

NESC REPORT NO. 12

**EDUCATIONAL EXPENDITURE
IN IRELAND**

Price: £2.70

NATIONAL ECONOMIC AND SOCIAL COUNCIL

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- (ii) the attainment of the highest sustainable rate of economic growth,
- (iii) the fair and equitable distribution of the income and wealth of the nation,
- (iv) reasonable price stability and long-term equilibrium in the balance of payments,
- (v) the balanced development of all regions in the country, and
- (vi) the social implications of economic growth including the need to protect the environment.

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6. The Council shall have its own Secretariat, subject to the approval of the Minister for Finance in regard to numbers, remuneration and conditions of service.

7. The Council shall regulate its own procedure.

NATIONAL ECONOMIC AND SOCIAL COUNCIL

Educational Expenditure in Ireland

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CONTENTS

PART I

THE COUNCIL'S COMMENTS ON EDUCATIONAL
EXPENDITURE IN IRELAND

Page
5

PART II

EDUCATIONAL EXPENDITURE IN IRELAND

By J. SHEEHAN

INTRODUCTION AND SUMMARY

25

CHAPTER 1 EDUCATIONAL POLICY DURING THE
PAST 10 YEARS

30

CHAPTER 2 CURRENT EXPENDITURE ON FIRST
AND SECOND LEVEL EDUCATION,
1961-62 TO 1973-74

41

CHAPTER 3 CAPITAL EXPENDITURE ON FIRST
AND SECOND LEVEL EDUCATION,
1961-62 TO 1973-74

57

	<i>Page</i>
CHAPTER 4 EXPENDITURE AT THE THIRD LEVEL 1961-62 TO 1973-74	70
CHAPTER 5 INTERNATIONAL AND INTER-REGI- ONAL EXPENDITURE COMPARISONS	75
CHAPTER 6 MANPOWER POLICIES	88

PART I

**THE COUNCIL'S COMMENTS ON "EDUCATIONAL EXPEN-
DITURE IN IRELAND"**

COMMENTS ON EDUCATIONAL EXPENDITURE IN IRELAND*

1. In our Report No. 8: "An Approach to Social Policy", we stated our belief that all policies are social in so far as they affect the distribution of resources and opportunities between different groups and categories of people. We further stated that the Council's attention would not be limited to the distribution of money incomes, but that we would also be concerned with those public policies which affect people's access to a wide range of services.

2. It was in this context that we asked Mr John Sheehan, lecturer in economics, University College Dublin, to prepare a report on educational expenditure in Ireland. His report, which is contained in Part II of this document, is summarised in Paragraphs 3-9 below.

3. In Chapter I, Mr Sheehan outlines the importance of the Report on *Investment in Education*, which was published jointly by the Irish Government and the OECD in 1974, and summarises the main policy developments in education since then. *Investment in Education* provided the basis for subsequent developments in educational policy. It emphasised the importance of expansion and development in education for both social and economic reasons, and gave a great deal of new information on the Irish educational system. Its publication was followed by a considerable amount of both official and private comment and debate.

*A draft of these comments was prepared by the Social Policy Committee and discussed and amended by the Council at its meetings on 3 July 1975 and 28 July 1975. The comments were drafted by Catherine Keehan of the Council's Secretariat.

ERRATA:

- (i) Page 7, Paragraph 3: First sentence should read: "In Chapter 1, Mr Sheehan outlines the importance of the Report on *Investment in Education*, which was published jointly by the Irish Government and the OECD in 1964..."
- (ii) Page 10, Paragraph 7: Last sentence should read: "There was also an increase in public capital expenditure on third-level education, from 7% of total capital expenditure on education in 1951–63 to 21% in 1969–73".

4. The following were the main policy trends and developments between 1964 and 1974 :

- (i) At the first level, emphasis was placed on the rationalisation and improvement of facilities.
- (ii) At the second level, the increase in demand for places following the abolition of fees resulted in rapid enrolment growth and significant institutional development, notably comprehensive and community schools.
- (iii) At the third level, there was increasing emphasis on technological education. Much of the growth to date has been in response to rising demand, although the Regional Technical Colleges were established as much to stimulate demand as to provide the technical skills immediately needed by the economy.

