many of them associated with the Church of Ireland. And fifth, there is one Jewish Secondary School, in Dublin.

An unofficial tabulation indicating ownership or affiliation of these Secondary Schools is provided in Table 2.4, which shows that three orders — the Sisters of Mercy, the Presentation Sisters, and the Christian Brothers, among them maintained 246 Secondary Schools, or 46 per cent of the total. Accordingly, these three orders have had, and continue to have, an exceedingly important educational and cultural impact in Ireland. Table 2.4 indicates far more schools run by orders of nuns than of brothers. The former, unlike the latter, often tend to accept both boys and girls. Moreover, most of the schools operated by orders of priests and the overwhelming majority of Diocesan Colleges serve only boys.<sup>14</sup> As might be expected, there is a degree of controversy over the domination of secondary education by religious orders. The issues raised include alleged or real religious contribution to sectarian nationalist traditions, to excessive 'arts' (as contrasted with technical) emphasis in the curriculum, and to Church domination of Irish Society. We do not treat any of these issues in this study. There has been a certain amount of economic significance of the heavy participation of religious, not only in Secondary Schools, but in primary education as well, on which we

13. That is, they took a proprietary form; no invidious connotation is intended.

14. Of 31 Diocesan Colleges accounted for in Table 2.4, 27 served boys only, and the other four were mixed. None served girls only.

do comment. On the one hand, the religious as individuals have had what might be called privileged positions with regard to certain matters. There is a built-in bias in their favour in recruitment, not only in Secondary but in National Schools, and the least qualified religious entering teaching is typically less able than the least qualified lay person. In time of recession and depression, this bias has meant that religious are fairly certain of employment, while lay people have far greater difficulty finding teaching posts. In Secondary Schools run by religious, the highest position available to lay teachers is that of Vice Principal, as Principalships, with higher pay and responsibility, almost always are reserved for religious.<sup>15</sup> On the other hand, there is no doubt that the religious, and in particular members of the three large teaching orders already referred to, have made very substantial personal sacrifices in order, in effect, to 'subsidise' the nation in the education of its children, particularly in second level. Since the number of teaching religious are today in decline, meaning in effect that this 'subsidy' is being withdrawn, we will have occasion further to consider the economic contribution of the religious.

It is impossible safely to generalise about schools operated by the religious. In some, members of religious orders live what appear to the outsider to be very comfortable lives indeed, with extensive grounds and well-cared for gardens, and buildings of great beauty and character. Other religious evidently have lived frugally, both out of conviction and to devote the saved resources to education. Some have endeavoured to serve the poor. Others, especially the orders of priests, have concentrated on the relatively élite, and their schools, in the main, have not joined the 'free scheme' to which reference is made below.

While it can be stated that the exchequer contributed to Secondary Schools in five clearcut defined ways, the extent to which finance of Secondary Schools is 'public' or 'private' is an exceedingly complex matter, and there is no generally applicable answer. Each teacher receives a 'school salary', in recent years set at £400 per year, paid by the school and not the State. In addition, the State directly pays recognised, qualified teachers a so-called 'incremental salary', ranging in 1973/74 from £911 to £1,821 for women and unmarried men, and £1,150 to £2,341 for married men, with additional allowances for children, special qualifications, and duties. These added responsibility allowances loom large in arriving at total salaries. Obviously, the 'school salary', while not trivial, is far smaller than the so-called 'incremental salary'. The State has historically provided the Schools with aid in the form of grants, as discussed presently, from which the 'school salary' is paid, so both parts have a State origin. The reason for dividing the salary in this fashion and for calling the larger State share 'incremental', is to support the theory that Secondary teachers are private not public employees.

15. Access to full Principalships has come to be a vocal demand of ASTI, the Association of Secondary Teachers in Ireland.



State grants to Secondary Schools for running expenses are in two parts. The first is the so-called 'capitation grant', paid to all recognised Secondary Schools, which in effect means all Secondary Schools. In 1975/76, as shown in Table 2.2, this was set at £18-£24 per pupil (slightly more where instruction is in the medium of Irish). The grant is received in the year following their attendance. All types of schools listed in Table 2.4 are eligible to receive this aid, irrespective of form of ownership (e.g., including 'lay' or proprietary schools), and irrespective of whether they charge fees. Thus some rather élite institutions which charge fairly high fees and which would be wholly private in many countries do receive public funds in the Republic of Ireland, as well as being favoured by State payment of incremental salaries. In 1967/68 the Department of Education introduced the so-called 'scheme for free post-primary education', whereby a supplementary grant (originally £15/£25 per pupil; £50 in 1975/76) would be paid to all schools willing to forgo fees. (Grants are also paid on behalf of boarding pupils at so-called 'low fee' boarding schools, defined in 1975/76 as those with boarding fees of no more than £265 per year.) In 1975/76, 72 of the 534 schools accounted for in Table 2.4 charged fees. These included all Protestant Schools, which, however, had a variant on the 'free scheme' discussed later. Unlike the capitation grants, the in-lieu-of-fees grants are payable on this year's, rather than last year's, enrolments.

It will be noted that neither the capitation grant nor the supplemental grant in lieu of tuition is based in any way on outlays or on a matching 'local' contribution. Thus it is possible that some schools, with higher than average costs, cannot function without additional private sources of funds. Others may do fairly well, and indeed may, in a number of years, operate at a surplus.<sup>16</sup> It is hence impossible to generalise concerning the mix of public and private funds in secondary education.

The situation involving the religious is one step more complex. Until 1974/75, most of the schools run by religious orders (with the notable exception of Christian Brothers' schools) operated on a financial system which Father John Hughes, S. J., until recently Director of the Secretariat of Catholic Secondary Schools, has called 'the bucket': all funds coming in were seemingly poured into one bucket, and all payments came out of that same bucket, irrespective of whether they were on the account of the school or the religious community. No line was drawn between the community and the school. While agreement among the Association of Secondary Teachers' Ireland (ASTI), the Secondary Schools, and the Department of Education called for a school salary of £400 per teacher, that salary was only 'deemed' to be paid to religious. Moreover, as members of religious communities, these teachers routinely turned their incremental salary cheques over to their orders, i.e., to the "bucket". Since at that point community and school accounts were co-mingled, it cannot with any certainty be estimated to what

16. See Chapter 5 for further discussion.

extent these teachers 'ploughed back' their salaries into their schools. The extent to which that is so depends on the extent of community expenditures, which in turn depends very considerably on the level of living of the community, as well as on their other commitments. It seems virtually certain, however, that many nuns and brothers over a period of many decades have lived simply, frugally, and efficiently in order to turn over a substantial fraction of their incremental salaries to the education of the nation's children. This seems most certainly true, again, of the three large orders to which reference has already been made: the Christian Brothers, Sisters of Mercy and Presentation Sisters (as well as of a number of other orders). In 1973/74, the Secretariat introduced a uniform system of accounts, and in effect abolished the "bucket". In future, there will be three local parties to actual transactions: the teachers; the religious community; and the school. School salaries are actually to be paid to all teachers, lay and religious. Religious may then turn these salaries, together with incremental salaries, over to their communities. Separate records will be kept for community and school. Consequently, where the community in turn shifts funds to the school, there will be an explicit record. Likewise, where other members of the community perform services for the school (cleaning, administrative duties, boarding school duties, etc.), a value is to be placed on such services and a record kept. Thus in future it will be possible to determine how much, in money terms, the religious are contributing to secondary education, though some transactions are not 'arms-length' and must be regarded as nominal. It is regrettable that this practice was initiated only in 1973/74, in what one takes to be the twilight of this system. While there is no evidence that continued substantial domination of secondary education by religious orders is coming to an end, the decline in the number of religious as a percentage of all secondary teachers means a decline in this special form of financial or economic contribution, which regrettably was never measured in its heyday.

For a variety of reasons, a somewhat different scheme to that of supplemental grants in lieu of tuition was established for Protestant Secondary Schools when the so-called 'free scheme' was introduced. When that scheme first appeared, £25 was a rather typical annual fee in Catholic day Secondary Schools, thus when schools were told that they would be given an added grant of £25 if they were to forgo fees, most of them 'broke even', at least at first. (This was not the case for all, or for all time, as will be noted below.) At the same time, the typical fee in Protestant Secondary Schools was £50, a difference attributed by the Protestant Schools to the presence of religious orders in the Catholic schools.<sup>17</sup> Protestant Schools were consequently

17. A handout distributed by the (Protestant) Secondary Education Committee in 1969, taking Question/Answer form, says, 'Why is there a different scheme for Protestant Schools? Because very few of our schools can afford to charge fees of £25 or less and so are ineligible for the Government Scheme. Roman Catholic schools can do it because they are usually based on Religious Orders, and even then much sacrifice is entailed.' A spokesman for the Church of Ireland (Irish Press, January 9, 1975) is quoted as saying that the main reason for higher costs in Protestant schools at the time of

unable to give up fees altogether in exchange for a £25 grant. Instead, an arrangement was worked out under which the Department gives a bloc grant to an inter-Church committee representing the Church of Ireland, the Presbyterians, the Methodists, and the Society of Friends. The amount of the grant is determined by first calculating the percentage of Catholic schools which have adhered to the free scheme (usually about 92 per cent); applying that percentage to the total number of Protestant pupils; and multiplying that number by the current size of the supplemental grant. To this amount there has, in recent years, been added an additional amount to take account of the special boarding needs of Protestant pupils who in many rural areas live a very long way from a 'suitable' post-primary school. The inter-Church Committee, styled the 'Secondary Education Committee', then distributes these funds strictly according to means, and Protestant school children can receive anywhere from no aid at all to full payment of fees.<sup>18</sup>

The 'free scheme' is open to a number of criticisms, of which two stand out. First, while presented as a technique to improve access to education by the less advantaged, it distributed resources in ways often favouring the more advantaged, at least as compared with alternatives available, some of which evidently were considered. To a considerable extent the Protestant scheme is exempted from this criticism. Secondly, it failed to marshal the maximum of education resources per £1 of public funds available. The basis for these two criticisms lies in the following analysis.

Estimates have been made of the net effect on second-level enrolments of the introduction of the 'free scheme', and of the extension of the vocational curriculum to include courses toward Intermediate and Leaving Certificates (Tussing, 1976). These estimates appear in Column 2, Table 2.5 under the heading, 'Attributed Enrolment Gains'. (Figures for 1975 are extrapolated on the basis of trend.) While there are difficulties in allocating these estimated gains among Secondary Schools, Comprehensive Schools, and Vocational Schools,<sup>19</sup> for present purposes we report (in Column 3, Table 2.5) as the 'Secondary Schools Share' a number proportional to Secondary Schools' enrolment as a fraction of second-level enrolment. In Column 3, we report

the introduction of the free scheme 'is that religious orders do not exist in the Church of Ireland'. The implied contribution of religious orders to education in Ireland is set for 1967/68 at an equivalent of, or near, £25 per pupil per year, or in excess of £2,500,000. Even a substantial scaling down of this estimate would leave a very substantial contribution indeed. There are other reasons, however, for this difference. Teachers in Protestant Secondary Schools are often paid a higher 'school salary' and these schools often provide 'extras' not found in Catholic Schools. Consequently, as is shown in Chapter 5, substantially more is spent per pupil in Protestant than Catholic schools, even when other influences (location, size, boarding and use of religious) are controlled for.

18. A number of relatively advantaged Protestant parents were vociferously resentful of the scheme worked out, as it meant they had to pay full fees, while equally advantaged Catholic parents next door paid none. The difference between the two was not only one of a difference in costs as between the two types of schools, but also the Protestants' decision to use the funds made available in a way that was progressively redistributive.

19. See Tussing (1976b), for a discussion. The 'free scheme' meant a change in the relative prices and other structural differences as between different types of schools, and led to differential changes in enrolment (presumably shifts between types of schools) in junior and senior cycles.

Table 2.5: *Estimated windfall transfers to families of secondary school pupils benefiting under 'Free Scheme'*

(1) School Year	(2) Attributed enrolment gain (x 1000)	(3) Secondary schools' share (x 1000)	(4) 'Free secondary pupils (x 1000)	(5) Estimated windfall beneficiaries (x 1000)	(6) Supplemental grant per pupil	(7) Total windfall (x 1000)
1967/68	8.4	6.0	114.1	108.1	£25	£2,702.5
1968/69	13.5	9.7	122.9	113.2	£25	£2,830.0
1969/70	18.8	13.5	132.8	119.3	£25	£2,982.5
1970/71	19.1	13.7	138.6	124.9	£25	£3,122.5
1971/72	19.2	13.7	144.6	130.9	£25	£3,272.5
1972/73	19.5	14.0	148.7	134.7	£25	£3,367.5
1973/74	19.6	14.0	153.3	139.3	£45	£6,268.5
1974/75 <sup>a</sup>	20.0	13.9	157.8	143.9	£50	£7,195.0
<i>Eight years' total</i>						£31,741.0

<sup>a</sup>Estimated by extrapolation

Source: Figures in Column 2 are taken from A. Dale Tussing (1976). 'Labour Force Effects of 1967/68 Changes in Education Policy in the Irish Republic' *The Economic and Social Review*. Vol. 7, No. 3, April, 1976, pp. 289-304. Other data from Department of Education or calculated as described herein, see text.

the estimated number of Secondary School pupils, or the equivalent in Protestant schools, who benefit from the 'free scheme' estimated as 92 per cent of the whole number of Secondary School pupils. If the Secondary Schools share in enrolment gain (Column 3) is subtracted from the beneficiaries of the free scheme (Column 4), the remainder (Column 5) is an estimate of the number of 'windfall beneficiaries' of the scheme, i.e., those who benefit from the free scheme, but who *would* have attended Secondary School, and whose parents *would* have paid fees, had the scheme never been introduced. It should be noted that the attributed enrolment gain (Column 2) is a conservative estimate.<sup>20</sup> In Column 6, we report each year's figure for the amount of the Supplemental Grant. Finally, in Column 7, the product of the last two previous columns is obtained, as an estimate of the total windfall gain to families of Secondary School pupils. For example, we estimate that in 1973/74, these families gained £6,268,500 — money they would have spent on school fees, had fees been continued, but which was paid instead, on their behalf, by the State. Between the initiation of the 'free scheme' and 1974/75, we estimate that £31,741,000 has gone in such windfall benefits to the parents of Secondary School pupils.

The figures in Column 7 obviously refer only to Secondary Schools. It will be recalled that the 'free scheme' applied as well to Comprehensive Schools (of which there were three in 1967/68) and Vocational Schools, both of which abolished their fees effective 1967/68. In light of this, £31,741,000 must be taken to be a minimal estimate.

This £31,741,000, though labelled 'education' in the eight budgets involved, acted in effect as an increase in the disposable incomes of the families involved, and presumably went for housing, clothing, recreation, etc., rather than for education. While there may be important exceptions, these families are, in the main, among the more advantaged members of society. Moreover, to the extent of these funds, society has failed to marshal the maximum available amount of resources for education. For example, had there been introduced instead a free scheme only for low-income persons (i.e., for those qualifying by a means test), the remission of fees might have been supplemented, for those with especially low incomes, by a subsistence grant (NESC, 1976, Report No. 12).<sup>21</sup> Thus far more students might have been brought into the system. Alternatively, had the funds been devoted to primary education, their educational impact would certainly have been greater, and more equitably distributed as well.

Where a segment of the community is evidently able and willing to pay

20. See Tussing (1976b). Regression equations were estimated with school participation rates for each year of age as dependent variable, using dummy variables to measure the effect of the policy. The coefficient for the dummy variable was accepted with a fairly weak test, viz. that the coefficient be larger than its standard error. Thus the estimated enrolment gain, while a conservative estimate, is more liberal than usual significance tests would require.

21. Such a scheme was evidently considered at the time, and rejected, though the history of the 'free scheme' suggests extraordinarily little consultation on this matter by the Department with people in the field of education.

for a benefit such as Secondary education, especially where for reasons other than fees the benefit is far from universally available, it appears foolishly wasteful (particularly from the perspective of budgetary stringency of the late 1970s) for the State to assume the costs.

Another, unrelated criticism is that since the grants bear no necessary relation to costs, the effect among schools has been capricious, and was particularly so at first. Moreover, schools were induced to forgo fees when a grant of approximately the same amount as most schools' fees was introduced; but then the grant was held constant, during a period of rising costs, for the next six years (see Column 7, Table 2.5) which brought many schools near or beyond the brink of closure, according to spokesmen for these schools.

It is widely believed (though obviously it cannot be documented) that this failure to keep the grants' structure in line with operating costs over time was in a sense deliberate. According to this argument, the Department of Education thought that the original free scheme had gone too far – that as argued above, it provided an excessive windfall to families at the expense of providing more educational resources. Holding down the grants in the face of rising costs amounted to *de facto*, a partial repeal of the scheme. Eventually, however, the pressures for higher grants became irresistible.

Whatever the reason, it seems fair to comment that the authorities did not foresee, or ignored, the probable *incidence* of the new grants (in the sense analogous to tax incidence), and that this error was followed by a policy on grant amount which brought undeserved hardship to many schools.

In addition to paying teachers' incremental salaries, and paying capitation grants to all recognised schools and supplemental grants to all free schools (and an equivalent amount to fee-charging Protestant schools), the State aids Secondary Schools in two further ways. One of these is fairly trivial: there are additional grants to equip classrooms, for science and other purposes, and toward the expense of choirs and orchestras. In 1974 the total amount involved was only £159,000.

The other is far from trivial. All recognised Secondary Schools, whether fee or free, Catholic or Protestant, are eligible for building grants toward the cost of new or enlarged schools. The State pays nothing toward the acquisition of sites, and 80 per cent of building costs. While in principle schools of all types are eligible for such grants, in practice they go only to free Diocesan and Religious Catholic Secondary Schools. Lay schools are permitted to continue to receive current grants, but their expansion is not being encouraged, i.e., funded. Fee-charging Catholic Secondary Schools are formally eligible, but are less often approved for building grants than free schools. Protestant Secondary Schools are eligible for grants, but not all their school buildings built since the introduction of the current grants' scheme have fit within the maximum specifications for schools eligible to receive grants. Boarding facilities are not eligible for capital grant aid, a rule which affects Protestant more than Catholic Schools.

State control over Secondary Schools is more indirect and hence somewhat weaker than for National Schools. The schools must employ at least a minimum number of qualified (Higher Diploma in Education) registered teachers, and only such teachers are eligible for incremental salaries. There is also a maximum number or quota of eligible teachers, related to the number of pupils.<sup>22</sup> Otherwise the State has no hand in teacher selection. Curriculum and textbooks are influenced indirectly but powerfully through examinations, and through publication by the State of a syllabus corresponding to each year's examination work.

*Vocational Schools:* Vocational Schools are wholly public institutions. They are owned, operated, and maintained by Vocational Education Committees which are organised in 38 jurisdictions: four cities; seven urban districts; 25 of the 26 counties, and the two divisions of the 26th.<sup>23</sup> (The VECs, as they are called, also offer third-level education, and some second-level education, through Regional Technical Colleges and, in Dublin, through Colleges of Technology.) Since 1930, when the present arrangement was introduced,<sup>24</sup> the system has subtly changed from one in which vocational education was viewed as essentially a local function, obtaining half their funds from the rates and from nominal student fees, to one in which vocational education, like other second-level education, is viewed as a national function, though still operated by the local VECs. In 1973/74, in excess of 85 per cent of current expenditures, and all of capital expenditures, were from State funds.

Effective in the 1967/68 school year, with the introduction of the 'free scheme', tuition fees for second-level students were abolished, and the State grant to VECs was increased commensurately. At the same time, there were far-reaching curriculum changes which require some mention here. Until that year, vocational schools were charged with providing two types of education: 'continuation' and 'technical'. The former consisted essentially of the continuation of some or most of the subjects offered in National Schools: Irish, English, and sometimes commercial arithmetic, along with such courses as woodwork, metalwork, mechanical drawing, etc.; and led after two years' study to the 'group certificate' examination. The latter consisted of specialised, advanced work oriented courses, including apprenticeships.<sup>25</sup> Thus there was minimal overlap between subjects as studied in Vocational and in Secondary Schools. When the 'free scheme' was introduced, Intermediate and Leaving

22. As this is written, a school is permitted one teacher for each twenty pupils, plus a Principal, a Vice Principal, and, if the school has more than 250 pupils, a guidance teacher.

23. The four cities are Dublin, Cork, Limerick, Waterford; the urban districts are Bray, Drogheda, Dun Laoghaire, Galway, Sligo, Tralee, Wexford and; the County VECs exclude the preceding cities and urban districts; and County Tipperary is divided into North and South Ridings. Members of the VECs are appointed by the local rating authority.

24. Previous to that, Vocational Schools were operated directly by the State (*Investment in Education*, p. 12).

25. *Ibid.*, p. 13.

Certificate courses were introduced in Vocational Schools, as, in effect, extensions of the 'continuation' programme. (At the same time, as already noted, some more technical subjects were introduced in these examinations, and in the Secondary curriculum.) Thus a very substantial overlap came to exist between the curricula of Vocational and Secondary Schools. Some have characterised the resulting Vocational Schools as, in effect, 'second-rate Secondary Schools', a description given even by some employed in the VEC system, who regret the relative decline of the vocational function. While we are not in a position to judge the characterisation, and in particular the 'second-rate' ranking, the characterisation does have some significance for the future, and will be referred to in Chapter 4.

Of all the types of Schools at first and second level, only Vocational Schools are inherently non-denominational. (Comprehensive and Community Schools, while they may be regarded as State schools, and indeed are the only schools about which that might be said, are effectively denominational in management.) None the less, it would be wrong to conclude that Vocational Schools are *secular*. Religion is an important part of the curriculum of Vocational Schools. And they have been subject to a good deal of ecclesiastical influence. A high proportion of VEC members are in fact clerics.

The influence of the Department of Education over Vocational Schools is somewhat greater than over Secondary Schools, as the Department must sanction staff appointments made by the VECs.

*Comprehensive and Community Schools.* For our purposes Comprehensive and Community Schools are essentially similar, and for the most part they will be dealt with together (as they are, in general, by the Department of Education). They are effectively State schools which offer both 'arts' and vocational courses, and they have features of both Secondary and Vocational Schools. The plan to build Comprehensive Schools was first announced in 1963, and the first school opened in 1966. They follow the pattern of Comprehensive Schools in Britain, except that they are specifically denominational. They are operated by three-person Committees of Management, representing the Department, the VEC in the area, and the Protestant or Catholic Bishop, or Religious Superior, as the case may be. This last member is the Chairman. In the case of schools managed by a Protestant Church or a Religious Order, two additional members are named by the Bishop or Superior, to assure the appropriate majority on the Committee.

Since 1974, no additional Comprehensive Schools have been opened, and there are no plans for further schools of this type. Instead, 'comprehensive education' is to be provided through Community Schools, the first three of which were opened in 1973. For the most part, these represent a joint venture between VECs and religious orders (one or two, depending on whether the school is to be co-educational). Some Community Schools, in



fact, have resulted from amalgamation of existing Secondary and Vocational Schools. The amalgamation may, or may not, involve common buildings. That is, the Community School may consist of separate school buildings, but with a common registration, and mutual shared use of facilities. More often, new Community Schools have been organised in newly settled or expanding areas, which do not involve the amalgamation of existing schools, but rather the co-operation of the Religious order and the VEC. Community Schools are controlled by Committees of Management consisting of two members appointed by the appropriate Religious or Diocesan authorities, two by the VEC, and two elected by the parents from among their numbers.

Though the Community School is evidently the leading edge of change at second level, expanded or re-built Vocational and Secondary Schools continue to receive building grants. New schools are supposed to take the Community School form.

*Third Level:* Third level education is not a central concern of this study, and is mentioned mainly for the sake of completeness. Moreover, third level education is complex in structure, and is in flux at the moment. Any adequate description would have to be lengthy; indeed, third level education deserves a study of its own. Our review here will of necessity be brief. As is clear from Table 2.1, the Universities dominate third-level education. Like Secondary Schools, they have in the past often been criticised for excessive concern with 'arts', as opposed to technical, subjects, as well as with the 'old professions' such as law and medicine. In the mid-1960s, the only other third-level institutions of significant size were the Colleges of Education or the teacher training colleges (to train National School and Vocational School teachers — Secondary teachers are trained in the Universities) and the two technological colleges operated by the Dublin VEC. Wide appreciation that Ireland was lacking in advanced technical training led to the development, with World Bank loan assistance, of a system of Regional Technical Colleges, as well as a National Institute of Higher Education, (in Limerick), which constitute the most rapidly growing sector of third-level education.

The two Universities<sup>26</sup> are empowered to award degrees. If and as other third-level institutions offer degree-level courses, the degrees must be 'validated' by one or the other University. A national Council for Education Awards exists to make other, non-degree awards.<sup>27</sup>

26. The two universities are the National University of Ireland and Dublin University. The latter has only one constituent college, Trinity College. The former is divided into three University Colleges, in Cork, Dublin and Galway, and seven 'recognised colleges' including St. Patrick's at Maynooth. It has been announced (July 30, 1976) that each of these is to become a separate university. The other six recognised colleges are St. Patrick's College, Drumcondra; Our Lady of Mercy College, Carysfort; Mary Immaculate College, Limerick; the National Institute for Higher Education, Limerick; Thomond College of Education; and the Royal College of Surgeons in Ireland.

27. In 1977, the new government announced plans to return the power to award degrees to the NCEA.

The Universities<sup>28</sup> must be described as 'aided' institutions. The State funds a statutory body, the Higher Education Authority (HEA), which in turn allocates funds to the Universities. The University Colleges in Dublin and Cork also receive a substantial amount of funds from the Department of Agriculture. Approximately 85 per cent of their income for current expenditures is derived from these two kinds of State grants. Most of the remainder is received as fees. However, a fraction of fee income, too, arises indirectly from the State. Roughly one quarter of University students are recipients of Higher Education Grants, which are set at a level so as to cover fees and a minimal, subsistence level of maintenance. Grants are awarded on a combined means/merit/location basis which, in effect, imposes more stringent standards on less economically advantaged students. That is, the academic requirements for obtaining a grant are higher than those for entry into an institution of higher education. Funds for higher Education Grants come in part from the State (the Department of Education), and in part from Local Authorities. Higher Education Grants also go to students enrolled for certain courses in the Colleges of Technology, the National Institute for Higher Education, the Kings Inns (Law School), the National College of Art, and the Regional Technical Colleges. But these exceptions are minor; the grants serve primarily University students.

Expenditures by Colleges of Education, as well as a programme of loans and grants for students, are funded by the State, in the Primary Education vote, rather than the third-level vote. These too, are aided institutions and prepare teachers along denominational lines, i.e., Catholic Colleges of Education in general prepare teachers for service in National Schools under Catholic patronage, etc., though there are no rigid sectarian lines.

The Colleges of Technology in Dublin are under the Dublin VEC. The RTCs are nominally under the aegis of the VECs for the areas in which they are located, but funds and a substantial amount of direction come from the Department. As one commentator noted, 'As controller of funds, the Department of Education has immense influence. It has a direct say in the appointment of Principals, Heads of Departments, and Staff. Courses, equipment, and other facilities are more directly its concern — as holder of most of the purse strings — than that of the Vocational Education Committees' (Corcoran 1973). RTCs do charge fees, but these cover but a small fraction of their current expenditures. RTC students are covered by a system of Scholarships administered by the VECs.

The education system in the Republic of Ireland takes a form unique in the world because of the special history and character of the country — its

28. In this paragraph the discussion of 'the Universities' also applies to the Royal College of Surgeons in Ireland; the College of the Pharmaceutical Society of Ireland; the National College of Art and Design, Dublin, the National Institute for Higher Education, Dublin (as this is written in 1977, still only a planning body); and the National Council for Educational Awards, Dublin (not a teaching but a validating body, as discussed earlier).

past as part of the United Kingdom, its economic structure, the homogeneity and heterogeneity (religious, racial, and cultural) of its people, and the traditionally high concern with religion as at the heart of the educational process. In the next chapter we will review the historical roots of some aspects of the system, not out of an intellectual, historical curiosity (though there is nothing wrong with that) but to determine if any seeds of future change are contained within the past and present.

## Chapter 3

### *Sources and Resources of the System*

The school system in the Republic of Ireland is broadly and deeply developed. Participation is approximately 100 per cent in the primary age groups, and very nearly so in the junior cycle, second-level age groups as well. Participation rates in second-level education exceed those in England and Wales, as well as those in Scotland and Northern Ireland.

In this chapter, we will look at a number of reasons why the Irish school system is so highly developed, and why it takes the particular shape and character it does. In particular, we will examine the special characteristics, resources, and circumstances that have combined to keep down money cost (whether total or public funds), and thus have encouraged full development of the system. We will also examine how some of these characteristics, resources, and circumstances may be in the process of changing.

This chapter is not intended as a history of Irish education. Rather, our purpose is fairly narrow. It is argued here that the characteristics, resources, and circumstances which made Irish education cheap and which, hence, induced its very considerable development, are in the main disappearing, and that per pupil costs and total expenditures are very likely to rise at an unprecedented rate in the coming decade. If the widely-quoted, and well-known forecasts of rapid population growth (Chapter 4) are borne out by events, then the growth in expenditures will be further aggravated.

The historical roots of a number of the characteristics of the unique Irish school system will be surveyed in the process. Several of the forces and trends that are altering costs are also altering the character and structure of the system, perhaps radically.

In the next chapter, we essay some quantitative estimates of the growth in population, participation rates, enrolments, per-pupil costs, and overall expenditures. In this chapter, we concentrate on the backgrounds and likely future characteristics of the problem. The discussion is organised into three time periods: the 'early period', which extends from the earliest times through the 1950s; the recent past, which consists of the 1960s and, to date, the 1970s; and the 'foreseeable future', which extends through 1986.

#### THE EARLY PERIOD

The Irish educational tradition is one of the oldest in Europe. Prior to Christianity, there existed the bardic schools which carried on a highly developed culture, a system of law, and medicine, history, poetry, and literature. The system of fosterage was an educational technique which began in these Celtic, pre-Christian times and which was evidently still in use in the

eighteenth century. One explanation for the well-developed and articulated Irish school system is that there has been a concern with education from the earliest times, extending back into pre-history. After the beginnings of Christianity, Ireland became the 'land of saints and scholars' by virtue of the development and thriving of monastic schools during Christianity's darkest days on the continent of Europe. The bardic schools and the monastic schools existed side by side for more than ten centuries.

From the time of Henry VIII until the Treaty and partition, two themes recur in the history of Irish education, having significance for the present structure of the system. One is the use by the British and by the Irish Protestant ascendancy of their control over the education system for the purposes of suppression of Catholicism and Gaelic nationalism, and for political and sectarian proselytism. The other, a reaction to the first, is the tendency (in the schools and outside) of Gaelic Catholics to associate nationalism with Catholicism, and to associate both of them with hostility to an active State role in education. In the present Republic of Ireland, with a population which is 95 per cent Catholic, it is the minority 5 per cent who by rights should fear a State system of education, since such a system could hardly help being heavily Catholic-oriented. But instead, the Catholic Church evidently opposes State influence as much as, if not more than, do the Protestants. One reason is surely the experience of Catholics during the long years of British rule and Protestant ascendancy. It would hardly have been surprising that Irish Catholics would be suspicious of State education in a land in which the State for centuries represented the religious interests of a minority, even had there been no history of efforts to suppress Catholic education.

There was, of course, such a history. Henry VIII and Elizabeth I, in suppressing the monasteries, also suppressed the monastic schools. There followed in the sixteenth and seventeenth centuries efforts to promote Protestantism and the English language in Ireland.<sup>29</sup> The Dublin Parliament passed the Act for the English Order, Habits and Language in 1537, and 'thus began a definite English State policy in Irish education, namely, the Anglicisation of the Irish people, and the suppression of Catholic ideals in education.' Council of Education (1954, p. 12). Two years later Henry VIII suppressed the monastery schools. In 1570, in the reign of Elizabeth I, the Dublin Parliament passed the Act for the Erection of Free Schools. The purpose of the Act was to provide a proper education in order to deal with 'the rude and barbarous states' of the Irish people. The Act provided that 'there shall be from henceforth a free school within every diocese of this realm of Ireland, and that the schoolmaster shall be an Englishman or of the English birth of this realm'. The peak in efforts to suppress Catholicism came, of course, with the Penal

29. Council of Education, *Report of the Council of Education* (Dublin, the Stationery Office), 1960, p. 8. These two reports, of 1954 and 1960, contain useful brief histories of the school system, and will hereinafter be cited as *Report, 1954*, and *Report, 1960*.

Laws, which (among other things) from 1691 through 1782 forbade any Catholic acting as a schoolmaster. Although Catholic education in any sense was outlawed in Ireland, it continued by virtue of the so-called 'hedge schools', so named because they were often conducted under the protective cover of hedges and in other outdoor spots. These schools were usually proprietary; the schoolmaster took fees from his pupils, and presumably had other sources of income as well. In addition to the hedge schools, there grew up a system of Irish colleges attached to Catholic universities on the continent, in Spain, France, and Belgium. As the enforcement of the Penal Laws was relaxed in the mid-1700s the hedge schools began coming out into the open (or rather, began going indoors), and they constituted an important part of the school system after the Relief Acts of 1782 and 1792.<sup>30</sup>

After the ending of the Penal Laws, Irish Catholics were in a difficult position with respect to education. They distrusted the educational initiatives of the State, and equally so those of the various charitable trusts and foundations which had been established in the country to provide education for children. At the same time, though some parish and diocesan schools were started, and the hedge schools continued, Catholics were not really in a position to start and maintain a system of education equal to that of the Protestants.

McElligott has commented:

The conflict between the two main rival religious groups acted as a brake on all educational progress at a national level and made unanimity of approach to any educational question impossible. It can be argued that a system of education could ultimately have been created, acceptable alike to Catholic and Protestant, had Catholics not kept so completely aloof from all schools which accepted aid from charitable and proselytising agencies. They did so at a time when they were not in a position to provide schools from their own meagre resources and when, indeed, many Catholic religious orders had no thought of founding schools. History has shown how accurate was their assessment of the position which led them to await a time when the material conditions of the people was to give them unconditional control of their schools. Most of the orders were missionary in aim but the thought that education might become a State monopoly and, again, the anxiety to shape youthful minds after a desired pattern made them enter the field. They were supported by the mass of the people who saw in this work an opportunity of fulfilling their own hopes and, at the same time, embarrassing the government. As the schools had no endowments for their support, the religious orders were obliged to

30. Hedge schools came to be called pay schools because the children had to pay the schoolmaster. (Akenson, 1967, p. 4) (*Report*, 1960, pp. 26, 30) (Clarkin, 1969, pp. 92-93). The Penal Laws were also directed at Presbyterians (Dissenters) who also suffered educational disabilities (McElligott, 1966, pp. 56-57).

make many sacrifices to provide education on as widespread and cheap a scale as possible. (McElligott, 1966 p. 57)

In this setting there came the establishment of the first large religious orders devoted specially to teaching, and particularly the education of the poor: the Presentation Sisters, in 1800, and the Christian Brothers in 1802. A number of other orders followed, and a quarter century later the Sisters of Mercy were established. To this day the three are important in primary education. The vast majority of monastery National Schools are Christian Brother schools, and between them the Sisters of Mercy and Presentation Sisters also maintain the vast majority of convent National Schools, and, as discussed in Chapter 2, dominate secondary education.

### *The Managerial System*

The system of National Schools had its origins in an effort, announced in 1831 in the House of Commons (which voted £30,000 in support), to provide what today might be called a multi-denominational, non-sectarian 'system of National Education'. Catholic and Protestant children were to attend school side by side, and the school would be used certain hours each week for religious instructions in turn by Catholics, Anglicans, and Dissenters. The funds were disbursed by an Irish 'Board of National Education', on a basis not unlike the present system. 'Aid would be given . . . for the maintenance of the school, the payment of the teacher's salary, and the purchase of books and school requisites at half-price. For a grant to be given towards school building, at least one-third of the estimated cost was to be contributed locally and, in addition, a site approved by the Commissioner was to be provided, and the school house was to "be vested in trustees, to be approved by them"' (Clarkin, 1969, pp. 97-98); (see also Atkinson, 1969, pp. 93-94). The Board also initiated a system of Model Schools, whose purpose was mainly to assist in the training of teachers. The significant aspect of the Model Schools is that they were financed wholly by the Board, and hence constituted a system of free public schools, one of the first such systems anywhere, and the first ever in the United Kingdom. A handful of these Model Schools still exist: see Chapter 2. It is somewhat ironic that Ireland was, in the nineteenth century, a leader in the public schools movement, in light of the fact that the public sector of the education system is so small today.

There is no doubt that the development of a national system of education was a singular accomplishment for any country at that time, but in particular for Ireland. Akenson (1967, p. 15), historian of the early National School system, comments,

. . . After having seen that the English and the Scots obtained State systems of mass education only after undergoing economic and social revolutions, we can only be surprised to find Ireland in possession of a

State system of schools almost a full four decades before either of its neighbours. Ireland before the Famine was an 'underdeveloped country', even if no one had yet thought to use the term. . . . The majority of its people were farmers, barely surviving by subsistence farming. . . . Industry was only a minor sector of the economy. The average income of the people was low, and they lived under extremely poor housing conditions.

Akenson attributes Ireland's early development of a national system to five factors: (1) the fact that 'whatever its formal status in the eighteenth and nineteenth centuries' Ireland was a crown colony, well used to State intervention; (2) that in particular there was a history of State intervention in education, largely for Anglicisation and religious proselytism; (3) 'the Irish peasantry showed a striking desire for their children to be schooled'; (4) an official consensus had developed in the early nineteenth century on educational development; and (5) particular individuals on the scene at the time were instrumental in establishing such a system (Akenson, 1967, p. 15). The system was an aided one, as today. Before long it was determined that schools operated by Catholic religious orders would be eligible for aid just as any other school might, so long as the rules set down by the Board were complied with. These included scrupulous non-sectarianism. The Christian Brothers, who evidently had maintained aided schools briefly in the system, withdrew in 1837. But the system had been established, in effect, in response to a request from the Catholic Bishops of Ireland to Parliament (Clarkin, 1969, p. 95), and in 1841 Pope Gregory XVI urged all Catholics to participate (McElligott, 1966, pp. 3-4).

At the outset, the most vociferous criticisms of the new system came from the Presbyterians. Catholics, too, had a number of specific complaints and grievances against the system; but most complaints (though not all) of both groups were accommodated over time. Catholics sought to have schools vested in local trustees, rather than the Commissioners (i.e., the Board); and this was achieved in 1861. They evidently objected to the non-denominational design of the system, especially in that they often detected Protestant and/or English bias in the choice of textbooks. At first it was the Presbyterians more than the Catholics who objected to its non-denominational character, and they were instrumental in altering it. (Akenson, 1967, p. 95) (Atkinson, 1969, p. 97). "Whereas the textbooks had a heavy English bias, the books *Sacred Poetry* and *Lessons on the Truth of Christianity* had a heavy Protestant bias" (Clarkin, 1969, p. 101) (Report, 1960, pp. 42-44) (Akenson, 1967, pp. 225\*ff.). The system evolved into one of denominational management under parish priest or Protestant clergyman. By 1860, 'the vast majority of schools ministered mainly to the needs of one denomination alone' (Atkinson, 1969, p. 99). The Powis Commission, a Royal Commission, chaired by the Earl of Powis, commissioned to examine the primary system in Ireland,



appointed in 1868 to study education in Ireland, declared the attempt to establish a non-denominational system a failure, and declared the system to be, *de facto*, a denominational one (McElligott, 1966). Third, the Catholics objected to the non-denominational character of teacher training, in a Departmental training college, together with the use of the Model Schools. In response, a system of providing liberal aid to Catholic teacher training colleges was established, though not before 1883. Fourth, they objected strongly to the State-operated system of Model Schools on the grounds of improper State intrusion in a sensitive area. The model Schools were, in effect, boycotted by Catholics, and in 1863 became *de facto* Protestant Schools (Akenson, 1967, pp. 377-378). And fifth, they objected to the fact that the seven-man National Board consisted of five Protestants and two Catholics: the Duke of Leinster, as president of the Board; the Archbishop of Dublin and the Provost of Trinity College, to represent the Church of Ireland; the Archbishop of Dublin and the Chief Remembrancer, to represent the Roman Catholic Church; one Presbyterian and one Unitarian clergyman. (McElligott, 1966, p. 3). By 1860 the composition had been altered to ten Protestants and ten Catholics.<sup>31</sup>

The Managerial system has built within it centrifugal and centripetal tendencies. The name 'National School' is obviously a misleading one, based on a historical accident: there was an attempt to create a national school system, but instead a parish, or at best, diocesan system was erected. There is considerable latitude for local initiative and flexibility. On the other hand, the examination system came to be the means of central control. The Powis Commission just referred to was responsible for the introduction of the 'results system' by which teachers' salaries would be, in part, determined by pupils' results on examinations conducted by the Board's inspectors. The 'results system' (also adopted in the secondary system, as will be discussed below) was subsequently dropped.

The resulting system, with small changes to be noted below, is in structure essentially the system in operation today. In *substance* as opposed to structure, the system continued to attract strong criticism. Padraig Pearse considered the education system to be a 'murder machine'. While Pearse attributed the 'murder machine' to the English, it is a fact that much of what he inveighed against in this essay continued in the system after the establishment of Saorstát Eireann. Certainly nothing like the system Pearse described as 'ideal' was ever introduced in Ireland.

A limited form of compulsory attendance was introduced in 1892. At

31. Initial Catholic resistance to what amounted to a secular public school system may have had parallels in the USA at about the same time. Bruck, in his case study of the establishment of public schools in Lowell, Massachusetts in the 1840s, finds resistance among Irish immigrants to efforts, led by employers in the area, to establish free and compulsory primary schools. 'Irish parents and children evidently did not share the employers' enthusiasm for schooling,' note Bowles and Gintis, drawing on Bruck's work. 'Though the precise causes are obscure, the Lowell School Board reports document a sustained school boycott by the Irish community, and a number of attempts to burn down the school in the Irish neighborhood.' (Bruck, 1970, p. 164).

least 75 days attendance in each half year was made compulsory for children between the ages of six and fourteen. The provision applied, however, only in municipal boroughs and townships; rural authorities could apply it where they chose. In addition, the acceptable excuses for non-attendance included fishing work and harvesting operations. Historian Dorothy McArdle (1965) describes the resulting system as one organised

. . . to obscure the consciousness of a separate nationhood as far as possible, in the Irish people. . . In these schools the Irish language was forbidden; the literature and history and legends of Ireland were not taught. The courses were designed with meticulous attention to detail for the Anglicisation of the rising generations. The children were taught to regard the English language, English history and culture as their own inheritance and England as the Mother country to which their whole allegiance was due.<sup>32</sup>

And Akenson, summing up the achievements of the system, notes, 'The national system of education . . . was the chief means by which the country was transformed from one in which illiteracy predominated into one in which most persons, even the poorest, could read and write'. But, '. . . if it was through the national system that the Irish nation was given the blessings of literacy, it is important to note that the system taught the nation to read and write English, not Irish' (Akenson, 1967, pp. 377, 379).

The establishment of Saorstát Éireann answered the complaints concerning curriculum and textbooks, but there were few, if any, changes in structure or organisation of the primary system. This appears to have been even more the case of the First and Second Dáil (Ó Buachalla, 1977, pp. 57-75). The 'results' system was abandoned. Compulsory school attendance was extended to virtually all children aged six to fourteen. The Irish language became compulsory. But the primary system maintained its structure as an aided system, denominational in character, managerial in control. It was seen, as the Bishop of Clonfert described it prior to World War II, as 'perhaps as good a system as human ingenuity can devise to meet the rights and interests of Church and State'. The managerial system itself, Bishop Browne of Galway said in 1945, 'had given Ireland the most satisfactory state of Catholic school control of any country in Christendom'. It was a system which was a legacy of the British and of the struggle over schools of the nineteenth century.

32. While the quotation from Dorothy MacArdle's book is a fair representation of the kind of complaints which nationalists have made against the National Schools, the point of view offered has been criticised *inter alia* by F. S. L. Lyons (1971) on the grounds that (i) Irish could be taught in the schools from 1879 onwards, though out of regular school hours and on a voluntary basis; and (ii) commencing in 1904 the National Board permitted schools in Irish-speaking or bilingual districts to teach Irish to all classes and to teach other subjects through the medium of Irish. In Lyons' view, the National Schools were not used to implement 'a coherent policy for the extermination of Irish' (pp. 49-50).

The secondary system, too, is little changed from that handed over in 1922. Officials in the Department of Education were kept at a good distance from the establishment of State schools, but they came to have considerable authority via the examination system. An effort was made in 1835 to establish an 'academy' in each county and an agricultural school and a 'college' in each province. (Clarkin, 1969, p. 100). This plan was unsuccessful because of the opposition of the Catholic Church. In 1878 the outlines of the subsequent aided system were established. Previous to that, the secondary system consisted primarily of voluntary schools and of secondary tops of National Schools.

The Intermediate Education Act of that year established an Intermediate Education Board to distribute State funds on the basis of written examinations. However, the funds were small, and operation of Secondary Schools required either fees of a substantial amount (for those days) or the personal sacrifices of members of religious orders. In spite of the decentralised nature of the system, the introduction of examinations made striking uniformity out of what had been diversity:

Before the year 1878 each school stood apart without any thought of, or direct concern for, what was being done in other schools. After that year schools had to comply with a common set of rules and regulations and accept a common curriculum and syllabus if they wished to have any share of the money provided by Parliament under the Act. The peculiar needs of a district or the strength of a headmaster's personality no longer counted for anything. As if to rivet the system more securely on the Irish people came the schools of the Christian Brothers, and it is arguable if there was any discernible difference between any of the scores of schools opened by them during the lifetime of the Board. It was this levelling down of the standard of money which was most destructive of good teaching (McElligott, 1966, p. 60).

One significant effect of this 'results system' was to turn Secondary Schools away from practical and technical subjects, such as navigation, rural science, and woodwork, which were not covered in the examinations. This but reinforced a bias in favour of a curriculum seen as leading to desirable, clean, pensionable white-collar jobs. In 1902 the Act was amended to include reports of government inspectors along with examination results in determining the amount of funds going to each school. The nominally decentralised secondary or 'intermediate' system was in fact highly centralised. Largely for this reason, Padraig Pearse described 'the present [1916] intermediate system' as 'the most evil thing that Ireland has ever known' (Pearse, 1916). Under Saorstát Éireann, the system was substantially decentralised and, for a time at least, liberalised, by changing the basis of aid from examination results and inspectors' reports to a straightforward capitation basis, and free-

ing up the curriculum. McElligott reports that an 'open course' system commenced with the First Report of the new Department of Education in Saorstát Éireann, and lasted for fifteen years, which abolished required texts, and 'provided the teacher with a wide opportunity of developing some genuine literary taste in the pupils'. It represented one of the few swings in the direction of more progressive education to occur after the Treaty. It was eventually sacrificed not because of any educational objections but because of 'the difficulty experienced in devising suitable examination papers' under such a system (McElligott, 1966, pp. 61-69).