5. Public expenditure on education rose from £19.5m in 1961-62 to £144.7m in 1973-74 and its share of GNP from 3.05% in 1961-62 to 6.29% in 1973-74. First and second level education accounted between them for over 80% of current and capital expenditure on education. This trend may be attributed in large part to inflation. There was, however, an increase in expenditure in real terms—in part as a result of the policy developments outlined in Paragraph 4. The increase in education expenditure as a proportion of GNP overstates the increase in real terms because the labour intensive nature of education means that its "price" rises faster than prices in general.

6. In Chapters 2 and 3, Mr Sheehan details the pattern of current and capital expenditure on first and second level education between 1961-62 and 1973-74. The results of his analysis are summarised in the following table.

TABLE A
Public Expenditure on First and Second Level Education

	Primary		Secondary		Vocational		Comprehensive/ Community	
	1961-62	1973-74	1961-62	1973-74	1961-62	1973-74	1961-62	1973-74
Total Annual Public Current Expenditure (£m)	11.05	46.92	3.02	27.40	2.51	18.37	—	1.65
Expenditure per enrolled pupil at current prices (£)	22.97	90.86	37.55	160.04	71.33	255.75	—	320.00
Expenditure per enrolled pupil at 1961-62 input prices (£)	22.97	27.24	37.55	45.31	71.33	92.27	—	N.A.
Real Expenditure Indices 1961-62 = 100	100.00	118.59	100.00	120.67	100.00	129.36	—	N.A.
Public Capital Expenditure at current prices (£m)	1.75	6.19	—	1.21	0.41	1.41	—	5.50

7. In Chapter 4, Mr Sheehan analyses State expenditure on third level education between 1961-62 and 1973-74. Current expenditure increased rapidly in that period, and accounted for a progressively greater share of total current expenditure on education—7% in 1961-62 as compared with 13% in 1973-74. This is accounted for by the very large increase in the number of students. There was also an increase in public capital expenditure on education, from 7% of total capital expenditure in 1951-63 to 21% in 1969-73.

8. In Chapter 5, Mr Sheehan compares State expenditure on education in the Republic with that in Northern Ireland and England and Wales. Public expenditure on education in the Republic is significantly lower than that in Northern Ireland. There has been a closing of the gap in recent years, but this is partly offset by the displacement of private fee expenditure in the Republic. This lower level of public expenditure is reflected in significantly larger primary school classes, and less provision for meals, milk and health services in the Republic. The gap would seem to be larger than for some other social-service type expenditures—especially direct personal transfer payments which are often the focus of public comment. In certain areas the difference in level of provision is very large—notably in primary schools, where Northern Ireland spends eighteen times as much per pupil from public funds as the Republic on non-teacher items, and where any reasonable allowance for privately financed expenditure comes nowhere near closing the gap. At the second level, the differences while large are not nearly as great as at the first level, except in the case of "non-educational" items such as school meals, milk and health services where publicly financed provision is virtually absent in the Republic.

9. In Chapter 6, Mr Sheehan discusses the relationship between educational planning and manpower policy, and the relevance of that relationship to the present educational system in this country. He concludes that manpower forecasting and planning should be principally concerned with relatively short-term "active manpower policy" instruments rather than with long-term targets for the development of the educational system. He states that if any medium to long-term plans are to be developed for the educational system, then the plan-

ning process must be developed in such a way as to make the best use of information in a changing and uncertain environment.

10. In the following paragraphs we comment on some of the policy implications of Mr Sheehan's analysis, with particular reference to their distributional consequences.

11. Table B overleaf shows the relative importance of expenditure on education within total public expenditure. The population projections for the next ten years indicate that public expenditure on education must rise significantly if standards are to be maintained while the number of students grows. However, there are limits to the rate at which total public expenditure can be increased. More for education must, therefore, mean less for other things.

12. In these circumstances, in commenting on education expenditure we are not deciding a priority for it. We hope to be in a position to discuss priorities when we have had the opportunity of examining the results of a study on public expenditure which is now nearing completion. Our conclusions and recommendations at this stage indicate what we think should be done if more resources were (or could be) made available for education. Some of our recommendations, however, could be financed by a reallocation within the funds currently spent on education.

13. Access to education is of major consequence in determining a person's subsequent life-chances: in particular, his ability to follow a career of his choice and to benefit from further education and training. An individual's access to education will depend among other things on his family circumstances, and the degree to which the pattern of expenditure on education takes these into account.