The present vocational system dates to 1930, but its antecedents go back to 1898 and 1899. In 1898 the Local Government (Ireland) Act empowered local authorities to levy rates for the purposes of technical education; and in 1899 the Department of Agriculture and Technical Instruction for Ireland was established. The result was a system in which local committees, under the local rating authorities, planned and built schools called Technical Schools. In 1925, under Saorstát Éireann, administration went over to the Department of Education. The income in 1925 of the statutory Technical Instruction Committees was 27 per cent from rates, 6 per cent from student fees, and the remainder, approximately two-thirds, from the State (Table 2.2). The Vocational Education Act of 1930 changed this structure very little. Vocational Education Committees were established in place of the Technical Instruction Committees. The Revenue sources remained virtually unchanged, though the State share has gradually grown since 1930. The most important change in 1930 was the broadening of the curriculum from 'technical' to 'vocational' education, where the latter was defined so as to include 'continuation' as well as 'technical' subjects (McElligott, p. 105).

Until the 1960s, third-level education was practically synonymous with University education.<sup>33</sup> There was considerable flux in the structure of higher education in the second half of the nineteenth century (comparable to that of the 1960s and 1970s), but the locus of university campuses has changed little since 1854. There are now, and in the foreseeable future will be, five university campuses:<sup>34</sup> two in Dublin, and one each in Maynooth, Cork and Galway. The oldest by far is Trinity College, Dublin, which opened its doors in 1594 as what was then seen as the first (and in 1977 still the only) constituent college of the University of Dublin. It is formally non-denominational, but its roots are English and Protestant. The other Dublin institution, University College, Dublin (as it is called in 1977), is a descendant of the Catholic University of Ireland (1854), whose first rector was Dr John Henry (later Cardinal) Newman. UCD (as it is known) was

33. In addition, there existed the Training Colleges, and the Colleges of Technology under the Dublin VEC.

34. On July 30, 1976, it was announced that the three University Colleges (Dublin, Cork, Gaway) making up the National University of Ireland, along with one recognised college, St. Patrick's Maynooth, are to become independent universities. Some expect the National Institute for Higher Education in Limerick, with the other institutions in Limerick, eventually to form another university campus, the sixth in the State.

organised in large part out of the Catholic University as the base institution in the National University (1908), along with University College, Cork, and University College, Galway. These latter two began life (as did Queen's University, Belfast) as three Queen's Colleges, of the Queen's University of Ireland (1850), which were specifically and, evidently, sincerely non-denominational, organised 'on the principle of perfect religious equality. There would be no interference, positive or negative, with religious convictions, but religion would not be neglected. . . .' (McElligott, 1966, p. 136). In spite of the effort at non-sectarian University structure, the three Queen's Colleges became *de facto* Protestant institutions, as they were boycotted by Catholics, at least until the organisation of the National University. Queen's College, Belfast, 'well supported by the Protestant and Presbyterian middle classes, quickly acquired a reputation for the excellent work of the medical and science faculties. . . . The student body grew rapidly, so much so that many Ulster Presbyterians, failing to win a scholarship place in Belfast, went either to Galway or Cork, where, owing to the scarcity of Catholic students, the competition was less keen' (McElligott, 1966, p. 138). Thus the four university campuses, now all nominally non-denominational and funded by the State, began life respectively as a Protestant University, a Catholic University, and as two colleges of a *de jure* non-denominational, *de facto* Protestant university. The National University has received substantial State aid since its organisation; Trinity College, Dublin, has received an annual grant from the State since 1947.

#### *How Could Ireland Afford the System?*

By most standards, the Irish system of schooling has developed more rapidly and is today more highly developed than would have been predicted, on the basis of worldwide experience, for a country whose income levels, state of development, urbanisation and industrial structure have been those of Ireland. In primary education, participation rates approximate 100 per cent, and thus there are no states with higher participation rates. Moreover, these are actual participations, and not the fictitious enrolment-without-attendance one occasionally finds in rural sectors. In the post-compulsory segment of second-level education, participation exceeds that of a number of more highly developed economies with higher *per capita* incomes. For example, it is not uncommon that British economic achievements are used as targets in Ireland; it is still more common that income and welfare benefit levels in the Republic of Ireland are compared (almost invariably unfavourably) with those of Northern Ireland (NESC, 1976, Report No. 12). It is instructive that school participation rates in the post-compulsory ages exceed those of England and Wales, and of Scotland, and of Northern Ireland.<sup>35</sup>

In Tables 3.1, 3.2 and 3.3, the progress of the development of this system is shown. These Tables are all taken from T. J. McElligott, *Education in*

35. See Table 4.3

Ireland. Tables 3.1 and 3.2 show, respectively, school enrolment and literacy in the period prior to compulsory school attendance.<sup>36</sup> It is noteworthy that in 1911, only 12 per cent of the population (32 counties) could neither read nor write. (A critic might argue that this measure examines the education system at its strong point – verbal ability – rather than its weaker points – quantitative, manual, or technical facility – a point to which we shall return presently.) Table 3.3 shows attendance as a percentage of enrolment, which is a fair proxy, after the start of compulsory education, for participation.

Table 3.1: *School enrolment in Ireland (32 counties), Census Years, 1841-1901*

<i>Census period</i>	<i>In primary schools</i>	<i>In superior schools</i>	<i>In universities</i>
1841	475,559	27,391	—
1851	485,880	18,502	—
1861	443,433	21,674	1,711
1871	615,785	21,225	2,945
1881	675,036	20,405	4,288
1891	685,074	24,271	3,498
1901	636,777	38,565	1,598

Note: In the years 1841 and 1851, universities were included under 'Superior Schools'. The returns for 1861 are for one day only, the numbers in the other years being the attendance for a week; hence the apparent decrease in the number in primary schools. In 1891, two establishments which were classed as 'colleges' in 1881 were included under 'Superior Schools' in 1891. The figures for 1901 are from the Census returns for that year, and the figure given under "Universities" is for the Queen's Colleges and Trinity College only.

Source: T. J. McElligott, *Education in Ireland*, Dublin, Institute of Public Administration, p. 13.

Table 3.2: *Number and percentage of persons five years old and upwards in population able to read and write, census years 1841-1911*

<i>Census period</i>	<i>Read and write</i>		<i>Read only</i>		<i>Neither read nor write</i>	
	<i>Total No.</i>	<i>Proportion per cent</i>	<i>Total No.</i>	<i>Proportion per cent</i>	<i>Total No.</i>	<i>Proportion per cent</i>
1841	1,966,000	28	1,413,000	19	3,766,000	53
1851	1,939,000	33	1,203,000	20	2,766,000	47
1861	2,106,000	41	1,023,000	20	1,973,000	39
1871	2,349,000	49	822,000	17	1,588,000	34
1881	2,726,000	59	714,000	16	1,158,000	25
1891	2,990,000	71	467,000	11	777,000	18
1901	3,187,768	79	276,580	7	551,715	14
1911	3,329,015	84	154,291	4	471,212	12

Source: *Ibid.*

36. Taking 1926 rather than 1892 to be the effective date of compulsory school attendance.

Table 3.3: *Attendance and enrolment of children aged 6-14 in Ireland (26 counties), 1925/26-1963*

<i>School-year</i>	<i>Average number of pupils on rolls</i>	<i>Average daily attendance of pupils on rolls</i>	<i>Percentage of average daily attendance to average number on rolls</i>
1925/26	493,382	362,588	73.5%
1933/34	502,661	422,266	84.0%
1943/44	454,647	373,414	82.1%
1953/54	472,536	404,618	85.6%
1963	485,464	427,765	88.1%

*Source: Ibid.*

When Ireland was still essentially a peasant economy every parish had at least one primary school, and not a few had more than one; and the vast majority of children attended these schools, and learned something. This is a remarkable achievement. It is fair to ask how it could have come about.

It can be observed that the system was not developed for the purpose of encouraging economic growth. Neither was the main function ever seen as preparing individuals for careers. Rather, the major function of primary education, and for those who went on to secondary education, was religious, moral and intellectual instruction.

One implication of this is that education of girls has always been as important as education of boys. This has meant higher overall participation rates than in countries where the education system was viewed more functionally, and where boys were favoured, especially in second level, because of their higher labour force participation.<sup>37</sup>

Another implication is that education was overbalanced in favour of such subjects as English literature, religion, Irish and Latin — highly verbal subjects. If Ireland in effect inherited the beginnings of a developed school system, it also inherited a banking system and a civil service system developed beyond the general state of the economy; and the school system, fortuitously one suspects, fed the banks and the civil service with competent paper handlers — people both literate and verbal.<sup>38</sup>

How could Ireland, a poor country from all accounts, whose main economic activity was non-commercial agriculture, and whose housing conditions, infant mortality rates, and cash incomes were among the worst in Europe, afford such a highly developed system? Indeed the question might be changed from past to present tense. How can Ireland, by a long chalk the poorest country in the EEC, afford such a highly developed system?

37. This point was called to my attention by Ms Joy Rudd.

38. This point was called to my attention by Liam Ebrill.

A review of the development of the system suggests four kinds of answers.

First, Ireland has managed to operate a spartan and frugal school system, especially in the National Schools, which have had historically extremely large classes (some of today's generation of young adults tell of attending classes of 70 or more a generation ago), with poorly paid teachers, in ill-equipped and poorly-maintained schools. To say this is not a criticism; the alternative, in many cases, was not to have schools at all, or (as elsewhere) to educate only an élite. Thus the average *annual* public expenditure per National School pupil in 1950, including teacher salaries, school maintenance, etc., was under £12 per pupil. The *Investment in Education*<sup>39</sup> team found in 1963 that 1,979 of 4,779 responding National Schools (or 37½ per cent) did not have electric current; 3,008 (or 63 per cent) were heated by open fires; and 2,411 of 4,358 (or 55 per cent) did not have flush toilets. One assumes that many of the schools lacking flush toilets were identical with those lacking electric light and using open fires; a quarter to a third of all schools must have had all three characteristics – in 1963! While figures have improved since 1963 (in large part because of publication of the findings of the *Investment in Education* team), a decade later things had not improved dramatically. The Catholic Primary School Managers' Association routinely surveys its member schools about a number of matters, and in 1973 schools in one Western diocese (not an extreme example) reported no electric light in 18 per cent of the schools, no power points in 22 per cent, no drinking water in 43 per cent, and no flush toilets in 32 per cent.<sup>40</sup>

Impressionistic evidence bears out this finding. As one tours the country, one finds four sorts of quasi-public buildings in virtually every village: churches, banking offices, public houses, and National Schools. This writer, in casually examining these structures, has found few examples where the National School does not suffer by comparison with the other three, in terms of comfort, warmth, cleanliness, colour and facilities.

A romantic image may be conjured up by the thought of children carrying slates to school, crowding around an open turf fire, or reading by lamplight. But the reality may not always have been so picturesque. 'Medical opinion has vehemently condemned the sanitary conditions prevailing in many schools, but it can do no more than make a report to local authority', wrote McElligott in the 1960s. '... The most unsatisfactory schools are to be found in remote areas from which the population has ebbed, where poverty is endemic and where there is no strong body of public opinion to support a demand for better conditions.' Of the general position, the Report of the Council of Education has this to say: 'The sanitary arrangements and equip-

39. Loc. cit.

40. Material furnished by Rev. Leo Quinlan, Secretary of the CPSMA.



ment in a number of schools are regarded as unsatisfactory, the heating in some cases insufficient, the school surroundings often badly kept, and the furnishing, woodwork and windows defective.<sup>41</sup>

Controversy has flared from time to time about reliance on corporal punishment in the National Schools. The present study does not deal with such issues except to note that whatever the ostensible, surface rationale for the practice of corporal punishment, its use has almost certainly been dictated on occasion by the need to maintain strict order, which while sought in classes of all sizes, was essential in very large classes. It is possible that the same may be true of sex-segregation: teachers report that it is easier to maintain order in classes of all boys or all girls than in mixed classes, particularly after the age of nine or ten.

The *Investment in Education* team in 1962/63 found that 46.5 per cent of all pupils attended classes of 40 or more pupils, and 23.3 per cent attended classes of at least 50.<sup>42</sup> Very few of these were in rural areas. The Department of Education has published data on class size only in more recent years. In 1968/69, 31 per cent of all National School pupils were reported as attending classes of at least 45 pupils, the largest reporting classification. It is not known how many of these were in classes of 50 or more, but a number must have been, as the average size of the classes in this group was 48.7 pupils. Since then, the percentage attending classes of 45 or more, and the average class size in this group, have continuously declined. They stood, respectively, at 28 per cent and 48.0 pupils in 1971/72, and at only 14 per cent and 46.5 pupils in 1973/74.<sup>43</sup> But National School class sizes remain very large.

In rural areas quite another pattern existed. Since at least one Catholic school, and often at least one Church of Ireland school, have existed in each parish, rural areas have often had very small schools. In 1955/56, for example, of 4,871 National Schools in the Republic, 781 were one-teacher schools, and 2,686 were two-teacher schools. In two-teacher schools until fairly recently, a common pattern was to employ one trained principal teacher and one 'junior assistant mistress', an untrained teacher with a significantly lower salary than a trained 'junior assistant teacher'.

In sum, one reason it has been possible to educate so many Irish children for so many years is that the education has been provided at such a low cost, and at such a low level of amenity.

A second reason Ireland has been able to 'afford' its extensive school system has been the very great interest in education on the part of the Catholic Church. It is probably fair to say that no other organised religious body in the world has taken such an interest in schooling. Where it is possible, Catholic teaching requires that the schools be in the hands of the Church. Moreover, 'Catholic children may not attend non-Catholic, neutral,

41. Op. cit., p. 40.

42. p. 234.

43. Department of Education.

or mixed schools, that is, those which are open also to non-Catholics.' (Canon Law, 1374) (Rome, 1918). Exceptions are up to the local bishop. Our review of the history of education in Ireland would support the view that this doctrine has been fairly rigorously applied in Ireland. It has meant that State schools, whether under the Irish or the British, could not successfully be introduced; and it has meant that Church resources, as well as Church-encouraged private resources, have gone more into the schools in Ireland than would have been the case in other circumstances.

Unfortunately, the financial contribution of the Church to education, though certainly substantial, is unknown, even within the Church. The Department of Education has gathered and published data only (or mainly) where statistics have arisen as a by-product of administering the system. (Thus there have been copious statistics on examinations, as these are a Departmental function; but far less on in-school matters.) In general, the only financial data available deal with State (or VEC) income and expenditure. Within the Church, historically there has rarely been a separation of parish (or community, in the case of religious orders) accounts, since schooling has been regarded as an inseparable function of the Church (and the order), rather than a side activity or a 'business'.

Some might want to argue that the funds provided by and through the Church really come from the Irish people, and that therefore one need not 'thank' the Church for its 'generosity' to Irish education. This is an argument on which this paper need not take sides. Our point here is only that the Church's great acknowledged interest in education has meant that the economic resources devoted to that activity, and especially non-State resources, have been significantly greater than otherwise would have been the case. And the nature of the Church's interest has led to use of those resources in such a way as to reach every boy and girl in the State, and not only an upper stratum (at least with respect to primary education).

A third way of 'financing' Irish education beyond ordinary expectations has been the contribution made by members of religious orders – brothers, nuns, and clerics – both in terms of actual cash contributions (they have built most of the Secondary Schools, largely from their own resources, for example), and, more important in the contribution of their services. A very substantial fraction of religious in Ireland – estimated at about two-thirds – have taken up teaching vocations. Their contributions can take a number of forms:

(1) They return their salaries to their communities. With the qualifications noted earlier,<sup>44</sup> this means (in convent and monastery schools) 'ploughing back' salaries into the schools themselves. In Secondary Schools, in addition to returning the incremental salary to the school, religious also have traditionally waived their 'school salaries'. The amount returned in Secondary

44. See Chapter 2, p. 32.

Schools also always includes the principal's salary, as lay teachers have not usually been permitted to hold principalships.<sup>45</sup>

(2) In some schools, religious work more hours per day and days per week than lay teachers. They are available for work after school hours (as with recreation activities) and even after evening meals. This has meant most, apparently, to boarding schools at secondary level. In a number of cases, especially in convent schools, religious have served as wholly unpaid assistant teachers.

We distinguish, in these last few paragraphs, between the interest and contributions of the Church and its congregations, on the one hand, and the personal contributions of religious on the other. Obviously, this is a somewhat arbitrary distinction with which some will quarrel, at least on philosophical grounds. We make the distinction for two reasons. First, Church contributions can rise at a time when teaching vocations are declining, and vice versa; that is, the two can vary independently. And second, the contributions made by religious are comparable to the presence of *voluntarism* in supporting education, which can be found in many other countries, manifested in forms other than religious vocations.<sup>46</sup>

The economic value of the contributions made by religious is hard to estimate, both because underlying data are hard to come by, and because of methodological problems. A limited effort is made, however, elsewhere in this study.<sup>47</sup>

Fourth, and finally, the Irish system of education has economised by having emphasised in the curriculum subjects with low technical content or which for various reasons have required little in the way of costly equipment. (Teachers have referred to the emphasis on 'chalk-and-talk' schooling.) There are a number of reasons for this emphasis, in both first and second level education. First, as noted earlier, until fairly recently the schools have not been viewed principally in terms of their role in preparing youth for employment; rather, their role has been more moral, intellectual, and religious. Second, also until relatively recently, there has been little employment outside of the banks and insurance companies, the civil service, and other services, for which any special schooling or technical instruction was required. Third, at the time of the First Economic Programme in 1957, it could fairly be said that the Republic of Ireland was, if not a 'pre-industrial State,' clearly a 'non-industrial State'. It is impossible to work out patterns of causation, but it seems likely that the curricular emphasis of the schools was both a *cause* and a *consequence* of the economic structure. Fourth, for the reasons set forth above, primary education and most of second-level education has been in the hands of the Church — of bishops and parish

45. Principals' allowances in 1974/75 range from £499 to £2,321, and averaged £1,100.

46. A number of these other aspects of 'voluntarism' seem also to be present in Ireland. Parents are often called upon to contribute repair work or materials and equipment. School personnel — mainly nuns, evidently — call on merchants for reduced prices for services and merchandise.

47. See below, Chapter 5.

priests, in the case of primary education, and also of religious, in some primary and most Secondary Schools. The subject matter emphasised was that in which these persons had *competence*, almost irrespective of the merits of one or another type of curriculum.

Whatever the reasons, and whatever arguments might be offered both for and against the 'arts' emphasis, there can be little doubt that it was virtually the least expensive curriculum that could have been devised. Latin and Greek cost a good deal less to teach than physics and chemistry, and in fact less, as a rule, than modern languages. And religion, Irish, English literature, and music (singing), the main elements in the primary school programme, are also relatively cheap subjects.

### *The End of Cheap Education*

These four sources and resources — the frugal and spartan nature of the system, especially in National Schools; the abiding interest of the Church in education; the personal contributions of religious; and the low technical content of the curriculum — have given Ireland a more developed educational system than the country could have otherwise afforded. They have also vitally influenced the character of Irish education, in nearly every respect. These other respects — curriculum, the role of the Church, corporal punishment, etc. — will have to be debated elsewhere. The principal purpose for noting each of the four in turn is that all of them appear either to be fading or entirely disappearing, to a greater or lesser degree. As they go, Ireland will be left with a highly developed — *and expensive* — school system. And all of this is happening just as enrolments are about to grow at rates unprecedented in recent decades, and just as costs are on the verge or rising for other reasons.

Our discussion of enrolments — and of population and participation rates — is postponed to the next chapter. In this section, we will attempt to justify the statement that all four sources of financial ability are, or soon will be, fading or disappearing. Later in this chapter, there will be a discussion of still further reasons for increases in costs.

*Spartan and frugal system.* There are two reasons why the spartan and often primitive character of schooling, especially at National School level, seems to be doomed. One is that Ireland is a developed and increasingly urban society, in which housing and work accommodation, while still lagging behind need, have progressed sufficiently that school standards have risen accordingly. While few would accuse managers of newly-built National Schools of extravagance, there is a great distance between the newest schools being opened in growing areas, and the older schools being closed in rural areas for want of pupils.

Whatever may be thought of as fit conditions for children attending schools, the recent condition of National Schools has not been regarded as

fit or adequate working conditions for *teachers*.<sup>48</sup> And, as will be noted momentarily, even religious teachers are less willing than heretofore to suffer deprivation.

The second reason is that the complex of conditions which have made possible classrooms with fifty or more pupils are themselves disappearing. These conditions include an old-fashioned authority relationship in the classroom, expected by teachers and accepted by children (still obtaining in rural areas but in decline nationwide); public acceptance (as noted earlier) of the use of corporal punishment; and 'subject-centred' as opposed to 'child-centred' educational approaches. In the emerging social environment of the late 1970s, it is difficult enough to teach a straightforward, subject-centred curriculum in urban or suburban National Schools, with large classes and without the aid of the cane. It is virtually impossible to do so with a child-centred curriculum. Large v. small classroom size reflects resource issues and limitations, but it is not simply a matter of choice, or of differing philosophies of education. Large class size may require certain objective environmental circumstances, and these appear to be disappearing.

*The interest of the Church.* Our second source of Ireland's ability to afford its extensive system is the interest and contributions of the Church. A statement that these are waning could and should draw objections, for it is more of a prediction based on straws in the wind than a description of empirically-derived data. In fact, no one is in a position to state whether the Church's financial contribution, either relative or absolute, is diminishing, increasing, or constant, since no one, inside or outside the Church, is known to have measured it. What can be said is, first, that there are signs of Church acceptance of an increasing State role in education, including some State schools, a development heretofore unheard of; and second, that there are signs of a general interest in a public (as distinct from either a State or Church) voice in educational policy.

The newest and most rapidly growing sectors — the Comprehensive/Community School movement and the Regional Technical Colleges — make the education system more public. Similarly, the Vocational Schools — for long the one significant public element in the system — have enlarged their scope, offering Intermediate and Leaving Certificate courses. Vocational Schools are increasing their share of second-level education. Thus it is no longer necessary to attend a school maintained by a religious order in order to take a Leaving Certificate.

The new system of boards of management for National Schools<sup>49</sup> previous-

48. According to McElligott, the 'sharpest controversies' over the managerial system 'have arisen . . . over the material conditions within the schools,' he describes a campaign by INTO, the Irish National Teachers Organisation, in 1964 for improved heating and cleaning. *Op. cit.*, p. 38. And on October 7, 1968, INTO threatened to strike named schools on the following day if conditions in them were not improved immediately. Clarkin, *op. cit.*, p. 196. INTO still in the late 1970s periodically threaten industrial action over the issue of classroom conditions.

49. See Chapter 2 above.

ly under exclusively ecclesiastical management represents a step in the direction of greater public and parental control of primary schools. There are reports that parishes in middle-class and privileged areas are finding it increasingly difficult to raise funds for new schools, not because of poverty, but because of declining loyalty to the Church in these areas. Pressures for multi-denominational National Schools in Marley Grange, Tallaght, and Dalkey may or may not yield fruit; but they constitute additional evidence for at least interest in, and a tendency toward, a reduced role for the Church.<sup>50</sup> Ultimately, these trends must mean a lessened Church interest in financing education. One can hardly predict diminished Church influence over education and an undiminished Church economic contribution at the same time.

*Contributions of the religious.* The most dramatic as well as the most easily quantified changes concern the decline in numbers of religious. The decline in new vocations seems to date from the early 1960s. The effect on costs — and on the character of education in Ireland — has been delayed, because new teachers are a relatively small percentage of total teachers. Statistical series on religious as a percentage of secondary teachers<sup>51</sup> goes back only as far as 1961, when it stood at approximately 50 per cent. Five years later, in 1966, it still stood at roughly 50 per cent. In absolute numbers, the series 'peaked' in 1970, and then the numbers of religious teachers began its present decline. The decline in religious as a percentage of secondary teachers 'peaked' and began to decline somewhat earlier, in 1967 and 1968, when the introduction of the 'free scheme' led to a rapid expansion in the number of pupils, and hence of teachers. So the decline in the relative importance of religious results both from a decline in their numbers and an increase in the number of lay teachers. By 1974, the percentage religious had fallen to 31 per cent (and even less if Comprehensive and Community School teachers are included, as well they might be). It will continue to fall. Even if there were a gain in number of new vocations, it would take a long time before that gain could show up in religious as a percentage of secondary teachers, once again because new teachers are but a small fraction of total teachers. Taking only Secondary Schools and not Community/Comprehensive Schools, the percentage will stand at 20 per cent in 1986, unless there is a sudden and sharp reversal of existing trends.<sup>52</sup>

50. As this manuscript is prepared for press, the Dalkey multi-denominational school has been approved in principle by the Minister for Education.

51. Department of Education.

52. This is calculated as follows. During the period 1965-74, the net absolute number of religious teachers in Secondary Schools dropped by .4 times the numbers shown as reaching retirement age, i.e., 65 (*Investment in Education*, Vol. 2, p. 188). Applying this ratio to the number reaching retirement age through 1986 yields an average decline in numbers of religious teachers of 47 per year, 1975 through 1986, or a total of 517. This is subtracted from a stock of religious teachers of 3,739 to yield a predicted number for 1986 of 3,222. In Chapter 4 below (see Table 4.8), it is predicted that there will be 15,841 Secondary School teachers in 1986. This implies religious as a percentage of all Secondary School teachers of 20.34 per cent, or, avoiding the spurious accuracy that suggests, 20 per cent.

The same trends also influence the National Schools, though less dramatically. Our series on religious as a percentage of National School teachers, which goes back to 1956,<sup>53</sup> is stable at around 23 per cent through 1966. It falls below 15 per cent in 1974, and looks like falling to about 9 per cent by 1986.<sup>54</sup>

From our previous discussion, it is apparent that a decline in numbers of religious, influences educational costs in a number of ways, especially in the Secondary Schools. To the extent that forgone and returned salaries have been a source of school finance, new sources must be found. While the State takes no *official* notice of these practices, in fact they have profoundly influenced the amount of State support in past years, and their decline must necessarily mean an increase in State funds. To the extent that religious work longer hours in order to provide for extra-curricular activities, school maintenance, and boarders, either the activities must be cut back, or lay personnel must be specifically employed, in addition to regular teaching staff. In some cases, the unavailability of religious for boarding schools may mean a decline in their number, meaning more transport expense for pupils living long distances from day schools.

Three other aspects of this change are worth mention. A decline in the numbers of religious may mean a rise in teacher militancy. Religious teachers' attitudes toward trade unions are inherently ambivalent at best. As members of the order operating the school, they are in a sense both employer and employee. Moreover, many of the benefits won by trade union activity are unavailable to them, at least directly. Increased laicisation of the profession, particularly in the Secondary Schools, cannot but increase the strength of trade unionisation. This effect probably accounts, however, more for salary growth and other gains in the 1960s than in the future. The ASTI demands for full access to principalships, referred to earlier, is an important indicator of this trend.

The second point also pertains to attitudes of religious teachers. Some of them have told us they are no longer willing to make the kind of sacrifices they made as little as five years ago. When wearing clothes repaired over and over again, living without adequate heat, and eating simple and cheap foods permitted children to go to school who otherwise would not have had the

53. The *Department of Education* series actually begins in 1961; we have been able to estimate the numbers for previous years on the basis of what appears in the early 1960s to be a stable relationship between numbers of religious employed in the National Schools and numbers of religious employed in convent and monastery National Schools. The latter series extends back much further, but wary of the dangers of extrapolation, we have used it back only so far as 1956. In the event, the figure is approximately stable at about 23 per cent for our period of estimated values, 1956-60, and for the first seven years of *Department of Education* reported values, 1961-66.

54. The method is the same as that reported in footnote 52, *supra*. The net decline in absolute numbers of religious in National Schools was .75 of the number shown as reaching retirement age (*Investment in Education*, Vol. 1, p. 189); applying this to the number reaching retirement age through 1986 yields a decline, 1975-86, of 636 teachers, leaving 1,768 religious teachers in 1986. In Chapter 4 below (see Table 4.8), it is predicted that there will be 19,707 full-time National School teachers in 1986. This implies religious as 8.97 per cent of all National School teachers, rounded up to 9 per cent.

opportunity, they were willing to make the sacrifices. But today's Ireland is not an impoverished country, and if such sacrifices only permit reduced tax bills for families and companies, the motivation to sacrifice must be less.

Finally, decline in the numbers of religious teachers represents the sort of situation where a quantitative change becomes a qualitative one. The Irish system of secondary education has *always* been identified with religious orders; but that system is gradually changing into another type of system. The purpose of the present study is to focus on the economic implications of trends whose significance for education and for society is much more than economic. A drastic decline in the role of the religious in Irish secondary education represents not just an explanation for rising costs; it also implies a sharp break in tradition – a disappearance of one type of education system, and the appearance of another.

At what point, for example, does a 'religious school with lay teachers' become merely a 'lay school with a religious principal'? The decline in numbers and proportion of religious had led religious educators to re-examine their role. In February of 1973, a 'Working Party on the Future Involvement of Religious in Education' met in Dublin, under the Chairmanship of Rev. Paul Andrews, S.J. Their report, known as the 'FIRE' Report', was confidential but large sections of the report were published in the press.<sup>55</sup> The Working Party considered a number of strategies, and recommended that "Religious should begin, in a carefully phased way, to concentrate their forces into a small number of schools, which would generally be of the order of 400 pupils.' The report suggested favourable consideration of co-educational schools as a result of such mergers. The FIRE report has since been superseded, and the strategy indicated has not been pursued; instead, no radical shift in approach is now anticipated. But the report is a reflection of the problem still faced by religious, and one effort to deal with it.

*Technical content.* Finally, among our four factors, the 'arts' component of Irish education, and in particular the classical component, appears to be in decline, while the technical component is rising. A more costly education, per pupil, is implied.

Table 3.4 illustrates these and a number of other interesting changes in the second-level curriculum. The percentage of boys who take the Leaving Certificate examination in Latin fell from 91 per cent to 79 per cent between 1951 and 1966, and then to 39 per cent in 1972. Increases are shown in technical/scientific subjects – physics, chemistry, and honours-level maths – between 1951 and 1966. These percentages fell again in 1972, because of the introduction (in the examinations, mainly in 1971; in the curriculum, some years earlier) of a number of new, professional and tech-

55. Working Party on the Future Involvement of Religious in Education, FIRE Report, Dublin 1973. *Education Times*, September 13, 1973, and subsequent issues.



nical subjects, which immediately attracted a large number of students.<sup>56</sup> Further changes in the curriculum make data for subsequent years not directly comparable,<sup>57</sup> but it is evident that these patterns continued. For example, the percentage of boys electing to be examined in Latin fell further to 20 per cent by 1973/74. The pattern for girls is somewhat different, and shows weakness in physics, chemistry, and honours maths throughout.<sup>58</sup> But there is, overall, a decline in the percentage taking Latin, from 47 per cent in 1951 to 29 per cent in 1972 (and, not shown, to 15 per cent in 1973/74), a decline in the percentage taking Domestic Science/Home Economics General<sup>59</sup>, and a large number enrolling for the new technical subjects.

The process indicated in Table 3.4 has really only begun, and its impact on educating costs lies mainly in the future.<sup>60</sup> While less dramatic, there will be similar changes in instructional costs in the National Schools, as more and more subjects require the use of equipment. It is virtually impossible to predict the amount of implied cost increases, though their importance can scarcely be doubted. Once again, there are important non-economic implications of economic changes. One of these is the following. The introduction of technical subjects, and the use of even fairly simple equipment in traditional subjects inevitably increases the optimum size of a school,<sup>61</sup> the larger is the number of pupils who share the use of a piece of equipment, the lower is the per pupil cost. Future schools must be expected to be larger — probably twice as large — as today's. The impact of rising costs due to the introduction of technical subjects has been softened somewhat by the sharing of facilities among boys' and girls' schools, and among Secondary, Vocational, and sometimes Comprehensive Schools. In the extreme, the 'sharing' takes the form of amalgamation into a Community School, a process that undoubtedly will continue.

#### THE RECENT PERIOD

The 1960s was a decade of remarkable innovation and institutional

56. The 'number taking new technical subjects' refers to the number of examination papers, rather than the number of pupils. Hence some pupils are counted more than once in the figure.

57. For instance, in addition to 'Physics' and 'Chemistry' there is 'Physics and Chemistry A' and 'Physics and Chemistry B'.

58. This should be interpreted as revealing a lack of equality of opportunity as between boys and girls, rather than a disinclination on the part of girls to study such subjects. For example, until fairly recently, it was virtually impossible for girls to study an honours mathematics course. The lack of equal access to education as between boys and girls requires a separate study in itself.

59. 'Domestic Science/Home Economics General' may be in a sense a 'technical' rather than an 'arts' course, but it evidently has not required much costly equipment. Moreover, from a curriculum standpoint, it does not represent an accommodation of the curriculum to the need for professional and technical training in anticipation of employment.

60. One cannot, of course, be certain that a student studying physics or chemistry necessarily has access to a laboratory.

61. The term 'optimum' is not used in any educational or community sense, but only in a cost sense; and its use does not imply advocacy of large schools.

growth in Irish education. No type of educational institution came out at the end of the '60s as it went in at the beginning, and a number of wholly new kinds of institutions were introduced.

In the late 1950s, in the Government of the Taoiseach, Seán Lemass, it was determined that the Republic should attempt to encourage economic growth, through developing modern manufacturing industry. It was decided to do so through a number of State institutions, employing a form of economic planning. The result was the White Paper published in 1958, *A Programme for Economic Expansion*, for which T. K. Whitaker, then Secretary of the Department of Finance, and later Governor of the Central Bank and Chancellor of the National University of Ireland, is given major credit.

The new approach required that the educational system be looked at anew, not as in the past in terms of religious, moral, and intellectual training, but in its contribution to the economic system. At the 1961 Washington conference of the OECD (Organisation for Economic Co-operation and Development), Ireland was the first of the member states to volunteer, in the words of P. J. Hillery, then Minister for Education, 'to carry out pilot studies of their educational systems in the light of their probable long-term economic and scientific needs' (Clarkin, 1969, p. 120). The result was the appointment by Dr. Hillery of the team which, over the next three years, produced the historic two-volume report, *Investment in Education*.<sup>62</sup>

The significance of the report is two-fold. First, and most obviously, the report is important on its merits, as a 'long, hard look at the education system' (Clarkin, 1969, p. 121), in which a battery of research devices, particularly direct survey research, were used to unearth and lay out, usually for the first time ever, the most fundamental kinds of information about the system. While the report, in its 800 pages, makes only one specific recommendation,<sup>63</sup> this is probably because the force of its factual findings in many instances made specific recommendations superfluous. The report was, and remains, very influential. Perhaps its most important conclusion was its demonstration of an utter lack of correlation between the curriculum and the subsequent careers of pupils.

The other significance of the report is symbolic. The fact of its being commissioned and published, under joint Irish-OECD aegis,<sup>64</sup> and especially the fact that it reviewed the whole school system from the standpoint of an

62. The survey team, together with the positions they then held, were: Patrick Lynch, Lecturer in Economics, University College, Dublin, Director of the Survey; William Hyland, Statistics Office, United Nations, New York; Martin O'Donoghue, Lecturer in Economics, Trinity College, Dublin; Pdraig Ó Nuallain, Inspector of Secondary Schools, and, as Secretary to the team, Cathal Mac Gabhann, of the Department of Education.

63. viz, that a 'development unit' be established in the Department of Education.

64. The joint aegis is described as follows at the front of the report: 'This survey was initiated by the Minister for Education in October, 1962. It was organised in co-operation with the Organisation for Economic Co-operation and Development as a project under the Educational Investment and Planning Programme of the Organisation. The Organisation contributed 146,734 French francs toward the cost and provided technical support and information on related developments in member countries'.

'investment', i.e., in terms of its contribution to future production, meant re-orientation of Irish education.

In retrospect, it is not clear how successful the industrial development strategy was. In the second half of the decade of the 1960s, the Irish economy boomed; but so did that of Britain, the USA, and Europe in general. A large fraction of the Irish boom seems, moreover, to have been associated with tourism, which dropped sharply, however, at the end of the decade. In the event, whatever the reason the evident buoyance and optimism of the decade carried over into the education arena. We have already stated that the school system, especially at the primary level, was permitted and indeed encouraged to grow and develop in the early period by virtue of a number of unique circumstances and resources which combined to make schooling cheap; and that as these now disappear the State is left with a highly developed, but expensive, school system. With regard to the recent period, we can add that the evidence of rapid economic growth permitted and indeed encouraged costly structural innovation and institutional growth in the 1960s; and that economic reversals of the 1970s mean that the burden of these on the economy is, and in future will be, greater than anticipated.<sup>65</sup>

Without going into detail, let us set out the main outlines of the events of the 1960s, and their carry forward into the 1970s.<sup>66</sup>

1962: Investment in Education team appointed.

1963: Plans announced for Comprehensive Schools; plans announced for Regional Technical Colleges.

1964: Scheme of building grants for Secondary Schools announced.

1964: *Investment in Education*, published.

1965: Plans announced to close most one- and two-teacher National Schools.

1966: First Comprehensive School opened.

1967: 'Free scheme' announced; expanded building grants announced for Secondary Schools; Intermediate and Leaving Certificate courses introduced for Vocational Schools; free school transportation scheme introduced.

1968: Higher Education Authority established.

1969: First five Regional Technical Colleges founded; Higher Education Grants scheme introduced.

1970: Plans announced for Community Schools; sweeping revision announced of National Schools curriculum, away from 'subject-centred', and toward 'child-centred' approach.

1971: Primary Certificate examination abolished.

65. See, for example, the discussion in Chapter 2, above, concerning the windfall transfer of its excess of £31 million from the Education budget to families of Secondary School pupils.

66. See NESR, 1976, op. cit., pp. 30 ff, for a useful account of educational policy in the decade 1965-74, to which this chronology is indebted (see also Horgan, 1973, p. 35 ff).

- 1972: School leaving age raised from 14 to 15; National Council for Education Awards established.
- 1973: First Community School is opened.
- 1974: Last Comprehensive School is opened.
- 1975: New Scheme for expanded aid to National Schools announced for schools adopting Committee of Management system.

According to Sheehan, public education expenditures were 3.05 per cent of Gross National Product in 1961/62, and rose to 6.29 per cent of GNP by 1973/74.<sup>67</sup> This is truly remarkable growth – a doubling, in fact, of the proportion in but twelve years. It is important to note, however, that a commensurate growth of *total* education expenditures as a percentage of GNP is not necessarily implied. Instead, much of growth in public expenditure occurred through shifting a substantial component of private expenditure, especially in the Secondary Schools, on to the public budget. The sector in the education system to grow most rapidly during the period was second-level. The number of Secondary School teachers *doubled* between 1967 and 1974; and over the same period the number of Vocational teachers increased by 90 per cent. Finally, during the period of the 1960s and early 1970s, teachers finally achieved rough parity, in terms of salaries, with Civil Servants of similar education, experience, and responsibility.

Looked at from another standpoint, the big change in the decade of the 1960s was that the Department of Education came to have a role in the making and handling of policy. Theretofore, because religious bodies (and VECs) operated all the schools, the Education Minister was sometimes referred to, half in jest, as 'Minister Without Portfolio'.<sup>68</sup> A conscious objective (partly achieved) was 'to break down the barriers which had hitherto existed between the two systems,' the Secondary and Vocational Schools.<sup>69</sup>

Most of the innovations and policy changes announced during the period cost but little during that time. Their real significance in budgetary terms lies in the remainder of this century.

#### THE NEAR FUTURE

This chapter has concentrated on reasons to expect increases in costs in education in the coming decade, and beyond. There are three other foreseeable reasons to expect a rise in per pupil expenditures. Two of these are, in effect, historical 'accidents', at least with respect to timing. The third pertains to all countries at all times, but especially where personal incomes are high and rising.

67. *Ibid.*

68. Clarkin, *op. cit.*, p. 124.

69. Sean O'Connor, 'Post Primary Education Now and in the Future,' *Studies*, Autumn, 1968, p. 234. O'Connor was then Assistant Secretary, later Secretary, in the Department of Education.

The first is the 'bulge' in the age distribution of second-level teachers. As noted above, the policy changes of the late 1960s brought a spurt in second-level enrolments and a rapid increase in the numbers of second-level teachers. One implication is that the second-level teaching force is unusually young, and a large number of these teachers have progressed relatively little in the salary increments structure. Their *average* salaries are depressed as a consequence; and that average will rise relatively more rapidly over the next decade as a consequence; even apart from agreed increases in the whole structure.<sup>70</sup>

The second cost-increasing event is equal pay. Since the foundation of the State, married men teachers have received higher pay than women or single men.<sup>71</sup> A result of Ireland's accession to the European Economic Community is that there will have to be equal pay. Sooner or later, a single scale will apply, not only to men and women, or to lay and religious, but to married and single. It has already been agreed that equal pay means 'levelling up', i.e., that the 'rate for the job' is the married man's rate, and that other rates will be abolished. Nowhere in the Republic of Ireland is equal pay anywhere as important as in the schools. Elsewhere, its effect can usually be mitigated or avoided altogether by giving women and men nominally different jobs; but in the schools, women and men patently do the same work. Women as a percentage of teachers is high and rising.

These first two points interact with each other. As the teaching force gets older and moves through the increments structure, it will do so at the married man rate. Since the difference between the married man rate and the woman/single man rate rises over time, the 'cost' of equal pay will rise as well.

In the past, a large proportion of women and single men in teaching have been the religious. We have already discussed the decline in numbers of religious, and the consequent laicisation of the teaching force. It is worth noting that equal pay and laicisation are similar in an interesting way. Just as the growth of the school system was, in very considerable degree, especially in the early period, 'subsidised' by the willingness of religious to staff the schools with little personal economic reward, so too was the system subsidised by the availability of lay women teachers and of single men who would work at considerably less pay than the 'rate for the job'. And just as changed social conditions now mean that religious are not available in large numbers to subsidise the schools, so too have changed social conditions meant that women and single men can no longer be required to help support and build the system as in the past.

#### *'Baumol's Disease'*

The third cause of rising costs — the productivity-differential effect —

70. This effect was called to my attention by William J. Hyland.

71. Until recently, there was a 'single man' rate in excess of the 'woman' rate. Cf. The Tribunal on Teachers' Salaries, *Report Presented to the Minister for Education* (Dublin: Stationery Office), 1968.

applies in all economies in which there are high and rising incomes. This effect, often called 'Baumol's Disease' after the economist who first set out its main implications, implies that costs of most public expenditures, and certain private ones as well, tend to rise exponentially. Education is especially likely to be affected. Space limitations prevent a full discussion here, and it is possible to review the problem only briefly.<sup>72</sup>

The central argument can be summarised as follows:

- (1) Productivity — output per unit of input, such as labour — grows in all economies, but it increases at different rates in the various firms, industries, and sectors of an economy. Productivity tends to grow most rapidly where there are large numbers of uniform products produced, as in manufacturing and agriculture. It tends to grow least rapidly where direct personal services are involved, as in health care, 'live' entertainment, repair services, and most public services, including education.<sup>73</sup>
- (2) In most western economies, factor incomes (wages, interest, profits) increase at about the same rate throughout the economy, especially over the long run. While from time-to-time there is a change in the wage structure (e.g., some workers' wages overtake others'), these rarely have anything to do with productivity. To simplify, we can assume that all real wages and other factor incomes rise together at a given rate, such as 3 per cent or 3½ per cent.
- (3) Those industries and sectors where productivity rises more rapidly than average can pay these higher wages and other incomes without price increases; indeed, prices can fall. This effect is often concealed by inflation. Where the average price level rises, prices in these industries may rise too, but they will tend to do so more slowly than the average, so that 'real prices' will tend to decline. Those industries and sectors where productivity rises less rapidly than average must raise prices more rapidly than the average in order to pay the higher wages and other incomes.
- (4) The extreme case is where productivity does not rise at all. In this case, prices will rise at the same 3 per cent or 3½ per cent rate at which incomes rise.<sup>74</sup> This is the case approximated by education and other public services.

72. For a statement of microeconomics of Baumol's Disease, see Tussing and Henning, 1974 (a).

73. While much of the State sector would be affected by Baumol's Disease, the semi-State sector, or State enterprises, to the extent that they produce homogeneous products (turf, electricity, etc.) are likely to be exempt. The differences in productivity discussed here are unlikely to reflect on the persons involved: there is no reason to believe that schoolteachers are less hardworking or innovative, for example, than farmers. The difference arises out of the differences in the types of products produced. Also, productivity as referred to here has little to do with the so-called 'productivity deals' arising out of collective bargaining arrangements, to permit deviations from norms under the National Wages Agreement.

74. This obviously ignores the effect on price of products bought from others; that is, it applies only to the value-added component of price. In the schools, this is a minor qualification.

In this discussion, our definition of "productivity" must be such as to ignore quality changes. In education, it is synonymous with numbers of child-years of schooling provided. We are not arguing that for most purposes this is an appropriate definition of productivity; indeed, for educational purposes, it ignores the most important kinds of matters, such as whether anyone learns anything. But when the issue is cost per pupil per year, then productivity must be defined in terms of child-years of schooling. The implication of Baumol's Disease is that costs per child-year in Ireland will rise at about the same rate as personal incomes rise — probably 3 per cent to 3½ per cent per year — even apart from, and in addition to, the effects of inflation, enrolment growth, reduction in National School class sizes, improved amenity in National Schools, reduced Church contribution, reduced numbers of religious, greater technical content in the curriculum, the 'bulge' in the age distribution of second-level teachers, and equal pay.

It is to be emphasised that changes in the price structure which result from productivity growth differentials represent true changes in relative resource cost and hence in social opportunity cost. They are not a form of 'inflation' which should be adjusted out in calculations by use of some kind of deflator.

Two problems tend generally to conceal the effects of Baumol's Disease. One is that those areas of the economy — services and public expenditure in general — in which productivity seems likely to grow least rapidly are also exactly the same areas where it is most difficult to measure, and often even to define, output in terms of 'quantity units'. In principle, expenditure on police can be decomposed into 'quantity of police service' and 'unit price of police service'; but in practice this is extremely difficult, if not impossible. When expenditures on police, or education, or other State functions tend to rise annually, we are inclined to treat that rise as a matter of governmental discretion — as an increase in scope of public sector activity, ignoring the distinction between price and quantity.

The other problem, one which faces the statistical investigator, is that since the tendency is for price or cost to rise in areas with little or no productivity growth at the same rate as personal incomes grow, it is hard to distinguish this 'supply side' effect from that of high income-elasticity of *demand*. None the less, Baumol's Disease has been shown to be an important and robust factor in explaining public expenditure growth in the USA.

In Ireland, it is virtually an inexorable force. The only escape is to find ways to increase productivity as defined above — using excess capacity in the system, increasing class sizes, introducing a shift system, operating schools in the summer, etc. Experience elsewhere suggests that these devices are of limited practical value.

Baumol's Disease affects any economy where incomes are growing. But it becomes important only where personal incomes are relatively high as well. It is classed as one of the "miseries of growth". Like the other forces

discussed in this chapter, high and rising incomes are, then, part of the stage setting in preparation for explosive expenditure growth in the coming decade.

Table 3.4: *Selected Statistics, Leaving Certificate Examinations, 1951-72*

	1951	1956	1961	1966	1972
Total Number of Boys Taking Leaving Certificate Exam.	2,524	3,366	4,521	6,315	11,460
Number Taking Latin	2,301	2,994	3,903	4,986	4,478
As per cent of Total	91	89	86	79	39
Number Taking Honours Maths.	556	864	1,215	2,037	1,925
As per cent of Total	22	26	27	32	17
Number Taking Physics	415	645	1,139	2,102	2,505
As per cent of Total	16	19	25	33	22
Number Taking Chemistry	516	692	1,214	1,833	3,543
As per cent of Total	20	21	27	29	31
Number Taking New Technical Subjects <sup>a</sup>	—	—	—	—	7,660
As per cent of Total	—	—	—	—	67
Total Number of Girls Taking Leaving Certificate Exam.	2,067	3,016	4,155	6,258	12,703
Number Taking Latin	960	1,261	1,559	1,687	3,651
As per cent of Total	47	42	38	27	29
Number Taking Honours Maths.	8	17	56	172	361
As per cent of Total	0+	1	1	3	3
Number Taking Physics	5	24	30	90	259
As per cent of Total	0+	1	1	1	2
Number Taking Chemistry	21	36	102	261	942
As per cent of Total	1	1	2	4	7
Number Taking New Technical Subjects <sup>b</sup>	—	—	—	—	6,862
As per cent of Total	—	—	—	—	54
Number Taking Domestic Sci./Home Economics General <sup>c</sup>	958	1,919	2,617	4,063	6,754
As per cent of Total	46	64	63	65	53

<sup>a</sup>Engineering Workshop Theory and Practice; Agricultural Economics; Technical Drawing; Building Construction; Mechanics; Accounting; Business Organisation; Economics; Economic History.

<sup>b</sup>Same as for boys (note a), except Engineering Workshop Theory and Practice and Mechanics omitted, and Home Economics (Scientific and Social) included (see note c).

<sup>c</sup>Effective 1970, 'Domestic Science' was discontinued as a subject for the Leaving Certificate examination; in 1971, two new subjects were introduced, viz. 'Home Economics General', a course for future 'homemakers', which has been included above as a replacement for 'Domestic Science', and 'Home Economics (Scientific and Social)', a technical, pre-professional course which has been included above among 'New Technical Subjects'.

Source: Department of Education, Annual Reports, 1950-51, 1955-56, 1960-61, and Department of Education, Annual Report, Statistical Tables, 1968/69-1971/72.



## Chapter 4

### *Enrolments and Expenditures: The Coming Explosion*

The purpose of this chapter is to examine present and recent data on school enrolments and expenditures in the Republic of Ireland, not only so that we can understand them better, but so that we can use this information, along with other data and methods, to make as accurate a set of forecasts as we can concerning near-future (through 1986) trends. Doing so is a matter of some importance, as our prediction is that both enrolments and per pupil public expenditures will grow extremely rapidly, if not explosively, over the coming decade. These two predictions are quite independent of each other. If only one or the other of them is correct, i.e., if only cost but not enrolments grow, or vice versa, it will be extremely difficult for the State to find the resources necessary to maintain existing educational commitments. If both are true, then there will be a crisis.

We discuss, in turn, enrolments and expenditures.

#### ENROLMENTS

To estimate future school enrolments, it is necessary first to estimate future school-age population, and then to predict school participation rates by age or age group. 'School participation rates' are the fraction or percentage of an age group attending school. Enrolments are simply the product of the population of the relevant age group and its respective participation rate.

There are two distinct steps in the process, then: prediction of population, and prediction of participation rates. A third step, prediction of actual enrolments, is but mechanical. After taking these steps, below, we will essay a plausible allocation of the predicted enrolments by type of school. Then we will attempt to estimate the number of teachers required by our plausible allocation. Finally (before turning to expenditures), we will compare the resulting figures with those released in 1976 by the National Economic and Social Council (NESC, 1976, Report No. 18).

#### *Population*

Population prediction is a highly inexact science at best. Demographers generally have not predicted the swings in birth rates, especially in developed countries, which have brought such variability in population growth rates, and have usually contented themselves with working out their implications. In Ireland, the problem is vastly more complex, because population has been profoundly influenced by emigration/immigration patterns, and in recent years these have been complex and difficult to understand. These migration patterns are not directly measured at all, and net (not gross) flows must be

inferred from periodic censuses. Because these migration patterns influence the age/sex distribution of the population, they in turn influence birth and death rates, which are consequently more unstable (and still harder to predict) than they are in countries where migration is less marked.

Net emigration in the 1950s and early 1960s was unusually high, even for a country with an emigration tradition. According to estimates made by Brendan M. Walsh, there was net emigration of 469,800 persons in the twelve years 1950-1961, and 304,900 of these were in the seven years 1954-60. An extremely large percentage of first and recent entrants into the labour market (i.e., those in middle and late teen and through their twenties) left the country, in some communities, virtually the entire class of school leavers emigrated shortly after the end of the school year. In more recent years, net emigration has fallen to approximately zero, and indeed there is evidence in one or two years of net immigration. According to estimates made by J. G. Hughes of The Economic and Social Research Institute, net emigration fell from 15,000 in 1968 to 5,400 in 1969 and 4,700 in 1970, and then 'turned the corner' to net immigration of 700 in 1971; 1,800 in 1972; 300 in 1973; and 7,100 in 1974. These are provisional estimates and are subject to later alteration; our debt to J. G. Hughes is acknowledged.

This is a phenomenon that appears to be widely misunderstood by observers, who frequently take the fall in net emigration either to represent a disappearance of emigration *per se*, or who infer that the Republic is now able to provide an adequate number of jobs for its young people, who no longer must leave in order to find employment. Both of these are fallacious. There is very considerable evidence that emigration continues, and in large numbers; and that it is offset, more or less, by immigration of persons with quite different demographic and labour market characteristics, as we will discuss in more detail. See Hughes and Walsh, (1976) where data on gross flows for 1971 are discussed in detail. Similarly, while net emigration had declined very considerably, since, say, 1961, the number of persons employed in the Republic has not increased at all. It was approximately the same in April, 1961, as in April, 1974, and fell subsequent to that because of the world-wide depression. (Tussing, 1976a).

There are two explanations for why net emigration could have fallen to nil, and below, while employment failed to rise. First, there has been a very considerable expansion in school enrolments. In 1966, there were 91,100 persons 15 years and older in schools (at all levels); by 1971, this had risen to 125,000 persons, and by 1974, 139,300 persons, up 48,200 over 1966. Our own conservative estimate, published elsewhere, is that the important 1967/68 education policy changes discussed in Chapter 3 – namely, the 'free' secondary education scheme, by which most second-level schools were induced to forgo their fees, and addition of the Intermediate and Leaving Certificate courses to Vocational Schools – themselves accounted for at least an added 19,600 persons in school in 1974 (Tussing, 1976b).

The other explanation is understood qualitatively but its dimensions are not known. This is the fact that zero net emigration is achieved by offsetting flows of a number of groups. It appears that those leaving are still dominated by the same group as in the period of more massive outflow — those in their late teens through middle or late twenties. Those returning, at least on a net basis, seem to include persons in their thirties, and school-age children.<sup>75</sup> In addition, there is a substantial flow into the country of retired persons drawing pensions.<sup>76</sup> There are two types of evidence for these patterns. One is the change in numbers in relevant age cohorts between censuses, especially when actuarial death tables are taken into account. These reveal a clear pattern of net migration by age group. The CSO has provided us with a memorandum in which they predict future population trends. In commenting on a set of population projections in which annual net emigration of 5,000 persons is assumed to recur after 1976, the CSO states the following assumption regarding age distribution: 'For each five year step . . . the loss of population through emigration in each age group was decided by distributing the total . . . on the basis of the patterns observed between 1966 and 1971 both census years. This concentrates the loss through emigration in the age range 15 to 30 years, with gains in some other age groups, namely, under 15 years, 30-39 years, and 65-74 years, representing the return of families with young children as well as of elderly persons on retirement'. CSO also used the same patterns in estimating the age allocation of intercensal estimates of population for the years since 1971. The second type of evidence is school enrolment. For the ages in which school enrolment is approximately 100 per cent, i.e., ages 6 through 13, annual reported figures on school enrolment may be taken as estimates of the size of the relevant age groups. These figures have also shown regular annual increases in recent years — increases that can only be explained by child immigration.

A pattern is suggested: young people leave in order to find acceptable employment, which is usually taken up in Britain. Men and women born in Ireland marry, either in Ireland or abroad. They return some years after leaving, with school-age children. If a typical returning family consists of husband, wife, and two children (a wholly conjectural but plausible assumption), and if only the husband is planning to seek work, then every four persons leaving the country in search of jobs are matched, to achieve zero net emigration, with four persons entering the country, only one of whom is seeking a job. This means a net reduction of three in the labour force. With regard to retired persons, every person leaving in search of a job who is matched by a returning retired person means a net reduction of one in the Irish labour force. Thus the apparent emigration pattern has become one which maintains a fairly stable labour force by appropriate *structural*

75. According to Hughes and Walsh (op. cit., Tables 3 and 4), most of the immigrating adults were born in the Republic of Ireland; most of the children were not. The implication is that the children were presumably born abroad to previous emigrants, who subsequently returned home with families.

76. Department of Education, *Annual Statistical Reports*, Dublin: Stationery Office.

population adjustments. The consequence is also to worsen the dependency ratio (NESC, 1975 Report No. 7).

It is hazardous to attempt to project these patterns into the future. It is not really known *who* the returning emigrants are, or why they are returning. Some are evidently the same persons who left, as teenagers, in such large numbers in the 1950s and early 1960s. If so, one would expect return flows to decline in future. Large numbers can only return if large numbers leave at a previous time; and the numbers now emigrating, while presumably significant, probably do not compare with the outflows of the earlier period. There is also some indication<sup>77</sup> that a substantial portion of the returning emigrants come from the Six Counties of Northern Ireland, and that they have been seeking homes in the Republic since about 1970. If this is the case, one would hesitate to predict that such flows would continue indefinitely. In short, net emigration may resume in future more because of a decline in return flows than because of a rise in gross outflows.

Population data used in the Republic are based on periodic censuses (the most recent of which was taken in 1971), and on intercensal estimates. The Census of Population Division, Central Statistics Office (CSO), is responsible for both. In their intercensal estimates, the CSO evidently has underestimated the numbers of school-age children, particularly those under the age of 15, immigrating to the Republic, in the years 1973, 1974, and 1975. At least the numbers of children reported as in school by the Department of Education exceeded the numbers estimated as being in the country by the CSO. Beginning with 1973, CSO estimates of population by age began to fall short of reported school enrolments, by age. The former are estimates, based on a method of first estimating net population movements, and the second, allocating them among age groups on the basis of past experience (as revealed in census returns). The latter are actual counts, as reported by schools to the Department of Education. While there may be counting errors in the enrolment figures, there is no evidence that these are important. Enrolment data have been collected in the same way, by age, for more than a decade prior to 1973, and until 1973 (when official data began to indicate participation rates in excess of 100 per cent in some ages), enrolment and estimated population maintained a stable and predictable relationship with enrolment. Between 1972 and 1973, and between 1973 and 1974, reported enrolment gains exceeded estimated population growth in the school-aged population under 15 years of age. There are three possible interpretations of this error. One is that the CSO underestimated the number of families with small children returning to the Republic. This would mean that there would also be an underestimate of immigration in certain adult age groups, and an

77. While it is estimated that there is positive net *immigration* in recent years, presumably from Britain, British data show net *immigration* from the Republic of Ireland to England and Wales in some of the same years (HMSO, 1976). Assuming both sets of data to be correct, the difference could be accounted for by large migration to the Republic from Northern Ireland and/or Scotland. Assuming that Scotland is not an important factor in recent years, the implied rate of migration from Northern Ireland to the Republic is several thousand persons per year.

underestimate of total immigration. A second interpretation would be that they estimated the number of returning families correctly but underestimated the number of children; this would mean that the underestimate among school-age children would be the only error, and would be equivalent to the error in the total. The third interpretation would be that CSO had correctly estimated the total number of immigrants but had incorrectly allocated these among age groups, so that an underestimate of immigrating children would be matched by a corresponding overestimate of returning adults. This last is the interpretation of the population office. For purposes of the present study, it does not really matter, since we are concerned alone with children. The two projections used here are by Walsh and the CSO. Walsh made two projections, one based on zero net emigration, the other based on a net emigration of 5,000 per year, between 1976 and 1986. These will be referred to hereinafter as Walsh High and Walsh Low, respectively. The Census of Population Office of the Central Statistics Office (CSO) has provided us with a copy of a projection, with accompanying commentary, which they made on an assumption of zero net emigration through 1976, and a net emigration of 5,000 per year thereafter. This is referred to hereinafter as CSO-5000. The Industrial Development Authority commissioned county-by-county population projection to be done by the CSO on an assumption of zero emigration and the IDA has shared a copy of this projection with us. This is referred to hereinafter as CSO-0.

Population projections freely available are used in this study, except that three kinds of adjustments had to be made.

First, the forecasts begin with understated base-year figures, because of the above-mentioned underestimate of schoolchildren. An adjustment is made to correct for this underestimate.<sup>78</sup>

Second, births have been somewhat less than predicted in the depression year of 1975.<sup>79</sup> Our assumption is that this is a temporary phenomenon, related to economic conditions, and will affect births only in 1975, 1976, 1977, 1978 and 1979; we have reduced the predicted numbers of births accordingly.<sup>80</sup>

Third, the available projections made very critical and implausible assumptions about future migration patterns. In two cases, these assumptions are that

. . . where zero net migration is assumed . . . net migration in all age groups is set equal to zero, although it is possible or even probable that

78. See Appendix 4.A for details.

79. A preliminary version of some aspects of this chapter was presented as a public paper, 'The Coming Explosion in Enrolments and Expenditures', in a seminar sponsored by the Association for Democracy in Education, in Dublin, June 27, 1976. Mr. Brendan Herlihy, of An Comhairle na n-Ospideal, who read press accounts of the seminar paper, was kind enough to call these recent short-falls in births as compared with predictions to my attention. As a consequence, predicted population and enrolments are somewhat less in the present paper than in the earlier, seminar version.

80. See Appendix 4.A for details.

a zero balance would be arrived at by a set of cancelling in and out-flows at different ages (NESC, 1975 Report No. 5).<sup>81</sup>

If it is assumed that zero net emigration for the State also implies zero net emigration for each age group, the only influence over time on the numbers in an age cohort is death. If today's immigration is some lagged function of previous emigration, then the assumption of zero net emigration is a complex and not a simple one, and would persist only as a consequence of some rather implausible or at least fortuitous circumstances. However plausible the assumption of zero net emigration for the State may be, the assumption of zero net emigration for each age group is inconsistent with all experience, and appears quite implausible. If past patterns persist into the future, then projections based on an assumption of zero net emigration in each age group will (1) *understate* future school-age population and lead to under-prediction of enrolments; (2) *overstate* future population 15-64, and hence lead to over-prediction of the size of the future labour force; (3) *under-predict* the number of persons over the age of 65 in future; and (4) as a consequence of the first three, *underestimate* future dependency ratios.

While we must reject the assumption of nil net migration by age group, it, unfortunately, does not appear correct simply to assume that the migration patterns discussed above, and observed in recent years, will persist unaltered for another decade. As noted earlier, it seems more likely that return immigration will gradually decline in coming years. Instead, we assume that recent patterns of net emigration/immigration by year of age persist into 1976 only, and then that these patterns 'taper off' more or less in a linear fashion to zero net emigration for each age group by 1981, except that we expect small numbers of teenagers to continue to emigrate in a net sense. That is, if in 1976 it were assumed that there were net immigration of 5,000 in an age group, this would be reduced to 4,000 in 1977, 3,000 in 1978, etc., and to nil in 1981. Then it is assumed that there is no further net immigration in any age group, and reduced net emigration of teenagers between 1981 and 1986.<sup>82</sup>

It must be emphasised that these are extremely conservative assumptions. Rather than projecting today's patterns into the future, we assume that today's highly significant pattern of child immigration will *not* persist, while assuming that emigration of older (13+) children will continue. While our assumptions are arbitrary, they seem more defensible, on intuitive grounds, than any others. But it must be pointed out that if today's immigration patterns *do* persist, our forecasts of youth population will fall short by a considerable margin, with alarming consequences. Thus demographers and analysts should be alert for evidence on this score throughout the remainder of the 1970s and 1980s.

Population estimates and forecasts for 1974, 1976, 1981 and 1986 are set

81. NESC, (1975) op.cit., p. 20. The same assumption is made in CSO-0.

82. See Appendix 4.A for the assumed pattern of child migration.

Table 4.1: *Estimated population, 1974 and predicted population, 1976, 1981, and 1986: selected ages and age groups*

Age	1974	1976	1981	1986
0 - 4	337.0	340.5	373.2	408.0
4	64.9	68.0	69.0	80.0
5	62.1	68.4	68.1	79.4
6	64.4	65.1	68.1	77.3
7	64.5	62.9	69.2	75.2
8	65.8	65.4	68.8	72.1
9	66.3	65.5	68.6	69.0
10	65.2	67.1	69.4	68.1
11	63.9	67.0	66.3	68.2
12	62.6	65.6	64.1	69.2
13	61.8	63.9	66.4	68.8
14	59.7	62.1	66.1	68.6
15	58.0	61.2	66.8	69.2
16	57.6	59.1	66.7	66.0
17	56.9	57.2	64.7	63.7
18	54.7	56.7	63.0	65.9
19	55.2	56.2	61.1	65.6
20 - 24	233.1	242.8	264.0	297.8

forth in Table 4.1. Figures for 1974 are based on CSO estimates, except that adjustments have been made, as discussed earlier, to account for a larger number of children at some ages than CSO had estimated, and except further that CSO figures, which are given for five-year age groups, have been interpolated according to past patterns to provide year-of-age estimates.<sup>83</sup> The remaining years - 1976, 1981 and 1986 - are forecasts, as discussed earlier. In Table 4.2 the forecast for 1986 is compared with other available forecasts. The Walsh high and low are taken from his NESC paper.<sup>84</sup> NESC has released revised estimates of predicted population aged 15-19, on the basis of the high child immigration, on which NESC has based its own enrolment forecasts (NESC, 1976 Report No. 18). CSO-5000, already referred to, does not assume zero net migration within age groups; CSO-0 does. It will be seen that our own estimates lie between the Walsh/NESC high and low figures for 0-4s, 5-9s, and 10-14s; exceed somewhat the NESC high for 15-19s; and lie between the Walsh high and low (and between the CSO-5000 and CSO-0 as well) for 20-24s. Thus it seems unnecessary to discuss in any great detail points of difference between our estimates and others'. Predictions for 0-4s and 5-9s are the most conjectural, since none of these children have been born as this is written. Our estimate for the 10-14s tends toward the low end of the Walsh/NESC spectrum, because of the recent fall in births, which we have assumed is attributable to the depression, and which NESC may not have taken into account. Only in the 15-19 year range does our prediction lie

83. Estimated population by year of age, 14-19, based on such interpolations as these, have been published in Tussing, *op. cit.*, p. 291.

84. NESC (1975) *op. cit.*

beyond any others' high estimate: it is slightly higher than the NESC revised version of Walsh's prediction. NESC adjusts Walsh's figures to take account of child immigration, but assumes an earlier end to it than we do, assuming that the '1975-76 recession and the very high unemployment levels should act as a brake on immigration'.<sup>85</sup> Our predictions for the 20-24 year age group lie between Walsh's original low and high.

Table 4.2: *Comparisons of forecasts of school-age population, 1986 by Walsh, NESC, CSO and Present Study (x 1,000)*

Age Group	Present Study	Walsh Low	Walsh High	NESC Low	NESC High	CSO 5000	CSO 0	Keating Low	Keating High
0-4	408.0	367.0	457.1	367.0	457.1	409.6	410.6	352.5	356.8
5-9	373.0	357.3	403.6	357.3	403.6	382.0	370.0	347.7	349.7
10-14	342.8	342.2	354.7	342.2	354.7	346.4	329.4	354.7	356.7
15-19	330.4	310.0	310.0	319.9	328.4	309.7	312.3	330.1	335.1
20-24	297.8	290.0	320.0	—	—	274.8	314.2	289.3	298.3

Sources: Present study: see text. Walsh: Brendan M. Walsh, *Population and Employment Projections, 1971-86*, NESC Paper No. 5 (Dublin: Stationery Office), 1975; the 'low' assumes zero net emigration 1971-76, and net emigration of 5,000 p.a. 1977-86; while the 'high' assumes zero net emigration 1971-86. NESC: *Population Projections 1971-86: The Implications for Education*, NESC Paper No. 18 (Dublin: Stationery Office), 1976: these are essentially NESC staff re-workings of Walsh's figures to take account of child immigration, and are in fact the same as Walsh's for most age groups. CSO-5000: This is a population projection carried out by the Central Statistics Office, and provided to us in a continued pattern of net emigration and immigration by age groups (see text). CSO-0: This is a population projection carried out for the Industrial Development Authority by the CSO, and provided to us by the IDA; it assumes no net emigration either for the State as whole or in any age group. Keating: W. Keating, Central Statistics Office, 'An Analysis of Recent Demographic Trends with Population Projections for the Years 1981 and 1986', paper read to Irish Statistical and Social Inquiry Society, March 3, 1977. The 'high' and 'low' estimates assume net emigration of nil and 25,000 respectively, over the five years, 1981-1986.

Most recently, W. Keating of the Central Statistics Office has developed a new set of population projections for 1981 and 1986. While these were published too late for us to take appropriate account of them in this paper, Keating's high and low 1986 predictions are given in Table 4.2. It will be apparent that Keating believes that the drop in births is a permanent, not a transitory, phenomenon, and that child immigration will persist longer than we have predicted. Accordingly, his high estimate shows 23,300 fewer 5-9 year-olds than does our single prediction. On the other hand, his low estimate for 10-14 year-olds is 11,900 higher than our single estimate. (Our predictions for 15-19 and 20-24 lie between his low and high estimates.)

85. NESC, p. 10. NESC state as known fact what must be regarded as assumption or speculation. For example, they state, 'During 1971-75 there was substantial net immigration in the 25-39 age group, consisting mainly of trained and skilled workers drawn from the very large pool of young emigrants of the later 1950s and early 1960s. The children of these immigrants have caused substantial net immigration in the 0-14 age group'. While the pattern described is plausible and conforms with our own views, and while NESC notes in a footnote (p. 9) that the statement quoted 'must remain tentative for some time,' the NESC has given no evidence to support its statements about immigration during 1971-75, nor has it indicated where such evidence might come from in the future. The NESC does a disservice in presenting such speculation as fact.



### *Participation Rates*

It is as difficult if not more so to predict participation rates as it is to predict population growth. Participation rates reflect, as well as dictate, State education policy; and they reflect, as well as influence, general economic conditions. Moreover, in an economy as small and as open as Ireland's, their growth is in large part a necessary consequence of the growth in participation rates elsewhere, a point upon which we will elaborate below.

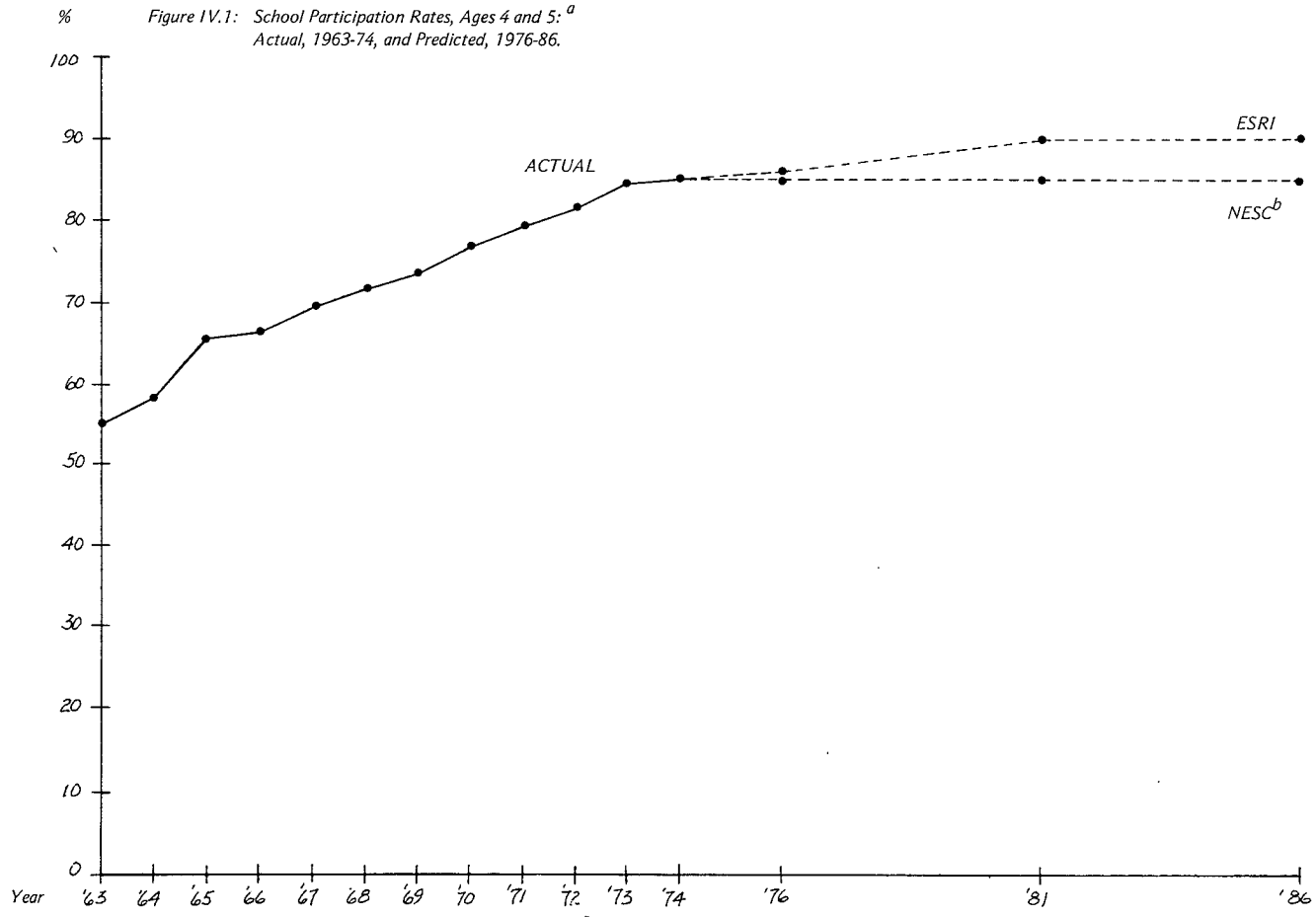
Typically, nations' education systems grow in 'blocks', generally corresponding with levels or sub-levels within the system. First there will be a period mainly of primary level growth, followed in turn by growth in other levels or time blocks (e.g., junior cycle, or the equivalent, then senior cycle, or the equivalent), and concluded by third-level growth. Of course, all the while first level participation rates are growing, rates will also be growing at other levels. But evidently, the most rapid growth in other levels' participation rates begins after prior levels' growth rates have slowed.

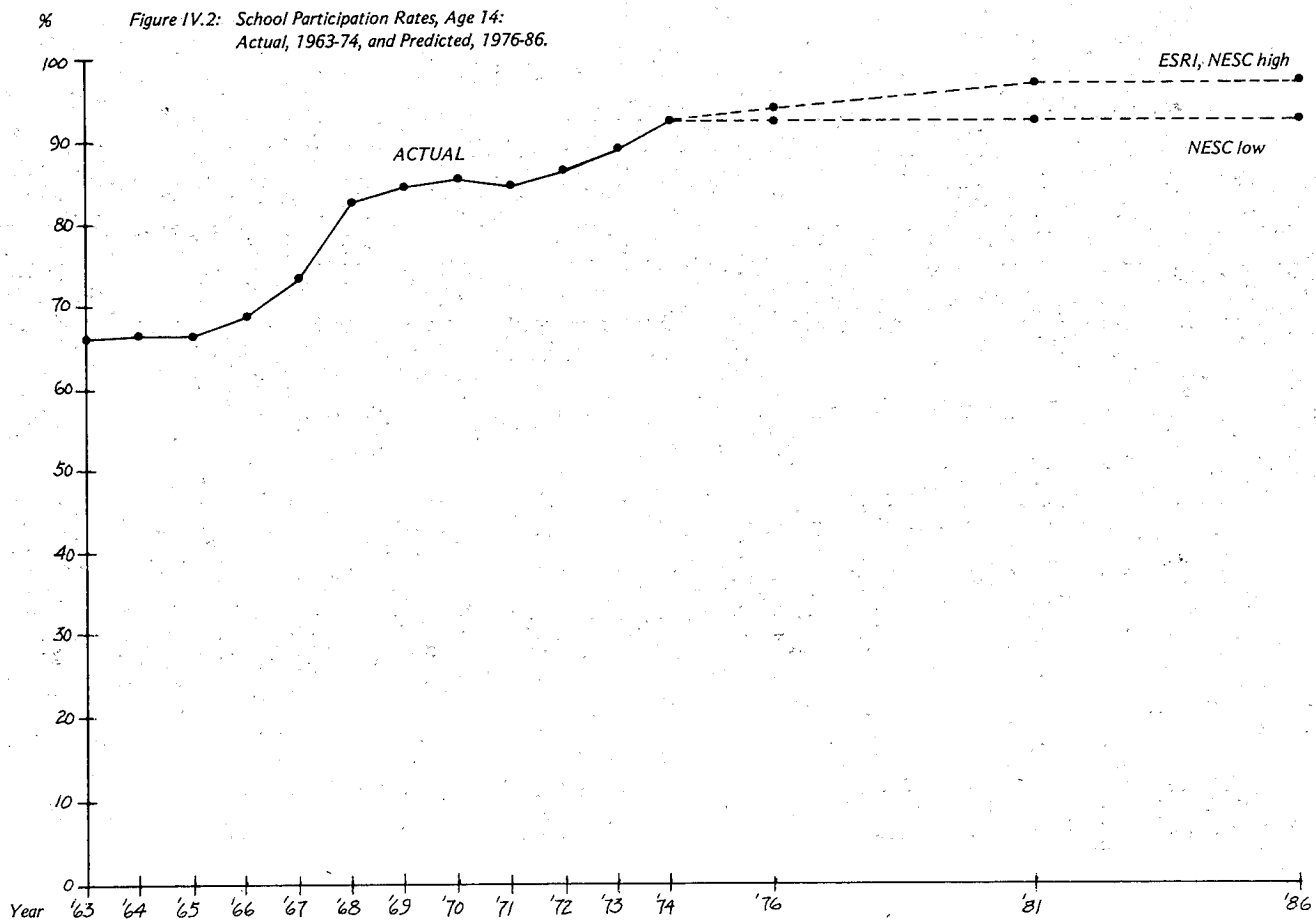
In Ireland virtually all growth in first level participation rates occurred prior to partition and the establishment of Saorstát Éireann, and the rate stands today at approximately 100 per cent except for the infant division. We take to be a datum that participation rates for ages 6-13 will continue indefinitely at approximately 100 per cent. Growth of second level rates was given a boost by the education policy changes of 1968-69, but these rates were already in the process of growth, and the contribution of the policy changes was only marginal.<sup>86</sup> Third level participation rates evidently have not yet reached their main period of growth.

Growth in participation rates since 1963, in all school ages except for 6-13, is shown in Figures IV.1 through IV.8. (These graphs also show predicted future growth. These predictions, which are shown by broken lines at the right of the several graphs, will be discussed later in this section, and may be ignored for the moment.) Figure IV.1 shows participation rates for those aged 4 and 5, i.e., those in the infants' division, to be nearing saturation. The main period of growth has already taken place. The same may be said for 14-year olds, as is shown in Figure IV.2. The minimum school leaving age was raised from 13 to 14 in 1972, but Figure IV.2 shows that the principal growth at this level had already occurred by then: in 1971, 84.7 per cent of 14-year olds were in full-time schooling. As is shown in Figures IV.3, IV.4 and IV.5, major growth in participation rates of 15, 16, and 17-year olds occurred in the 1960s and 1970s. Indeed, rates for 15-year olds neared their saturation point in this period. Little growth has yet taken place, however, in rates for ages 18, 19 and 20+, i.e., in third level education, as is indicated by Figures IV.6, IV.7, and IV.8. Evidently, the period of most rapid growth is yet to come.

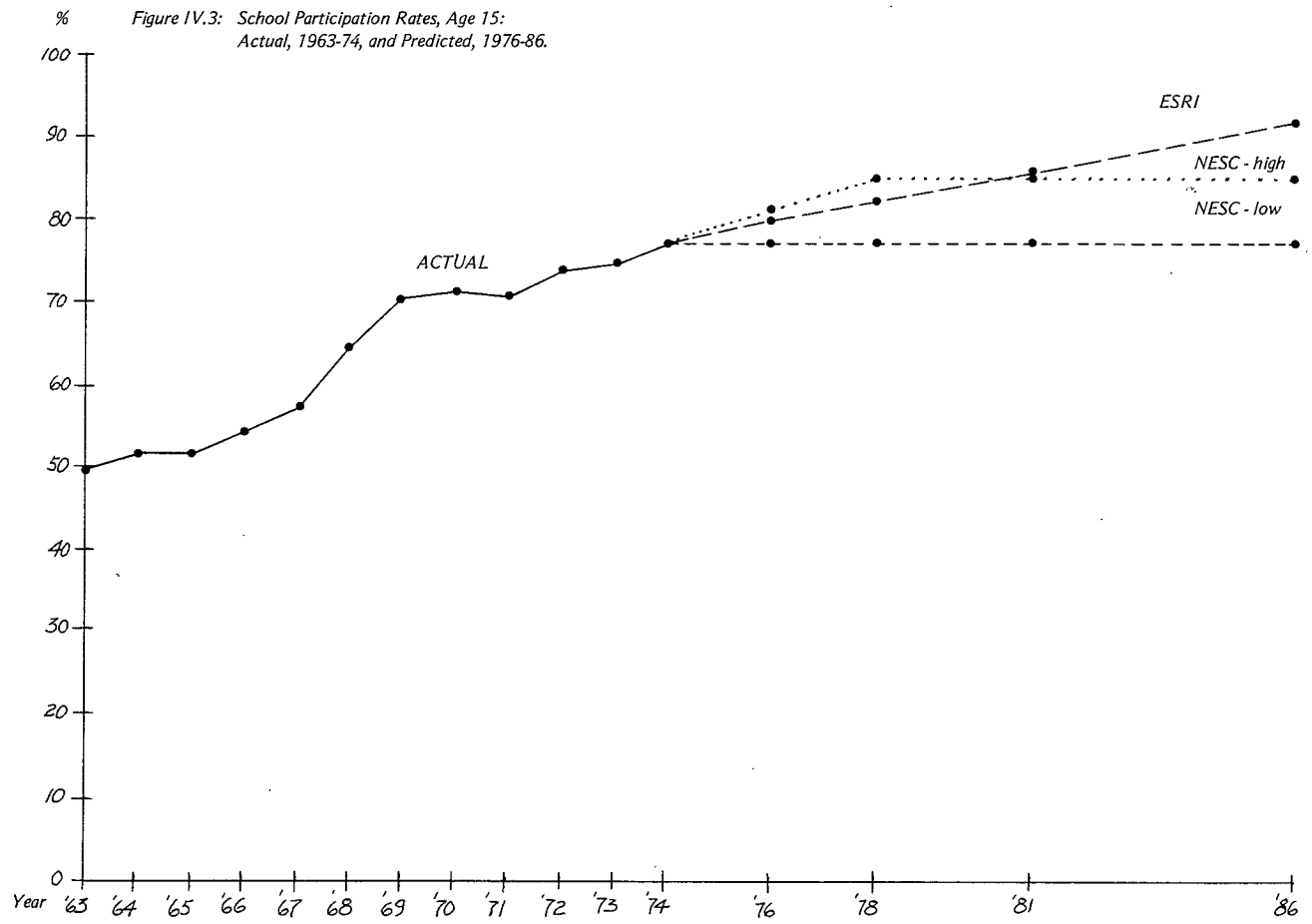
One cannot predict patterns of future participation rate growth simply by linear extrapolation of existing trends. Indeed, participation rates rarely grow

86. We have estimated that 19,600 of 306,800 enrolled in second-level in 1974, or 6.4 per cent of the total, are attributable to the policy changes. Tussing, *op cit*.

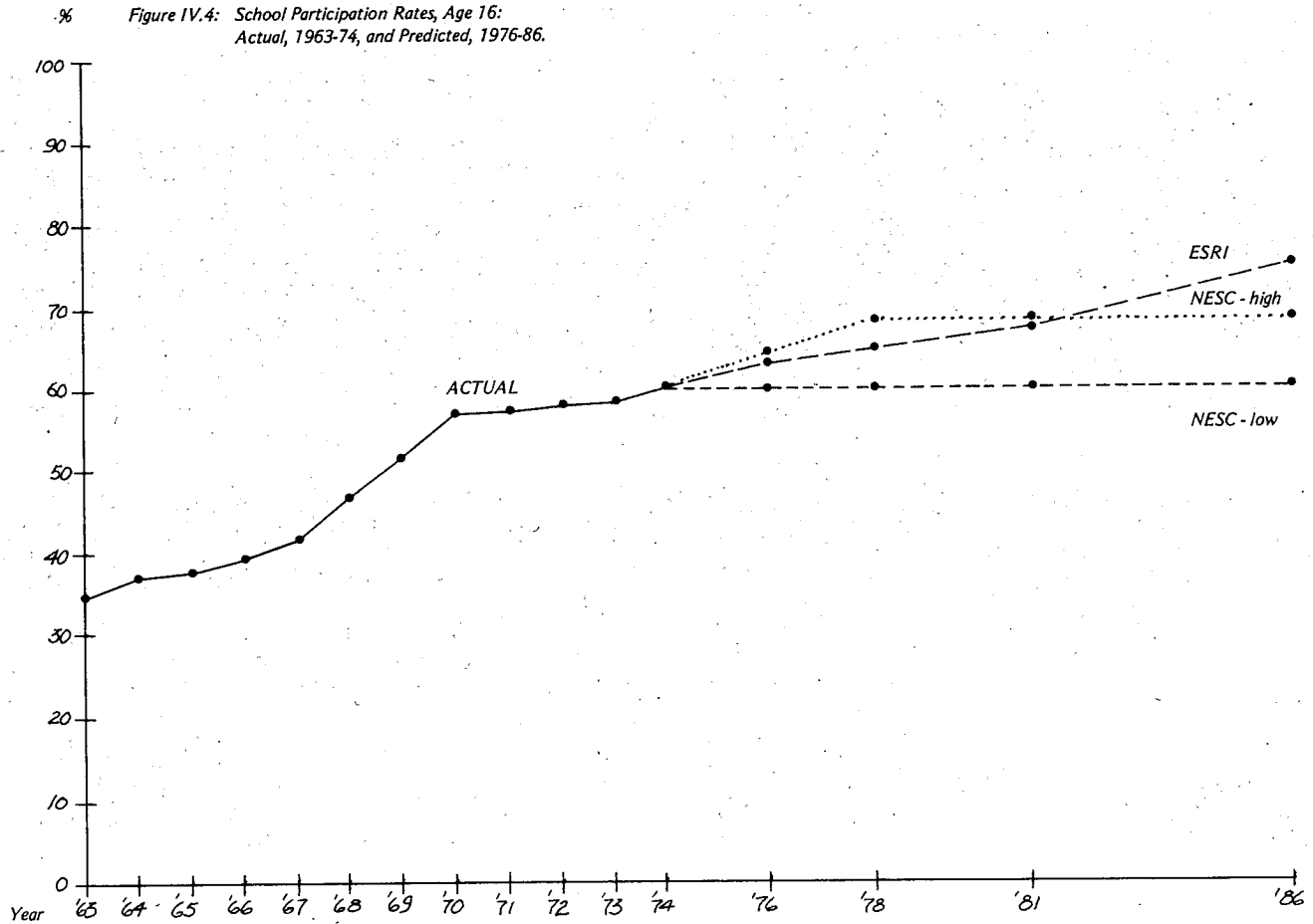




Sources and notes follow Figure IV.8.

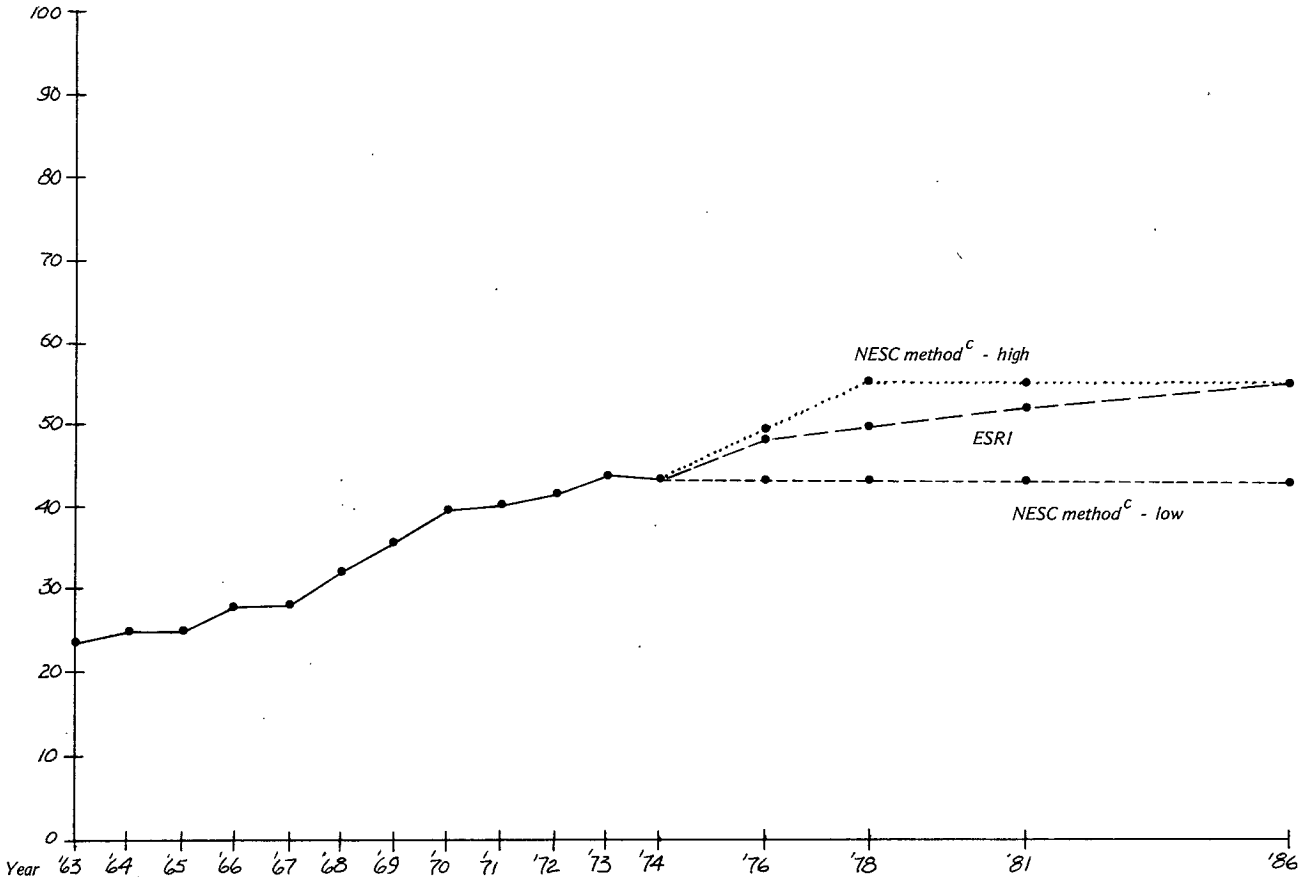


Sources and notes follow Figure IV.8.

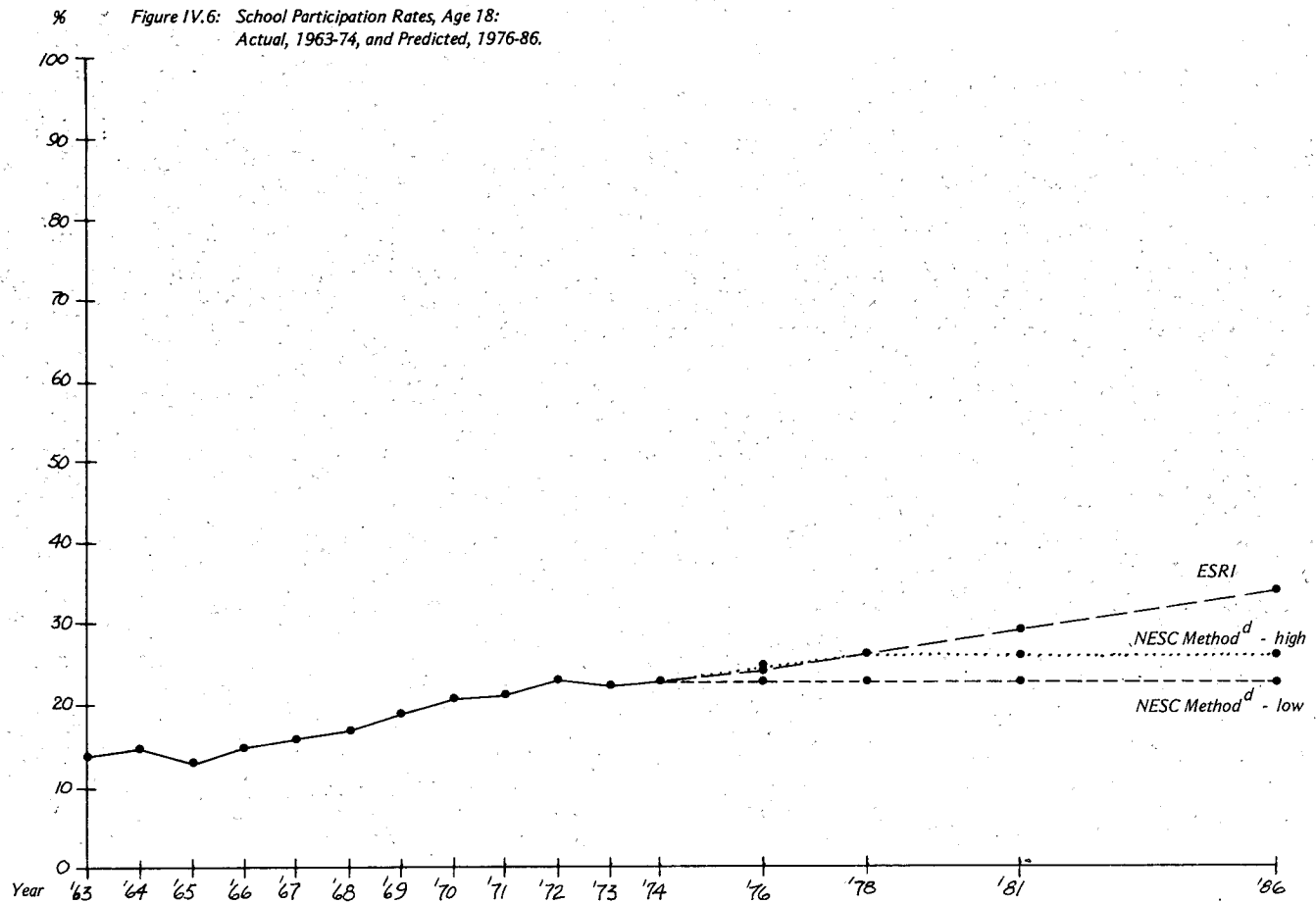


Sources and notes follow Figure IV.8.