Resource allocation between educational levels

14. Compulsory enrolment from age 6 to age 15 dictates the rate of participation in first level education and most of second level educa-

TABLE B
Public Expenditure on the Social Services

	1972-73		1973-74		1974-75		1975	
	£m	% of total public expenditure	£m	% of total public expenditure	£m	% of total public expenditure	£m	% of total public expenditure
Education	113.7	12.5	139.3	12.4	164.5	12.0	197.5	11.5
Health	111.9	12.3	141.3	12.6	162.9	11.9	202.6	11.8
Housing	95.7	10.5	133.3	11.9	173.9	12.7	202.6	11.8
Income Maintenance	153.3	16.8	207.8	18.5	281.9	20.6	364.9	21.3
Total Public Expenditure on Social Services	474.6	52.3	621.7	55.5	783.2	57.3	967.6	56.6
Total Public Expenditure	912.0		1,120.4		1,367.1		1,710.6	

Source: Review of 1974 and present outlook—June 1975.
Pr. 4532. June, 1975

tion. However, at the senior cycle of second level education, and at the third level, participation rates depend on a number of factors:—

- the cost to a family, both in fees and other direct costs (e.g. maintenance) and in income foregone by a child remaining in education. Both of these are costs in the short-term, but they impose such a burden that it becomes very difficult for families, especially those in lower income groups, to keep their children at school;
- job opportunities: children tend to continue in education, particularly to the third level, when job opportunities are poor;
- the attitude of parents towards education, and their ambitions for their children;
- where the family lives: for example, the introduction of free school transport has been a significant factor in equalising educational opportunities for rural children in comparison with their urban counterparts;
- the emoluments available in jobs requiring second or third level education as compared with those available to those who embark on a career at 15 years of age;
- the number of places available: children can be prevented from remaining in the educational system, especially at third level, if the supply of places available does not match demand;
- capacity of the children to benefit: some children fall so far behind at primary level that it is difficult for them to proceed to higher levels of education.

15. It is at the senior second level and at third level that wide differences in participation rates occur between different social groups. These have important implications for equality of educational opportunity. This is especially the case at the third level, where there have been many requests for larger and more comprehensive students' grants, in order to ensure that those with the intellectual capacity to

benefit are not denied access by the inability of their parents to pay fees and maintenance costs.

16. The quality of education received by children during the years when they are compelled to attend school is of fundamental importance to their progress in later life. In particular, their performance at that stage is a significant factor in determining their access to further education and training. We therefore, put most emphasis on the education of the compulsory (6-15) age groups because:—

- (i) Expenditure per primary school pupil is very low, relative to second and third level pupils, and will remain so even allowing for present plans for capitation grants of £6.50 per pupil in primary schools.*
- (ii) In primary schools there is a significant number of very large classes, together with a high average pupil-teacher ratio. This is especially true of urban areas. (In the school year 1973-74, 80% of the national school pupils in Dublin were in classes of 35 pupils or more, and 74% of the classes in national schools in the same area contained an average of 42 pupils). There is some evidence which suggests that large classes may have educational disadvantages.
- (iii) Since everyone has a relatively equal chance of benefiting from expenditure increases on primary schools, a shift of expenditure in this direction is relatively progressive, and, in the short run at least, would be regarded by all as socially desirable. Moreover, in the longer run, increased expenditure on primary schools should lessen inequalities of access to higher levels of education, and therefore improve job and earnings opportunities.

17. An increase in expenditure on primary education will not, of course, solve all the problems—for example, by itself it will not close

*See Mr Sheehan's Report Chapter II.

the gap created by the differing cultural and social backgrounds of pupils and teachers, nor will it change the attitudes of parents towards the importance of education. However, extra expenditure at primary level would ease many of the problems that now exist.

18. On the other hand, increased expenditure that would enable more students to proceed to third level would, taken in isolation, increase demand for third level places. Moreover, there is considerable evidence to show that it would be an ineffective way of promoting increased equality of opportunity. In a study on the social background of first year university students in Ireland carried out in 1965, Monica Nevin found that only 2% of the students came from lower income groups. She concluded that while an increase in the value of scholarships and grants would help to bring children of parents with moderate means into university, more would have to be done before the point of university entrance. She stated:*

"Potentially able children are lost to university through failure to complete secondary education; . . . a first aim would be to increase the proportion of children from lower social groups completing secondary education."