Figure IV.5: School Participation Rates, Age 17:  
Actual, 1963-74, and Predicted, 1976-86.

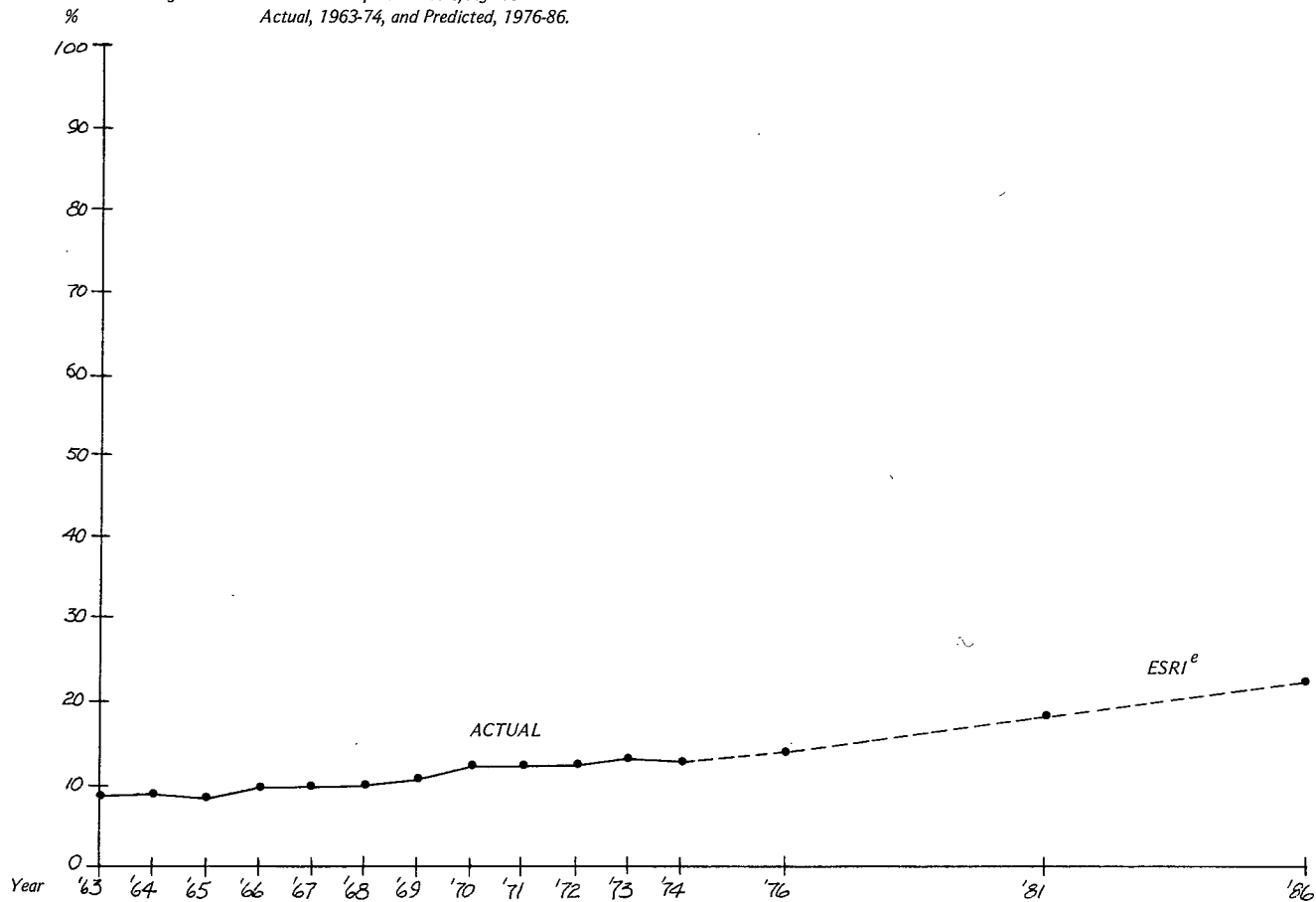


Sources and notes follow Figure IV.8.



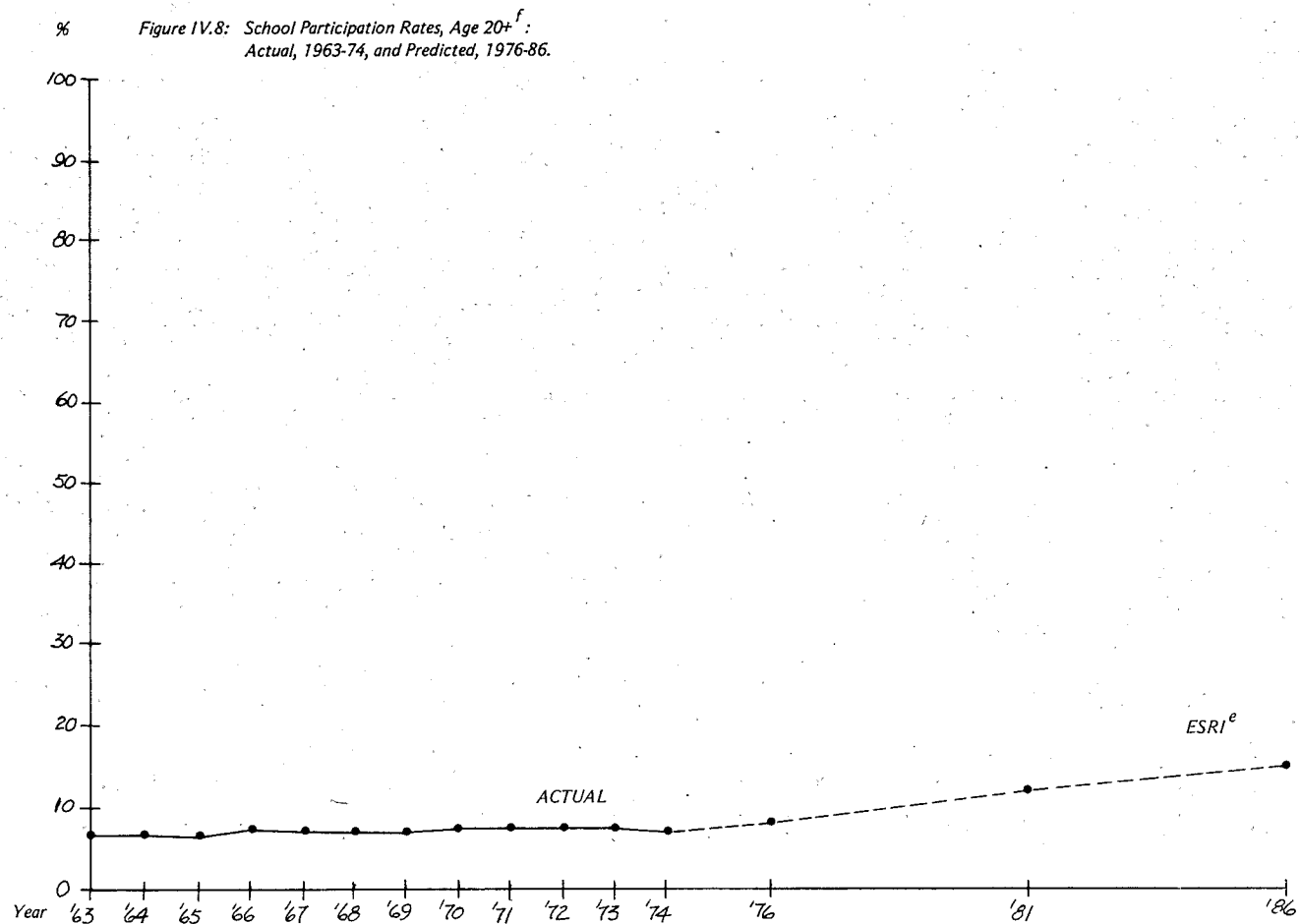
Sources and notes follow Figure IV.8.

Figure IV.7: School Participation Rates, Age 19:  
Actual, 1963-74, and Predicted, 1976-86.



Sources and notes follow Figure IV.8.





Sources and notes follow Figure IV.8.

## SOURCES AND NOTES FOR FIGURE IV.1 THROUGH IV.8

*Sources:* Actual participation rates: Enrolments, from Department of Education data; Population, from Central Statistics Office; Predicted participation rates; ESRI predictions are our own, see text; NESC predictions are from *Population Projections 1971-86: The Implications for Education*, National Economic and Social Council Report No. 18 (Dublin: Stationery Office), 1976.

*Notes:*

- (a) A small number of three-year olds is included in the numerator; the denominator is population aged 4 and 5.
- (b) NESC predicts a participation rate of 66.7 per cent for 4-year olds and 100 per cent for 5-year olds. Assuming the 4- and 5-year-old cohorts to be the same size, the two can be averaged to yield a combined participation rate of 83.4 per cent. For these ages, the NESC 'low' and 'high' have the same values.
- (c) NESC predicts participation rates for first and second levels only; third level students are omitted in their calculations. Our predictions, on the other hand, are for all levels. This difference affects comparisons only for 17- and 18-year olds. In Figure IV.5 we have tried to indicate what we believe NESC would have predicted, had they covered all three levels. Since the NESC low prediction is always the same as the 1974 participation rate, it is a simple matter to show a NESC-method low. The NESC-method high depends on what one assumes the NESC would have concluded about 17-year olds attending third level institutions. In 1974, these were 8 per cent of all 17-year olds. If one assumes the 8 per cent will remain constant through 1986, then one can add it to the 46 per cent that NESC predicts will be the 17-year old participation rate in first and second levels, for a total of 54 per cent. If on the other hand one assumes that the 8 per cent will rise at the same rate, over the time period, as the 17-year old participation rate in first and second levels (i.e., by 20 per cent), then one can add the resulting 9.6 per cent to the same 46 per cent to yield a total of 55.6 per cent. We have taken 55 per cent, approximately the mid-point between these estimates, to be the NESC-method high prediction. As with all other predictions, the NESC high is reached in 1978, and then held constant through 1986.
- (d) The method is the same described in note (c). The low holds the 1974 rate constant. For the high, we sum the NESC value for 18-year old participation rate, 1986, for first and second levels (i.e., 16 per cent) with two versions of what might be the NESC prediction for 18-year olds in third level. In the first version, the present (i.e., 9 per cent) rate is maintained; in the second, it rises at the same rate as the first- and second-level rate (i.e., to 11 per cent). The two versions yield, respectively, 25 per cent and 27 per cent; we have taken 26 per cent to be the NESC-method high.
- (e) NESC makes no projections for 19-year olds.
- (f) All pupils aged 20 and over, as a percentage of the population aged 20 through 24.
- (g) NESC makes no projections for this age group.

in a linear fashion for very long. Normally, they exhibit typical S-shaped growth curve patterns. That is, they grow first at a relatively moderate, but increasing, rate. They then usually show a period of fairly rapid growth, in the midst of which growth participation rates begins to occur at a decreasing rate. The last phase is a return once again to growth at a moderate rate, or perhaps cessation of growth altogether. It can be taken that in Ireland, first-level age groups are in the third phase; that second-level age groups through age 15 are also in the third phase; that in the rest of second level, growth is currently in the second, or rapid, phase; and that in third level, growth is in the first, or moderate phase.

If the foregoing (which is admittedly impressionistic and speculative) is correct, then the main questions are, when will growth in second-level rates (ages 16 and above) slow down, and when will third level growth commence?

Some idea of participation rate possibilities and patterns can be gleaned from international comparisons. Table 4.3 shows rates for a number of countries, including the United Kingdom and, separately, England-cum-Wales and Northern Ireland. Also shown are official forecasts of UK and Northern Ireland participation rates for 1980 and 1985. It will be noted that post-compulsory, second-level age-group projections for the UK and Northern Ireland show rates for 1985 lower than reported rates achieved for the Republic of Ireland for 1974.

Tables 4.4 and 4.5 show data recently published by the OECD (Organisation for Economic Co-operation and Development) on years of age that are, for most member countries, beyond the age of compulsory school attendance. While the data are somewhat out of date (they cover the period 1966-70), in general they bear out what was said above. In Table 4.4, which shows the ages roughly corresponding with senior cycle or senior high school, Irish rates compare extremely favourably with those of other OECD nations. Of 21 nations whose rates are reported in Table 4.4, Ireland's are eighth highest for 15 and 17-year olds, and seventh highest for 16 and 18-year olds. Irish participation rates are higher throughout than those of all EEC nations except Denmark. And the Irish rate used in these comparisons is that for 1967, prior to the boost in participation rates resulting from the policy changes of 1967/68.

By contrast, Table 4.5, which reflects the ages normally associated with third level, show Ireland in a less favourable light. The Irish participation rate is fourteenth of nineteen for nineteen-year olds, tied (with Italy) for seventeenth of nineteen for 20-year olds, and eighteenth of eighteen for 21-year olds. Most of the EEC countries are ahead of Ireland in all three years of age. The main significance is not that Ireland has done poorly, but that Irish rates are liable to grow fairly soon, and fairly rapidly, in third-level education.

As noted earlier, international comparisons are unusually important for Ireland. The reason is as follows. Growth in enrolment and in participation rates arises mainly from growth in demand for education, which is strongly associated with growth in *per capita* income. While to an extent this growth in demand reflects rising ability of a population to pay for their children's education, it also arises out of increases in so-called educational requirements—the skills, abilities, certificates and qualifications required by employers throughout the economy. Increases in educational requirements in turn derive mainly from changes in the occupational structure (i.e., a relative increase in those kinds of jobs requiring more schooling), and from upgrading of educational requirements within occupations (i.e., those with particular job titles, such as journalist, secondary school teacher or bank manager, require more schooling than previously). For a small and open economy, these changes in general reflect changes in the larger world (or European) economy. Without a drastic reversal of present international economic policies, Ireland's future educational requirements are essentially beyond her control. As these grow



Table 4.4: *Full-time school participation rates, first, second and third levels, ages 15-18, OECD countries, selected years*

(per cent of population at each age enrolled in academic year beginning at date cited)

		15	16	17	18	15-18
Austria	1969	54.8	32.6	23.6	16.4	31.9
Belgium	1966	75.1	61.3	47.0	33.2	54.2
Denmark	1970	85.2	66.8	31.8	23.2	51.7
Finland	1967	(59.2)	51.9	43.5	35.2	47.4
France	1970	80.5	62.6	45.1	29.1	54.3
Germany (a)	1969	54.9	30.8	20.4	15.7	30.5
Greece	1969	56.8	49.1	45.8	26.1	44.7
Iceland		n.a.	n.a.	n.a.	n.a.	
Ireland	1967	82.4	64.3	46.5	31.8	56.3
Italy	1966	42.1	33.6	27.4	20.2	30.8
Luxembourg	1970	67.9	56.5	42.3	31.2	49.5
Netherlands	1970	79.7	60.6	41.5	28.4	52.5
Norway (b)	1970	94.2	74.6	59.8	46.5	68.9
Portugal	1970	30.1	25.4	22.0	20.4	24.5
Spain	1970	35.0	29.6	22.8	19.0	26.7
Sweden	1972	96.7	74.0	60.8	40.8	68.1
Switzerland	1970	94.6	61.5	52.7	27.4	61.4
Turkey	1968	n.a.	n.a.	n.a.	n.a.	(21.1)
United Kingdom	1970	73.0	41.5	26.2	17.6	39.4
Yugoslavia	1968	n.a.	n.a.	n.a.	n.a.	36.6
Australia	1971	81.5	54.2	37.2	23.6	49.4
Canada (c)	1970	98.0	89.1	77.2	45.8	78.1
Japan	1970	(83.8)	(79.0)	(74.8)	(29.9)	(65.8)
United States (d)	1970	97.7	93.5	86.2	53.8	82.9

(a) Excludes part-time compulsory vocational schools.

(b) Includes a very minor number of part-time pupils.

(c) Excludes enrolments in trade schools and schools for handicapped.

(d) Including part-time students in higher education.

( ) Estimates.

Source: *The Educational Situation in OECD Countries*, Organisation for Economic Co-operation and Development, Paris, 1974.

in Europe, they must necessarily grow in Ireland; and where (as in third level) they lag behind the rest of Europe, they will be required to rise more rapidly than the European average. For similar reasons, the curricular structure of Irish education has been changing, and must continue to change, in the direction of more technical relative to arts subjects, and more 'ability' relative to 'knowledge'. We are not able to employ vigorous forecasting models here. Like NESCS<sup>87</sup> we have had to use 'less formal methods of forecasting' based on the principles described above.

87. Op. cit., p. 14.

Our predictions for the pattern of growth in participation rates for the period through 1976 are shown in Figures IV through IV, where they are labelled 'ESRI'. These predictions, which are repeated in Table 4.6, show participation rates continuing to rise at rates not much different from those of recent years in ages 15, 16 and 17; and at faster rates than have been experienced recently in ages 18, 19 and 20+. For age 14, they reflect effective

Table 4.5: *Full-time school participation rates, first, second and third levels, ages 19-24, OECD countries, selected years*

(per cent of population at each age enrolled in academic year beginning at date cited)

		19	20	21	22	23	24	25
Austria	1969	10.4	8.7	7.5	6.7	5.6	4.5	4.4
Belgium	1966	24.4	16.9	13.0	7.3	5.2	3.4	n.a.
Denmark	1970	18.0	14.7	14.8	14.6	12.5	10.9	( 9.3)
Finland	1967	26.9	20.6	19.0	17.9	16.7	14.2	n.a.
France	1970	19.5	16.2	15.6	12.6	9.7	6.5	6.9
Germany	1968	12.6	10.6	9.5	9.1	7.5	6.9	5.8
Greece	1969	(20.7)	(20.1)	(18.6)	( 7.9)	6.7	4.9	3.7
Iceland		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ireland	1967	16.7	10.0	6.8	n.a.	n.a.	n.a.	n.a.
Italy	1966	15.5	10.0	7.0	4.5	3.0	1.5	n.a.
Luxembourg	1970	22.2	14.9	11.8	9.2	6.8	4.5	n.a.
Netherlands	1970	20.6	15.1	11.1	8.4	6.7	5.1	4.6
Norway	1970	31.7	22.6	19.5	17.1	14.2	11.4	n.a.
Portugal	1970	16.3	13.0	9.5	7.5	6.4	5.4	5.7
Spain	1970	16.7	19.0	11.0	6.7	6.4	6.6	5.8
Sweden	1972	24.0	19.8	17.9	16.5	13.9	11.8	9.6
Switzerland		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Turkey		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
United Kingdom	1970	14.3	12.4			4.6		n.a.
Australia		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Canada (a)	1970	31.6	25.9	21.0	12.6	8.3	5.5	4.3
Japan	1970	(22.0)	(13.8)	(13.7)	n.a.	n.a.	n.a.	n.a.
United States	1970	40.9	(35.4)	(28.3)		14.9		n.a.

(a) Excludes enrolment in trade schools and schools for handicapped.

( ) Estimates.

N.B.—It should be noted that not all the people in these age-groups are in higher education. In Sweden, a substantial number of 19 and 20 year olds are still at secondary school.

Source: *The Educational Situation in OECD Countries*, Organisation for Economic Co-operation and Development, Paris, 1974.

saturation in the very near future.<sup>88</sup> And for ages 4 and 5, they show continued asymptotic growth toward effective saturation.

Figures IV.1 through IV.4 also show the pattern of participation rate growth forecast recently by the National Economic and Social Council (NESC), and Figures IV.5 and IV.6 show the pattern we believe the NESC method would have shown for ages 17 and 18, had NESC figures included third- as well as first- and second-level rates.<sup>89</sup> Since NESC have recently published their own forecasts of a number of the series forecast here, and since in some respects NESC have arrived at different conclusions, it seems useful to compare NESC forecasts with our own (as indeed we have done above, in the section dealing with population), so that readers can arrive at independent conclusions. There can be no 'right' or 'correct' forecast of the future. Those who offer predictions can be asked to set out their methods and assumptions, so that readers can follow and make their own assessments, and, moreover, so that as conditions change, readers can adjust forecasts appropriately.

NESC presents two versions of predicted patterns of participation rate growth, a low and a high version: 'The first is that 1974 participation rates remain constant', thus giving the pattern we have labelled NESC-low in the graphs, with participation rate growth ceasing in 1974; and 'the second . . . based on rising participation rates in the 1974-78 period and constant rates thereafter', thus giving the pattern we have labelled NESC-high, with participation rates continuing to grow (very rapidly, in most cases, as an inspection of the graphs will reveal) until 1978, and with growth ceasing thereafter. These are extremely conservative assumptions. Indeed, they are difficult to understand. There is no basis in the experience of Ireland, or, so far as we know, any other country on which to conclude that growth in participation rates might stop dead at all years of age at the same time. Moreover, there is no evidence that the demand for places in second level education in Ireland has stopped, or is about to stop, growing. These predictions are sufficiently dubious and sufficiently important to cast doubt upon projections of enrolments, teacher needs, and other variables flowing from them, in what is otherwise an extremely valuable publication.

### *Enrolment Numbers*

It is simple arithmetic to combine the population projections with the predicted future participation rates to produce enrolment forecasts. Enrolments and school participation rates for 1966, 1971 and 1974 are shown in Table 4.6, together with predicted figures for 1981 and 1986; and 'predicted' or 'estimated' figures for 1976. The overall result is a predicted increase in school enrolment at all levels of 188,700 or 23 per cent, in a period of only

88. NESC (1976, P.15) suggest a participation rate of 97 per cent for 14-year olds, as the minimum school leaving age was recently raised from 13 to 14, and 97 per cent was the rate for 13-year olds just prior to the raising of the school leaving age. We adopt this assumption in the present paper.

89. See the table of sources and notes following Figures IV.1 through IV.8; note (c).

Table 4.6: Enrolments and school participation rates, 1966, 1971, and 1974, and predicted, 1976, 1981, and 1986, by age

Age	1966		1971		1974		1976		1981		1986	
	Enrol- ment	Part'n rate	Enrol- ment	Part'n rate	Enrol- ment	Part'n rate	Enrol- ment	Part'n rate	Enrol- ment	Part'n rate	Enrol- ment	Part'n rate
4-5 <sup>a</sup>	81.8	.662	100.2	.793	107.6	.847	117.3	.86	123.4	.90	143.5	.90
6-12	392.2	.959	430.4	.989	452.3	.999	456.3	.995	472.1	.995	496.6	.995
13	55.5	.954	56.7	.968	61.4	.994	63.6	.995	66.1	.995	68.5	.995
14	38.0	.687	49.3	.847	55.2	.925	58.4	.94	64.1	.97	66.5	.97
15	30.2	.542	39.8	.707	45.0	.775	49.0	.80	57.4	.86	63.4	.92
16	21.3	.390	31.1	.550	34.8	.604	37.2	.63	44.7	.67	49.5	.75
17	14.6	.273	21.4	.394	24.5	.431	27.5	.48	33.6	.52	35.0	.55
18	7.3	.147	10.9	.208	12.2	.224	13.6	.24	18.3	.29	22.4	.34
19	4.4	.096	5.8	.121	6.9	.125	7.9	.14	11.0	.18	14.4	.22
20+ <sup>b</sup>	13.3	.072	16.0	.075	15.9	.068	19.4	.08	31.7	.12	44.7	.15
Total <sup>c</sup>	658.6	.602	761.6	.657	815.8	.671	850.2	.68	922.4	.69	1,004.5	.705

(a) Participation rates are figured on the population aged 4 and 5; enrolment data also include a small number of 3-year olds.

(b) Participation rates are figured on the population aged 20 through 24.

(c) Participation rates are figured on the population aged 4 through 24.



12 years. This breaks into growth of 80,200 (14 per cent) in the group aged through 12; 36,800 (23 per cent) in the group aged 13 through 15; 35,400 (50 per cent) in the group aged 16 through 18; and 36,300 (159 per cent) in the group aged 19 and over.

Of the 188,700 enrolment growth forecast, 113,480 would occur with no increase in participation rates over 1974—a most implausible eventuality. This includes 71,750 of the 80,200 forecast for the group aged through 12; 23,720 of the 36,800 forecast for the group aged 13 through 15; 12,440 of the 35,400 forecast for the group aged 16 through 18; and 5,570 of the 36,300 forecast for the group aged 19 and over.

Thus, most of the growth forecast is attributed to indicated population growth. It is to be recalled that if present child immigration patterns persist, school age population, and hence enrolment, would be still higher. The participation rate increases forecast are quite moderate: for the school-age group as a whole (ages 4 through 24), and combined rate is predicted to rise from 67.1 per cent in 1974 to 70.5 per cent in 1986. The largest increases forecast are at the older ages, where numbers (both population and enrolment) are lower.

The results, then, are not very sensitive to individual assumptions. Even a sharp change in one or two assumptions will not yield very different results.

For example, employing the Keating population projections referred to earlier (see Table 4.2) reduces enrolment projections by only 13,400 (high population projection) to 24,600 (low population projection). The resulting overall enrolment forecasts of 991,100 and 979,900 are 21.5 per cent and 20.1 per cent over the 1974 levels, respectively—still extremely rapid growth.<sup>90</sup>

The forecasts are based on the implicit assumption that State and Church education policy will evolve in future in a manner similar to that of the past. Any sharp break in practices can obviously affect enrolments. They are also based on the assumption that an adequate number of school places will, in fact, be available. This assumption may be more questionable, but our role is seen as estimating the numbers of places that will be *required*, rather than the number that will be *provided*.

The predictions are in a sense firmer than the widely-publicised forecasts of numbers of jobs needed through 1986 to achieve full employment with minimal or zero net emigration.<sup>91</sup> If the requisite number of jobs is not created, large-scale emigration may resume, if not to Britain then to continental EEC countries, Australia, Canada, and elsewhere. But emigration, while it may in a sense 'solve' the job-creation problem, will not solve the problem of providing for nearly 200,000 new places in first, second and third-level institutions. On the contrary, a resumption of large-scale emigration would make the school finance problem still worse. It is difficult to see

90. See Appendix 4B.

91. e.g., Walsh, (1975) op. cit.

how the nation will be able to pay for the implied growth in school expenditures if the 300,000 or so new jobs are not forthcoming, and national income does not grow enough to pay the cost. On the other hand, if the jobs are created, this enrolment growth will appear far less daunting than the stark statistics suggest.

There is one more point of relationship between the enrolment forecasts and the number of new jobs needed. If school participation rates do not rise as rapidly as forecast here, then still more young people will be looking for jobs. If labour force participation rates turn out in the future to be lower than forecast, then still larger numbers will be looking for school places. Data from the 1971 census of population indicate that while school and labour force participation rates of young boys and girls vary considerably with age in the 14 through 19 year range, the *sum* of the two rates is remarkably constant at around 90 per cent.<sup>92</sup> There is strong likelihood, then, that anyone in this age range who either does not seek or does not find a school place will seek a job instead, or emigrate. There is really no escape from the problems generated by a rapidly growing youth population. One can hardly hope that young people will neither seek jobs, *nor* go to school, *nor* emigrate.<sup>93</sup>

#### *Pupils, Types of School and Teachers*

The rest of this chapter consists not so much of forecasts as of illustrations. While it is possible with a small number of assumptions to attempt to forecast population growth and changes in participation rates, exactly how future enrolments might be sorted out among types of schools—e.g., secondary, community, vocational, etc.—is a question so influenced by policy that prediction is virtually impossible. Instead, we have attempted to show one plausible pattern according to which the forecast enrolment might be distributed; and then, on the basis of that pattern, we have attempted to forecast the numbers of teachers that would be needed in each type of school. In the second half of this chapter, where costs and expenditures are considered, we will employ this same conjectural or illustrative pattern in our calculations.

Table 4.7 shows a predicted allocation of enrolments among Private Primary Schools, National Schools, Secondary (into which Comprehensive and Community were merged), and Vocational, according to past patterns and recent trends. There is also an allocation to third level, but no allocation to institutions *within* that level; and in the remainder of the chapter, our focus is narrowed mainly to first and second levels. On the basis of recent trends,

92. Tussing, (1976b) *op. cit.*, p. 298. The sum of school and labour force participation rates in 1971 was as follows, for the years of age indicated: 14, 93.9 per cent; 15, 89.2 per cent; 16, 89.1 per cent; 17, 88.4 per cent; 18, 87.0 per cent; and 19, 89.0 per cent.

93. The Radical Economists Group argue that the current and impending population growth is a potential boon as well as a burden, in that it implies a surge in home market demand, which potentially can create jobs in the industries that satisfy such demands. If this demand can be channelled into Irish industry and employment, then the necessary jobs will be created; if it cannot, then the jobs will not be created and the demand surge will not occur anyway. Radical Economists Group, 'The Irish Economy—A New Strategy for Development', pamphlet No. 1 (Dublin: Radical Economists Group), 1976.

Table 4.7: Predicted school participation rates and enrolments, 1986, by type of school and age

Age	Private primary	National schools	Total 1st level	Jr cycle second'y <sup>a</sup>	Jr cycle vocat'l	Total jr cycle	Sr cycle second'y <sup>a</sup>	Sr cycle vocat'l	Total sr cycle	Total 2nd level	3rd level	Total
4-5	4%	86%	90%	0%	0%	0%	0%	0%	0%	0%	0%	90%
6-12	4	90.5	94.5	4	1	5	0	0	0	0	0	99.5
13	0	20	20	57.5	22	80	0	0	0	80	0	99.5
14	0	4	4	65	28	93	0	0	0	93	0	97
15	0	0	0	51	22	73	16	3	19	92	0	92
16	0	0	0	10	9	19	46	10	56	75	0	75
17	0	0	0	1	2	3	38	10	48	51	4	55
18	0	0	0	0	0	0	11	8	19	19	15	34
19	0	0	0	0	0	0	2	2	4	4	18	22
20+ <sup>b</sup>	0	0	0	0	0	0	0	1	1	1	14	15
<i>Enrolments (x 1,000)</i>												
4-5	6.4	137.1	143.5	0	0	0	0	0	0	0	0	143.5
6-12	20.0	451.6	471.6	20.0	5.0	25.0	0	0	0	25.0	0	496.6
13	0	13.8	13.8	39.6	15.1	54.7	0	0	0	54.7	0	68.5
14	0	2.7	2.7	44.6	19.2	63.8	0	0	0	63.8	0	66.5
15	0	0	0	35.3	15.2	50.5	11.1	2.1	13.2	63.7	0	63.7
16	0	0	0	6.6	5.9	12.5	30.4	6.6	37.0	49.5	0	49.5
17	0	0	0	0.6	1.3	1.9	24.2	6.4	30.6	32.5	2.5	35.0
18	0	0	0	0	0	0	7.2	5.3	12.5	12.5	9.9	22.4
19	0	0	0	0	0	0	1.3	1.3	2.6	2.6	11.8	14.4
20+	0	0	0	0	0	0	0	3.0	3.0	3.0	41.7	44.7
<i>Total</i>	26.4	605.2	631.6	146.7	61.7	208.4	74.2	24.7	98.9	307.3	65.9	1,004.5 <sup>c</sup>
<i>1974 Total</i>	23.3	521.1	544.4	124.3	48.9	173.2	54.4	14.1	68.5	241.7	29.7	814.8
<i>Growth rate per year</i>												
	1.0%	1.2%	1.2%	1.3%	1.9%	1.5%	2.6%	4.7%	3.0%	2.0%	6.8%	1.7%

*Notes:*

(a) Secondary, Secondary Tops, Comprehensive and Community.

(b) Enrolment 20 and over as per cent of population aged 20-24.

(c) Detail does not add to total because of rounding.

Vocational Schools are expected to grow somewhat faster than other second-level institutions combined. But this prediction is based on present policy, which evidently consists of re-building or expanding Secondary and Vocational Schools as these become obsolete or too small. If the policy reverts to one of amalgamating such schools into Community Schools on the occasion of their requiring building grants, then the future pattern of growth will look rather different.

Table 4.8 shows the required number of teachers associated with the enrolment allocations reported in Table 4.7. The table shows an overall increase in the number of full-time teachers of 20.6 per cent between 1974 and 1986. We expect a very slight reduction in average class size in National Schools;<sup>94</sup> no change in class size in Private Primary Schools; an increase in average class size in Secondary/Comprehensive/Community; and a slight decline in average class size in Vocational Schools. In second-level schools, average class size in senior cycle has been considerably smaller than that in junior cycle. Senior cycle is expected to grow faster than junior cycle in the coming decade. This structural change will have opposing effects on average class size. Senior cycle classes will undoubtedly tend to grow in average size, which *ceteris paribus*, should increase second-level class size on average. But the increasing weight attached to the senior side, expected still to be smaller than the junior cycle, should reduce second-class size on average.<sup>95</sup>

Of the two tendencies, the former will be stronger in Secondary/Comprehensive/Community, and the latter in Vocational Schools.

Table 4.8 indicates an increase of 28.7 per cent in the numbers of part-time teachers. It is possible and even likely that full-time teachers will increase, especially in Vocational Schools, somewhat more rapidly than Table 4.8 indicates, and that fewer part-time teachers will be used. Budget amounts will not be significantly influenced by this change.

Our prediction that 19,707 full-time National School teachers will be needed stands midway between the NESC low and high forecasts of 18,500 and 20,590 based on an assumed 30:1 pupil teacher ratio.<sup>96</sup> Our prediction of a need for 19,040 second-level teachers stands well outside the NESC range of 16,403 to 17,774.<sup>97</sup> This difference represents a cumulation of all the differences already referred to: our estimate for population aged 15-19, slightly higher than the NESC high estimate (see Table 4.2); our assumption that participation rates will continue to rise, as against NESC's assumption that they will cease growing at latest in 1978; and finally, differences in predicted pupil-teacher ratios. Our weighted second-level average pupil-teacher

94. The required number of teachers is calculated from recent incremental pupil-teacher ratios. See Appendix 4.C.

95. The required number of teachers is calculated on the basis of equations estimated by multiple regression techniques (ordinary least-squares). See Appendix 4.C.

96. NESC, (1976, pp. 26, 29).

97. *Ibid.*, (1976) p. 29.

Table 4.8: *Required number of teachers, and students per full-time teacher, 1974 and 1986*

<i>Type of school</i>	<i>Number of full-time teachers 1974</i>	<i>Number of part-time teachers 1974</i>	<i>Pupils per full-time teacher 1974</i>	<i>Number of full-time teachers 1986</i>	<i>Number of part-time teachers 1986</i>	<i>Pupils per full-time teacher 1986</i>	<i>Increase in number of full-time teachers, 1974-86</i>
National Schools	16,592	n.a.	31.4	19,707	n.a.	30.7	3,115
Private Primaries	1,163 <sup>a</sup>	n.a.	20.0 <sup>a</sup>	1,320	n.a.	20.0	157
Secondary, Comprehensive and Community	10,794	2,786	16.6	12,558	3,283	17.6	1,764
Vocational	4,675	3,010	13.5	6,482	4,134	13.3	1,847
<i>Total</i>	33,224	5,796		40,067	7,457		6,843

(a) These values were obtained from our own survey of Private Primary Schools; see Chapter 5.

ratio is 16:1; NESC's is 17:2.<sup>98</sup> A rise in pupil-teacher ratios may indeed occur over the coming decade in response to the fiscal pressures discussed here (though this is not the reason for the difference between the two sets of forecasts); our forecasts, it will be recalled, are based on an assumption of the persistence of today's policies and trends into the future. Such forecasts are unlikely to 'come true', and are not really meant to, since their purpose is to state the nature of the problem, rather than to anticipate both the problem and its solution.<sup>99</sup>

#### EXPENDITURES

Real public expenditures on first and second level education are likely approximately to double over the twelve-year period 1974-1986. While we have not carried out any supporting analysis on third level, it appears likely on the basis of evidence available that third level expenditures are more than likely to double. Public education expenditures, then, unless there are shifts and reversals in policy, are likely to comprise a rapidly rising share of public expenditures and of Gross National Product.

In this section, we build upon the enrolment allocations and teacher needs (Tables 4.7 and 4.8) presented in the previous section, by attaching 'price tags' to those enrolments and teacher needs. The resulting expenditure forecast is obviously related only to the one, single set of enrolment allocations and teacher needs set forth, and different though equally plausible patterns would yield different expenditure forecasts. However, changing these assumptions, while they might affect expenditure patterns, would be significantly unlikely to affect the totals, or even the main sub-totals.

A first step in predicting future public education expenditures is obviously to set forth the amounts and types of *present* public education expenditures. It is a remarkable thing that this is not done, in any public or semi-public document dealing either with public expenditures or with education.<sup>100</sup> While information on public education expenditures does exist, it must be drawn together from a variety of sources, and the person doing so is left to his or her own devices in interpreting data sources and their comparability.

Our interpretation, as indicated in Tables 4.9 and 4.10, is that current public expenditure on first and second level education was approximately

98. This is based on our calculations from NESC figures. Their stated assumptions for pupil-teacher ratios are Secondary, 19:1; Vocational, 13:1; and Comprehensive/Community, 17:1. *Ibid.*, (1976) p. 28.

99. Thus our forecasts are comparable to those of the 'Ghost of Christmas Yet to Come' in Dickens' *Christmas Carol*: they are 'visions of what might be', rather than 'visions of what will be'.

100. This has not been done, for example, in the Department of Education's *Tuarascail*, which while it includes budget data on Primary, Secondary, Comprehensive/Community and Vocational divisions, does so in ways which are not wholly comparable with each other; and they omit administrative overhead, and public third level expenditure. Sheehan (op. cit. NESC, 1976 No. 12) includes a table (p. 9) on public expenditure on first and second level education, with the same four divisions; but he does not provide a total, and does not include third level. We are advised that the Department of Education is moving toward such reporting in future issues of its *Tuarascail*.

Table 4.9: Public education expenditures, year ending March 31, 1974 (x £1,000), current (1974) prices

Type of school	Salaries <sup>a</sup>	Pensions and other superann'n current <sup>b</sup>		Sub total col. 1+2+3	Allocated overhead <sup>d</sup>	Transport <sup>c</sup>	Total current	Current per pupil	Capital	Grand total
<i>1st Level:</i>										
National schools	37,022	5,547	1,249	43,818	1,521	2,149	47,487	91	6,697 <sup>c</sup>	54,184
<i>2nd Level: Total</i>										
Secondary schools <sup>f</sup>	31,713	325	15,672	47,710	1,679	2,928	52,317	211	8,347	60,664
Comprehensive and Community	18,359	42	9,297	29,082	1,035	2,165	32,282	181	2,116	39,180
Vocational <sup>g</sup>	1,384									
Reformatory and Industrial schools	11,970	283	6,375	18,628	644	763	20,035	289	4,791	21,475
	(n.a.)	(n.a.)	(n.a.)	551	19	0	570		259	829
<i>Sub total: 1st and 2nd Levels</i>				92,079	3,219	5,077	100,374		15,303	115,677
<i>3rd Level: Total</i>										
Regional technical colleges <sup>h</sup>				14,742	451	0	15,193	512	4,128	19,321
Training colleges <sup>i</sup>				1,489	54	0	1,543		2,048	3,501
Universities				1,666	54	0	1,720		0	1,720
Other higher education expenditures <sup>j</sup>				10,130	343	0	10,473		2,080	12,553
				1,457			1,457			1,457
<i>Total, All Levels</i>				106,221	3,661	5,077	115,559		19,431	134,998

Sources and Notes apply to Tables 4.9 and 4.10.

*Sources:* Except as indicated in notes, below, data are from Appropriation Accounts 1973-74, as follows: 1st level, vote 28; secondary, vote 29, except that secondary tops are added in from vote 28; comprehensive and community, vote 29; vocational, vote 30; reformatory and industrial schools, vote 31; 3rd level, vote 32. Enrolment data used in estimating per-pupil expenditures from Department of Education.

*Notes:*

(a) For National Schools, includes capitation grants to "capitation convent and monastery schools"; for Secondary Schools, includes only incremental but not school salaries; for Vocational Schools, includes "instructional" expenditure. (b) Excludes outlays for departmental overhead and for transport services, which are shown in columns 5 and 6; for secondary schools, includes school salaries; in general, includes part-time teachers not paid directly by the department. (c) The total is taken from vote 27; it is allocated between 1st and 2nd level according to use of transport services, as reported by Department of Education; and is allocated within 2nd level according to numbers of students. (d) From vote 27 (Office of Minister), but excluding items in note (j) Transport; also excluding National Library, National

Table 4.10: Public education expenditures, year ending March 31, 1974 (x £1,000), Constant (1970) prices<sup>k</sup>

Type of school	Salaries <sup>a</sup>	Pensions and other superann'n	current <sup>b</sup>	Sub total col. 1+2+3	Allocated overhead <sup>d</sup>	Transport <sup>c</sup>	Total current	Current per pupil	Capital	Grand total
<i>1st Level:</i>										
National schools	24,357	3,649	822	28,828	1,000	1,414	31,242	60	4,406 <sup>e</sup>	35,648
<i>2nd Level: Total</i>										
Secondary schools <sup>f</sup>	20,864	214	10,310	31,382	1,105	1,926	34,419	139	5,492	39,914
Comprehensive and Community Vocational <sup>g</sup>	12,078	28	6,116	19,133	681	1,424	21,238	119	1,392	24,782
	911									
Reformatory and industrial schools	7,875	186	4,194	12,255	424	502	13,181	190	3,152	14,128
	(n.a.)	(n.a.)	(n.a.)	362	13	0	375		947	545
<i>Sub total: 1st and 2nd Levels</i>				60,572	2,118	3,340	66,036		10,068	76,107
<i>3rd Level: Total</i>										
Regional technical colleges <sup>h</sup>				9,698	297	0	9,995	337	2,716	12,711
Training colleges <sup>i</sup>				980	35		1,015		1,347	2,203
Universities				1,096	35		1,131			1,131
Other higher education expenditures <sup>j</sup>				6,664	226		6,890		1,368	8,258
				959			959			959
<i>Total, all levels</i>				70,270	2,415	3,340	76,031		12,784	88,815

Museum, organisational Grants-in-Aid; allocated in proportion to expenditures given in column 4 above, except "Other higher education expenditures". (e) From vote 8. (f) Includes secondary tops. (g) Current data from Department of Education; capital data from central Statistics Office, National Income and Expenditure 1974; includes some 3rd level from Technological Colleges. (h) Includes some 2nd level students; data from vote 30. (i) From vote 28. (j) Higher education grants, scientific research grants to students; university scholarships and fellowships; and National Council for Education Awards; from vote 27. (k) Deflated with Gross Domestic Product implicit price deflator, 1974 = 152.0, throughout.

For Sources see Table 4.9; Notes are carried forward from Table 4.9.



£100 million in 1973/74, and capital expenditures added another £16 million. Third level expenditures from public sources were £15 million for current and £4 million for capital items. These amounts include administrative overhead (as indicated in the notes to Tables 4.9 and 4.10), allocated in proportion to expenditures on salaries, pensions and superannuation, and other current expenditure in each type of school or at each level. Total public current and capital expenditures at all levels were approximately £135 million. When one divides these amounts by the numbers of full-time students,<sup>101</sup> the resulting per-pupil average expenditures for 1973/74 are: National Schools, £91; Secondary, Comprehensive, and Community, £181; Vocational, £289; second level as a whole, £211; and third level as a whole, £512.

These figures indicate a remarkable disparity among levels. Third-level institutions enrol 3.6 per cent of all full-time students at all levels in the State (see Table 2.1, in Chapter 2), but absorb fully 13 per cent of public current and 21 per cent of all capital expenditures. Second-level institutions enrol 29.6 per cent of all full-time students, but take 45 per cent of all current and 43 per cent of all capital expenditures. National Schools, which enrol 62.8 per cent of all full-time pupils, are provided with only 41 per cent of current and 34 per cent of capital funds. According to 1974 participation rates, approximately 96 per cent of the population attends National School in the appropriate years of age; about 85 per cent pursue a junior cycle course; only about 40 per cent attend senior cycle; and about 12½ per cent go on to third level. These figures are obtained by dividing relevant enrolments by the appropriate age groups in the population. These are not random percentages: the 40 per cent who go to senior-cycle courses, and the 15 per cent who go on to third-level education are drawn mainly from the upper strata of society. The Higher Education Grants Scheme, however, has something of an equalising influence. The implication is that public education expenditures as currently structured are regressively redistributive in the extreme. When one considers that life-long income is liable significantly to be influenced by access to schooling, i.e., that these inequalities in the distribution of public resources are a source of further social inequalities, it becomes clear that some criticism is justified.

All calculations were carried out in constant, 1970 prices. Table 4.10 repeats the information of Table 4.9, but in 1970 prices.

The following are the principal assumptions underlying the 1986 forecast. It is assumed that teacher salaries will rise at an annual rate of 2.75 per cent (a conservative estimate of the 'Baumol's Disease' effect described in Chapter 3), in addition to the costs of equal pay and maturation of the 'bulge' among second-level teachers (also as described in Chapter 3). It is assumed that budgeted amounts at all levels for public expenditures on pensions and super-

101. This involves a bit of an error in that expenditures are made also on behalf of part-time students. Ideally we would divide public expenditures by full-time-equivalent enrolments, but no statistical series exists on full-time-equivalents.

annuation will retain the same relationship to salaries as they had in 1973/74. It is also assumed that other current expenditures, departmental overhead, and transport costs will all rise at the identical rate of 2.75 per cent per year per child. These are items that are influenced strongly by labour costs and hence by 'Baumol's Disease'. Transport costs are also influenced by fuel costs, and may rise still more rapidly than 2.75 per cent annually. Similarly, 'other current' includes whatever costs are associated with an increasing technical content of the curriculum, as discussed in Chapter 3. It is clear that the forecast growth rate in these items is extremely conservative, and actual growth could be significantly higher. We have tried to make our predictions conservative at every turn, because even doing so yields alarming trends; and it was thought preferable to have the predictions conservative than to have them dismissed over sensible but arguable assumptions showing faster growth. Capital outlays are somewhat more complex. The number of new places required in new and expanded schools depends on the growth of enrolments, to which an amount must be added for population mobility and for obsolescence of old schools. It has been assumed that the cost per pupil place will rise at an annual rate of 3 per cent per year. In light of recent trends in construction costs, that is again a very conservative estimate. Finally, it is assumed that the present arrangement for sharing new school and expansion costs between the public and private sectors in National and Secondary Schools will continue into the future. Any further public absorption of costs, such as a public contribution to site acquisition, will increase future public expenditures still further.<sup>102</sup>

The results are shown in Table 4.11. The principal findings are as follows. First and second-level expenditures on education, taken as a whole, are predicted to rise by 95 per cent. In light of the fact that our assumptions are conservative throughout, it seems justifiable to 'round upward' this projection and to state that these expenditures are likely to double. This forecast concerns real public expenditure, i.e., public expenditure adjusted for inflation. This represents an annual growth rate of 5.7 per cent. Since this is almost certain to be substantially greater than the annual growth in Gross National Product, the indicated increase in public education expenditures will have to be at the expense of some other types of expenditure in the economy. By this prediction, the growth in total expenditure in the various types of schools will be as follows: National Schools, 73 per cent for the twelve-year period, or 4.9 per cent per year; Secondary, Comprehensive, and Community, 101 per cent overall, and 6.0 per cent per year; Vocational, 234 per cent overall, and 6.9 per cent per year. While the assumptions were conservative, the results are not; this would be explosive growth in any country.

It has not been part of this study to analyse third-level expenditures. However, it is in third-level that the most rapid enrolment growth is expected. If per pupil current expenditures grow at the same rate as that forecast in

102. Detailed assumptions are spelt out in Appendix 4.D.

Table 4.11: *Predicted public education expenditures, calendar year 1986 (x £1,000), constant (1970) prices*

Type of school	Salaries <sup>a</sup>	Pensions and other superann'n current <sup>b</sup>	Sub total col. 1+2+3	Allocated overhead	Transport	Total current	Current per pupil	Capital	Grand total	
<i>1st Level:</i>										
National schools	44,774	6,716	1,330	52,820	1,618	2,287	56,725	94	7,616	64,341
<i>2nd Level: Total</i>	46,166	504	18,543	65,213	1,983	3,411	70,607	230	12,349	82,956
Secondary schools	23,190	59	10,531	37,900	1,173	2,452	41,525	188	8,388	49,913
Comprehensive and Community	4,120									
Vocational	18,856	445	8,012	27,313	810	959	29,082	337	3,961	33,043
Reformatory and industrial schools				747	27	0	774		343	1,117
<i>Total: 1st and 2nd Levels</i>				118,780	3,628	5,698	128,106		20,308	148,414
<i>Percentage growth, 1974-86: (per cent per annum)</i>										
National schools						5.0%	3.7%	4.6%	4.9%	
All second level						6.1	4.3	6.8	6.2	
Secondary, Comprehensive and Community						5.7	3.8	5.2	6.0	
Vocational						6.8	4.8	12.6	6.9	
Reformatory and industrial schools						6.2		6.0	6.1	
<i>Total, all levels</i>						5.6		6.0	5.7	

Notes: See Tables 4.9 and 4.10.

Sources and methods: See text and footnote 99, Chapter 4.

second-level (i.e., 4.3 per cent per year), they would rise from £375 in 1974 to £562 in 1986 (both in 1970 prices). With our forecast enrolment of 65,900 in third level, this would imply public current expenditure of £37 million, an increase of 270 per cent over the 1974 figure. If such rapid enrolment growth does take place, however, it is likely to occur largely in the non-University institutions, such as the Regional Technical Colleges, where costs may be lower. Expenditure increases may be held to 200 per cent (i.e., a trebling of present levels). Any enrolment increases would also imply heavy capital outlays on new facilities.

*What can be done?*

It is a fair guess that the enrolment and expenditure pressures discussed in this chapter will precipitate efforts to economise wherever possible. For example, average class sizes in second-level schools, and especially Vocational Schools, are liable to grow substantially in County Dublin and other expanding areas. Other efficiencies and economies have been proposed by experts on Irish education.<sup>103</sup> But unless there ensues a wide-ranging review of the entire question of the public role in education, and unless needs are systematically weighed against costs, one can confidently predict that the following will be the principal *de facto* responses to the problem:

(1) Parents and children will learn of the crisis not from government statements and actions, but from overcrowded classrooms, widespread use of temporary classroom buildings, and lack of sufficient places for all those who want to continue in school, especially in growing areas. Sheehan shows that an estimated 27.6 per cent of new pupil places in National Schools 1965-66 through 1973-74 were provided in temporary buildings, and guesses that about 20 per cent of places provided in second-level institutions in more recent years have also been in temporary classrooms. He shows that while the acquisition cost of temporary classrooms is less than permanent structures, the long-run cost is considerably higher. Use of such structures is typically the result of, and can in fact be taken as a sign of, inadequate forward planning (NESC, 1976, *op. cit.*, pp. 62-69).

(2) The system will not be permitted to grow as indicated. It is far less likely that existing programmes will be cut back in absolute physical terms than that limits will be placed on further access to the system. This would

103. A preliminary version of this chapter was presented, as indicated in note 79, above, in a seminar sponsored by the Association of Democracy in Education, in Dublin, June 27, 1976. Economies proposed at the same seminar in response to the problem by Ms Joy Rudd included rationalisation of intermediate and group certificate examinations; issuance of free bicycles in place of costly bus service in some areas; and rationalisation of small, rural schools. Senator (now TD) John Horgan suggested re-examination of the system of private ownership of schools, to increase flexibility in use, and permit rationalisation; consideration of charging 'the going rate' for university education, and using a means-tested grants' system; reconsidering free pre-compulsory education; considering more use of non-formal education; consideration of a voucher system by which the State finances individuals and not institutions; and using more senior citizens, who seek a role in society, in the educational process. This quick summary fails to do justice to the thoughtful contributions by these two authorities.

mean that whatever inequalities and inefficiencies presently exist in the system will in effect be locked in. This is all too frequently the response to fiscal stringency: the 'last ones in' are the first to be cut out.

These two would almost certainly be the products of a 'crisis approach' to the problem. They need not occur, however, if there is a full public consideration of the problem, and a review of the social interest in education. Obviously, economies will be necessary, and they will be burdensome to some; but if adequate discussion of the issue takes place, the economies and burdens can be those chosen by society, rather than the chance results of a failure to decide.

In this paper, it is not our purpose to lay out specific policy proposals. What is advocated here is an approach, not a programme. The approach may be illustrated or exemplified by a particular set of proposals, but these should be interpreted as only one possible application of an idea. The theoretical underpinnings of the approach consist of three propositions. They provide the main basis for four principles of funding of education in Ireland. The four principles, in turn, are drawn on in a suggested scheme of finance.

The first and most important of the theoretical propositions concerns the fundamental distinction between public and private benefits from education. Education, like many other goods and services, is a 'mixed' or 'quasi-public' good, with both public (or social) and private (or individual) aspects. When and to the extent that the individual pupil gains — whether in the form of a higher subsequent income, or lifelong satisfaction and intellectual curiosity, or even current pleasure in learning — to that extent, education is a private good. To that extent, there is, in principle, no more reason for State finance than there is, in general, for State finance of entertainment, recreation, food, and/or other private goods. Where society in general benefits — as, for instance, through having a literate and competent electorate, or a population with an appreciation of national history and language, etc. — to that extent, education is a public good. Education does not become a public good simply because individuals are trained in skills needed by society. While it is true that society gains from the presence of qualified physicians, accountants, teachers and mechanics, it is also true that these people are *paid* for whatever benefit society reaps from their presence. This fact makes their education a private rather than a public good. The fundamental issue that distinguishes private from public goods is whether the consumer — the pupil in this case — can capture the benefits arising out of his or her education, or whether these spill over into society as a whole.

The second proposition can be stated more briefly. It distinguishes, again among the benefits from education, between those which occur within Ireland and those which occur elsewhere. This distinction must be made, because as has been noted, many Irish school leavers and graduates emigrate. The question may be asked as to why Irish tax-payers should pay for

benefits, public or private, which occur in Britain, the United States, or elsewhere. Even where a school leaver emigrates and never returns, however, some of the benefits from his or her education may occur within Ireland. This is so, for example, to the extent that educational benefits are current or consumption benefits, which by definition take place at about the same time as the education takes place. Only the yield from the *investment* element in education is likely to be lost on account of emigration.

Looked at together, the first two propositions might serve to delimit the range of *public* concerns in Ireland with education, to, first, the public element, and, second, to the Irish element.

The third proposition, which may modify the effects of the first two, is that income and social class should have no effect on any person's access to schooling. It has long been recognised that public finance of education serves legitimate redistributive as well as allocative functions and it is appropriate to reflect that point in the design of schemes for the finance of education.

When these propositions are employed in developing approaches to the financing of schooling in Ireland, they yield the following five principles.

(1) Private resources should be used for the private-good component in education, and public resources should be reserved for the public-good component. It is difficult in practice to separate these with absolute precision. A rule of thumb might be that the years of compulsory attendance (ages 6 through 15) be considered essentially public or social in character. Social compulsion, through the State, implicitly invests these years of schooling with a social character. This rule seems intuitively to be consistent with observable public-private distinctions. Beyond the age of compulsory schooling, i.e., in senior cycle and third level, employment and earning opportunities appear to vary appreciably with amount of schooling. Society makes the investment, in most cases; but the individual appropriates the returns.

(2) Where virtually every member of society takes education at a given level, and where the benefits from that education are mainly current rather than in the form of an investment, the distinction between public and private is probably superfluous. Public support does not appear inappropriate, even where some of the benefits are private, because it does not result in redistribution from the many to the few, nor does it explain lifelong earnings differences. (The same cannot be said, by contrast, of education whose benefits are mainly private, and which goes to but a minor fraction of the relevant population.) This statement applies only to education whose benefits are largely current (as in the infants' divisions of Primary Schools) because of the possibility of emigration.

(3) To the extent that public resources are used in the financing of education, they should be used, in so far as is practical, only to finance aspects of education which yield benefits within Ireland. This principle has relevance only for the later flow of benefits from the investment component in educa-

tion, as (by definition) current or consumption-type benefits from an education in Ireland occur in Ireland.

(4) A more moderate alternative to the principle contained in item number one, above, is to continue the present practice of public finance for aspects of education which yield private benefits, but to treat such expenditures as personal income of the family of the pupil, and to tax it accordingly.<sup>104</sup> By contrast, the present scheme provides tax-free in-kind income benefits, related to lifelong income and social class. If this approach is to assist in solving the coming fiscal problems in education, the proceeds of such a tax treatment must be applied to education.

(5) Loan or grant funds should be made available to students with more modest means, as is required, in order that lack of funds may not deter anyone from obtaining an education that he or she would otherwise take. While the first three approaches, above, are based on considerations of allocational efficiency, and perhaps on the principle of reciprocal equity, this fifth one is based on that of distributional equity and equality of opportunity.

In sum, then, scarce resources available for education should be reserved, in general, for those aspects of schooling which benefit society at large as opposed to the individual learner, and in particular Irish society; and for the less advantaged. A number of actual financing schemes could be designed which would reflect such a philosophy, though the present scheme is not one of them. The following scheme is offered as an illustration, not as a definitive policy proposal. In our discussion, we follow the child through the years of schooling, beginning with the infants' division of primary school, and concluding with third level.

First, then, while attendance in the infants' divisions is not compulsory (and hence according to the first principle would be viewed as a private benefit), participation is very high (above 90 per cent), and so continued State support appears appropriate, on the basis of the second principle. Second, no major increase in the use of private funds is indicated in the financing of primary education, as it is compulsory and hence regarded as a public benefit. Third, the same can be said of junior cycle, second level, as attendance is compulsory through age 15. Thus far, things remain much as they are.

Fourth, senior cycle is regarded as a private, not a public, good. Hence there is a case for a substantial private contribution. Two schemes might be considered. In the first, State support of senior cycle is withdrawn. This would mean termination of the 'free scheme'; abolition of capitation grants, building grants, and State payment of incremental salaries, for Secondary Schools; and a system of fees, not only in Secondary Schools, but in Vocational and Comprehensive/Community Schools. Fees would be set at levels high enough to recover the full costs of senior cycle, second-level

<sup>104</sup> We are indebted to our colleague, J. G. Hughes, for suggesting this approach.

education. The resulting system, however, might deter a number of lower income young people from going on past the intermediate certificate. Hence, in harmony with the fifth principle, a system of State scholarships, based on income, would be introduced, possibly carrying a small stipend for living expenses (i.e., to cover income losses) for the students from families with the very lowest of incomes. Were the State funds today spent on second-level education reorganised along the lines suggested, school incomes would be higher (more private funds would be used, together with an unchanged amount of State funds), and a larger number of pupils would receive an education, than under the present scheme.

A more modest version of the same approach would be to repeal the 'free scheme', but to continue the other forms of State aid to second-level institutions, thus requiring lower (but hardly nominal) fees, not only in Secondary but in Vocational and Comprehensive/Community Schools as well, in the senior cycle. This alternative would still require a scholarship programme, though a smaller one.

If it is felt that the 'free scheme' represents a firm commitment which cannot be withdrawn, it may be necessary to adopt the more moderate alternative, as is contained in the fourth of our five principles, that of levying income tax on the value of State supported senior cycle education. If it is true, as we have argued, that senior cycle schooling is almost wholly a private good, whose benefits are captured or appropriated by the pupils, then any form of State finance represents a type of State transfer payment to the families of pupils, and should be taxed as income. The amount added to reported family income would be the grant given in lieu of (or, in Protestant schools, in aid of) fees, under the 'free schemes'; the capitation grant; and a *pro rata* share of State payment of incremental salaries. Tax-free allowances in the personal income tax would relieve the lowest income families from any payment, and hence their children would attend senior cycle without charge; for the rest of the population, the progressive rate structure would make the financing of senior cycle slightly redistributive, downward rather than upward as at present.

Fifth, our illustrative scheme calls for substitution of loans to students for grants to institutions and students in third level. Fees would be raised a very great deal — high enough to cover the current costs of third level institutions. While this is a drastic proposal, it is hard to justify the very high current level of State support for third-level education. Only a small fraction of the population has the opportunity to attend third level institutions. Those who do so are evidently rewarded handsomely, in terms of employment opportunities and higher earnings, as well as non-pecuniary amenities. There is a very strong case that learners should pay the full cost of third-level education. Those whose lifelong education-associated income increments will not be sufficient to pay for third-level education should not go on to third level (unless they wish to buy it as a consumption good). Those whose subsequent



incomes will increase sufficiently to justify the education should use some part of their income gains to pay for the education.

Strict application of such a rule, however, faces two kinds of snags. First, while for persons with certain aptitudes a third-level education may make economic sense, i.e., the lifetime flow of added income, properly discounted, may exceed the cost, not everyone is equally in a position to finance such an 'investment'. The costs of third-level education are bunched in a short period of time, when the learner is fairly young, whereas the income gains are spread over a lifetime. How can a learner pay for today's education out of subsequent lifelong earnings gains? Only the wealthiest, in fact, could pay the full costs of a third-level education today, in anticipation of higher incomes tomorrow. And second, it is impossible to know with any certainty whether a particular individual's lifetime earnings gain will be sufficient to justify such an investment.

Both of these points suggest that the real problem in third-level finance is a capital market problem – essentially that there exists no efficient market to provide funds where this is economical. This capital market problem surfaces in practice as a distributional equity problem, because it is those with the least means who also face the greatest difficulty in financing a third level education. What seems implied is a system where fees are set so as to cover full instructional costs, i.e., where grants to third-level institutions and students are abolished or at least scaled down very considerably, but where a loan fund is established, to which anyone accepted for matriculation in a third-level institution would be eligible. Repayment of the loan subsequent to finishing or terminating education would be linked to income, and would be spread over a great many years.

The fact that a number of third-level graduates emigrate strengthens the arguments in favour of a loan scheme as opposed to a grant scheme.<sup>105</sup> Students who will not only capture the economic benefits of their own educations but who will do so abroad would seem to have among the weakest of claims to scarce educational resources in a period of fiscal stringency. For the student who, for example, takes a course in dentistry and then emigrates to practice elsewhere, a loan scheme provides a way for the Irish exchequer to recover some of the costs of providing that education.

Taxing the imputed income value of public aid to third-level education seems less appropriate than did the equivalent approach in senior cycle, second level. The reason is that far more third than second level students are financially emancipated from their parents. When second level is considered, the relevant income figure is family, i.e., parents', income. If the value of State aid to second-level education is to be taxed, it is in the parents' income tax that this will occur. When third level is considered, it may often be the students themselves. This means that in many cases, if

105. For this reason, a similar scheme was presented some years ago in connection with graduate emigration (Lynn, 1968).

the student is to be in a position to pay tax, his or her grant would have to be increased accordingly, obviously a self-defeating proposition.

In summary, then, we suggest a reconsideration of the whole issue of State finance of education, with attention focused primarily on the vital distinction between private and public gain from education. As a principle, we suggest either that where gain is private, so also be the bearing of costs; or, failing that, where gain is private but costs are borne socially, that the beneficiary at least pay tax on the benefits. As an illustration of an application of such an approach, we have offered a programme of taxing the value to the pupil of State aid to second level, senior cycle; and substitution of a generous programme of loans for the present system of aid to third level education.

These may seem like harsh measures. But the alternatives may be still more harsh. The most likely alternative to come to pass is closing off further access to the educational system to those — predominantly in the lower half of the income distribution — who do not now find it possible to attend. But there may be other alternatives. Those who judge the present proposals excessively harsh might well put forth their own.

## Chapter 5

### *Private Current Expenditures on Education*

THE purpose of this chapter is to present estimates of privately-financed current expenditures in first and second level education in the Republic of Ireland.<sup>106</sup>

In spite of the fact that education absorbs a large and growing fraction of the annual output of the Irish economy, there are no estimates of the total national outlay on education. Because with few qualifications, the Irish system is a private, aided one, rather than a state or public system, estimates of education expenditures do not arise as a by-product either of the budget process or of administration of the system. And for the same reason, estimates of public expenditures on education are not good surrogates for estimates of total expenditures.

This chapter presents estimates of the following:

(1) Total expenditures on private, non-aided primary schools. As noted in Chapter 2, these schools enrol 2.9 per cent of all students, first through third levels, and 4.3 per cent of all first level pupils. As they receive no State aid whatever, they are under no obligation to furnish the State with any expenditure data of any kind. As Sheehan notes, "Financial data are almost impossible to obtain" (NESC, 1976). No aggregate data have been collected by the State or by the schools themselves.

(2) Total and private National School expenditures. Total National School expenditures consist of the expenditures made by the schools, and the payment of teacher salaries by the State.<sup>107</sup> In order to estimate private National School expenditures, it is necessary to estimate total expenditures, exclusive of teacher salaries, and to subtract estimated grants. Effective in 1975, an earlier grants scheme was replaced with one by which the State provides a grant of £6.00 per pupil, provided that there is also a contribution of *at least* £1.50 per pupil from local sources. These local sources include parish collections, religious orders, other contributions, and so-called "voluntary pupil contributions." These last, paid by parents, usually at the annual rate of £1.50, can be the equivalent of unofficial fees, in that parents can feel morally, though not legally, bound to pay them. (Official fees are evidently barred by the constitution. There are indications that "pupil contributions" are not

106. In this context, 'publicly-financed' means financed by State revenue sources (taxes, borrowing), and voted by the Oireachtas, together with expenditures made by Vocational Education Committees, the only type of local education authority in the Republic of Ireland, financed by rates.

107. Technically, or perhaps we should say legally, it is the school rather than the State which pays the teachers' salaries; the State provides a grant to the school for this purpose, and, acting as the school's 'agent', pays the salary directly to the teacher, i.e., on the school's behalf, not its own. Whatever legal purpose this convoluted exercise may serve, for our purposes it is appropriate to describe things as they are, i.e., that the State pays the teachers' salaries directly.

asked from poor families.) While the Catholic Primary School Managers' Association has conducted surveys, to which reference is made below, neither the State nor any voluntary body collects statistics on National School expenditures.

(3) Total and private Secondary School expenditures. Total Secondary School expenditures consist of expenditures made by the schools, plus incremental salaries as paid by the State,<sup>108</sup> less grants. The various State grants to Secondary Schools, unlike those to National Schools, are not conditioned on an amount financed from local sources. Indeed, there are indications that it is not an uncommon occurrence for a Secondary School to receive, in a given year, more money in grants than it spends. For this reason, we must estimate *net* private expenditure on Secondary Schools, i.e., the excess of expenditures (exclusive of incremental salaries) over grants in those schools in which such an excess occurred, less the excess of grants over expenditures in those schools in which such a surplus was reported. The Catholic Secretariat of Secondary Schools has recently installed a system of centralised, audited annual financial reports (which they have graciously made available to us). However, they do not endeavour to aggregate these to obtain a total, either for expenditures or privately financed expenditures (nor in fact could they, as response from schools, while very high, has not been complete). The Protestant Schools have no such reporting practice. In addition, there are the 'lay Catholic' Secondary Schools, which as proprietary schools are under no obligation to report to the Secretariat. The State collects no expenditure data from these schools.

Until very recently, the State could not have collected accurate expenditure data from schools, even had it chosen to attempt to do so, because the schools themselves frequently lacked such data. National Schools have, with very few exceptions, been under the Management of the parish priest or clergyman, who many times did not keep a separate set of accounts for his school. Most Secondary Schools have been operated by religious orders, who similarly did not keep separate accounts for 'school' and 'community' functions. With the new Management and grants scheme introduced for National Schools in 1975, separate National School accounts are required to be kept. It is now a short step to State collection, aggregation, and publication of expenditure data. Similarly, the Catholic Secondary Schools' Secretariat now requires separate accounts for its member schools; most other Secondary Schools already maintain separate accounts. Accordingly, there are now few barriers to the development, either in the Department of Education or in the Central Statistics Office, of needed data series on total National and Secondary School expenditures.

To obtain total social current expenditures on education in first and second levels, the totals for Private Primary, National, and Secondary Schools must be combined with figures for Vocational Schools, Comprehensive. See Chapter 2.

hensive and Community Schools, and second level Regional Technical College expenditures. Since these are public institutions, it is assumed that their publicly-financed expenditures are equivalent to their total expenditures.

#### OTHER ESTIMATES

Account must be taken of a number of estimates, either of total or private education expenditures, or of related data. The *Investment in Education*<sup>109</sup> team made estimates for 1961/62. As noted, the Catholic Primary School Managers' Association has conducted surveys of its members' total and non-grant-financed expenditures. Several components of education expenditures are estimated by the Central Statistics Office and published in *National Income and Expenditure*.<sup>110</sup> And the Household Budget Inquiry, also compiled by the Central Statistics Office, reports household expenditures on 'education and training' (*Household Budget Survey, 1973*).

#### *National Income Accounts*

Many states publish estimates of total expenditures on education as part of their National Income and Expenditure accounts. The Republic of Ireland does publish some education accounts in their *National Income and Expenditure* series, but total education expenditures cannot be inferred from the data published.

Table 5.1 records education expenditure data as they appear in the various tables of *National Income and Expenditure 1974*. (CSO, 1976). The approach taken by the Central Statistics Office will be more clear if their underlying assumptions are explained:

(1) As regards education expenditures by public authorities (i.e., by the State or by Vocational Education Committees), some are shown as expenditures on goods and services, whilst others are treated as transfer payments.<sup>111</sup> Those government education expenditures treated as expenditures on goods and services include those on National Schools, Comprehensive and Community Schools, Vocational Schools, and Regional Technical Colleges. The

109. *Investment in Education*, Dublin, Stationery Office, 1965, Volume II, Appendix V, Sections B and C. The report is discussed in Chapter 2, above, under 'The Recent Period'. However, an introduction to Appendix V, Section B, in which National School estimates appear, states: 'This appendix is a condensation of a report' prepared by T. O'Brien, M.A., who was attached to the Survey Team as an OECD Fellowship holder during the year 1963; the Survey Team does not necessarily accept all the conclusions of his report.

110. Dublin, Stationery Office, annually.

111. A transfer payment is a payment which is not part of an exchange, i.e., for which there is no concurrent product or service traded. Transfer payments, hence, include such unilateral or unrequited payments as grants, subsidies, gifts, unemployment assistance, etc. Expenditures on goods and services do, by contrast, involve equivalent exchange. Expenditures on goods and services are sometimes described as 'resource-using' or 'exhaustive' expenditures, because unlike transfer payments they involve using resources which, therefore, cannot be used in the production of some other good or service. Expenditures on goods and services by public authorities, consequently, form part of Gross National Product, while transfer payments do not.

reason these are so treated is that they are considered to be State or local authority schools, or at least more nearly public than private, independent schools. It will be recalled from Chapter 2 that the status of National Schools, as regards the public-private distinction, is ambiguous at best, but that the Department of Education regards them to be independent, aided schools, and their teachers to be employees not of the State but of the school. Evidently, the CSO, by contrast, regards the National Schools as State schools, and the teachers as State employees. Those government education expenditures treated by the CSO as transfer payments include payments to Secondary Schools and the Universities.<sup>112</sup>

(2) The household sector, as defined in the National Income and Product Accounts, includes non-profit institutions as well as households.<sup>113</sup> Since Secondary Schools, Universities, and certain other recipients of government transfer payments are non-profit institutions, these grants are formally treated as transfer payments to the household sector.

With this background, we may briefly look at Table 5.1. The last section of this table, corresponding to Table A.24 in the original source, shows total *public* education expenditures.<sup>114</sup> Note these are reported to be very nearly £100,000,000 in 1971/72, and estimated as approximately £174,000,000 in 1974. For the same years, current transfer payments are reported as £34,261,000 and £59,800,000, respectively, and current expenditure on goods and services are reported as £48,542,000 and £85,200,000, respectively.<sup>115</sup>

These totals are disaggregated somewhat in the other tables in the original source, i.e., A.23, which shows expenditures of local authorities; A.22, which shows central government expenditures; A.21, which shows details of capital spending; and A.20, which shows details of transfer payments.

What is missing, in order to obtain a figure for total education spending, is an estimate of private educational expenditure. *National Income and Expenditure* does include a table (i.e., A.11) which reports 'details of expenditure of personal income', in which one might hope to find a line reporting estimated personal expenditure on fees, contributions, etc., i.e., private education expenditure. This table, as is indicated in Table 5.1, includes an entry named, 'professional services (including education)'.

112. The interpretations given in this paragraph and in the following paragraph are as provided by J. B. Broderick, Deputy Director, Central Statistics Office, in a communication to the author, dated October 20, 1975, in response to an inquiry directed to him, dated September 5, 1975.

113. It is customary in national income accounting to divide the economy into four large sectors: households; businesses; government; and (on a net basis), the rest of the world.

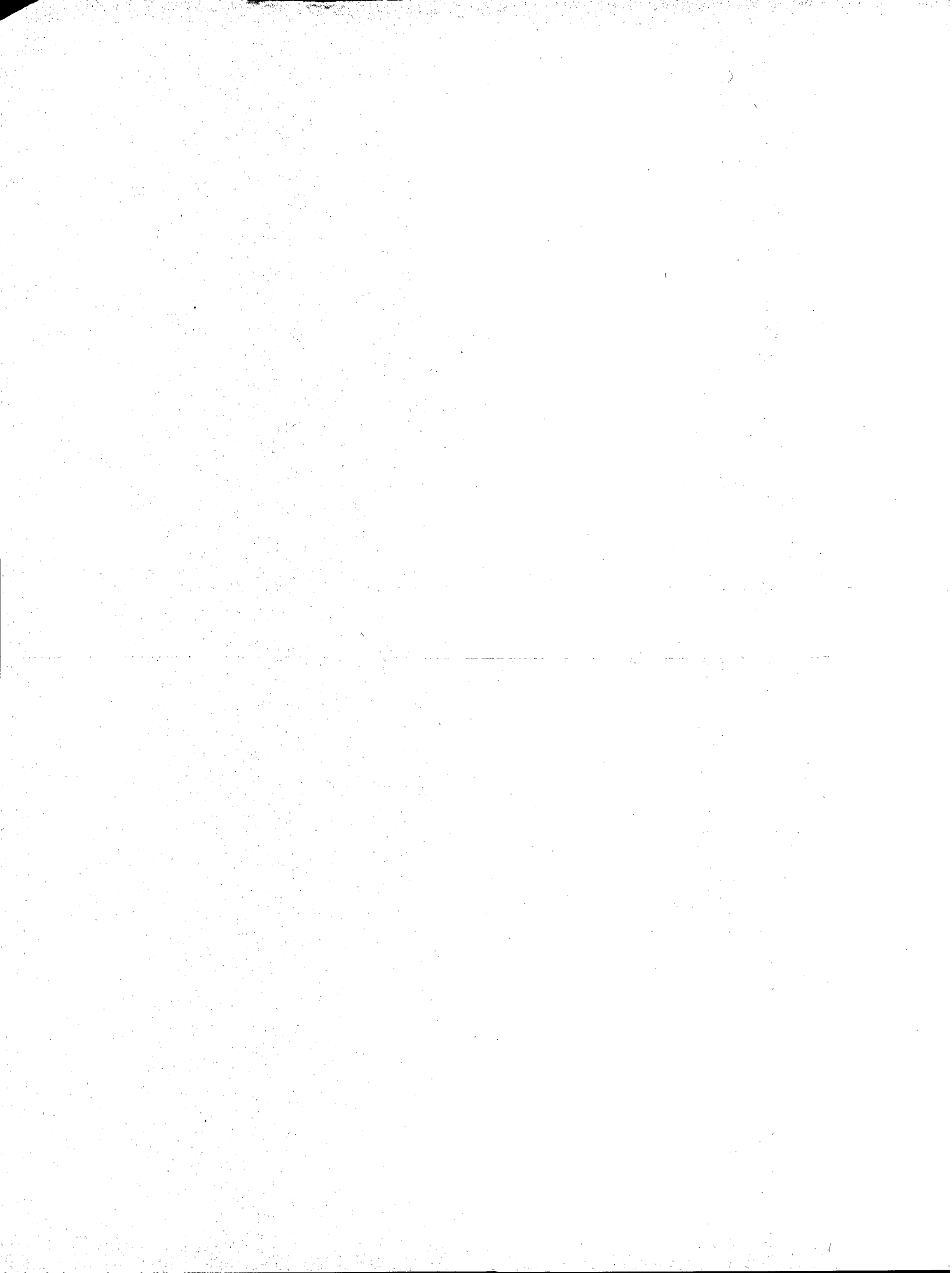
114. Note, however, that in this section, only the data reported for 1971/72 is as reported by the CSO. The remaining entries, as explained in notes to the Table, are either brought forward from other tables in the original source, or are the present author's estimates, based on other tables in the original source.

115. For 1973/74, Table 5.1 shows total public education expenditure to be estimated at £148,500,000, and current expenditure to be estimated at £125,000,000 (the sum of £52,000,000, current transfer payments, and £73,000,000, current expenditures on goods and services. Table 4.9, in Chapter 4, using different sources and perhaps different definitions, showed total public education expenditure as just under £135,000,000, and current expenditure as just under £116,000,000.

Table 5.1: Education expenditure as reported in National Income and Expenditure 1974 (x £1,000)

Table number	Table Heading	Name of Entry	1971	1971-72	1972-73	1973	1973-74	1974
A.11	Expenditure of Personal Income at current market prices, 1969-74	Professional services (including education)	46,700		55,400		62,900	73,000
A.20	Details of transfer payments, national debt interest, and capital grants to households and private non-profits institutions, 1969/70 to 1974	Current transfer payments to higher education		8,562	9,820		13,380	16,600
		Current transfer payments to secondary education		17,784	22,100		26,750	28,700
		Current transfer payments to other education		2,164	3,270		3,600	4,500
		Current transfer payments to scholarships and prizes		1,624	1,910		2,390	2,500
		Current transfer payments: school meals		304	350		430	400
		Current transfer payments: transport services for school children		3,715	4,630		5,080	6,600
		Capital grants to high education		3,597	4,340		4,440	4,900
		Capital grants to training colleges		291	90		380	500
		Capital grants to secondary schools		2,032	1,550		1,080	1,000
A.21	Public authorities—details of gross physical capital formation, 1969/70 to 1974	Central government: comprehensive schools		1,034	3,440		5,480	4,400
		Central government: regional technical colleges		917	1,170		2,050	2,000
		Local authorities: vocational education committees		1,788	1,370		1,440	2,600
A.22	Expenditure of central government (including extra-budgetary funds) classified by purpose of expenditure and economic category, 1969/70 to 1974	Education (total)	94,365		114,897		142,850	168,000
		<i>Education Detail:</i>						
		Current transfer payments		32,240	39,876		49,050	56,800
		Current expenditure on goods and services		35,800	42,174		51,080	60,400
		Current grants to local authorities		12,349	15,144		18,280	21,300
		Capital transfer payments		6,202	7,109		7,270	9,200
		Loans		1,770	1,781		2,630	3,500
		Gross physical capital formation		5,759	8,529		14,240	16,300
		Capital grants to local authorities		245	284		300	500
A.23	Expenditure of local authorities classified by purpose of expenditure and economic category, 1969/70 to 1971/72	Education (total)	16,551		(a)		(a)	(a)
		<i>Education Detail:</i>						
		Current transfer payments		2,021	(a)		(a)	(a)
		Current expenditure on goods and services		12,742	(a)		(a)	(a)
		Gross physical capital formation		1,788	1,370 <sup>b</sup>		1,440 <sup>b</sup>	2,600 <sup>b</sup>
A.24	Expenditure of public authorities classified by purpose of expenditure and economic category, 1969/70 to 1971/72	Education (total)	96,996		119,000 <sup>c</sup>		148,500 <sup>c</sup>	174,000 <sup>c</sup>
		<i>Education Detail:</i>						
		Current transfer payments		34,261	42,000 <sup>c</sup>		52,000 <sup>c</sup>	59,800 <sup>c</sup>
		Current expenditure on goods and services		48,542	59,500 <sup>c</sup>		73,000 <sup>d</sup>	85,200 <sup>c</sup>
		Capital transfer payments		6,202	7,109 <sup>d</sup>		7,270 <sup>d</sup>	9,200 <sup>d</sup>
		Loans		444	492 <sup>c</sup>		550 <sup>c</sup>	900 <sup>c</sup>
		Gross physical capital formation		7,547	9,895 <sup>e</sup>		15,680 <sup>e</sup>	18,900 <sup>e</sup>

Notes: (a) Local authority data were only available through 1971/72.  
(b) Not reported in A.23; carried forward from A.21.  
(c) Author's estimates; not reported by CSO. See Appendix 5-A.  
(d) Not reported in A.24; carried forward from A.22.  
(e) Not reported in A. 24; this is the sum of corresponding items in A.22 and A.23; see note (b).





However, this item is not of very much use in our task. It will be recalled that the household sector is defined so as to include non-profit institutions. 'Expenditure of Personal Income' hence includes expenditure *by* Secondary Schools, Universities, etc.: and 'professional services (including education)' includes these institutions' expenditures on teachers' salaries (as well as households' purchases of education from commercial, for-profit institutions). Other lines in A.11 shows other expenditure by Secondary Schools, Universities, etc., for fuel, materials, food, etc.

Non-profit institutions are so significant in Irish economic and social life that the obfuscation resulting from their amalgamation in the economic accounts with households is regrettable indeed. One would hope that the Central Statistics Office would consider reporting a five-sector economy, i.e., one which includes separately non-profit institutions and households, as well as businesses, government, and the rest of the world.

Table 5.2: *Household education expenditure as reported in Household Budget Survey 1973*

<i>Item</i>	<i>Expenditure in £ per week, avg. family estate</i>	<i>Expenditure in £ per week, avg. urban family</i>	<i>Expenditure in £ per week, avg. rural family</i>	<i>Total 1973 expenditure for State × £1,000,000</i>
Primary and nursery schools	0.038	0.064	0.003	1.4
Secondary/vocation—day	0.018	0.031	0.002	0.7
Secondary—boarding	0.069	0.062	0.078	2.6
Third level—				
Tuition fees	0.060	0.076	0.039	2.3
Expenses away from home	0.048	0.040	0.058	1.8
Other education and training	0.123	0.172	0.059	4.6
<i>Total education and training</i>	<i>0.378</i>	<i>0.445</i>	<i>0.239</i>	<i>13.4</i>

*Sources:* Columns 1, 2, 3 from Central Statistics Office, *Household Budget Survey 1973* Dublin, Stationery Office, 1976. Column 4, based on D. C. Murphy, "1973 Household Budget Survey, Special Features and Results," paper read to *Statistical and Social Inquiry Society of Ireland*, May 20, 1976. See text.

### *Household Budget Survey*

The most recent household budget survey, that for 1973,<sup>116</sup> differs from its predecessors in that it includes, for the first time, responses from rural as well as urban households. It consequently gives expenditure patterns for all households in the State. The Survey reports education expenditures in some detail. Column I in Table 5.2 shows average weekly education expenditure

116. The inquiry is conducted using sample survey research methods, primarily for purpose of providing updated weights for the Consumer Price Index. It obviously has other valid uses as well. (CSO, 1976).

by households to be 37.8p. The largest item is "other education and training", presumably reflecting payments to commercial education and training institutions which receive no State aid. The second and third columns, respectively, show average weekly expenditure by urban and rural families. The figures in the second column can be compared with the results of the 1965-66 survey, which covered only urban families (CSO, 1969). This survey (when adjusted for price level changes)<sup>117</sup> showed households to be spending 56.7p per week (in 1973 prices) on education, composed as follows: primary day, 3.6p; secondary day, 17.8p; vocational, 1.8p; boarding school, 9.3p; university, 11.3p; and other educational and training, 12.9p. The most striking change is the fall in day secondary/vocational expenditures of 16.5p per week, which more than accounts for the fall in total educational spending of 12.2p per week. The explanation is obviously the introduction of the "free scheme", as discussed in Chapter 2.

The fourth column of Table 5.2 shows estimated total household expenditures on education for the State. These represent a grossing up of the figures in the first column. D. C. Murphy has grossed up the average weekly expenditures into aggregate expenditure categories, using the total number of private households in the 1971 census, and making some additional adjustments which do not affect our expenditure data (Murphy, 1976). For our purposes, the relevant aggregate entry is that for "Services and Other Expenses," estimated by Murphy at £227,000,000. Column 4 in Table 5.2 is estimated simply by taking these items' proportions of Services and Other Expenses and applying them to the Murphy estimate.

Thus for the first time there is a CSO-based estimate, equal to £13,400,000 in 1973, of household expenditure on education. This estimate is conceptually different from an estimate of "personal" expenditure on education, since the latter includes the expenditures of non-profit institutions. It is also not the same as private education expenditure, for similar reasons. It does not reflect, for example, financial contributions by parishioners to their churches, which survey households surely identified as "Church contributions" (on which they spent an average of 41.1p per week in 1973) rather than education expenditures; and, though the Churches in turn contributed to schools, the Household Budget Survey does not reflect this. There are other differences between the two concepts of household and private education expenditure.

The estimate of £13,400,000 in household education expenditure is approximately 9 per cent of the 1973/74 estimate, as shown in Table 5.1, of £148,500,000 of public education expenditure.

117. We have used the implicit price deflator for Public Administration and Defence, calculated from *National Income and Expenditure 1972 and 1973*, which (using as a base the two years 1965-66) showed a value of 218.6 for 1973. The implicit deflators were calculated by Barry Murphy, whose assistance is gratefully acknowledged.

*Investment in Education Estimates*

Estimates made by the *Investment in Education* team for 1961/62 of "local contribution" may be summarised briefly. This source reports State expenditure on National Schools, exclusive of teacher salaries and superannuation provision, as £185,169, and the local contribution, also exclusive of teacher salaries,<sup>118</sup> as £257,667, for a total of £442,836. The State share of this total is 42 per cent; the local or private share is 58 per cent. These figures change when "unrecognised running costs," i.e., running costs for which there is no grant provision, are added. The author "guesstimates" these costs at £55,467, which brings the total to £498,303, and changes the State/private proportions to 37 per cent and 63 per cent, respectively.

*Investment in Education* also reports on the income and expenditure of Secondary Schools, providing estimates based on a sizeable sample of schools of all sizes and types. For 1961/62, estimated current expenditure, inclusive of both basic and incremental teacher salaries as well as running costs, are £3,184,138. For the same year, estimated income from all sources is £4,301,584, which indicates apparent operating surplus on the part of Secondary Schools of £1,117,446—a massive amount, equal to more than 25 per cent of income. According to the report, "the major reason why revenue should exceed current expenditure is that capital would have to be met from this surplus". Another way of saying this is that depreciation is not included in current expenditures. The State contribution takes two forms: grants to schools, and incremental salaries paid to teachers. These two amount almost exactly to 50 per cent of all school *income*, but they amount to 68 per cent of reported school *expenditures*.<sup>119</sup>

*CPSMA Survey*

Fr. Leo Quinlan and his small staff at the Catholic Primary School Managers' Association, in order to buttress their case for improved grants (an endeavour in which they were successful), conducted a survey of their own members, to determine the annual current ("running") costs, as well as the excess of costs over governments grants, for the school year 1971-72. A summary of results was published in *The Education Times*.<sup>120</sup>

The survey was not a random one. Schools were selected, Fr. Quinlan has

118. T. O'Brien, who was responsible for the relevant section, estimates a value of supernumerary teachers (i.e., teachers in excess of the minimum numbers required) in capitation convent and monastery National Schools, which are, in effect, a locally contributed teacher salary item. In that year, supernumeraries were a far larger fraction of the total teaching force than they now are.

119. The expenditure estimate appears in Table C.8, p. 313, Vol. 2 of *Investment in Education*. The total of £3,184,138 is divided into £1,276,430 in running costs, and £1,907,708 in teacher salaries. The latter figure is further divided into £456,152 in basic salaries, and £1,451,556 in incremental salaries. The income estimate appears in the same volume, in Table C.3, p. 309. The total of £4,301,584 is divided as follows: fees collected, £1,918,333; other school revenue, £229,399; State grants, £702,296; and incremental salaries, £1,451,556. It will be noted that the same amount for incremental salaries appears as both an expenditure item and an income item. A discussion of the apparent surplus is found in *ibid.*, p. 317.

120. "The Cost of Running a Primary School," *The Education Times*, July 25, 1974, p. 14.

advised us, on the basis of the likelihood they would respond. Schools of a variety of types (lay, convent, monastery) and sizes were chosen. No information was collected on numbers of pupils (size is as indicated by number of rooms, and number of teachers). No information was collected on grants received; instead, the CPSMA estimated maximum grants possible under legislation existing at that time. The 65 schools responding reported expenditures (exclusive, of course, of teacher salaries) of £182,774, and maximum grants possible for one year of £35,160, or approximately 19 per cent of expenditures, leaving 81 per cent to be financed from local sources. Total expenditure less furniture repairs, sundries, and equipment came to £96,273, on which basis grants financed 37 per cent of expenditures, and local sources 63 per cent. The grants referred to are those for heating, cleaning, and painting. Furniture repairs, sundries, and equipment were subtracted by the CPSMA in one version of their results because some of these may have qualified for grants, and these grants may not be figured into the "grants" total. On the basis of an assumed 40 pupils per teacher, the CPSMA estimates total (non-salary) expenditures of £6.00 per pupil, and maintenance grants of £1.15 per pupil.

For the year ending March 31, 1971, the Department of Education reports total grants toward the cost of heating, cleaning, and painting of schools of £425,821. If it is assumed that these grants covered 37 per cent of such maintenance costs, then total maintenance costs can be estimated at £1,150,868, and the privately (or locally) financed portion can be estimated at £725,047. If it is assumed that grants covered only 19 per cent of expenditures, then total expenditures can be estimated at £2,241,163, and the privately financed portion at £1,815,342. These last figures yield a total maintenance expenditure of £4.42 per pupil, of which £3.58 is locally financed, and £0.84 is financed by grant. In that same year, 1970/71, total National School expenditure from public funds, inclusive of teacher salaries, is reported as £27,570,029.<sup>121</sup> If an estimated £1,815,342 of privately financed expenditure is added to this, a total of £29,385,371 is obtained. This amounts to £57.91 total public and private expenditure per pupil, as compared with £54.33 per pupil of public expenditure.

#### *Other CPSMA Data*

The CPSMA routinely surveys schools on a variety of matters, including finance, on a diocesan basis. All dioceses are not surveyed in a given year. Fr. Quinlan was able to provide us with complete surveys of all schools in three dioceses, two for the school year 1970/71, and one for 1969/70. The results are given in Table 5.3. In the Ossory Diocese, grants covered 44 per cent of recorded school expenditures (exclusive of teacher salaries) in 1969/70. In

<sup>121</sup> Total primary division expenditure is reported as £28,296,646, of which £726,617 is Training College expenditure, the latter being excluded from the figure in the text. An Roinn Oideachais, *Tuarascail, 1968/69-1971/72*, Dublin, Stationery Office, 1974.

the following year, grants covered 49 per cent of expenditures in both of two dioceses, those of Elphin and Killaloe.

Table 5.3: *Summary of results of CPSMA surveys of National Schools, selected areas, years*

<i>Diocese</i>	<i>Year</i>	<i>No. of schools</i>	<i>No. of pupils</i>	<i>Expenditure per school</i>	<i>Expenditure per pupil</i>	<i>Grant per school</i>	<i>Grant per pupil</i>	<i>Ratio of grants to expenditures</i>
Elphin	1970/71	140	11,060	£233	2.95	£114	1.44	.49
Killaloe	1970/71	162	10,843	£203	2.75	£ 99	1.34	.49
Ossory	1969/70	95	11,068	£274	2.36	£119	1.05	.44

*Source:* Data provided by Catholic Primary School Managers' Association, Fr. Leo Quinlan, Secretary.

#### *Convent Primary Schools*

The convent primary schools are organised into the Conference of Convent Primary Schools of Ireland. In 1974, Sr M. Columba, President of the CCPS, conducted a survey of member schools to determine, among other things, their maintenance expenditures and associated grants. In this survey, both categories were exhaustive. Maintenance expenditures were listed as heating and lighting; cleaning; cleaning materials; painting; and repairs. Grants were listed in some categories. Sr Columba provided us with the survey returns for use with the present study.

Sr Columba provided us with 246 responses, of which 189 were usable. The 189 returns, which amounted to approximately 40 per cent of the whole number of convent primary schools in the State, were comprised of 61 from Dublin Diocese and 128 from elsewhere. For the State as a whole, grants covered 43 per cent of expenditures, amounting to £2.46 per pupil of £7.65 in annual expenditures per pupil. Numbers of pupils are not reported in the survey returns. Instead, per pupil estimates are based on the average number of pupils per convent primary school for the State as a whole, 340. There was a striking geographical difference, however: in Dublin Diocese, grants covered only 26 per cent of expenditures (an average grant of £1,422 per school against an average £5,545 in maintenance expenditures), whilst grants covered 47 per cent (£555 against £1,194 average) outside of the Diocese of Dublin.

Convent Schools are not representative of National Schools, or even of Catholic National Schools. For one thing, their average size (roughly 340 pupils per school) is much larger than the average size of non-convent (including monastery) National Schools, 106. Second, Convent Schools tend to be located mainly in cities and towns, and their centralised locations may

affect their cost structures. Third, there are certain economies (discussed in Chapter 3 and estimated later in this chapter) associated with employment of religious in schools operated by religious orders. In sum, one would not expect Convent Schools' grants in relation to expenditures necessarily to follow patterns similar to those of other schools. (Note that we do not include the fact that Convent Schools are exclusively girls' schools among the reasons for expecting such differences. Our own survey revealed no discernible difference between expenditures in boys' and girls' schools.)

### SURVEY RESULTS

Because of the inadequate and inconclusive character of existing data, it was necessary to develop estimates and analyses of our own. The Secretariat of Catholic Secondary Schools, under the leadership of Fr. John Hughes, had for the first time initiated centralised, audited accounts for member schools, effective with the school year 1974/75. These were made available to us, in full.<sup>122</sup> The nature of these data will be discussed below. In order to be comprehensive with respect to Secondary Schools, these data were supplemented with our own surveys of Protestant Secondary Schools, and of "lay Catholic" Secondary Schools. In addition, small surveys were conducted of Private Primary Schools and of National Schools. In the case of National Schools, there was a separate oversample of Protestant National Schools, in order to compare these schools explicitly with Catholic National Schools.

#### *Private Primary Schools*

As is indicated in Table 2.3 of Chapter 2, there were in 1973/74 121 non-aided or Private Primary Schools (108 Catholic and 13 Protestant) enrolling 21,693 pupils. By 1974/75, the total had risen to 23,260. A survey questionnaire was sent to all of these schools, asking details of their income and expenditure for 1974/75.<sup>123</sup> Follow-up letters were sent to all those not responding to the initial mailing. Thirty schools returned completed questionnaires, of which 21 were usable. While this provides a small and probably biased sample, the response rate did exceed the predictions of a number of knowledgeable persons, and the results, such as they are, constitute the only such estimates known. The 21 schools comprising the sample consists of 16 with Catholic affiliation and 5 with Protestant affiliation; in the population,

122. In this instance, "in full" does not mean that data were available in usable form from every school. While most schools had reported, quite a number did not; and, since it was the first year in which such accounts were required, many which were filed were not deemed usable. Our deep debt to Fr. Hughes for these data and his co-operation must be acknowledged. In addition, we must acknowledge our debt to John Doorley, of Robert Kidney and Co., accountants to the Secretariat, and to Margaret Larminie and Mary Duggan, of the Secretariat's staff, who were extremely helpful in this and other aspects of the research.

123. The aid of Hilary Field, Secretary of the Association of Private Primary Schools, and of Antonia Healy, of Avoca School, Blackrock, County Dublin, in conducting the survey of Private Primary Schools, is gratefully acknowledged.

there are 121 schools in all, of which 13 have Protestant affiliation. In our sample, 15 are from County Dublin, and the remaining 6 from the rest of the country; in the population as a whole, 42 of 121 schools are outside of County Dublin.

In spite of the small sample, a number of ordinary least squares regressions were estimated, in order to find whether any determinants of total or per-pupil expenditures could be identified. Independent variables employed included convent/non-convent school (dummy variable, or *d*); Protestant affiliation (*d*); joint primary-secondary school (*d*); outside County Dublin (*d*); alternatively, outside Counties Dublin and Louth (*d*); alternatively, outside Counties Dublin, Kildare, and Wicklow (*d*); all boys (*d*); all girls (*d*); number of pupils (not used for per-pupil expenditures); number of teachers (a measure of school size); and number of religious teachers. Obviously, the small number of observations meant that no more than four or five of these variables could be included in any single equation. Consequently, a great many regressions were run, in order to include a wide range of possible combinations, so that net effect of each variable could be observed, controlling for other variables. In general, the results were negative. Most of the variables consistently had no observable effect on total or per pupil expenditures. The number of pupils, needless to say, consistently influenced total expenditures, with extremely high *t*-statistics. Only two variables had significant effects on per pupil school expenditures; Protestant affiliation, and joint primary-secondary school. Some Private Primary-Schools share campuses with Secondary Schools, and while separate books are kept for the two divisions, there is some need to allocate certain fixed, overhead costs, as between the two. Our data reflects the reported expenditures on primary divisions of such schools. For example, one regression equation showed the following results:

$$\begin{array}{l} \text{Per-pupil} \\ \text{expenditures} \end{array} = \text{£}65.23 + 73.80 (\text{Protestant} \\ \text{affiliation}) + 49.17 (\text{Joint} \\ \text{primary-} \\ \text{secondary}) \quad \overline{R^2} = .574$$
  

<i>t</i> -statistic	6.19	3.61 (signif. at 99 per cent)	2.66 (signif. at 95 per cent)	<i>F</i> = 14.50
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Almost exactly the same coefficients were obtained when other variables were included with these: the other variables were never significant. (These other results are not shown here.) This form of the equation could not be grossed up in order to estimate total private primary school expenditures, as the incidence of "jointness" in the population is not known. Equations in which the jointness variable was not included showed systematically different values for the Protestant affiliation variable. In these equations, the value of this

Table 5.4: *Per-pupil expenditures, results of survey of non-aided primary schools, by Catholic and Protestant affiliation, 1974/75*

	<i>Catholic</i>	<i>Protestant</i>	<i>All schools</i>
Overall Per-Pupil Expenditure (a)	£77.51	£168.50	£95.33
School average, Per-Pupil Expenditure (b)	£78.10	£172.79	£99.17
Standard Deviation of Above	£35.08	£63.13	£58.11
Sample size	16	5	21

- (a) Total expenditures, all schools, divided by total pupils, all schools. Equivalent to weighted average by school.  
 (b) Unweighted average of school per pupil expenditures.

coefficient was never lower than £93.03 and never higher than £93.17. This should be interpreted as an estimate of the difference between per-pupil expenditures in Protestant and Catholic Private Primary Schools. As Table 5.4 indicates, this is very close to the difference between *average* values of per-pupil expenditures in Catholic and Protestant schools. On an overall basis, per-pupil expenditures in Catholic Schools in our survey were £77.51, and in Protestant schools, £168.50, a difference of £90.00. The unweighted averages of school per pupil expenditures were £78.10 in Catholic schools, and £172.79 in Protestant schools, a difference of £94.69.

The overall per-pupil expenditures, rather than the regression results, were used in estimating the total, although the two are virtually equivalent. Overall per pupil expenditures have been carried forward to Table 5.5, where they are multiplied by the estimated total number of pupils in Catholic- and Protestant-affiliated schools, respectively. This yields estimated total expend-

Table 5.5: *Estimated per-pupil and total expenditures, non-aided primary schools by Catholic and Protestant affiliation, 1974/75*

	<i>Catholic</i>	<i>Protestant</i>	<i>Total</i>
Pupils (a)	21,825	1,435	23,260
Per pupil expenditures (b)	£77.51	£168.50	£83.19 (c)
Total expenditures (x 1,000) (d)	£1,692	£243	£1,935

*Sources:*

- (a) Total from An Roinn Oideachais, *Tuarascail 1972/73-1973/74*, Dublin, Stationery Office, Catholic/Protestant estimated from proportions as in Table 2.3, Chapter 2, above.  
 (b) From survey; see text.  
 (c) Estimated total (Line 3) by total students (Line 1).  
 (d) Columns 1 and 2, from Line 1 times Line 2; Column 3, sum of Columns 1 and 2.



itures of £1,692,000 in schools with Catholic affiliation, and £243,000 in schools with Protestant affiliation, for a total of £1,935,000 in estimated Private Primary School expenditures. This total, when divided by the reported number of Private Primary School pupils, yields £83.19 in average expenditures per pupil in 1974/75. As will be seen later in this chapter, this is *less* than the per pupil current expenditure in National Schools. Obviously, there is a good deal of variation among Private Primary Schools, and some of them spend more per pupil than any National School. Moreover, it seems to be generally accepted that Private Primary School teachers are less well paid than National School teachers, thus accounting in part for lower per pupil expenditure in the former than the latter. But it is also clear that, in general, pupils in Private Primary Schools do not receive either more lavish or more costly schooling than those in National Schools.

Unfortunately, our Private Primary School survey was conducted for the school year 1974/75, just as the Department of Education was changing its fiscal reporting to a calendar year basis. Figures on public expenditure, with which one would like to compare the Private Primary expenditure, are available for the year ending March 31, 1974, for the nine-month period ending December 31, 1974, and the year ending December 31, 1975. In later discussions, we have extrapolated from our £1,935,000 estimate of Private Primary expenditures in 1974/75 to obtain the following "guesstimates": 1973/74, £1,389,135; nine months of 1974, £1,597,300; and calendar 1975, £2,044,715 (see Table 5.7).<sup>124</sup>

#### *Protestant National Schools, 1974/75*

Earlier in this chapter, we reported the results of surveys conducted by the Catholic Primary School Managers' Association and the Conference of Convent Primary Schools. The data obtained in these surveys were based on the old, pre-1975 grants scheme. In order to determine how Protestant National Schools data compared, we conducted a small survey in what proved to be the final year of the old scheme.<sup>125</sup>

The sample was not random, but was drawn in order to assure representative distribution in terms of size and region, from among managers deemed likely

124. The extrapolation was carried out in the following manner. It was assumed that over the relevant period, Private Primary School expenditures probably grew at about the same rate as National School salaries. These were reported as follows: 1973/74, £37,022,013; nine months 1974, £32,381,374; and 1975, £59,015,071. It was further assumed that National School salaries for calendar 1974 would equal the nine months of 1974 plus one third of the 1973/74 figure, i.e., £44,722,045; and that National School salaries for 1974/75 (i.e., the twelve months ending March 31, 1975) would equal the nine months of 1974 plus one-third of the 1975 figure, i.e., £52,053,064. These assumptions yielded the following, expressed as index numbers: 12 months ending March 31, 1974, 71.1; nine months ending December 31, 1974, 62.2; 12 months ending December 31, 1974, 85.9; 12 months ending March 31, 1975, 100.0; 12 months ending December 31, 1975, 113.4. These index numbers were applied to our 1974/75 estimate of £1,935,000 to provide the estimates for Private Primary School expenditure reported in Table 5.7.

125. The kind assistance of Kenneth Milne, Secretary to the General Synod Board of Education of the Church of Ireland, is acknowledged. He assisted in the drawing of the sample, in the construction of the questionnaire, and in other matters.

to respond. A summary of the results is provided in Table 5.6. Sixty-six questionnaires were sent out by post; a follow-up letter was sent to those not replying in the first round. In all, response was exactly 50 per cent, and of the 33 replies, 28 were usable. The average replying school received grants equal to 45 per cent of its non-teacher salary expenditure. In the total sample, the proportion was 43 per cent. These figures are quite comparable with those cited earlier, for Catholic National Schools in previous years.

Table 5.6: *Summary of results of survey of Protestant national school income and expenditure, 1974/75*

Number of questionnaires sent out	66
Number of completed questionnaires returned	33
Number usable (i.e., sample size)	28
Total number of pupils, schools in sample	1,830
Average number of pupils per school in sample	65
Total expenditures (exclusive of teacher salaries), all schools in sample	£16,864.00
Average expenditure per school	£602.29
Standard deviation	£95.11
Overall expenditures per pupil	£9.21
School average, expenditures per pupil	£11.05
Standard deviation	£7.24
Total grants received, all schools in sample	£7,259.00
Average grant per school	£259.20
Standard deviation	£236.20
Total grant per pupil	£3.97
School average, grant per pupil	£4.98
Standard deviation	£2.33
Total expenditures less total grants	£9,605.00
Expenditures less grants, average per school	£343.04
Standard deviation	£581.87
Total expenditures less grants, per pupil	£5.25
Ratio of total grants to total expenditures	0.43
Ratio of grants to expenditures, school average	0.45

#### *Private Expenditures, National Schools*

The estimates discussed thus far of grants as a proportion of total running costs of National Schools, exclusive of teacher salaries, converge in the range 37 to 49 per cent. In the order in which they appear in this chapter, they are 37 per cent (CPSMA, 1971/72, excluding furniture and repairs from both expenditures and grants); 44 per cent (Ossory Diocese, CPSMA, 1969/70); 49 per cent (Elphin and Killaloe Dioceses, 1970/71, CPSMA); 43 per cent (Convent Primary Schools, 1973/74); and 43 to 45 per cent (Protestant National Schools, 1974/75, old grants scheme). The unweighted mean of these estimates is 43.4 per cent; and the only estimates as recent as 1973/74

(Convent Schools and Protestant Schools) provide an unweighted mean of 43.5 per cent (taking 44 per cent as the Protestant National Schools estimate). Confidence in this figure is enhanced by the fact that Convent Schools (43 per cent) and Protestant National Schools (44 per cent) differ in a number of features, especially average size, about as widely as National Schools can differ. For purposes of further estimation, we take it as a working figure that running costs, exclusive of teacher salaries, were 230 per cent of grants for the State as a whole (which is the equivalent of saying that grants were 43.5 per cent of running costs). We assume that this ratio applied in 1973/74 and in the nine months ending December 31, 1974. This means that private or local funds contributed an amount equal to 130 per cent of grants.

Estimates based on this conclusion of private expenditure in National Schools for 1973/74 and the nine months ending December 31, 1974 are found in the first two columns of Table 5.7. (The third column will be discussed presently.) In 1973/74, private expenditure in National Schools is put at £1,389,135, or 3.0 per cent of total National School expenditure. In the

Table 5.7: *Public, private, and total primary school current expenditure, nine months ending December 31, 1974, and twelve months ending December 31, 1975, with public and private National School expenditures, twelve months ending March 31, 1974*

	1973/74	1974	1975
<i>National Schools</i>	£45,669,650	£41,040,729	£71,941,263
Public expenditure <sup>a</sup>			
Salaries of teachers <sup>b</sup>	37,022,013	32,381,374	59,015,071
Grants toward operating costs <sup>c</sup>	1,068,565	1,228,692	3,286,581
Superannuation of teachers	5,910,979	5,535,771	8,851,719
Other <sup>d</sup>	178,958	297,592	393,502
<i>Total public expenditure</i>	£44,180,515	£39,443,429	£71,546,873
Private expenditure, National Schools			
Total	1,389,135	1,597,300	394,390
<i>Private Primary Schools (Total)</i> <sup>e</sup>	£1,282,004	£1,121,528	£2,044,715
Total private expenditure, National and Private Primary Schools	£2,671,139	£2,718,828	£2,439,105
<i>Total Primary School expenditure</i>	£46,851,654	£42,162,257	£73,985,978

(a) Excludes teacher training, fees for pupils in Secondary Tops, transport, and cost of administration, inspection, etc.

(b) Includes grants to capitation schools.

(c) Old basis, 1973/74 and 1974; new basis, 1975.

(d) Includes Model Schools (miscellaneous expenses); teachers' centres; aid toward the cost of school books; special educational project; and incidental expenses.

(e) Based on survey for 1974/75, indicating total expenditures in that year of £1,935,000 (see Table 5.5), as explained in text above.

nine months of 1974, private expenditure in National Schools is put at £1,597,300, or 3.9 per cent of the total. Total expenditure in National Schools is put at £44,180,515, or £84.78 per pupil, exclusive of administrative overhead and transport costs, for 1973/74; for the nine months of 1974, the respective figures are £41,040,729, and £78.45.

Table 5.7 shows estimated total private expenditures on primary education, consisting of local sources of finance for National Schools plus Private Primary School expenditures, to be £2,671,139. Assuming this figure to be reasonably accurate, it is interesting to note that it is considerably higher than the £1,400,000 reported in Table 5.3, above, as the Household Budget Survey-based estimate of household expenditure on Education and Training: Primary and Nursery Schools. The main reason (apart from the difference between 1973/74 and 1973 in inflationary economy with a growing primary school sector) is that there is an important difference between "private" and "household" education expenditure, as explained earlier. More light on this difference will be shed in the next section.

Table 5.7 shows total private expenditure to be 5.7 per cent of total Primary School expenditure in 1973/74, and 6.4 per cent in the nine months of 1974.

#### *National Schools, New Grants Scheme, 1975*

As has been noted previously, a new National Schools grants scheme was initiated, effective with calendar year 1975, whereby the State would pay up to £6.00, if the Committee of Management would raise at least £1.50 from local (i.e., private) sources and subject to other, non-fiscal conditions. This scheme suggests, on its face, a State contribution of 80 per cent of running costs, in addition to payment of teacher salaries. These terms represent a considerable improvement, from the standpoint of National Schools, both in relative and in absolute State contribution.

A survey was conducted of expenditures, grants, and other income sources of National Schools operating under the new scheme. A sample of 203 schools was chosen, using random sampling techniques. Schools were chosen according to the last two digits of their roll numbers in the Department of Education. These two digits, we were assured by the Department, are quite random. Four two-digit numbers were chosen from a table of random numbers. The questionnaire was drawn up with the advice and assistance of Fr. Leo Quinlan of the Catholic Primary School Managers' Association, whose contribution is gratefully acknowledged. Of these, 85 replied, and 79 of these questionnaires were deemed usable. A summary of the results is found in Table 5.8.

The results proved slightly surprising, in one respect. The vast majority of schools in our sample operated with fairly large budget surpluses. That is, the sum of State grants and funds raised locally tended to exceed expenditures, in most schools, by a fairly large margin (£329.54 in the average school in the sample). In the average school, total income per pupil was £7.98, com-

Table 5.8: *Summary of results of survey of National School income and expenditure, 1975*

<i>Sample</i>	
Number of questionnaires sent out	203
Number of completed questionnaires returned	85
Number usable (i.e., sample size-number of schools)	79
Protestant management	5
Catholic management	74
Parochial	66
Religious (convent, monastery)	8
<i>Pupils</i>	
Total number of pupils, all schools in sample	15,514
Average number of pupils per school	196
Average number of pupils per teacher, schools in sample	33.1
<i>Expenditures</i>	
Total expenditures (exclusive of teacher salaries), all schools in sample	£89,175
Expenditure, average per school in sample	£1,128.80
Standard deviation	£1,960.68
Total expenditure, all schools, divided by number of pupils	£5.75
Expenditure per pupil, average of schools in sample	£5.96
Standard deviation	£4.09
<i>Grants</i>	
Total government grants received, all schools in sample	£79,239
Grants received, average of schools in sample	£1,003.03
Standard deviation	£1,614.79
Total grants, all schools, divided by number of pupils	£5.11
Grants per pupil, average of schools in sample	£5.23
Standard deviation	£1.99
<i>Relation of expenditure to grants</i>	
Total expenditure less total grants (i.e., private expenditure)	£9,936
Total expenditure less grants, divided by number of pupils	£0.64
Expenditure less grants, per pupil, average of schools in sample	£0.73
Ratio of total grants to total expenditures, all schools in sample	0.89
Ratio of grants to expenditures, average of schools in sample	0.89
<i>Local contribution</i>	
Total local contribution, all schools in sample	£35,970
Local contribution, average of schools in sample	£455.32
Standard deviation	£715.45
Total local contribution, divided by number of pupils	£2.32
Local contribution per pupil, average of schools in sample	£2.75
<i>Income</i>	
Total income (grants plus local contribution) all schools in sample	£115,209
Total income, average of schools in sample	£1,458.34
Standard deviation	£2,214.85
Total income divided by number of pupils	£7.43
Total income per pupil, average of schools in sample	£7.98

*Relation of income to expenditure*

Ratio of total grants to total income, all schools in sample	0.69
Ratio of grants to income, average of schools in sample	0.67
Excess of total income over total expenditure, all schools in sample	£26,034
Excess of income over expenditure, average of schools in sample	£329.54
Standard deviation	£917.20
Excess of total income over total expenditure, divided by number of pupils, all schools in sample	£1.68
Excess of total income over total expenditure, per pupil, average of schools in sample	£2.02

prised of £5.23 in State grants, and £2.75 in local contribution; while total expenditure per pupil was only £5.96. A possible explanation is that in this, the first year of the new scheme, schools had not fully adjusted to their enlarged incomes, and had not increased expenditures accordingly, or were even covering past deficits.

Whatever be the explanation, for National Schools in our survey, grants were equal to 66 per cent of income, and 89 per cent of expenditures. It is the latter figure that must be used in estimating total expenditures. If it is assumed that this figure (which was the overall ratio as well as the unweighted school average) applies to National Schools as a whole, then total expenditures are estimated as 112 per cent of grants, and private expenditures as 12 per cent of grants. As grants in 1975 are reported as £3,286,581,<sup>126</sup> then total operating expenditures are estimated at £3,680,971, and private expenditures only £394,390 (see Table 5.7).

Alternative estimates of private expenditures in National Schools, and related data, can be obtained by multiplying the per-pupil averages from Table 5.8 by the number of National School children enrolled in 1975, 568,000. This method provides an estimated total for grants of £2,902,480, as compared with the actual (as found in Table 5.7, taken from Department of Education sources) of £3,286,581, implying an error of 13 per cent, and suggesting either that our sample is unrepresentatively low in grants (and presumably expenditures), or that not all grants reported by the Department were actually received in the survey period. The same method of using averages from Table 5.8 yields an estimate of privately-financed expenditures of £363,520, as compared with £394,390 reported in Table 5.7, a difference of 8.5 per cent. Total operating expenditures estimated in the same way are £3,266,000, 12.7 per cent less than the estimate in Table 5.7 of £3,680,971 (grants plus privately-financed expenditures).

The same method also yields an estimated total of locally contributed funds of £1,317,760; of total income of £4,220,240 (grants plus locally contributed funds); and the excess of income over expenditures of £954,240.

As 1975 was the first year of the new grants scheme, some interest attaches

126. An Roinn Oideachais. See Table 5.7.

to the source of these local or private funds amounting to just under £1,000,000. Figure V.1 indicates that Parish funds are the source of the major fraction of local contributions. Parents' contributions account for a sixth of locally raised funds; and, if pupils' voluntary contributions are added, the figure rises to just under 20 per cent. It is the sum of these two items that, one assumes, would be reflected in the household budget survey as Education and Training expenditures. (Most if not all of the funds represented in Figure V.1 originate in the household sector, but most of them are unlikely to be reported as "Education and Training" expenditures.)

### *Regression Analysis*

Still more understanding of 1975 National School expenditures is provided by the results of a multiple regression analysis of the data derived from the sample. A number of regressions were run, using a variety of measures of income and expenditure as dependent variables, and available information concerning characteristics of the schools as independent variables. The purpose was not so much the testing of hypotheses (though hypotheses are certainly implied by the selection of variables) as it was the estimation of an equation or set of equations which could be used to interpret and understand 1975 expenditures.

A summary of the results is found in Table 5.9. In Lines 1 and 2, total school expenditures (as always, exclusive of teacher salaries) is the dependent variable. The  $\bar{R}^2$  (adjusted throughout for degrees of freedom) is fairly high, largely reflecting the influence of number of pupils on total expenditures. Number of pupils is positive and significant throughout. In addition, in Line 2, the number of teachers (an index of school size) is significant and negative, when pupils per teacher is included. Pupils per teacher is also negative in its influence and is significant, which is hardly surprising.

In Lines 3 and 4, expenditure per pupil is the dependent variable. Moving number of pupils from the right to the left side of the equation drastically reduces the  $\bar{R}^2$ . And only one independent variable shows a statistically significant influence on the dependent variable, namely, Protestant management, which accounts for £6.19 or £6.25 in added expenditure per pupil. A similar result is found in Line 5, where the dependent variable is income per pupil, rather than expenditure per pupil. Protestant management accounts for an added £8.02 per pupil in income. No other variable seems to have been significantly related to income per pupil.

In Line 6, the dependent variable is income less expenditure, or operating budget surplus, where income is defined as the sum of State grants and locally raised funds. This variable is expressed in a total, rather than per-pupil form. Though the  $\bar{R}^2$  is fairly low (.213), there are three independent variables whose estimated coefficients are significant at the 99 per cent level—pupils (negative relationship), teachers (positive relationship), and pupils per teacher (positive relationship).

Figure V.1

## SOURCES OF LOCAL CONTRIBUTIONS TO NATIONAL SCHOOL FUNDS, AS PERCENT OF TOTAL, 1975

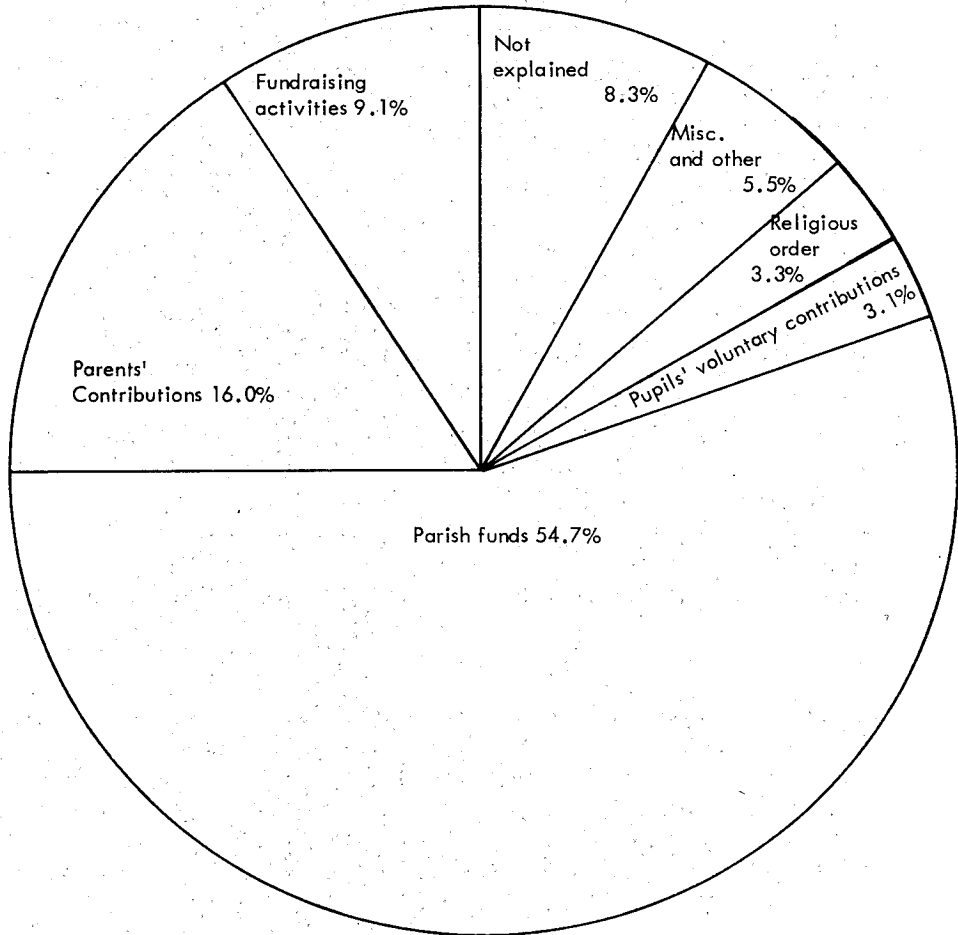




Table 5.9: Regressions of 1975 National School income and expenditure, selected concepts, on selected independent variables

Dependent variable	Const' t	Protestant	Religious	Coefficients of independent variables/(t-statistics):						Pupils per	Per cent lay
				term	Mgt.	Mgt.	Pub. works or other	All boys	All girls		
$\bar{R}^2$	F										
	Total expenditures	-523.99	330.26		11.52	-333.53	-254.34	9.89***	-112.742		454.25
.837	58.27	(0.939)	(0.890)		(0.433)	(0.953)	(0.667)	(3.524)	(1.074)		(0.802)
	Total expenditures	1,046.98*	208.32			-266.30	-288.94	14.91***	-280.51***	-47.92***	289.82
.853	65.82	(1.368)	(0.588)			(0.800)	(0.800)	(4.657)	(2.418)	(2.835)	(0.536)
	Expenditure per pupil	5.76**	6.25***		0.139	-1.269	-1.34		0.055		-0.339
.099	2.43	(2.103)	(3.430)		(1.063)	(0.737)	(0.718)		(0.807)		(0.122)
	Expenditure per pupil	5.80**	6.19***			-1.33	-1.38		0.053		-0.283
.098	2.69	(2.116)	(3.395)			(0.777)	(0.736)		(0.769)		(0.102)
	Income per pupil	8.41***	8.02***		-0.015	0.578	-0.528		-0.010		-0.918
.251	5.35	(3.811)	(5.553)		(0.145)	(0.427)	(0.356)		(0.193)		(0.418)
	Income-expenditure	-861.63	206.50			154.26	-223.43	-13.46***	522.05***	45.54***	-643.85
.213	4.02	(1.039)	(0.538)			(0.428)	(0.570)	(3.880)	(4.154)	(2.487)	(1.100)
	Expenditure-grants	-496.83	306.54	1.97		-555.69*	30.89	4.46*	-115.37		492.69
.107	2.33	(0.614)	(0.749)	(0.003)		(1.437)	(0.061)	(1.404)	(0.992)		(0.589)
	Expenditure-grants	-50.59	370.06					4.60*	-126.37		
.120	4.54	(0.334)	(0.916)					(1.53)	(1.12)		
	Expenditure-grants	-15.46						4.69*	-131.40		
.122	6.41	(0.106)						(1.567)	(1.170)		
	Expenditure-grants per pupil	1.202	5.71***	-1.071		-2.37*	-1.69		0.095		-0.957
.066	1.92	(0.318)	(2.945)	(0.400)		(1.298)	(0.713)		(0.897)		(0.242)
	Expenditure-grants per pupil	0.185	5.93***						0.029		
.090	4.85	(0.300)	(3.115)						(0.450)		

Significance: \* 90%  
 \*\* 95%  
 \*\*\* 99%

In Lines 7, 8, 9, the dependent variable is expenditures less grants, or privately- (locally-) funded expenditures. It will be observed that the  $\bar{R}^2$ s are quite low, presumably at least in part because the dependent variable is in fact the difference between two variables, which may be independently determined. No coefficients meet standard significance tests.

Finally, in Lines 10 and 11, the dependent variable is expenditures less grants, per pupil, i.e., private expenditures per pupil. Once again, presumably for the same reasons,  $\bar{R}^2$  is extremely low. But on this occasion, as with other per-pupil variables, the Protestant-management dummy variable shows a very significant relationship. Evidently, National Schools under Protestant management spend from £6.19 to £6.25 more (Lines 3, 4), receive an estimated £8.41 per pupil more in income (Line 5), and spend £5.71 to £5.93 more in privately raised funds (Lines 10 and 11) than National Schools under Catholic Management. Throughout, we have found that Protestant Schools, whether they be National Schools, Private Primary Schools, or Secondary Schools, spend more per pupil than Catholic schools. Whether this consistent relationship is due to greater ability to spend, greater willingness to spend, or a greater necessity (e.g., arising out of the smaller scale of Protestant National Schools), is not obvious from the data. But the fact of the difference seems indisputable.

#### *Secondary Schools, 1974-75*

In 1974/75, the Catholic Secretariat of Secondary Schools, which has responsibility for the large majority of Secondary Schools in the State, instituted a system of centralised, audited accounts for its schools. These accounts were made available to us, on the condition that confidentiality be preserved. An analysis of these accounts, as supplemented with additional survey data, permits us to estimate total as well as public expenditure on Secondary Schools for 1974/75.

In 1974/75, there were 555 recognised Secondary Schools. Of these, 33 were under lay-Catholic administration, 26 were under Protestant and one under Jewish management, and the remaining estimated 494 came under the aegis of the Secretariat. When the accounts were made available to us, 302 schools had reported. Of the 302 accounts, 130 were considered usable for our purposes. Those excluded reported with insufficient detail to permit us to determine precisely what accounting concepts were used, especially as regards depreciation and the reporting of the value of services of religious: basic school salaries, salaries of non-recognised teachers, and value of non-teaching services, all of clerics, nuns, and brothers, as members of orders. The excluded 172 included virtually all of the Christian Brothers Schools which had responded, as most of them used a summary report form, which provided much less detail on income and expenditures than provided by other schools. These summary data suggest that Christian Brothers Schools were not dissimilar to the schools included here. Before the 172 schools were ex-

cluded, however, all schools were grouped geographically, in counties or groups of counties. The groups of counties do not correspond to provinces or regions established for administrative or other purposes. County groups were organised so that the numbers of schools in each group were roughly equal, irrespective of size. Only adjoining counties which were seen in some respects as similar to each other, were grouped together. Hence some counties, such as Kerry and Westmeath, had large enough representation in the sample for them to stand alone; while in one case, it was necessary to group as many as five counties, (viz., Donegal, Leitrim, Sligo, Mayo, and Roscommon) in a single group. As noted, the grouping of counties was accomplished before the data were pared down. This was unfortunate, as the pared down data turned out not to be grouped in counties and county groups of uniform size. It was felt, however, that it was inappropriate to alter the area boundaries once analysis had begun, and hypotheses, in effect, had begun to be tested.

The main purpose in grouping the schools geographically was to determine whether there were area differences in school incomes or expenditures. A major influence was expected to be income and wealth differences among counties. For similar reasons, County Dublin was divided into three areas. Dublin City (including contiguous suburbs) and the Borough of Dun Laoghaire were separated into "high income", "low income", and "other", with one-fourth of the area's electoral wards or subdivisions into each of the first two categories. The other half of Dublin-Dun Laoghaire, together with the rest of County Dublin, were grouped together as "other".<sup>127</sup>

When it imposed centralised, audited accounts, the Secretariat introduced one additional departure which is of import to us. Theretofore, separate records had often not been kept of "school" and "religious community" accounts, and in fact, for legitimate reasons, no difference might be seen between school and community. A consequence was that no record had been kept of the value of unpaid services contributed by members of religious orders. These consisted of three categories. First, religious teachers' school salaries were not actually paid, but were only "deemed to be paid".<sup>128</sup> Second, some "unrecognised" religious teachers, i.e., religious teachers in respect of whom no incremental salaries were paid, taught in these schools. And third, religious performed other, non-teaching services, such as landscape and garden work, or duties in connection with boarding pupils. The Secretariat's accountants asked with respect to the 1974/75 accounts, that religious be paid for work under these three headings, at amounts equivalent to local rates. If, and to the extent that, this money is returned to the schools by the

127. Strictly speaking, the "high income" area was actually a "low poverty" area. The "low-income" areas were those scoring the highest, and the "high-income areas" those scoring the lowest, on "socio-economic deprivation" in Agnes Breathnach's study of deprived areas in Dublin (Breathnach, 1976).

128. See Chapter 2, above, on this point. See also *Investment in Education, Annexes and Appendices*, p. 319, in which the value of basic salaries forgone in 1961/62 was estimated at £384,000.

religious communities, this transaction, too, is recorded, as a source of income. Thus, in effect, the religious, instead of contributing services, were to sell the services to the school and contribute the money. In what follows, we refer to the money values listed in the accounts under these three headings as "religious imputations", although they are not, strictly speaking, imputations, but represent actual (if nominal) transactions.

Data on expenditures (various concepts) by schools in the survey are summarised in Tables 5.10 and 5.11. In Table 5.10, total and per-pupil expenditures are estimated by type of school, e.g., day schools, schools accepting boarders (irrespective of numbers of boarders), fee-charging v. free scheme, and Catholic as opposed to Protestant management. Little significance should be attached to the first line, pertaining to all schools in the sample, as the weighting is fortuitous, and does not correspond to the distribution of schools, by type, in the State. Incremental salaries are not reflected in the data in either table.

It will be useful to explain the data in Table 5.10 in more detail. There were 84 day schools in the sample participating in the Department of Education's "free scheme". The "free scheme" is discussed in Chapter 2 above. These schools had an aggregate enrolment of 29,511.<sup>129</sup> Their overall per-pupil expenditure was £75.90, including depreciation and religious imputations. Net expenditure (i.e., excluding depreciation) per pupil was £65.10. In principle, depreciation should be included, rather than excluded, in arriving at the current or operating costs of the schools. Alternatively, estimates of capital costs should be reported. We have excluded depreciation estimates because we have no reason to think that they were made on a consistent basis; and because other schools in the study, whose data were gathered by our own survey (i.e., lay Catholic, Protestant, and Jewish schools) did not report depreciation data. Net expenditures less religious imputations—which comes close to being an out-of-pocket, cash-payment concept of expenditures—was £59.40 on a per-pupil basis in these schools. Hence the average value of contributed services of religious, on a per-pupil basis, was £5.70 in day schools, free scheme, some of which were not operated by religious orders. These include four lay Catholic schools, and a number of Diocesan Colleges. To determine the privately-financed portion of Secondary School expenditures, we subtracted government grants, as reported by the schools, from their estimates of expenditures. The result, on an annual, per-pupil basis, was £11.70 in day schools, free scheme. Finally, to determine the out-of-pocket, privately financed expenditure, we subtracted State grants from net expenditures less religious imputations. It will be noted that in our sample, day schools in the free scheme reported an amount equal to -£1.90 per pupil. The sign indicates that these schools received more per pupil (and,

129. Enrolments are taken from Department of Education, *List of Recognised Secondary Schools, 1974/75*, Dublin (Stationery Office), 1976.

Table 5.10: *Secondary School expenditure, various concepts, 1974/75, from sample of audited accounts, and supplementary survey, by type of school, totals for the State*  
(Per pupil data in £s per year; total data in £1,000s per year)

Type of School	No. of schools	No. of pupils	Total expenditure <sup>a</sup>	Expenditure per pupil	Total net expenditure <sup>b</sup>	Net expenditure per pupil	Total net expenditure less religious imputations <sup>c</sup>	Net expenditure less religious imputations per pupil	Total own funds net expenditure <sup>d</sup>	Own funds net expenditure per pupil	Total own funds net expenditure less religious imputations <sup>e</sup>	Own funds net expenditure less religious imputations per pupil
All Secondary Schools in sample	143	48,232	4,859.9	100.80	4,249.1	88.10	3,904.6	81.00	1,790.7	37.10	1,094.5	22.70
Day schools, free scheme	84	29,511	2,240.0	75.90	1,921.9	65.10	1,753.5	59.40	346.5	11.70	-57.1	-1.90
Schools with boarders, free scheme	47	15,738	1,658.2	105.40	1,380.5	87.70	1,253.1	79.60	600.5	38.20	371.1	23.60
Fee-charging day schools	3	708	97.1	137.10	87.7	123.90	71.0	100.30	70.3	99.30	43.6	61.60
Fee-charging schools with boarders	9	2,275	864.6	380.00	859.0	377.60	827.0	363.50	773.4	340.00	736.9	323.90
All Protestant schools	8	2,189	825.4	377.10	825.4	377.10	825.4	377.10	750.4	342.80	750.4	342.80
All Catholic schools	135	46,692	4,034.5	86.40	3,423.7	73.30	3,079.2	65.90	1,040.3	22.30	34.41	7.40
Lay Catholic schools	4	1,091	57.2	52.40	57.2	52.40	57.2	52.40	-0.6	-0.50	-0.6	-0.50

Note: Refer to footnotes at end of Table 5.11.

of course, in total) in grants from the State than they paid out in cash payments to others.

It would be hasty indeed to conclude that these schools were "operated at a profit", which a careless reading of these data would suggest. First, that would be true only if it were proper to ignore depreciation or other capital charges, and further to ignore the contributions of religious, both of which for a number of reasons would be unwarranted. And second, even were these contributions ignored, the point should be made that (as noted earlier—see Chapter 2), grants have been changed discontinuously, and apparent "profits" in 1974-75, in cash terms, were undoubtedly preceded in many schools by several years of "loss" in the same terms. Schools with boarders, participating in the free scheme (the free scheme as it applies to boarders is discussed in Chapter 2), are shown separately. No information was available on numbers of boarders at these schools: in principle, this figure could vary from 1 pupil to all the pupils in the school. For the most part, boarding costs are not *educational* expenditures. It is a highly arbitrary matter to distinguish between educational and non-educational expenditures. In principle, educational expenditures should include the costs of building, operating, maintaining, and staffing schools, and providing pupils with textbooks and other materials. Certain imputed expenditures, such as pupils' time used or earnings forgone, are added by some. Meals, transportation, uniforms, and the like are said not to be educational expenditures in this sense. Meals would be eaten, and clothing, if not uniforms, would be worn, even were there no schooling. The same cannot be said of transportation, however; it serves an educational, and exclusively educational, purpose. On some occasions, it might be more economical to board pupils than to transport them to school daily, and in this sense some boarding expenditures might well be regarded as educational in nature. In addition, some boarding expense is for staff, who supervise after hours study and perform other quasi-instructional duties. Our rule, however, is to exclude boarding expense. We present estimates of total educational outlays with estimated boarding cost outlays excluded. In effect, we treat the system of Secondary Schools as though all of them were day schools. However, boarding expense is reported, so that the reader who chooses to include them may do so. It is worth noting that net expenditures per pupil in boarding schools in our sample were £87.70, and net expenditures less religious imputations were £77.60, implying an average per pupil contribution by religious of £10.10. This is very close to the day school estimate of £11.70. (Virtually all of the schools in this category are Catholic Schools, operated by religious orders.)

Some interest might be attracted to a comparison of schools under Catholic and Protestant management. However, no direct comparison can be made. Protestant Schools participating in the "free scheme" do so quite differently from Catholic schools, and the State aid in respect of this scheme shows up as "fees" in the former. Additionally, the Protestant Schools in our sample

were all boarding schools, and on a *priori* grounds seem likely to have a larger proportion of boarders than their Catholic counterparts. Thus Protestant Schools, while they spend considerably more per pupil than the Catholic Schools, do so on a different basis.

In Table 5.11, figures on day schools in the free scheme have been broken down by county or group of counties, as described earlier. Considerable regional difference in expenditures will be noted, in spite of the uniform grants scheme. Of fourteen areas, six are within 10 per cent of the statewide average of £65.10 per pupil in net expenditures; seven are lower—as low as £54.70 for Kilkenny-Wexford (one school only); one is higher—the high-income areas of Dublin. It will be noted in particular that high-income areas in Dublin spend £25.50 (43.7 per cent) more than low-income areas. Once again it must be emphasised that these figures are exclusive of incremental salaries, whose inclusion would make the relative (though perhaps not the absolute) difference between expenditures in these areas smaller. It is evident that the difference is mainly in the ability of the two Dublin areas to finance education expenditures with their own funds. Our data indicate that, on the average, expenditures in Counties Cork/Waterford, Tipperary, Clare/Limerick, Louth/Longford/Cavan/Meath/Monaghan, and Laois/Offaly/Carlow, were similar to those in low-income areas of Dublin. One should postpone interpreting these data until we have discussed our regression analyses.

Even more variability existed in different areas' expenditures from their own funds on education. For the State, this averaged £11.70 per pupil. In our sample, on an area basis, it ranged from £0.70 in Kilkenny/Wexford and £0.80 in Tipperary to £27.20 in high-income areas of Dublin.

### *Regression Analysis*

Equations regressing per-school and per-pupil expenditures (using the same "expenditure" concepts just discussed) on a variety of independent variables were estimated by the method of ordinary least squares. There were two purposes behind these regressions. First, the underlying data represent a wealth of information not heretofore available for analysis. It was thought appropriate and useful to sort out these data, by multiple regression analysis, to see what patterns emerge. No hypotheses, strictly speaking, were tested; and virtually all available information was used in defining the independent variables. Instead of hypothesis testing, the method, which in substance examines the net effect on the dependent variable of each independent variable, while controlling for ("holding constant") the influence of the other variables included, simply provides an improved way of reading the data. Second, simplified versions of these equations were used to estimate State totals for each of the main expenditure concepts, thus advancing the principal purpose of this chapter.

Tables 5.12, 5.13, 5.14, and 5.15 show regression results, for, respectively, all Secondary Schools; Catholic Secondary Schools; Catholic Day Secondary

Table 5.11: *Secondary School expenditure, various concepts, 1974/75, from sample of audited accounts, day schools, free scheme only, by area*  
(Per pupil data is £s per year; total data in £1,000s per year)

Counties	No. of schools	No. of pupils	Total expenditure <sup>a</sup>	Expenditure per pupil	Total net expenditure <sup>b</sup>	Net expenditure per pupil	Total net expenditure less religious imputations <sup>c</sup>	Net expenditure less religious imputations per pupil	Total own funds net expenditure <sup>d</sup>	Own funds net expenditure per pupil	Total net funds net expenditure less religious imputations <sup>e</sup>	Own funds net expenditure less religious imputations per pupil
Dublin, low-income areas <sup>f</sup>	6	3,004	195.3	65.00	175.0	58.30	145.9	48.60	7.3	2.40	-21.7	-7.20
Dublin, High-income areas <sup>f</sup>	5	2,255	217.7	96.60	188.9	83.80	167.2	74.10	61.3	27.20	39.6	17.60
Dublin, all other areas <sup>f</sup>	14	6,616	533.5	80.60	469.2	70.90	402.4	60.80	115.3	17.40	48.5	7.30
Kildare and Wicklow	6	1,659	153.1	92.30	112.9	68.10	96.6	58.20	25.4	15.30	9.1	5.50
Kilkenny and Wexford	1	278	16.3	58.60	15.2	54.70	115.0	41.40	-0.2	-0.70	-3.9	-14.00
Cork and Waterford	12	3,146	215.8	68.60	182.4	58.00	171.1	54.40	39.4	12.50	4.9	1.60
Tipperary	4	1,719	114.5	66.60	94.0	54.70	77.5	45.10	-1.3	-0.80	-17.8	-10.40
Kerry	5	1,449	99.8	68.90	91.1	62.90	76.3	52.70	11.3	7.80	-3.5	-2.40
Clare and Limerick	9	2,544	168.0	66.00	141.1	55.50	117.7	46.30	10.7	4.20	-9.1	-3.60
Louth, Longford, Cavan, Meath and Monaghan	3	1,173	79.4	64.70	68.6	58.50	53.4	45.50	2.4	2.10	-12.8	-10.90
Laois, Offaly, and Carlow	2	802	61.6	76.80	47.1	58.70	36.6	45.60	4.8	6.00	-5.7	-7.10
Galway	7	2,199	179.4	81.60	154.7	70.40	133.2	60.60	36.4	16.60	14.9	6.80
Westmeath	2	409	31.0	75.80	27.4	67.00	24.3	59.40	3.5	8.60	0.4	1.00
Donegal, Leitrim, Sligo, Mayo, and Roscommon	8	2,258	174.6	77.30	154.3	68.30	136.3	60.40	32.2	14.30	14.2	6.30
<i>Total for State</i>	84	29,511	2,240.0	75.90	1,921.9	65.10	1,753.5	59.40	346.5	11.70	-57.1	-1.90

(a) Excludes incremental salaries; includes depreciation where charged; includes estimated value of services of religious (see text).

(b) Same as total expenditure (see note (a)), except depreciation excluded.

(c) Same as net expenditure (see note (b)), except estimated value of services of religious excluded (see text).

(d) Same as net expenditure (see note (b)), less grants from State.

(e) Same as net expenditure less religious imputations (see note (c)), less grants from State.

(f) See text, note 127.



Table 5.12: Regression results: Secondary School expenditures, various concepts, regressed on selected independent variables, 1974/75, all Secondary Schools (t-statistic in parentheses under estimated coefficient)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Independent variable	Total expenditures	Net expenditures	Net expenditures less religious imputations	Own funds net expenditures	Own funds net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations	Per pupil own funds net expenditures	Per pupil own funds net expenditures less religious imputations
Not convent school	-3.898 (0.263)	-2.942 (0.205)	-0.704 (0.049)	-7.155 (0.578)	-7.699 (0.627)	0.008 (0.329)	0.021 (0.871)	-0.032* (1.467)	-0.035* (1.630)
Protestant management	16.001 (0.777)	21.634 (1.086)	25.863* (1.297)	13.120 (0.817)	20.461 (1.283)	0.133*** (3.834)	0.145*** (4.407)	0.235*** (8.388)	0.274*** (9.891)
Lay Catholic (proprietary)	-11.008 (0.764)	-6.760 (0.612)	-6.655 (0.602)	-9.090 (0.845)	-8.399 (0.787)	-0.040** (2.020)	-0.043** (2.295)	-0.026* (1.385)	-0.025* (1.308)
Louth/Longford/Cavan/Meath/ Monaghan	-5.768 (0.838)	-4.207 (0.632)	-3.634 (0.545)	-0.550 (0.074)	-0.237 (0.032)	-0.010 (0.850)	-0.010 (0.859)	-0.021* (1.586)	-0.021* (1.637)
Kerry	5.296 (0.605)	6.229 (0.735)	7.637 (0.900)	6.470 (0.719)	8.077 (0.905)	0.005 (0.315)	0.009 (0.596)	-0.009 (0.558)	-0.005 (0.105)
Kilkenny/Wexford	4.790 (0.537)	6.058 (0.702)	5.075 (0.588)	8.963 (0.967)	8.388 (0.912)	0.001 (0.088)	-0.002 (0.168)	-0.004 (0.228)	-0.007 (0.414)
Kildare/Wicklow	11.850** (1.716)	8.446 (1.264)	9.443* (1.409)	11.098* (1.480)	12.391** (1.665)	0.014 (1.206)	0.019** (1.675)	-0.008 (0.598)	0.013 (0.985)
Dublin: High income areas	24.216*** (3.144)	24.508*** (3.287)	24.935*** (3.342)	22.194*** (2.755)	22.755*** (2.845)	0.034*** (2.623)	0.034*** (2.717)	0.018** (1.237)	0.018 (1.283)
Dublin: Low income areas	-9.357 (1.207)	-7.127 (0.949)	-6.378 (0.850)	-5.355 (0.683)	-4.452 (0.572)	-0.012 (0.890)	-0.010 (0.774)	-0.022* (1.566)	-0.020* (1.437)
Clare/Limerick	2.483 (0.412)	2.874 (0.493)	4.036 (0.692)	5.480 (0.826)	6.901 (1.047)	-0.006 (0.536)	-0.005 (0.050)	-0.015 (1.252)	-0.010 (0.833)
Cork/Waterford	2.274 (0.424)	4.212 (0.812)	4.144 (0.798)	5.486 (0.906)	5.411 (0.900)	0.009 (0.952)	0.009 (1.038)	-0.008 (0.788)	-0.010 (0.958)
Galway	0.492 (0.078)	0.215 (0.035)	1.789 (0.294)	1.722 (0.248)	3.594 (0.522)	-0.006 (0.526)	-0.001 (0.020)	-0.015 (1.277)	-0.010 (0.800)
Leitrim/Roscommon/Mayo/ Sligo/Donegal	-1.305 (0.703)	-0.778 (0.433)	-0.613 (0.341)	4.352 (0.685)	5.340 (0.847)	-0.004 (1.126)	-0.003 (0.976)	-0.012 (1.076)	-0.009 (0.824)
Westmeath	1.133 (0.148)	1.043 (0.141)	0.644 (0.087)	0.601 (0.073)	0.485 (0.059)	-0.002 (0.149)	-0.003 (0.212)	-0.017 (1.194)	-0.017 (1.247)
Laois/Offaly/Carlow	12.011 (1.110)	5.803 (0.554)	3.649 (0.348)	6.710 (0.616)	4.825 (0.446)	0.023 (1.232)	0.013 (0.725)	0.009 (0.481)	-0.001 (0.033)
Tipperary	-1.552 (0.161)	-2.060 (0.221)	-1.103 (0.118)	-0.712 (0.073)	-0.438 (0.046)	-0.007 (0.405)	-0.034 (0.215)	-0.018 (1.071)	-0.015 (0.896)
Number of pupils	0.108*** (9.043)	0.100*** (8.619)	0.894*** (7.731)	0.043*** (3.564)	0.033*** (2.776)	-	-	-	-
All boys	8.374 (0.590)	6.219 (0.452)	4.522 (0.329)	-3.504 (0.298)	-3.535 (0.303)	0.002 (0.067)	-0.091 (0.399)	0.039** (1.909)	0.047** (2.323)
Any boarders	16.326*** (4.458)	13.414*** (3.785)	12.604*** (3.554)	10.035*** (2.748)	8.923*** (2.462)	0.035*** (5.618)	0.032*** (5.360)	0.027*** (4.128)	0.022*** (3.468)
All boarders	7.743 (0.444)	8.231 (0.488)	1.629 (0.097)	-13.717 (1.002)	-17.994* (1.324)	0.253*** (8.477)	0.198*** (6.978)	0.290*** (11.977)	0.257*** (10.739)
Not in free scheme (fee-charging)	38.164*** (3.467)	37.572*** (3.527)	32.160*** (3.017)	53.062*** (5.198)	47.162*** (4.654)	0.058*** (3.053)	0.039** (2.137)	0.057*** (3.150)	0.031** (1.735)
Per cent lay teaching staff	22.042** (1.809)	16.116* (1.366)	24.160** (2.047)	12.838 (1.102)	20.821** (1.800)	0.055*** (2.604)	0.082*** (4.131)	0.044** (2.116)	0.071*** (3.503)
Pupils per teacher	-0.540 (1.001)	-0.587 (1.126)	-0.601 (1.151)	-0.804* (1.522)	-0.837* (1.596)	-0.001 (0.559)	-0.001 (0.720)	-0.001 (0.708)	-0.001 (0.847)
Intercept (includes rest of Co. Dublin, etc.)+ R <sup>2</sup> adj. for d.f. d.f.	-21.453* (1.604) .623 119	-17.117* (1.322) .625 119	-23.476** (1.813) .614 119	-0.804 (1.522) .570 119	-17.307 (1.247) .781 119	0.032* (1.402) .841 120	0.001 (0.048) .845 120	0.001** (1.986) .569 120	-0.031*** (2.364) .784 120

Note: All independent variables except number of pupils, per cent lay teaching staff, and pupils per teacher are "dummy" variables, set equal to 1.0 when the quality indicated is present.

+Intercept includes convent school; Catholic management (other than lay, proprietary); rest of County Dublin; day only; not all boys (i.e., all girls or mixed); and in free scheme.

\*Significant at 90%.

\*\*Significant at 95%.

\*\*\*Significant at 99%.

Schools; and Boarding Schools (Catholic and Protestant). Inadequate data made it impossible to make separate analyses of Protestant Secondary Schools.

It may be useful to spend a moment explaining these tables to the non-statistical reader. In doing so, we use as an example Column 7 (per pupil net expenditures) in Table 5.12. The first twenty variables listed (starting with “Not convent schools” and ending with “Not in free scheme”, and skipping “Number of pupils”, which is not used in this regression) are “dummy variables,” whose use will be explained in a moment. The next three lines of this column show, in reverse order, an estimated intercept value of 0.032, an estimated coefficient of  $-0.007$  for pupils per teacher, and an estimated coefficient of 0.055 for per cent lay teaching staff. For reasons to be explained presently, these three by themselves can be taken to be the per pupil school expenditure equation for schools which do *not* have the properties indicated in the twenty dummy variables. This means that the equation applies to convent schools under Catholic management, in the “other” (neither high- nor low-income) areas of County Dublin, which accept day pupils only, and participate in the “free scheme”. For schools meeting this description, a school having 20 pupils per teacher and 60 per cent lay teachers would spend, on average, £66.00 per pupil ( $0.032 - [0.001 \times 0.20] + [0.055 \times 0.60] = 0.066$ , or £66, as the data are in thousands of pounds.)

The estimated coefficients of the dummy variables show how much must be added (or subtracted) for schools not of this description. For example, add £8 if the school is not a convent school; add £133 if it is a Protestant School; subtract £40 if it is a lay Catholic School; etc. More than one such addition can be made—e.g., to determine the per-pupil cost of schools in County Kerry, not convent schools, accepting boarders. Only one regional dummy may be used, and other combinations are precluded where they are logically ruled out (e.g., a school cannot be both Protestant and lay Catholic, cannot be both “any boarders”, which means accepting both day and boarding pupils, and “all boarders”).

The values of the coefficients are, in effect, averages for each class of school. The asterisks and *t*-statistics in parentheses under the coefficients reflect statistical significance. In general, the higher the *t*-statistic, the more confidence may be placed in the coefficient. Where three asterisks (\*\*\*) appear, the estimated coefficient would appear in our study, even were the true coefficient nil or zero (reflecting no relationship), fewer than one time in 100. This is expressed as a significance level of 99 per cent. Two asterisks and one asterisk reflect 95 per cent and 90 per cent significance levels, respectively.

One other statistic in Table 5.12 may be of interest,  $\bar{R}^2$  (on the penultimate line), which, in Column 7, shows a value of .841. This statistic indicates what fraction of the variation in the dependent variable (per pupil net expenditure) is accounted for by the independent variables. In this case, our equation, and its variables, explain 84.1 per cent of the variation from school-to-

school of per-pupil net expenditures. As such studies go, this is an extremely high value for  $\bar{R}^2$ .

With this background, we may summarise the results of Tables 5.12 through 5.15.

1. Table 5.12. All Secondary Schools, Catholic and Protestant, day and boarding.

(a) Expenditures per school. Statistically significant determinants of expenditures per school include number of pupils; per cent lay teaching staff; not in free scheme; and any boarders. In addition, high income areas in Dublin and possibly Counties Kildare and Wicklow spend more per school than other areas. The difference between Columns 2 and 3 represents estimated depreciation. The difference between Columns 3 and 4 is religious imputations. The difference between 3 and 5 is State grants. And the difference between 3 and 6 is State grants and religious imputations. These differences apply in all four tables.

(b) Expenditures per pupil. Statistically significant determinants include per cent lay teaching staff; not in free scheme; any boarders; all boarders; Protestant management; and lay Catholic management. The last of these has a negative influence. In addition, high income areas of Dublin spend significantly more per pupil. The difference between Columns 7 and 8 is per-pupil religious imputations; between 7 and 9, per-pupil State grants; and between 7 and 10, both religious imputations and State grants. These differences apply in all four tables.

2. Table 5.13. This table reports on regression equations for Catholic Secondary Schools only. That is, the sample consists of the same schools as Table 5.12, except that Protestant Schools are omitted. Protestant Schools seem to differ in a number of respects from Catholic Schools, not only in management but in acceptance of boarders; relation to the "free scheme"; absence of religious teachers; and per pupil average expenditure. This means that Table 5.13 reports on a more homogeneous group of schools than does Table 5.12.

(a) Expenditures per school. The importance of some additional variables in explaining differences in per-school spending *among* Catholic schools comes to light in Columns 2 through 6. Notably, lay Catholic schools spend significantly less than those operated by orders and by Dioceses; significantly more is spent, per school, in Kildare/Wicklow, and significantly less in Louth/Longford / Cavan / Meath / Monaghan, in Leitrim / Roscommon / Mayo / Sligo / Donegal, and in the low-income areas of Dublin.

(b) Expenditures per pupil. In addition to the variables found significant in Table 5.12, some additional regional variables come to light. More is spent per pupil in Kildare/Wicklow, the high income areas in Dublin, and possibly in Laois/Offaly/Carlow; less is spent per pupil in Louth/Longford/Cavan/Meath/Monaghan, in the low-income areas in Dublin; and in Leitrim/Roscommon/Mayo/Sligo/Donegal.

Table 5.13: Regressions results: Secondary School expenditures, various concepts, regressed on selected independent variables, 1974/75, Catholic schools only. (t-statistic in parentheses under estimated coefficient)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Independent variable	Total expenditures	Net expenditures	Net expenditures less religious imputations	Own funds net expenditures	Own funds net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations	Per pupil own funds net expenditures	Per pupil own funds net expenditures less religious imputations
Not convent school	-0.725 (0.077)	0.400 (0.050)	2.905 (0.394)	-0.601 (0.074)	1.898 (0.257)	0.005 (0.286)	0.002 (1.08)	-0.001 (0.059)	0.012 (0.690)
Protestant management	-	-	-	-	-	-	-	-	-
Lay Catholic (proprietary)	-14.764** (2.024)	-10.805** (1.729)	-10.854** (1.905)	-10.020* (1.605)	-10.046** (1.757)	-0.034*** (2.211)	-0.042*** (3.278)	-0.354*** (2.445)	-0.383** (2.919)
Louth/Longford/Cavan/Meath/ Monaghan	-6.715* (1.527)	-5.227* (1.388)	-4.917* (1.432)	-4.802 (1.115)	-4.358 (1.105)	-0.012* (1.329)	-0.120* (1.535)	-0.013 (1.266)	-0.011 (1.269)
Kerry	0.256 (0.046)	0.890 (0.185)	1.785 (0.406)	0.876 (0.170)	1.904 (0.402)	-0.001 (0.065)	0.002 (0.233)	-0.003 (0.231)	0.002 (0.144)
Kilkenny/Wexford	3.614 (0.635)	4.783 (0.981)	3.540 (0.797)	5.635 (1.062)	4.523 (0.931)	0.001 (0.070)	0.003 (0.352)	0.002 (0.229)	-0.001 (0.384)
Kildare/Wicklow	7.860** (1.773)	4.224 (1.112)	4.764* (1.376)	5.672* (1.310)	6.354* (1.602)	0.011* (1.287)	0.015** (1.961)	0.014* (1.360)	0.019** (2.095)
Dublin: High income areas	5.965 (1.080)	5.121 (1.082)	5.482 (1.271)	4.303 (0.866)	4.769 (1.048)	0.014* (1.302)	-0.015* (1.554)	0.010 (0.894)	0.012 (1.184)
Dublin: Low income areas	-9.847** (1.993)	-7.689** (1.817)	-7.009* (1.817)	-7.800** (1.741)	-7.031** (1.715)	-0.015* (1.583)	-0.014* (1.599)	-0.018** (1.749)	-0.015* (1.647)
Clare/Limerick	-0.488 (0.126)	-0.265 (0.080)	0.544 (0.180)	0.480 (0.125)	1.422 (0.403)	-0.009 (1.109)	0.004 (0.592)	-0.008 (0.947)	-0.003 (0.324)
Cork/Waterford	-1.191 (0.327)	0.648 (0.208)	-0.039 (0.014)	1.486 (0.401)	0.934 (0.276)	0.002 (0.209)	-0.001 (0.091)	0.002 (0.268)	0.003 (0.353)
Galway	-2.624 (0.648)	-3.101 (0.894)	-1.946 (0.615)	-2.498 (0.622)	-1.204 (0.327)	-0.009 (1.135)	-0.004 (0.608)	-0.010 (1.021)	-0.003 (0.396)
Leitrim/Roscommon/Mayo/ Sligo/Donegal	-1.660* (1.402)	-1.155 (1.138)	-1.052 (0.138)	-0.610 (0.164)	-0.240 (0.071)	-0.004* (1.582)	0.003* (1.531)	-0.006 (0.706)	-0.003 (0.377)
Westmeath	3.674 (0.704)	3.273 (0.732)	2.373 (0.582)	2.421 (0.486)	1.669 (0.364)	0.003 (0.332)	0.001 (0.155)	-0.003 (0.230)	-0.003 (0.301)
Laois/Offaly/Carlow	7.052* (1.309)	-2.657 (0.449)	0.107 (0.020)	2.539 (0.408)	0.122 (0.021)	0.019* (1.406)	-0.008 (0.687)	0.015 (1.030)	0.005 (0.407)
Tipperary	-4.235 (0.689)	-4.902 (0.931)	-4.173 (0.870)	-5.446 (0.987)	-4.608 (0.912)	-0.011 (0.870)	-0.008 (0.715)	0.014 (1.095)	0.010 (0.857)
Number of pupils	0.090*** (11.448)	0.081*** (11.989)	0.069*** (11.228)	0.027*** (3.812)	0.015*** (2.372)	-	-	-	-
All boys	5.496 (0.607)	3.182 (0.411)	1.295 (0.183)	4.641 (0.600)	2.755 (0.389)	0.001 (0.076)	-0.006 (0.368)	0.009 (0.497)	0.001 (0.089)
Any boarders	12.811*** (5.379)	9.691*** (4.750)	8.716*** (4.687)	8.482*** (4.063)	7.487*** (3.917)	0.030*** (6.255)	0.026*** (6.210)	0.027*** (5.484)	0.023*** (5.200)
All boarders	25.918** (2.160)	27.045*** (2.631)	24.182*** (2.587)	17.401** (1.685)	14.454* (1.528)	0.264*** (11.078)	0.219*** (10.304)	0.238*** (9.916)	0.191*** (8.812)
Not in frep scheme (fee-charging)	19.239** (2.301)	17.883*** (2.497)	8.706* (1.334)	27.961*** (3.781)	18.923*** (2.794)	0.054*** (3.245)	-0.025** (1.722)	0.083*** (4.815)	0.055*** (3.573)
Per cent lay teaching staff	21.827*** (2.804)	15.935*** (2.389)	23.628*** (3.887)	13.673** (2.062)	21.397*** (3.523)	0.051*** (3.320)	0.078*** (5.661)	0.045*** (2.909)	0.072*** (5.134)
Pupils per teacher	-0.472* (1.338)	-0.526* (1.740)	-0.550** (1.997)	-0.408* (1.344)	-0.434* (1.563)	-0.001* (1.306)	-0.001** (1.733)	-0.001 (0.745)	-0.001 (1.245)
Intercept (includes rest of County Dublin, etc.)+	-12.157* (1.369)	-7.182 (0.944)	-12.164* (1.155)	-8.169 (1.211)	-13.323** (1.908)	0.046*** (2.679)	0.018 (1.161)	-0.011 (1.161)	-0.041** (1.937)
R <sup>2</sup> adj. for d.f.	.623	.635	.609	.426	.356	.797	.756	.791	.743
d.f.	111	111	111	111	111	112	112	111	111

3. Table 5.14. This table reports on regression equations for Catholic Day Schools only. That is, the sample consists of the same schools as Table 5.12, except that schools accepting boarders are omitted. Since all the Protestant Schools in our sample accepted boarders, this means that all Protestant Schools are eliminated, as are Catholic Schools accepting boarders. These schools constitute a still more homogeneous group than those in Table 5.13.

(a) Expenditures per school. In general, the results are similar to those in the previous tables. For the first time, County Tipperary shows a significant coefficient: the Catholic Day Schools in this County spend significantly less than other counties. So perhaps do those in Clare/Limerick.

(b) Expenditures per pupil. As above, Tipperary and possibly Clare/Limerick are added to the list of schools spending significantly less, per pupil.

4. Table 5.15. This table reports on regression equations for schools accepting boarders. This category includes both day-cum-boarding schools and boarding-only schools; and both Protestant and Catholic schools (but not lay Catholic schools).

(a) Expenditures per school. Schools accepting boarders spend in proportion to the number of pupils. Those not in the free scheme spend thousands more per school than those in the free scheme. Regionally, schools in the high income areas of Dublin spend more, and those in Louth/Longford/Cavan/Meath/Monaghan spend less, than elsewhere.

(b) Expenditures per pupil. Schools accepting boarders spend more per pupil as the per cent lay in their teaching staffs increases; if they are not in the free scheme they spend in excess of £200 more per pupil; and the schools in the high income areas in Dublin spend substantially more than others.

A number of comments on the findings of Tables 5.12 through 5.15 are in order. First, we have concentrated, in the last several paragraphs, on those independent variables whose coefficients were statistically significant. In the case of other variables, their coefficients, in spite of the lack of statistical significance, represent the best estimate of the average net relationship between them and the respective dependent variables. These other variables should not be ignored.

Second, some interest attaches to the results shown in all four tables for the variable, 'Per cent lay teaching staff.' The results show a considerable, and usually very significant, effect of this variable, even when religious imputations are included. The results can be taken as an estimate of the cost savings which result from the use of religious teachers. Our study strongly suggests that the valuations the religious have made of their own services, which we have called 'religious imputations', substantially understates their economic worth.

And finally, the regressions show (as do Tables 5.10 and 5.11) large disparities in Secondary School expenditures in the State. More is spent in respect of pupils in Protestant than Catholic Schools, as has been noted. Considerably more is spent in respect of pupils in fee-charging schools than

in schools participating in the free scheme. And there are substantial regional disparities within the State. Perhaps the most striking are the differences within metropolitan Dublin, between high-income and low-income areas. While our study does not permit conclusions about differences in quality of education, or in lifelong income-earning potential, differences in educational opportunity according to religion, social class, or even region (or neighbourhood) of residence appear to exist which seem contrary to egalitarian standards.

*Estimated Total Expenditures on Secondary Schools*

Table 5.16 represents a 'boiled down' version of Table 5.12, in which a number of smaller equations are estimated, for later use in calculating total Secondary School expenditures, according to the concepts of expenditures used above. Some variables found in Table 5.12 were excluded in these new regressions because they lacked statistical significance in Table 5.12. In addition, two variables — pupils per teacher and per cent lay teaching staff — were also excluded, because the distribution of these characteristics in the population is not known, and hence these could not be used in 'grossing up' estimates of total expenditures. The equations reported in Columns 6, 7, 8, and 9 in Table 5.16 are used in calculating the data in Table 5.17, using the student numbers found in the column headed 'No. of pupils' in Table 5.17.

The results, as shown in Table 5.17, constitute our estimate of Secondary School expenditures for 1974/75. We estimate total expenditure to be £12,772,594, exclusive of incremental salaries paid directly by the State, and exclusive of additional costs (shown separately) associated with boarding. Our estimate is that an additional £2,015,772 is associated with the boarding function of schools accepting day and boarding pupils; and £623,822 is associated with the boarding function of schools which accept only boarders. To put the matter slightly differently, we estimate that if all the Secondary Schools had only day pupils, total net expenditure would have been £12,772,594. Whether the £2,639,594 additional estimated boarding expense should be considered an 'educational' expense is arguable; in the event, the data are reported separately, so that the reader may choose.

In the next column, total net expenditure, again excluding boarding expense, and less religious imputations, is estimated at £10,821,370; and, when boarding expense is included, at £13,026,970. The differences between these two pairs of numbers constitute estimates of the total value of religious imputations, in effect the contributed services of religious. When boarding expense is ignored this value is estimated at £1,951,224; where boarding expense is included, the value rises to £2,385,218. We have already noted, however, that the strength and significance of the 'per cent lay teaching staff', variable strongly suggests that these figures are underestimates of the economic contribution of religious to Secondary Schools in Ireland.

In the next column, we report estimates of total net expenditures, own

Table 5.14: Regression results: Secondary School expenditures, various concepts, regressed on selected independent variables, 1974/75, Catholic day schools only  
(t-statistic in parentheses under estimated coefficient)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Independent variable	Total expenditures	Net expenditures	Net expenditures less religious imputations	Own funds net expenditures	Own funds net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations
Not convent school	-6.528 (0.788)	-1.878 (0.321)	0.582 (0.094)	-3.556 (0.615)	-1.106 (0.178)	0.011 (0.659)	0.012 (0.755)	0.007 (0.451)	0.006 (0.156)
Protestant management	—	—	—	—	—	—	—	—	—
Lay Catholic (proprietary)	-5.829 (1.121)	-4.448 (1.212)	-3.631 (0.932)	-4.283 (1.179)	-3.469 (0.888)	-0.025*** (2.568)	-0.021** (2.077)	-0.020** (1.953)	-0.024*** (2.463)
Louth/Longford/Cavan/Meath/Monaghan	-1.929 (0.375)	-1.321 (0.363)	-2.826 (0.732)	-2.618 (0.727)	-4.126 (1.066)	-0.0002 (0.022)	-0.007 (0.766)	-0.013* (1.364)	-0.006 (0.640)
Kerry	-4.339 (1.181)	-3.022 (1.165)	-2.015 (0.732)	-3.668* (1.428)	-2.662 (0.963)	-0.007 (1.072)	-0.043 (0.638)	-0.007 (0.985)	-0.009* (1.430)
Kilkenny/Wexford	-6.125 (0.892)	-4.023 (0.830)	-5.333 (1.037)	-5.364 (1.118)	-6.665 (1.292)	-0.013 (1.015)	-0.155 (1.215)	-0.020* (1.510)	-0.017* (1.331)
Kildare/Wicklow	2.041 (0.590)	-1.441 (0.590)	-0.942 (0.363)	-1.468 (0.607)	-0.969 (0.372)	-0.002 (0.381)	0.001 (0.133)	0.001 (0.148)	-0.002 (0.362)
Dublin: High income areas	6.675** (1.991)	5.520** (2.333)	6.174*** (2.459)	3.825* (1.633)	4.484** (1.779)	0.146** (2.292)	0.017*** (2.593)	0.013** (1.983)	0.011** (1.700)
Dublin: Low income areas	-7.940*** (2.470)	-5.957*** (2.625)	-6.025*** (2.502)	-7.453*** (3.318)	-7.522*** (3.112)	-0.011** (1.871)	-0.011** (1.812)	-0.015** (2.371)	-0.015*** (2.460)
Clare/Limerick	-3.674 (1.122)	-3.826* (1.655)	-3.348* (1.364)	-3.907** (1.707)	-3.426* (1.392)	-0.010** (1.757)	0.006 (1.069)	-0.007 (1.174)	-0.011** (1.875)
Cork/Waterford	-3.936* (1.319)	-2.108 (1.000)	-1.816 (0.812)	-2.085 (1.000)	-1.798 (0.801)	-0.001 (0.244)	-0.0004 (0.079)	-0.0002 (0.040)	-0.001 (0.200)
Galway	-0.970 (0.301)	-0.952 (0.419)	-0.228 (0.094)	-1.146 (0.510)	-0.418 (0.173)	-0.002 (0.418)	0.001 (0.219)	-0.0004 (0.072)	-0.003 (0.565)
Leitrim/Roscommon/Mayo/Sligo/Donegal	-1.957 (0.612)	-1.259 (0.558)	-0.857 (0.358)	-1.971 (0.883)	-1.575 (0.656)	-0.002 (0.357)	-0.0003 (0.058)	-0.002 (0.434)	-0.004 (0.735)
Westmeath	-2.677 (0.517)	-2.249 (0.615)	-1.196 (0.308)	-3.754 (1.037)	-2.702 (0.694)	-0.005 (0.503)	-0.0002 (0.024)	-0.006 (0.605)	-0.010 (1.094)
Laois/Offaly/Carlow	-2.705 (0.533)	-6.021** (1.680)	-5.135* (1.350)	-5.470* (1.542)	-4.586 (1.202)	-0.012 (1.226)	-0.008 (0.846)	-0.007 (0.703)	-0.011 (1.088)
Tipperary	-5.284* (1.882)	-6.079** (2.252)	-5.702** (1.990)	-7.643*** (2.860)	-7.266*** (2.528)	-0.012** (1.686)	-0.010* (1.398)	-0.014** (1.909)	-0.016** (2.220)
Number of pupils	0.077*** (11.518)	0.068*** (14.545)	0.057*** (11.351)	0.014*** (3.065)	0.003 (0.502)	—	—	—	—
All boys	5.741 (0.738)	2.357 (0.429)	-1.203 (0.2065)	4.846 (0.892)	1.302 (0.222)	-0.012 (0.820)	-0.014 (0.918)	0.007 (0.485)	-0.006 (0.392)
Any boarders	—	—	—	—	—	—	—	—	—
All boarders	—	—	—	—	—	—	—	—	—
Not in free scheme (fee charging)	17.587*** (3.429)	15.335*** (4.236)	6.839** (1.780)	24.422*** (6.816)	15.924*** (4.131)	0.051*** (5.408)	0.025*** (2.600)	0.053*** (5.428)	0.079*** (25.867)
Per cent lay teaching staff	4.941 (0.791)	1.237 (0.280)	1.620*** (2.055)	0.605 (0.139)	8.972** (1.910)	-0.001 (0.923)	0.345*** (2.890)	0.034*** (2.831)	0.011 (0.903)
Pupils per teacher	0.512** (1.702)	-0.418** (1.969)	-0.320* (1.419)	-0.205 (0.977)	0.107 (0.473)	0.515** (2.295)	-0.001** (2.045)	0.001 (0.964)	-0.001 (1.217)
Intercept (includes rest of County Dublin, etc.)+	7.794 (1.035)	7.856 (1.477)	0.189 (0.034)	4.956 (0.109)	-2.702 (0.994)	0.085*** (6.007)	0.053*** (3.738)	0.010 (0.189)	0.022 (1.150)
R <sup>2</sup> adj. for d.f.	.775	.844	.772	.557	.317	.425	.272	.384	.565
d.f.	64	64	64	64	64	65	65	65	65

Note: All independent Variables except number of pupils, per cent lay teaching staff, and pupils per teacher are "dummy" variables, set equal to 1.0 when the quality indicated is present.  
+Intercept includes convent school; Catholic management (other than lay, proprietary); rest of County Dublin; day only; not all boys (i.e., all girls or mixed); and in free scheme.  
\*Significant at 90%.  
\*\*Significant at 95%.  
\*\*\*Significant at 99%.

Table 5.15: Regression results: Secondary School expenditures, various concepts, regressed on selected independent variables, 1974/75, schools accepting boarders only  
(t-statistic in parentheses under estimated coefficient)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Independent variable	Total expenditures	Net expenditures	Net expenditures less religious imputations	Own funds net expenditures	Own funds net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations	Per pupil own funds net expenditures	Per pupil own funds net expenditures less religious imputations
Not convent school	-19.908 (0.697)	-21.723 (0.788)	-18.797 (0.688)	-22.578 (0.788)	-19.654 (0.690)	-0.006 (0.105)	0.017 (0.344)	-0.008 (0.136)	0.015 (0.291)
Protestant management	-4.248 (0.119)	1.988 (0.043)	8.823 (0.259)	8.745 (0.244)	16.085 (0.452)	-0.056 (0.789)	-0.018 (0.262)	-0.016 (0.221)	0.022 (0.841)
Lay Catholic (proprietary)	-	-	-	-	-	-	-	-	-
Louth/Longford/Cavan/Meath/Monaghan	-20.449* (1.541)	-17.937 (1.281)	-17.208* (1.358)	-17.987* (1.314)	-16.759 (1.266)	-0.020 (0.770)	-0.019 (0.834)	-0.018 (0.652)	-0.017 (0.698)
Kerry	-	-	-	-	-	-	-	-	-
Kilkenny/Wexford	-2.134 (0.129)	-0.508 (0.032)	2.499 (0.757)	0.278 (0.017)	-1.713 (0.104)	-0.004 (0.111)	-0.140 (0.460)	-0.001 (0.028)	-0.011 (0.350)
Kildare/Wicklow	10.093 (0.591)	7.219 (0.438)	7.900 (0.483)	9.518 (0.555)	10.199 (0.599)	-0.031 (0.878)	0.034 (1.075)	0.037 (0.996)	0.040 (1.208)
Dublin: High income areas	58.209*** (2.530)	61.214*** (2.757)	57.472*** (2.609)	62.701*** (2.716)	58.959*** (2.569)	0.125*** (2.643)	0.098** (2.347)	0.121** (2.445)	0.093** (2.142)
Dublin: Low income areas	-33.423 (1.202)	-31.082 (1.158)	-27.982 (1.051)	-29.201 (1.046)	-26.101 (0.940)	-0.034 (0.604)	-0.029 (0.594)	-0.028 (0.488)	-0.024 (0.464)
Clare/Limerick	-13.074 (0.835)	-10.597 (0.701)	-9.929 (0.662)	-10.413 (0.663)	-9.746 (0.624)	-0.016 (0.499)	-0.015 (0.549)	-0.015 (0.444)	-0.014 (0.485)
Cork/Waterford	-5.794 (0.439)	-3.24 (0.254)	-6.480 (0.513)	-3.225 (0.245)	-6.462 (0.491)	0.025 (0.888)	0.012 (0.509)	0.025 (0.880)	0.013 (0.517)
Galway	-11.264 (0.776)	-12.083 (0.862)	-10.059 (0.724)	-11.948 (0.820)	-9.924 (0.685)	-0.024 (0.775)	-0.018 (0.681)	0.023 (0.739)	-0.018 (0.645)
Leitrim/Roscommon/Mayo/Sligo/Donegal	-2.911 (1.010)	2.352 (0.846)	-2.300 (0.834)	-2.237 (0.774)	-2.184 (0.760)	-0.004 (0.616)	-0.004 (0.713)	-0.003 (0.531)	-0.003 (0.613)
Westmeath	-2.380 (0.161)	-3.266 (0.229)	-5.045 (0.357)	-4.372 (0.295)	-6.151 (0.418)	-0.001 (0.038)	-0.008 (0.291)	-0.004 (0.120)	-0.011 (0.373)
Laois/Offaly/Carlow	26.786 (1.021)	16.567 (0.654)	8.226 (0.328)	14.007 (0.532)	5.671 (0.217)	0.065 (0.217)	0.230 (0.479)	0.057 (0.924)	0.010 (0.205)
Tipperary	-	-	-	-	-	-	-	-	-
Number of pupils	0.147*** (5.311)	0.136*** (5.101)	0.126*** (4.767)	0.082*** (2.957)	0.092*** (2.615)	-	-	-	-
All boys	27.528 (1.005)	25.042 (0.947)	24.334 (0.927)	25.681 (0.934)	24.976 (0.914)	0.024 (0.447)	0.011 (0.226)	0.027 (0.476)	0.013 (0.270)
Any boarders	-	-	-	-	-	-	-	-	-
All boarders	-	-	-	-	-	-	-	-	-
Not in free scheme (fee-charging)	68.510*** (4.086)	69.682*** (4.305)	63.312*** (3.943)	71.308*** (4.238)	64.937*** (3.882)	0.243*** (6.927)	0.194*** (6.309)	0.239*** (6.538)	0.190*** (5.903)
Per cent lay teaching staff	30.776 (1.137)	23.752 (0.909)	32.740 (1.263)	21.074 (0.776)	30.061 (1.113)	0.077* (1.373)	0.117** (2.384)	0.069 (1.188)	0.110** (2.132)
Pupils per teacher	-0.629 (0.531)	-0.809 (0.707)	-0.855 (0.754)	-0.695 (0.584)	-0.742 (0.627)	-0.002 (-0.841)	-0.002 (1.027)	-0.002 (0.685)	-0.002 (0.846)
Intercept (includes rest of County Dublin, etc.)+	-18.139 (0.698)	-12.820 (0.511)	-19.919 (0.800)	-13.917 (0.535)	-21.056 (0.812)	0.077* (1.490)	0.038 (0.803)	0.020 (0.359)	-0.020 (0.346)
R <sup>2</sup> adj. for d.f.	.626	.652	.661	.623	.636	.778	.820	.787	.829
d.f.	37	37	37	37	37	38	38	38	38

Note: All independent variables except number of pupils, per cent lay teaching staff, and pupils per teacher are 'dummy' variables, set equal to 1.0 when the quality indicated is present.

+Intercept includes convent school; Catholic management (other than lay, proprietary); rest of Co. Dublin; day only; not all boys (i.e., all girls or mixed); and in free scheme.

\*Significant at 90%.

\*\*Significant at 95%.

\*\*\*Significant at 99%.



funds, which are, in effect, private Secondary School expenditures. Where boarding expense is excluded, this total is estimated at £3,254,924; where boarding expense is included, the figure rises to £6,086,472. It should be noted that these figures included religious imputations. Total estimated grants to Secondary Schools can be derived from the Table; these are estimated either at £9,517,670, the difference between the sub-totals in the first and third columns of estimates, or £9,336,716, the difference between the totals. Both are two different estimates of the same figure. Our estimates, it will be recalled, are for school year 1974/75. As noted earlier the State was in 1975 in the process of shifting from a fiscal year beginning April 1 to a calendar year. The Department of Education reports grants of £7,149,587 (capitation grant of £2,193,953 and supplement grant in lieu of tuition of £4,955,634) for the nine-month period ending December 31, 1974. Adding one-third, to annualise, gives an estimated one-year equivalent of £9,532,783, which is very close indeed to our survey-based estimates.

An alternative way of estimating a 1974/75 figure for total grants is to add one-fourth of the 1975 reported figure to the nine-month 1974 figure. The 1975 reported figure is £11,128,825; one-fourth of this amount is £2,782,206, which, when added to the nine-month 1974 figure of £7,149,587, yields a total for 1974/75 of £9,931,793. Whichever figure is used, it is apparent that our survey-based estimate is surprisingly close to the official reported figure.

Our best estimate of the private expenditure on Secondary School education is the sub-total figure for net expenditure, own funds, exclusive of boarding expense, of £3,254,924, reported in Table 5.17. Others, we know, will want to exclude religious imputations, to obtain an estimate of *cash* private expenditures. Such an estimate is found in the last column of Table 5.17. Total net expenditure, less religious imputations, from own funds is estimated of £1,122,902. Note should be taken of how this total is arrived upon. Positive estimates for Protestant Schools, fee-charging schools, and schools in the high-income areas of Dublin, are substantially offset by negative figures for the remaining schools. Indeed, the sub-total is almost exactly the same as the figure for Protestant Schools alone.

The Department of Education reports payment of £15,819,161 in incremental salaries to Secondary School teachers in the nine months ending December 31, 1974, and £31,743,892 in the year ending December 31, 1975. Using the method described above, this suggests an estimated £21,092,214 for 1974/75. If this amount is added to our estimate, from Table 5.17, of £12,772,594 for total net expenditure by the schools, a total Secondary School expenditure item (exclusive of depreciation, capital costs, boarding expense, administration, examinations, and transport) of £33,864,808 is obtained. Our estimate of £3,254,924 in private expenditure is 9.6 per cent of the total. Using the alternative method described above, adding one-fourth of the 1975 figure to the nine months of 1974, we obtain

Table 5.16: Regression results: Secondary School expenditures, various concepts, regressed on selected independent variables, 1974/75, all Secondary Schools (t-statistic in parentheses under estimated coefficient)

Independent variable	Net expenditures	Net expenditures less religious imputations	Own funds net expenditures	Own funds net expenditures less religious imputations	Per pupil net expenditures	Per pupil net expenditures less religious imputations	Per pupil own funds net expenditure	Per pupil own funds net expenditures less religious imputations
Protestant management					0.164*** (7.875)	0.199*** (9.706)	0.174*** (6.513)	0.206*** (7.884)
Louth/Longford/Cavan/Meath/Monaghan					-0.010 (1.019)	-0.013 (1.257)	-0.014 (0.910)	-0.016 (1.185)
Kildare/Wicklow	7.590* (1.292)	7.482 (1.243)	7.563 (1.284)	8.209 (1.343)				
Dublin: High income areas	31.872*** (5.050)	33.804*** (5.225)	27.656*** (4.553)	30.638*** (4.861)	0.036** (2.066)	0.034** (2.919)	0.035** (2.284)	0.027** (1.791)
Number of pupils	0.091*** (8.962)	0.079*** (7.742)	0.034*** (3.445)	0.025 (2.421)				
Any boarders	14.57*** (4.937)	13.474*** (4.419)	12.518*** (4.154)	11.535 (3.689)	0.033*** (5.900)	0.028*** (5.051)	0.037*** (5.173)	0.032*** (4.331)
All boarders					0.262*** (9.122)	0.208*** (7.367)	0.240*** (6.516)	0.328*** (8.378)
Not in free scheme (fee-charging)	52.636*** (9.284)	51.829*** (9.068)	62.507*** (10.866)	60.277*** (10.098)	0.056*** (3.050)	0.034** (1.879)	0.077*** (3.255)	0.056*** (2.396)
Intercept (includes rest of County Dublin, etc.)+	-12.864*** (3.092)	-12.177*** (2.977)	-10.895 (3.054)	-11.531 (1.327)	0.063*** (18.521)	0.053*** (15.848)	0.006* (1.382)	-0.005* (1.143)
R <sup>2</sup> adj. for d.f.	.637	.601	.620	.586	.840	.843	.789	.774
d.f.	137	137	137	137	135	135	135	135

Note: All independent variables except number of pupils, per cent lay teaching staff and pupils per teacher are "dummy" variables, set equal to 1.0 when the quality indicated is present.

+Intercept includes convent school; Catholic management (other than lay, proprietary); rest of County Dublin; day only; not all boys (i.e., all girls or mixed); and in free scheme.

\*Significant at 90%.

\*\*Significant at 95%.

\*\*\*Significant at 99%.

Table 5.17: Total Secondary School expenditures, various concepts, 1974/75, estimated from estimating equations in Table 5.16, together with numbers of students, total and selected categories

<i>Pupils, category</i>	<i>No. of Pupils<sup>a</sup></i>	<i>Times net expenditure per pupil</i>	<i>Times net expenditure less religious imputations per pupil</i>	<i>Times net expenditures, own funds, per pupil</i>	<i>Times net expenditure less religious imputations, own funds, per pupil</i>
All schools	173,188	£10,910,844	£9,178,964	£1,039,128	£865,940
Protestant schools	5,647	926,108	1,123,753	982,578	1,163,282
Schools not in "free scheme"	16,844	943,264	572,696	1,296,988	943,264
Schools in Counties Louth, Longford, Cavan, Meath and Monaghan	13,175	-131,750	-171,275	-184,450	-210,800
Schools in high-income areas, County Dublin	3,448	124,128	117,232	120,680	93,096
<i>Expenditures, Sub-totals</i>		£12,772,594	£10,821,370	£3,254,924	£1,122,902
Boarding expense, schools with day and boarding pupils	61,084	2,015,772	1,710,352	2,260,108	1,954,688
Boarding expense, schools with only boarding pupils	2,381	623,822	495,248	571,440	566,678
<i>Expenditure totals</i>		£15,412,188	£13,026,970	£6,086,472	£3,644,268

(a) Source: Department of Education *List of Recognised Secondary Schools, 1974/75*.

Note: The first line is obtained by multiplying the total number of Secondary School pupils by the constant terms in the appropriate equations in Table 5.16. The expenditure estimates on Line 1 are hence those which would obtain if all pupils were Catholic day pupils, in "free scheme" schools outside of Counties Louth, Longford, Cavan, Meath and Monaghan, and the high-income areas of County Dublin. The other lines indicate the *incremental* amounts associated with the types of schools indicated.

an estimate of £23,772,594 for incremental salaries, and total expenditures of £36,527,728, of which private expenditures are 9.0 per cent. The correct figure being somewhere between these two, we estimate private expenditure as 9.3 per cent of total Secondary School expenditure.

This assumption is employed in Table 5.18. Public Secondary School expenditures are entered, using Department of Education data. Private expenditure is estimated at 9.3 per cent of total expenditure, or 10.25 per cent of public expenditure. Private expenditure is allocated among cash and religious imputations in the same proportions as are reflected in Table 5.17.

Table 5.18: *Public, private, and total Secondary School current expenditure, nine months ending December 31, 1974, and twelve months ending December 31, 1975*

	1974	1975
<i>Public expenditure (schools), total</i>	£24,048,029	£44,770,237
Incremental salary paid to Secondary teachers	£15,819,161	£31,743,892
Capitation grant	2,193,953	4,551,994
Supplemental grants to Secondary Schools in lieu of tuition fees	4,955,634	6,576,831
Miscellaneous other <sup>a</sup> school expenditures	1,079,281	1,897,520
<i>Private expenditure, total</i>	£4,056,215	£7,551,460
Own funds net expenditure, exclusive of religious imputations	£1,615,088	£3,006,812
Religious imputations	850,695	1,583,741
Sub-total, private expenditure	2,465,784	4,590,553
Sub-total, public (schools) and private expenditure	£26,513,813	£49,360,790
Boarding expense	1,590,431	2,960,907
Total, public (school) and private expenditure	£28,104,243	£52,321,697
<i>Public expenditure (Department of Education)<sup>b</sup></i>		
Examinations	£614,637	£759,221
Costs of administration, inspection, etc.	510,017	877,253
Transport	2,183,420	3,791,041
Other	453,807	526,578
<i>Total secondary school expenditure</i>	£31,412,317	£58,275,790

(a) Includes Science and Equipment Grants; Grants for Irish and Bilingual Schools; Bonus for Choirs and Orchestras; Educational Television Services; and Annual Repayment of Building Loans. Some of these may include small amounts for Comprehensive and Community Schools.

(b) The Department of Education reports total amounts for these items for "Secondary Education," i.e., Secondary Schools, Comprehensive Schools, and Community Schools. The reported amounts have been adjusted slightly, according to the proportion of Secondary School pupils in "Secondary Education".

Source: Public expenditure: Department of Education. Private expenditure, author's estimates—see text.

Similarly, boarding expense is entered, using the same proportions as are found in Table 5.17. Finally, non-school expenditure (i.e., Departmental expenditure, such as examinations, administration, transport) is added, to obtain total Secondary School expenditure.

### *Conclusions*

Total and per pupil expenditures are among the most basic kinds of educational data. Without them, it is difficult if not impossible to make intelligent and rational judgements regarding educational policy, particularly where resources are involved. Without them, it is impossible to know whether society is getting its money's-worth from education. It is impossible to know whether resources are being allocated fairly and efficiently.

In this chapter, we have reported an estimated £7,029,658 in private expenditures in first and second level schooling in Ireland in 1975, among Private Primary Schools (£2,044,715), National Schools (£394,390), and Secondary Schools (£4,590,553). If an estimated £2,960,907 in boarding expense is added to Secondary School private expenditures, the overall total rises to £9,990,565, or roughly ten million pounds. The typical amount will probably be proportionately higher; the 1975 figure for National School private expenditure is liable to be lower than other years, for reasons mentioned.

These are, we admit, fairly crude estimates, using incomplete and often shaky data, and extrapolating in order to be consistent with a change in the State's accounting year. But far more precise and timely data are now available, if only the State will collect and process them. With the exception of Private Primary Schools, the schools discussed in this chapter have quite recently begun systematically to keep records which would make it possible for the State to gather expenditure data. It now seems time for the State, through the Department of Education, to gather and publish school expenditure data, and to make available (if not to publish) background data on each school which would permit analysts to make more sophisticated analyses than we have been able to perform here.

## Chapter 6

### *Summary and Concluding Remarks*

The Irish educational system, in all its interesting complexity, is a product of the unique character and history of Ireland. It is in the process of important change, in size, purpose, and nature. This study has discussed the structure of Irish education, especially as regards finance; the history of the system, especially as it has influenced structure and finance; the probable future course of the system, especially with respect to enrolments and expenditures; and the role of private funds in financing Irish education.

In this chapter, we summarise the study, and offer a few concluding remarks.

#### *First Level*

Two-thirds of all Irish students, in first, second, and third level institutions, are at the base of the pyramid, in first level or primary schools. Most of these — 94 per cent of first level pupils, and 63 per cent of all pupils — are in National Schools. In recent years, much more public attention seems to have been focused on second and third levels, so the disproportionate importance of the National Schools may sometimes be forgotten.

Compulsory schooling begins at age six (though 90 per cent enrol in non-compulsory infants' classes at age four) and continues through approximately the eleventh year of age. There is no examination at the end of primary education.

National Schools are almost always owned and managed by Church bodies or religious orders. Each National School has a Patron (usually the Bishop), and the Patron in turn appoints the majority of members of the School's Committee of Management. The Chairman of the Committee of Management is almost always the Parish Priest or, in the case of the Church of Ireland, Rector. Thus National Schools are not national in administration; they are parochial or, at highest, diocesan. National Schools are distributed around the country more or less in proportion to the distribution of children of the various faiths. Consequently, in 1975/76, 92.6 per cent of the National Schools were under Catholic Patronage, and these schools enrolled 97.4 per cent of all pupils. It cannot be concluded that all of these pupils had the same religious affiliation as their school, though of course the vast majority did.

The National School system is an 'aided' one: almost all the funds come from the State. The locality (i.e., the Management Committee) must provide the site on which the school stands; the State then pays from 66 to 99 per cent of construction costs. Teacher salaries are paid in their entirety by the State (an exception to this statement is the capitation convent and monastery

National Schools, which are paid a per-pupil grant in lieu of payment of teacher salaries), as are principals' allowances, etc. In practical terms, the teachers are public employees, though the official theory is that the teachers are employees of the Management Committee, who receive an implicit grant from the State equal to teachers' salaries. In addition, the State pays a grant toward school operating costs of £6 per pupil (this amount is subject to a per-school minimum, which increases somewhat the grant to the smallest of schools), on the condition that an additional £1.50 per pupil be raised locally. In future, as the £6.00 grant rises, it is assumed that the local contribution will rise, *pari passu*.

The £6.00 per pupil grant scheme is a relatively new one. Prior to its introduction in 1975, the State contributed to National School operating budgets through a more complex, and less generous, system of grants for heating, cleaning, and painting. In 1973/74, under the old scheme, we estimate total locally (i.e., privately) raised funds toward current National School expenditures to have been £1,389,135, or 3.0 per cent of total current National School expenditures. Our estimate for calendar 1975 (in 1974, accounting was shifted from a year ending March 30 to a year ending December 31) is only £394,390, approximately 0.5 per cent of the total. This latter figure we believe to be temporarily depressed, because of the introduction of the new scheme. In brief, National School expenditures did not increase as quickly as their funds did. Privately raised revenues were a much larger percentage of total revenues than privately financed expenditures were of total expenditures. The schools did not, on average, spend £7.50 per pupil. In 1975, the average school appears to have taken in income (grants plus locally raised funds) of £7.98 per pupil, but to have spent only £5.96 per pupil.

While the National School system reflects uniquely the Irish situation and experience, it was established, in its main details, in the early to mid-nineteenth century, when all of Ireland was still a part of the United Kingdom. In 1831, the British announced the creation, in Ireland, of a 'system of National Education', which was to be effectively non- or multi-denominational, though under a 'Board of National Education' of whose members a majority were Protestants. There then ensued a struggle between the British and the Roman Catholic hierarchy in Ireland (and the Presbyterian Church as well) over the terms and structure of the system. The outcome, in the early 1860s, was a National School system very much like the present one: an aided, denominational, managerial system. The establishment of Saorstát Éireann altered the curriculum and choice of textbooks, but it had little influence on the structure of the primary system. The only important change in this regard was the abandonment of the 'results system,' by which teacher salaries were determined, in part, by their pupils' results on examinations conducted by inspectors representing the Board.

One characteristic of the National School system from the very start was

that it was operated with spartan simplicity and frugality. It was possible to provide a primary education to all children in the country in part because teachers were poorly paid, facilities were often rudimentary, and there was little expenditure on equipment. These characteristics persisted until fairly recently, and indeed, with the exception of teacher salaries, they persist today in some areas.

An examination of the history of the National School system suggests that there are, in fact, four principal reasons why Ireland, an underdeveloped, peasant economy at the outset, was able to establish such a highly developed school system, especially in the sense of participation rates, often in advance of other European countries. One was, as just noted, that the education of Irish children has been provided at a low, sometimes even primitive, level of amenity. A second was the involvement and concern of the Catholic Church, whose interest in education probably exceeds that of any other large organised religious body in the world. The Church itself has made a major contribution to the financing of education in Ireland; and its interest and efforts have inspired the contributions of others, including those of the State.

Third is the contributions made by members of religious orders, both in terms of actual cash contributions, especially to construction of schools, and and in terms of the contribution of their services. Approximately two-thirds of religious in Ireland have taken up teaching vocations. Traditionally, they return their salaries to their communities, which in effect usually means to their schools. Moreover, they have often worked more hours per day, and more days per week, than lay teachers.

Fourth, the Irish system of education has economised by traditionally emphasising the subjects in the curriculum which have low technical content and, more to the point, which have required little in the way of costly equipment. There are a number of reasons for this. Only fairly recently has preparation for employment become a priority objective of the school system. For the greater part of its history, the Irish school system has been devoted to moral, intellectual, and religious objectives. Moreover, even had there been a major training objective, the structure of the economy was such that mainly verbal skills were required. And, of course, the subjects taught were cheap to teach.

All four of these reasons for the cheapness of the system are in the process of disappearing, some of them rapidly. Standards for school construction, maintenance, heating and equipment, while lagging behind other areas of Irish life, have been pushed forward by general development, and by the insistence of primary teachers on better working conditions. The relative or proportionate role of the Church appears to be declining, and additional resources for education will come in greater degree than in the past from public sources.

The most dramatic, as well as the most easily quantified, changes concern the decline in numbers of religious, which affects, primarily, Secondary



Schools, but has an impact on National (and Private Primary) Schools as well. Religious as a percentage of National School teachers appears to be stable at around 23 per cent from 1956 (and perhaps before that) through 1966. It then suddenly falls to 15 per cent by 1974, and our prediction is that it will fall to about 9 per cent by 1986. The era is virtually, if not completely, over in which the primary system could economise through use of large numbers of religious.

Finally, an increasing technical content, mainly in second-level but also in first-level schools, will certainly raise the cost of instruction a good deal in years to come. At the same time, it will almost certainly increase the optimal size (in a cost sense) of schools: the larger is the number of pupils who share the use of a piece of equipment, the lower is the per pupil cost. For this reason, we must expect tomorrow's schools to be a good deal larger, in terms of numbers of pupils than today's. Girls' and boys' schools may share equipment; perhaps economic forces may in the future reduce the extent of sex-segregation in the schools.

On top of the forces we have discussed, the coming of equal pay – an EEC requirement – will raise average wages, and hence costs, more in the schools than in any other area of the Irish economy. And the process known as 'Baumol's Disease,' after economist William J. Baumol, who first set forth its properties, by which prices increase more rapidly in the services sector of the economy (including education generally) because of the greater difficulty in that sector of getting productivity increases, virtually guarantees an increase in per pupil costs, *ceteris paribus*, of around three per cent per year.

These forces suggest explosive growth in per pupil school expenditures in the coming years. Unfortunately, this growth occurs in the midst of explosive growth in school enrolments, partly a result of a rapidly rising youth population, and partly as a result of rising school participation rates. In first level, where participation rates are already approximately 100 per cent, only population growth is an influence. In 1975 and 1976, births were fewer than had been predicted, probably because of the economic depression; but the shortfall in births was more than offset by a greater-than-expected child immigration, probably associated with the return to Ireland of past *émigrés*, now parents. In the event we expect child immigration to taper off at about the same time as births increase, so that once again the one will offset the other. In 1974, there were 559,900 children aged 12 and under in Irish schools. Our prediction is that by 1986, this number will have increased to 640,000, an increase of 80,200, or 14.3 per cent.

We expect little absolute growth in the Private Primary system so most of this growth will occur in the National Schools. In 1974, total National School enrolment was 521,100; in 1986, we expect it to total 605,200, or an increase of 84,100, or 16.1 per cent. Plausible patterns of enrolment and of class sizes suggests an increase in full-time National School teachers of 3,115

between 1974 and 1986. The same plausible patterns suggest an increase in National School public expenditure of £28,693,000 (in constant 1970 prices), or by 80.5 per cent, including transport and administrative overhead costs.

Discussion of first level education is not complete without a mention of Private Primary Schools. While this sector seems small by comparison with National Schools (in 1974 it enrolled only 23,260, just 4.3 per cent of first level pupils and only 2.9 per cent of all pupils), it is larger than the Universities, a somewhat striking statistic. Moreover, the vast majority of Private Primary Schools are concentrated in and around Dublin, and in that area they form a larger percentage of the system than statewide figures would suggest.

These schools receive no State funds of any kind (they are financed through fees); and as a result, the State collects very little data on them, and exercises no control over them. We estimate that in 1974/75, an average of £95.33 per pupil (£77.51 in Catholic and £168.50 in Protestant Schools) was spent in Private Primary Schools. In the same year, public and private per pupil expenditure, including transport and administrative overhead, was approximately £94.00 in the National Schools. These figures are so close to one another as to be indistinguishable.

As a rule, then, pupils in Private Primary Schools do not appear to receive a more lavish education than those in the National Schools; they only pay more for them. What, then, is the attraction of Private Primary Schools? One answer, of course, is that while they are not superior, they are at least somewhat exclusive, which many parents see as an advantage. More important is the fact that the vast majority of Private Primary Schools are operated jointly and share grounds with Secondary Schools. In many cases, parents are said to enrol children in Private Primary Schools in order to assure a place in a Secondary School when the children are older. Private Primary Schools are concentrated in the Dublin area, as noted, and secondarily in Cork City. These areas contain more wealthy persons who might be able to afford fees more easily, and certain middle-class families, especially in Dublin City, might not wish their children to mix with economically disadvantaged and educationally deprived children, who would be found in a relatively greater concentration in National Schools in those areas. Probably more important is the fact that there is more demand for Secondary School places, relative to supply, in these areas, and hence more competition for entry; so that the motivation for parents to seek secure Secondary School places by enrolling children in affiliated Private Primary Schools is presumably greater than elsewhere.

The same enrolment projections and plausible patterns mentioned earlier suggest Private Primary School enrolment rising from 23,300 in 1974 to 26,400 in 1986, an increase of 3,100, or 13.3 per cent. Assuming no change

in the pupil-teacher ratio (estimated at 20.0 to 1 in 1974), this should provide approximately 157 new teaching posts in this sector.

### *Second Level*

Second level schools in Ireland consist, in descending order of enrolment, of Secondary Schools, Vocational Schools, and Comprehensive and Community Schools (the last two usually being considered together). Instruction is divided into junior and senior cycles. The junior cycle normally requires three years of study, and thus terminates roughly at the end of compulsory schooling, at age 15, with an Intermediate Certificate examination. Some pupils also take a Group Certificate Examination, after two years of junior cycle. The senior cycle, which consumes an additional two years, culminates in the Leaving Certificate.

In 1974, Secondary Schools enrolled 68.9 per cent of all second-level pupils. These are voluntary or private schools, emphasising academic or 'arts' education, similar in many respects to grammar schools in other countries, except that they enrol a larger percentage of second level students. Almost all Secondary Schools are denominational. In 1973/74, 433 of 534 Secondary Schools were operated by Roman Catholic religious orders; another 31 were Catholic diocesan colleges; and 33 were 'lay Catholic' schools, operated, in effect, as businesses, by individuals. In addition, there was one Jewish and 26 Protestant Schools. As 'recognised' Secondary Schools, all of those institutions receive a very considerable amount of State aid.

The largest part of State aid to Secondary Schools is direct State payment of 'incremental salaries' to teachers. The school itself also pays a 'school salary' (set in recent years at £400 per year), but the State 'incremental' component forms the bulk of teacher incomes. The State also pays a so-called 'capitation grant,' in respect of all pupils. These payments go to all recognised Secondary Schools.

In addition, in 1967/68, the State introduced the so-called 'scheme for free post-primary education,' whereby an additional, supplementary grant (originally £25 per pupil, and increased to £50 in 1975/76) would be paid to all schools willing to forgo fees. Grants are also paid on behalf of boarding pupils at 'low fee' boarding schools, defined in 1975/76 as those with boarding fees of no more than £265 per year. Catholic Secondary Schools enrolling approximately 92 per cent of all pupils in such schools joined the new scheme. For Protestant Schools, whose fees had been higher, a slightly different scheme was created, by which the State provides a block grant proportional to that given to Catholic schools to a Secondary Education Committee, which distributes scholarships to pupils in accordance with need.

In effect, the free scheme extended 'free' or publicly supported education through second level. But it can be criticised in that it used a very large amount of scarce public funds in such a way as mainly to substitute for existing private funds. Only a small fraction of the public money spent on

the free scheme actually increased resources available to education. Our estimate is that in the first eight years of the scheme, approximately £31,740,000 went as windfall gains to families enrolling children in Secondary Schools (in the sense that these families would have paid fees), rather than to education.

In calendar 1975, £58,275,790 was spent on Secondary Schools, according to our estimates and Department of Education data. Of this, £44,770,237 was public expenditure made in or by the schools, including incremental salaries, and grants of all kinds; and £5,954,093 in departmental overhead and transport expense; for a total of £50,724,330 in public expenditure. Private expenditure is estimated at £4,590,790, thus giving an overall total of £55,314,883, of which private expenditure is 8.3 per cent. This total for private expenditure is estimated by statistically excluding boarding-related expense, on the theory that this expense is not educational in nature. That judgement is arbitrary and arguable, however. Estimated boarding expense (all private) was £2,960,907, thus bringing the total to £58,275,790, and the private component to £7,551,460, or 13.0 per cent of the total. Where administrative overhead and transport costs are excluded, the private proportion rises further.

Cross-section, multiple regression analysis of Secondary School expenditures reveals some interesting regional differences in per pupil expenditures by schools (excluding incremental salaries, which are paid directly by the Department of Education, and excluding administrative overhead and transport costs). More is spent per pupil than elsewhere in the high income parts of Dublin City and Dun Laoghaire (including suburbs), in Kildare/Wicklow, and probably in Laois/Offaly/Carlow. Less is spent in the low income parts of Dublin, in Louth/Longford/Cavan/Meath/Monaghan, in Leitrim/Roscommon/Mayo/Sligo/Donegal, and (with respect to Catholic Day Schools only) in Tipperary and probably Clare/Limerick. These differences in expenditures are statistically significant and persist even though other variables are controlled for. The differences are attributable in large part to the differential ability of schools in various areas to raise funds for the non-State-financed component of education expenditure. While the study does not permit conclusions about differences in quality of schooling, or in lifelong earning potential, but only about differences in per pupil expenditure, it does appear that regional (and by implication income or social class) differences account for differences in educational opportunity which seem contrary to egalitarian standards. The same might be said of religion: our study shows that significantly more is spent in respect of education in Protestant than Catholic Secondary Schools, even where other variables — including use of religious teachers — are controlled for.

Our study also shows the influence on per pupil and per school education-expenditures of a number of other variables. Of particular interest is the fact that the per cent of the lay teaching staff is strongly and positively related to

both per pupil and per school expenditures, even where a charge is included for the services of religious. We interpret this as a clear indication of the economic contribution of religious to education in Ireland. In addition, pupils per teacher, an indicator of class size, is positively related to both per school and per pupil expenditures, as regards Catholic day schools.

We also find that schools not in the free scheme spend considerably more than schools in the free scheme, on both per school and per pupil bases, even where other influences are controlled for. Again, this finding seems to reflect against equality of educational opportunity within the Irish Secondary School system. Of course, such inequalities are unlikely ever to be fully eradicated, so long as it is possible for élite, private schools to operate. But it should be pointed out in the Irish case that these schools receive a considerable amount of State aid, including the payment of incremental salaries.

Secondary Schools are also eligible for State capital aid, on terms similar to those affecting National Schools. The religious order or other party operating the school must provide the site, and pay for 20 per cent of building and equipment costs; the remaining 80 per cent is paid by the State. Boarding facilities are not covered by State grants. Fee charging Secondary Schools are also eligible, but are not approved for capital grants as frequently as are free scheme schools.

The second largest component of the second level system in Ireland is the Vocational Schools, which in 1974 enrolled 24.4 per cent of all second level pupils. These are wholly public institutions, owned, operated, and maintained by Vocational Education Committees (VECs), the only form of local education authority in the Republic. The VECs are also responsible for Regional Technical Colleges and for the Colleges of Technology in Dublin. In 1973/74, over 85 per cent of current expenditures, and all of capital expenditures, were from State funds, with most of the remainder financed through the rates.

The Vocational Schools have recently been through a major change. Effective in the 1967/68 school year, with the introduction of the 'free scheme,' tuition fees for second-level students were abolished, and State grants to the VECs correspondingly increased. At the same time the curriculum was radically changed. Vocational Schools had theretofore provided 'continuation' and 'technical' education. 'Continuation' refers to essentially continuing and expanding on the subjects offered in National Schools; it culminated, after two years, in the 'group certificate' examination. 'Technical' education referred to specialised, advanced, work-oriented courses, including apprenticeships. Thus there was little if any overlap between subjects studied in Vocational and in Secondary Schools. At the time of the introduction of the 'free scheme,' Intermediate and Leaving Certificate courses, which theretofore had been the exclusive domain of the Secondary Schools, were introduced in Vocational Schools. Hence a very substantial overlap came to exist between the curricula of the two types of

schools. Some have characterised the resulting Vocational Schools as, in effect, 'second-rate Secondary Schools'. Whether the characterisation is proper or not, it is clear that in the future, the Vocational Schools will grow relative to the Secondary Schools, by absorbing some of the demand — mainly from the lower part of the income distribution — for second level places which otherwise would have been met by Secondary Schools.

The fastest growing portion of the second level has been, and in the foreseeable future will be, Community Schools. Comprehensive and Community Schools are State schools which offer both arts and vocational courses, and have features of both Secondary and Vocational Schools. The first Comprehensive School was opened in 1966; the last (no more evidently will be opened) was opened in 1974. In 1973, the first Community School was opened. Irish Comprehensive Schools are State schools, very much on the pattern of British Comprehensives, except that they are specifically denominational, either Catholic or Protestant. Community Schools are somewhat different. They are joint ventures of one or two religious orders (depending on whether the school is co-educational), the local VEC, and the Department of Education. Indeed, quite a number of Community Schools have been formed through merger of existing Secondary and Vocational Schools. Almost all the second level schools newly opened in the future are expected to be Community Schools, though existing Secondary and Vocational Schools may be rebuilt and expanded as needed.

The second level system, like the National School system, is to a very considerable extent a product of nineteenth century struggles between the British authorities and the Irish Catholic Hierarchy, and large parts of it were developed in substantially their present form while all of Ireland was still part of the United Kingdom. In 1835, the British announced plans for a nationwide system of what would have in effect been second level schools in Ireland, but the plan was finally dropped, largely because of the opposition of the hierarchy. The present system of Secondary Schools dates from 1878, when an 'aided system' was introduced, in which most of the schools were operated by religious orders. The level of funding was so low that the system required either an extremely economical operation, the imposition of fees, or great personal sacrifice on the part of teachers and others, or some combination of these. The Vocational system also dates to the British, with the establishment of local committees for vocational education in 1898/99. The Comprehensive/Community system, as noted, has more recent origins.

Like the National School system, the second level system, and particularly the Secondary Schools, could develop extensively in spite of economic underdevelopment and limited resources in part because of four circumstances: the spartan and frugal character of facilities and equipment; the interest of the Church; the contributions of the religious; and the low technical content of the curriculum. The first of these is somewhat less important in second than first level; the last two are decidedly more

important. No statistics exist on the involvement of religious in Secondary education in the nineteenth century, but it seems likely that the vast majority of teachers were nuns and brothers, especially in the Sisters of Mercy, the Presentation Sisters, and the Christian Brothers. By 1961, religious as a per cent of all Secondary teachers stood at approximately 50 per cent. It is likely that the proportion had been roughly that for some time. In 1966, it was still 50 per cent. Then the numerator and denominator started moving rapidly, in opposite directions: the effects of declining vocations of the previous decade began significantly to affect the numbers of religious teachers, at the same time as the total number of teachers rose as a consequence of enrolment gains attributed to the introduction of the 'free scheme'. By 1974, religious teachers had fallen to 31 per cent of the total (and the inclusion of Comprehensive and Community School teachers would have reduced the figure further). Our prediction is that by 1986, the proportion will have fallen to 20 per cent. There is no question that this trend will increase school expenditures. Equally important, but outside the domain of this study, it will also change the character of Irish Secondary education.

Beginning in the late 1960s, there began to be an increase in the technical content in the Secondary School curriculum; and this trend is continuing. It has increased and will continue to increase school expenditures. Thus, for a variety of reasons, it appears that the day of low-cost second level education in Ireland is at an end.

There are still further reasons to expect costs in second-level schooling to rise in the coming decade. One, as noted in the case of National Schools, is the cost of the coming of equal pay. In addition, there is a 'bulge' in the age distribution of second level teachers, accounted for by the very large increase in numbers of these teachers hired in the early years of the 'free scheme'. As the 'bulge' moves through the increments structure, there will be disproportionate increases in salary costs. And finally, 'Baumol's Disease' will probably account for an annual growth in per pupil costs of approximately three per cent per year, on top of all other forces.

These rapid increases in per pupil costs come at a time of rapid enrolment increase, the product of rising youth population and participation rates. We predict enrolment growth of 36,800 (a 23 per cent gain) between 1974 and 1986 in the group aged 13 through 15, and 35,400 (a 50 per cent gain) in the group aged 16 through 18. Most of these gains will be in second-level institutions. A plausible allocation of these gains is as follows (with Comprehensive and Community Schools included with Secondary Schools): junior cycle, Secondary Schools, 22,400 enrolment gain, or 18.0 per cent; senior cycle, Secondary Schools, 19,800 enrolment gain, or 36.4 per cent; junior cycle, Vocational Schools, 12,800 enrolment gain, or 26.2 per cent; senior cycle, Vocational Schools, 10,600 enrolment gain, or 75.2 per cent. In second level combined, this would amount to an enrolment gain of 65,600,

or an increase during the 12-year period of 27.1 per cent. Our estimate is that such an enrolment increase, if realised, would require an additional 1,764 full-time Secondary (with Comprehensive and Community) School teachers, and an added 1,847 full-time Vocational School teachers.

The budget implications of these increases are somewhat alarming. In constant, 1970 prices, they imply an increase in public second level expenditures from £39,914,000 in 1974 to £82,956,000 in 1986, an increase of 6.2 per cent per year, and 107.8 per cent for the whole period. This breaks into gains of £25,131,000 (or 101.4 per cent) in Secondary (with Comprehensive and Community) Schools, and of £18,915,000 (or 133.9 per cent) in the Vocational Schools. If these gains are added to the somewhat more modest increases expected in National Schools (see above), a total first and second-level public expenditure increase might be expected of some £72,307,000 between 1974 and 1986, which amounts to a growth rate of 5.7 per cent per year, or 95.0 per cent over the whole period. Since conservative assumptions have been used in arriving at these figures, it might be fair to round upward, and state that real public expenditures on first and second level education are likely to double over the period 1974-1986.

It should be stated that our enrolment forecasts and the expenditure figures accompanying them are based on the assumption that places in school will actually be provided for all those who might seek them. That is, we have tried to deal with the demand for places — in effect, with the problem, not its solution — in our forecasts.

### *Third Level*

Third level is not really a subject of this study, but a few details can be provided to complete the picture. The structure of third level education has been in flux in recent years, and it may be a few more before the dust settles.

The principal institutions are the Universities, which in 1974 enrolled 68.7 per cent of all third level students (though only 2.5 per cent of all students, levels one, two, and three combined). The State provides funds to a Higher Education Authority, which in turn allocates funds to the Universities. The Universities also receive a substantial amount of funds from the Department of Agriculture. Approximately 85 per cent of their income for current expenditures is derived from these two kinds of State grants. Most of the remainder is received as fees. However, a fraction of fee income, too, arises indirectly from the State. Roughly one-quarter of University students are recipients of Higher Education Grants, which also come in part from local authorities.

The other third-level institutions are the Regional Technical Colleges (a rapidly growing part of the system, initiated in the 1960s with World Bank assistance) and the Dublin technological colleges, under the VECs (though with very considerable State funding); the Colleges of Education, organised along denominational lines, with State funds, to provide teacher



training; and a small miscellany of other aided and non-aided institutions.

Since third level has not been an important part of this study, enrolment forecasts are somewhat more speculative here than elsewhere. None the less, we anticipate very substantial growth at third level, if places are provided. The expected increase in enrolment of those aged 19 and over, between 1974 and 1986, is 36,300, a gain of 159 per cent. Not all of this is third level, however. We expect third level enrolments to rise by 36,200, or 121.9 per cent. If this increase should occur, expenditures would very much more than double over the period.

### *Policy Recommendations*

If the foregoing analysis is in substance correct, there will be very great enrolment and budgetary pressures in the coming years. There is a danger that little will be said or done about these problems until they have reached crisis proportions, and that the public will learn about the pressures not from Ministerial statements but by overcrowded classrooms, widespread use of temporary classroom buildings, and lack of sufficient places for all those who want to go to school.

If that should occur, the burden of the problem will undoubtedly be borne in a capricious and, on balance, a regressive manner. It will be capricious in that the availability of school places and the quality of schooling and equipment will depend on the happenstance of residence, and other factors over which individuals have no control. It will be regressive in that, as in most unanticipated crises, it is the last ones having access to the system who are cut out. In any unplanned response to the crisis, it will be the poor and disadvantaged, who do not now attend second level schooling past compulsory years, rather than the wealthy and the advantaged, whose opportunities will be reduced.

It is for this reason that we urge a major national debate on educational priorities. Unless there are significant reductions elsewhere in the economy (and such do not seem likely), there will not be adequate public resources available in education to permit continuation of the trends of past years. Decisions will have to be taken, either openly and explicitly, or implicitly and by default. We make our own recommendations as to priorities below; but these recommendations, appropriate as they seem to us, are pressed less forcefully than the single recommendation of a national debate.

What is advocated here is an approach, not a programme. The approach may be illustrated or exemplified by a particular set of proposals, but they should be interpreted as only one possible application of an idea. The theoretical underpinnings of the approach consist of three propositions. They provide the main basis for five principles of funding of education in Ireland. The five principles, in turn, are drawn on in a suggested scheme of finance.

The first and most important of the three theoretical propositions con-

cerns the fundamental distinction between public and private benefits from education. Education, like many other goods and services, is a 'quasi-public good,' with both public and private characteristics. It is a private good in that its principal beneficiaries are the pupils, who receive benefits in both current or consumption form (the enjoyment of learning, of socialising with peers, of recreation, etc.) and in investment form (yielding lifelong enhanced potential earnings, as well as enhanced enjoyment of literature, music, etc.). Even were there no social provision for the financing of education, many individuals would pay for it; the implication is that it has private benefits worth paying for. But education of an individual often also benefits society at large. The social system, the political system, and the economic system all demand of their participants a certain minimal level of education. The fact that there is a large social interest in education is indicated not only by public schemes for its provision, but also by the almost universal tendency of societies to make a certain amount of education compulsory.

The second proposition can be stated more briefly. It distinguishes, again among the benefits from education, between those which occur with Ireland and those which occur elsewhere. This distinction must be made, because many Irish school leavers and graduates emigrate. Even where a school leaver emigrates and never returns, some of the educational benefits may occur within Ireland. This is so, for example, to the extent that educational benefits are current or consumption benefits, which take place at about the same time as the education takes place. Only the yield from the investment element in education is likely to be lost on account of emigration.

Looked at together, these first two propositions might serve to delimit the range of public concerns in Ireland with education, to, first, the public element, and, second, to the Irish element.

The third proposition, which may modify the effects of the first two, is that income and social class should have no effect on any person's access to schooling.

When these propositions are employed in developing approaches to the financing of schooling in Ireland, they yield the following five principles.

- (1) Private resources should be used for the private-good component in education, and public resources should be reserved for the public-good component. A rule of thumb might be that the years of compulsory attendance (ages 6 through 15) be considered as conterminous with the years of education that is essentially public or social in character. This rule seems intuitively to be consistent with observable public-private distinctions. Beyond the age of compulsory schooling, i.e., in senior cycle and third level, employment and earning opportunities vary with schooling. Society makes the investment, in most cases; but the individual appropriates the returns.
- (2) Where virtually every member of society takes education at a given level, and where the benefits from that education are mainly current rather than in the form of an investment, the distinction between public and private is

probably superfluous. Public support does not appear inappropriate, even where some of the benefits are private, because it does not result in redistribution from the many to the few. (The same cannot be said, by contrast, of education whose benefits are mainly private, and which goes to but a minor fraction of the relevant population.) This statement applies only to education whose benefits are largely current (as in the infants' divisions of primary schools) because of the possibility of emigration.

(3) To the extent that public resources are used in the financing of education, they should be used, in so far as is practical, only to finance aspects of education which yield benefits within Ireland. This principle applies only to the later flow of benefits from the investment component in education, as (by definition) current or consumption-type benefits from an education in Ireland occur in Ireland.

(4) A more moderate alternative to the principle contained in item number one, above, is to continue the present practice of public finance for aspects of education which yield private benefits, but to treat such expenditures as personal income of the family of the pupil, and to tax it accordingly. If this approach is to assist in solving the coming fiscal problems in education, the proceeds of such a tax treatment must be applied to education.

(5) Loan or grant funds should be made available to students with more modest means, as is required, in order that lack of funds not deter anyone from obtaining an education that he or she would otherwise take. While the first three approaches, above, are based on considerations of allocational efficiency, and perhaps on the principle of reciprocal equity, this fifth one is based on that of distributional equity and equality of opportunity.

In sum, then, scarce resources available for education should be reserved, in general, for those aspects of schooling which benefit society as opposed to the individual, and in particular Irish society; and for the less advantaged. A number of actual financing schemes could be designed which would reflect such a philosophy, though the present scheme is not one of them. The following scheme is offered as an illustration, not as a definitive policy proposal. In our discussion, we follow the child through the years of schooling, beginning with the infants' division of primary school, and concluding with third level.

First, then, while attendance in the infants' divisions is not compulsory (and hence according to the first principle would be viewed as a private benefit), participation is very high (above 90 per cent), and hence continued State support appears appropriate, on the basis of the second principle. Second, no change is indicated in the financing of primary education, as it is compulsory and hence regarded as a public benefit. Third, the same can be said of junior cycle, second level, as attendance is compulsory through age 15.

Fourth, senior cycle is regarded as a private, not a public, good. Hence there is a case for a substantial private contribution. Two schemes might be considered. In the first, State support of senior cycle is withdrawn. This

would mean termination of the "free scheme"; abolition of capitation grants, building grants, and State payment of incremental salaries, for Secondary Schools; and a system of fees, not only in Secondary Schools, but in Vocational and Comprehensive/Community Schools. Fees would be set high enough to recover the full costs of second-level education. The resulting system, however, might deter a number of lower income young people from going on past the Intermediate Certificate. Hence, in line with the fifth principle, a system of State scholarships, based on income, would be introduced, possibly carrying a small stipend for living expenses (i.e., to cover income losses) for the students with the very lowest of incomes. Were the State funds now spent on second-level education reorganised along the lines suggested, school incomes would be higher (more private funds would be used, together with an unchanged amount of State funds), and more pupils would receive an education, than under the present scheme.

A more modest version of the same scheme would be repeal of the "free scheme," but continuation of the other forms of State aid to second-level institutions, thus requiring lower (but hardly nominal) fees, not only in Secondary but in Vocational and Comprehensive/Community Schools as well, in the senior cycle. This alternative would still require a scholarship programme, though a smaller one.

If it is felt that the "free Scheme" represents a commitment which cannot be withdrawn, it may be necessary to adopt the more moderate alternative, as is contained in the fourth of our five principles, that of levying income tax on the value of State supported senior cycle education. If it is true, as we have argued, that senior cycle schooling is almost wholly a private good, whose benefits are captured or appropriated by the pupils, then any form of State finance represents a form of State transfer payment to the families of pupils, and should be taxed as income. The amount added to reported family income would be the grant given in lieu of (or, in Protestant schools, in aid of) fees, under the "free scheme"; the capitation grant; and a *pro rata* share of State payment of incremental salaries. Tax-free allowances in the personal income tax would relieve the lowest income families from any payment, and hence their children would attend senior cycle without charge; for the rest of the population, the progressive rate structure would make the financing of senior cycle slightly redistributive, downward rather than upward as at present.

Fifth, our illustrative scheme calls for substitution of loans to students for grants to institutions and grants to students in third level. Fees would be raised a very great deal—high enough to cover the current costs of third level institutions. While this is a drastic proposal, it is hard to justify the very high current level of State support for third level education. Only a small fraction of the population has the opportunity to attend third level institutions. Those who do so are evidently rewarded handsomely, in terms of employment opportunities and higher earnings, as well as non-pecuniary amenities. There is a very strong case that learners should pay the full cost of third level educa-

tion. Those whose lifelong education-associated income increments will not be sufficient to pay for third level education should not go on to third level (unless they wish to buy it as a consumption good). Those whose subsequent incomes will increase sufficiently to justify the education should use some part of their income gains to pay for the education.

In practice, there are two things wrong with the proposition contained in the last two sentences. One is that the costs of third-level education are bunched in a short period of time, when the learner is fairly young, whereas the income gains are spread over a lifetime. How can a learner pay for today's education out of subsequent lifelong earnings gains? The other is that no one can be certain that his or her education will actually pay for itself, in the sense suggested, i.e., that the present or discounted value of lifetime earnings gains will equal or exceed the cost of education. These two problems suggest that public support of third level education takes place primarily because of inefficient capital markets, properly so called, rather than because third level education is in any common sense of the term a public good. What is called for is a very liberal loan programme, available to all who qualify for third level education, providing funds not only for fees and education-related expenses but for living expenses as well. Repayment would come from—and only from—deemed education-associated earnings gains. For the student who, e.g., takes a course in dentistry and then emigrates to practice elsewhere, a loan scheme provides a way for the Irish exchequer to recover some of the costs of providing that education.

These recommendations, especially as regards third level, may seem drastic to some. But it appears that some drastic measures *will* be taken, in one way or another. Those who find one or another feature of this programme objectionable are urged to suggest schemes of their own.

#### *Concluding Remarks*

Much of the information estimated and published in this study is more or less routinely gathered and published by the public authorities in many other countries. So should it be in Ireland.

It would be useful and desirable, and entirely appropriate, for the Department of Education to publish, and periodically to revise, a document explaining and describing the organisational and fiscal structure of the system—not for the benefit necessarily of economists or other observers and analysts, but for the benefit of principals, teachers, parents, and even civil servants, all of whom seem ill-informed, as a rule, about the system.

In most countries, the education authorities publish, and periodically update, enrolment forecasts, for the information of all who are concerned with education. In Ireland, where the school system is so decentralised and where expansion and related decisions are taken by so many diverse individuals and groups, it is more than ordinarily important that these projections be published.

Finally, how can rational decisions about the amounts and allocation of public support of education be made where no information is collected, never mind published, on total education expenditures, i.e., public and private expenditures combined, and on its distribution? It is now true, as it was not as few as two years ago, that all of the major first and second level educational institutions (and perhaps all of them) keep records appropriate to the State collection and publication of complete statistics on education expenditures. As our final recommendation, we strongly urge that the State do so.

We have been told, again-and-again, by people within the education system, and even by people within the civil service, that the State will resist publication of the kinds of information called for here, not because of any administrative costs or difficulties, but because they fear that public knowledge will limit their own freedom of action. For example, we are told that the State does not want to publish information on private expenditures on education, because they fear that such publication would lead to pressure for increased public support. The State does not want to publish information on regional or other disparities in per pupil education expenditures, because they fear, or so we are told, that such publication would lead to pressures for equalisation, which would mean "levelling up" rather than "levelling down," and hence greater expenditure. The State does not want to publish enrolment projections, we are told, because resulting public debate over responses to rising enrolments might limit politicians' or civil servants' discretion to make policy decisions themselves.

We hope that these assertions are false. Public knowledge, debate, and even pressure may be inconvenient to politicians and civil servants; but they are fundamental to a democratic system. Unilateral decisions, suddenly announced, have often been taken in the past, and have occasionally led to regrettable errors. Future decisions are too crucial to permit continuation of this method. It is time to include the public as a full partner in education decisions.

## Appendix 4.A

*Adjustments to Published Population Estimates and Predictions*

In developing the population estimates and predictions in the text, three kinds of adjustments were made to published population estimates and predictions. Estimates of the numbers of children in the State in recent years were increased, to take account of the fact that the Department of Education reported more children in school in given ages than the CSO had estimated were in the State, as discussed in the text. The CSO's predictions of numbers of births in the years 1975-79 were reduced, to take account of the effects of the current depression. And a particular pattern of child net migration is assumed. These adjustments are discussed in detail below.

*Underestimate of Numbers of Schoolchildren:*

The adjustments made to the CSO population estimates for 1974 and 1975 are as follows: 1974, in the 5-9 age group, the CSO estimates 318,700 children, while our corrected figure is 323,100, a difference of 4,400; and in 1974, in the 10-14 age group the CSO estimates 309,700, and our corrected figure is 313,200, a difference of 3,500; for 1975, the 5-9 figures are CSO, 319,300, corrected figure 324,200, difference 4,900; and 10-14, CSO, 313,500, corrected figure 320,000, difference 6,500. These figures are allocated by year of age by interpolation, as described later. We have accepted as correct the CSO estimates of 1974 and 1975 population in other relevant groups, i.e., 0-4, 15-19, and 20-24, lacking any contrary evidence. While there is some school attendance in these ages, participation rates do not tend toward 100 per cent and hence it is impossible to infer population from school enrolment.

*Decline in Number of Births*

In the present paper, the estimated number of births is taken from CSO-5000. The CSO estimates of numbers of births are, however, for five-year periods, and we have had to interpolate, assuming that during the relevant period births rise at an increasing rate. No adjustments are made prior to 1975 or subsequent to 1979. The figures below show, for 1975 through 1979, (1) the year; (2) the age reached in 1986 by the cohort born in the year; (3) the actual number of births, for 1975, the preliminary estimate of the number born in 1976, and the revised prediction of numbers born in 1977 through 1979; (4) the CSO predicted number of births, taken from CSO-5000; and (5) the difference between the last two, which then is also the amount by which we have adjusted downward the predicted 1986 population of each age group shown. Population is in thousands.

(1) Year born	(2) Age in 1986	(3) Actual/estimated number born	(4) CSO births prediction	(5) Difference: (3) - (4)
1975	11	67.5	69.9	-2.4
1976	10	68.0	71.0	-3.0
1977	9	69.0	72.8	-3.8
1978	8	72.1	74.1	-2.0
1979	7	75.2	75.7	-0.5

### Net Migration Assumptions

The exact assumptions are as follows. Numbers born each year as indicated in CSO-5000, except adjusted as indicated above. No net change in number is predicted in the first two years of life. Evidently, infant mortality has been roughly offset by infant immigration in recent years. The assumed pattern of child migration between 1975 and 1981 is as is shown in the table below. For example, between ages 2 and 3, net immigration of 200 is assumed between 1974 and 1975, and the same amount in the next two years, followed by 100, 100, nil and nil. Between 1981 and 1986 (not shown in the table), no further migration is assumed, except as follows: Over the whole five-year period, it is assumed that net immigration of 10-year olds (becoming 15 year olds) will be -200; for 11 (becoming 16) year olds, -300; 12 (to 17) year olds, -400; for 13 (to 18) year olds, -500; and for 14 (to 19) year olds, -500. Considerable emigration is assumed throughout between the 19th and the 24th year of age, as can be inferred from the various tables in the text. Note that the assumptions have been stated in terms of net immigration a negative number implies net emigration.

Between ages:	1975	1976	1977	1978	1979	1980	1981
2 and 3	200	200	200	100	100	0	0
3 and 4	200	200	200	100	100	0	0
4 and 5	200	200	100	100	100	0	0
5 and 6	300	300	200	100	100	100	100
6 and 7	400	400	300	200	100	100	0
7 and 8	500	500	500	400	300	200	100
8 and 9	500	500	500	400	300	200	100
9 and 10	400	400	400	300	200	200	100
10 and 11	300	300	300	200	200	100	0
11 and 12	200	200	200	100	100	100	0
12 and 13	-300	-300	-300	-200	-200	-100	0
13 and 14	-300	-300	-300	-200	-100	-100	0
14 and 15	-300	-300	-300	-200	-100	-100	0
15 and 16	-500	-500	-500	-400	-300	-200	-100
16 and 17	-400	-400	-400	-300	-200	-100	-100
17 and 18	-300	-300	-200	-100	0	0	0
18 and 19	-600	-600	-500	-400	-300	-200	-100



## Appendix 4.B

*Alternative Enrolment Forecasts for 1986 from New Population Projections*

The following enrolment forecasts are made by applying the predicted participation rates shown for 1986 in text Table 4.6 to the population predictions made by W. Keating (W. Keating, "An Analysis of Recent Demographic Trends with Population Projections for the Years 1981 and 1986", Irish Statistical and Social Inquiry Society, March 3, 1977), and reported above in text Table 4.2. Data are in thousands of persons.

<i>Years of Age</i>	<i>Keating Low</i>	<i>Keating High</i>
4-5	128.0	130.0
6-12	485.0	488.0
13	70.2	71.3
14	68.2	69.2
15	63.3	64.3
16	49.5	50.2
17	35.5	36.0
18	22.4	22.7
19	14.4	14.6
20+	43.4	44.8
<i>Total</i>	979.9	991.1

## Appendix 4.C

*Teacher Requirements*

Teacher requirements are calculated as follows:

*National Schools:*

Over the five years 1969-74, the incremental pupil-teacher ratio for the system of National Schools as a whole (i.e., the ratio of the change in numbers of pupils to the change in numbers of full-time teachers) has ranged from 5.9:1 to 27:1, and has averaged 18.17:1. In order that our estimates be conservative, we have used not the average but the highest value, i.e., 27:1. Taking the increment in National School students as 84,100, this gives an increment in teachers of 3,115. The average number of pupils per full-time teacher of 30.7 is arrived at not by assumption but by dividing the predicted number of pupils in by the resulting number of teachers.

*Second-Level Schools:*

The relationship between numbers of teachers and junior and senior cycle students was estimated by least squares regression, for 1963-74, separately for Secondary/Comprehensive/Community and for Vocational teachers. The results were as follows:

Full-time Secondary/Comprehensive/Community teachers=

$$-788.96 + .02123 (\text{Jun. Cycle Enrolment}) + .14894 (\text{Sen. Cycle Enrolment})$$

$$(t = .62159) \qquad (t = 2.46888) \quad (\bar{R}^2 = .961)$$

Full-time + Part-time Secondary/Comprehensive/Community teachers=

$$-453.29 + .04206 (\text{Jun. Cycle Enrolment}) + .144911 (\text{Sen. Cycle Enrolment})$$

$$(t = 1.17906) \qquad (t = 2.3003) \quad (\bar{R}^2 = .969)$$

Full-time Vocational Teachers =

$$-442.805 + .07943 (\text{Jun. Cycle Enrolment}) + .11845 (\text{Sen. Cycle Enrolment})$$

$$(t = 5.117) \qquad (t = 3.919) \quad (\bar{R}^2 = .985)$$

Full-time + Part-time Vocational teachers=

$$186.469 + .12905 (\text{Jun. Cycle Enrolment}) + .12329 (\text{Sen. Cycle Enrolment})$$

$$(t = 4.7470) \qquad (t = 2.3292) \quad (\bar{R}^2 = .976)$$

The coefficients represent, in effect, incremental teacher-pupil ratios; to

find incremental pupil-teacher ratios it is necessary to take the reciprocals. For Secondary/Comprehensive/Community, the implied incremental pupil teacher ratios are 47.1 and 6.7, for junior and senior cycles respectively, for full-time teachers; and 23.8 and 6.9 respectively for full-time and part-time combined. The second equation was used in forecasting, because the coefficient estimate for junior cycle was intuitively more plausible, because the  $t$  value of this coefficient was somewhat healthier, and marginally, because the equation as a whole had a slightly better  $\bar{R}^2$  adjusted for degrees of freedom. It was assumed that the incremental ratio for junior cycle would remain at or near its present value of 23.8, but that for senior cycle would rise to 15.0, which is approximately midway between the estimated value of 6.9 and the junior cycle value. With predicted junior cycle enrolment of 22,400 and senior cycle enrolment of 19,800, this yields an estimated increase in number of teachers of 2,261. If 78 per cent of these (as in 1974) are assumed to be full-time teachers, the predicted value of added Secondary/Comprehensive/Community teachers is taken to be 1,764. For Vocational Teachers, the implied incremental pupil-teacher ratios respectively for junior and senior cycles are, in the first (full-time) equation, 12.6 and 8.4, and in the second (all teachers combined) 7.7 and 8.1. The first equation gives intuitively more sensible results; has higher  $t$  values; and has a marginally higher  $\bar{R}^2$ . If it is assumed that the junior cycle ratio will remain at 12.6, and the senior cycle ratio will rise to the same value, 12.6, then the predicted increase in enrolment of 23,400 implies a need for 1,857 additional full-time vocational teachers. In the second equation, evidently the constant term has absorbed much of the teaching requirements of junior cycle. If one uses the implied ratios in this equation one finds a need for 2,971 added teachers. If of these, 62 per cent (as in 1974) are full-time teachers, we obtain a need for 1,847 additional full-time teachers, and 1,129 part-time teachers. This estimate of 1,847 is very close to the 1,857 obtained on the basis of the first equation. We have adopted the smaller value, even though it is based on what is evidently an inferior equation, in order to be on the conservative side in our estimates. As in the National Schools, our resulting average pupil-teacher ratios for the systems in aggregate are results, not assumptions, of our calculations, (though they are, of course, the product of other assumptions). Average class size in Secondary/Comprehensive/Community rises by one pupil; in Vocational Schools it falls fractionally. These forecasts are based on a continuation of existing policies and trends, and would be belied, e.g., by a decision to increase average class size in Vocational Schools.

## Appendix 4.D

*Assumptions and Methods used in Illustrative Expenditure Forecast*

The detailed assumptions and methods are as follows. National School total salaries, divided by the number of full-time National School teachers, and deflated to 1970 prices, were £1,500 in 1974. Annual growth of 2.75 per cent adds £589. An adjustment is added of £183 for equal pay (this is an average for all teachers; the gain to the teachers affected is greater). For Secondary Schools, the base is total incremental salaries, divided by the number receiving incremental salaries in 1974, adjusted to 1970 prices, yielding £1,307. The 2.75 per cent annual increment adds £514. The "bulge" adjustment, on the assumption that one-half the number of Secondary/Comprehensive/Community teachers in 1974 will get 4 per cent per year more as they rise through the ranks, yields an average figure of £399. The equal pay adjustment, including an additional "bulge" effect, is assumed at £150. This provides an average incremental salary of £2,370, in 1970 prices. (As a memo item, if the school salary of £260—the 1974 amount in 1970 prices—is added, the total salary is £2,630.) In Vocational Schools, the base is determined by dividing the Vocational "instructional" budget item by full-time-equivalent teachers, on the basis of three part-time teachers equal one full-time teacher. This yields a base of £1,387. The annual 2.75 per cent increment adds £545 in 12 years. The "bulge" adjustment is done as in the Secondary schools, except that .375 instead of half of the teachers employed in 1974 are assumed to be affected; the resulting amount is £317, averaged over all teachers. Again, £150 is assumed to be the average cost, in 1970 prices, of equal pay. This yields a mean figure per full-time-equivalent teacher of £2,399. The Comprehensive/Community average salary expense in 1986 is assumed to be the midpoint between those of Vocational and Secondary (where the latter includes the school salary), i.e., £2,515. All Reformatory and Industrial School expenditures are assumed to grow proportionately to the rest of first and second level combined. Capital expenditures are calculated as follows. In the National Schools, over the twelve years 1963-74, new and expanded National Schools have created 21,000 places per year average, in addition to the added number of pupils, at an average price (1970 prices) of £185 (standard deviation of £26.38). If it is assumed that 21,000 places will need to be provided in each of the twelve years 1974-86, in addition to the 7,000 places implied by enrolment growth of 84,100, then 28,000 places will be provided. If £190 per place is taken to be the 1974 base, 3 per cent annual growth in costs yields a 1986 cost per place of £272. Similar statistics indicate a need for 6,500 Secondary/Comprehensive/Community places each year for obsolescence and mobility, and 3,500 more for growth, giving a total of 10,000 places per year. The Secretariat of Catholic Secondary Schools estimates a 1974 cost per pupil place of £1,000, which is £650 in 1970

prices. Growth in cost per pupil place at 3 per cent per year yields £932. In this sector, which includes both Secondary and Community schools, it is assumed that the State share will be 90 per cent of the per pupil cost, or £839. In Vocational Schools, it is assumed that 2,300 replacement places, for obsolescence and mobility and 1,950 new places, for growth, or a total of 4,250, will be required each year, and that the cost will be as in Secondary/Comprehensive/Community, i.e., £932, all paid for from public (though not necessarily State) sources.

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