19. While this aim may have been partially achieved by the introduction of "free" secondary education, that scheme does not take into account the income lost to a family when children remain in school beyond the compulsory school age of 15. Since no grant or scholarship scheme is available to students or their families to help them bear the indirect costs of remaining in education beyond this age, there is an obvious disincentive to children of low-income or large families to stay on in school, and this, in turn, reduces the chances of such children continuing education to third level. Any significant changes in schemes of financial support must be considered in the context of the system as a whole and selective grants to senior second level pupils might

*Nevin, Monica: "A Study of the Social Background of Students in Irish Universities", *Journal of the Statistical and Social Inquiry Society of Ireland*, Vol XXI, Part VI, 1967-68.

ultimately (if they were complemented by suitable priorities for primary education) do more for equality of educational opportunity than an improvement in present third level grants.

20. Since there are at present severe budgetary constraints on public expenditure in general, supplementary sources of finance must be carefully considered. Apart from the payment of fees (which seems to be absolutely ruled out as a matter of policy, except for the Universities) there is the possibility of loans to third level students. Many third-level courses confer significant economic benefits on those who complete them, and loans are an appropriate means of financing them—the most costly courses tend to be those which result in jobs with the highest average earnings. This way of financing students at third level may be more acceptable than non-repayable grants financed by the general taxpayer. The exact terms of a loan scheme would be important; a wide variety of subsidised loan schemes is still possible, but the principle of shifting some of the burden of additional expenditure from the general taxpayer to the graduate is preserved.

21. A mixed system of loans and grants for student support should be examined: for example, selective grants at the second level. There already exist children's allowances and tax allowances for dependent children, conditional on their remaining in full-time education. The possibility of loans to students, whose performance shows that they are likely to complete their course successfully, should be explored. The possibility of a graduated fees system, where the payment of fees is related to the ability of the student's family to pay, should also be considered. These would be methods of shifting some of the expenditure from the taxpayer to parents whose means are sufficient to bear the burden or to students who had completed their courses.

Allocation of money within educational levels

22. At first level, pupil-teacher ratios and large classes coexist with relatively low expenditure on teaching aids, heating, cleaning, school maintenance, books, equipment, etc. While all of these need attention, the highest priority should be given to improving pupil-teacher ratios.

Since classes with high pupil-teacher ratios are concentrated in urban areas, they can have an adverse effect on the educational opportunities of a high proportion of school children, particularly those in lower income groups. Any significant improvement in the ratio would have clear educational advantages, and would contribute to reducing educational inequality.

23. Two other areas need special attention: remedial teaching and free school books. One result of large classes is that some children make less progress than their fellows, and from an early age develop disadvantages which are very difficult to overcome. If these children are to gain the benefits from education which are their right, then adequate provision for special remedial teaching must be made. (In the school year 1974-75, there were 546 remedial teachers employed. However, some recent and as yet unpublished studies on levels of illiteracy indicate that this may not be enough).

24. The provision of school books is a costly item for parents, and one which is made more costly by frequent changes in the books that are required. Consideration should be given to the possibility of expanding the present limited scheme of free school books. A universal scheme for free books would probably be easiest to implement on administrative grounds, and would remove the present invidious position of the minority who are judged to be in sufficiently straitened circumstances to qualify for free books. This suggestion may seem to conflict with our earlier suggestion that schools fees should in some way be linked to parents' ability to pay. However, until recently there has been a degree of stigma attached to qualifying for free books. This was invidious for the children concerned. Provided books are not changed too frequently, it should be possible to keep the costs of a universal free books scheme down to a reasonable level. As long as some parents are unable to afford the full range of school books for their children then the present situation fosters inequality of opportunity from the age of 5 to 6 upwards.

25. At the second level, expenditure per pupil varies widely between secondary, vocational and community/comprehensive schools. The

position of the vocational sector has improved relative to other schools at second level between 1961-62 and 1973-74 in terms of *real* expenditure.* In recent years inflation has caused the value per pupil of capitation grants to secondary schools to fall, while real resources for vocational schools have risen significantly. Present levels of investment in comprehensive and community schools are artificially high—as enrolments at such schools increase, the level of current resources per pupil will fall. If capitation grants to secondary schools do not rise in line with costs, then either educational quality or the range of subject choice must suffer, or a system of fees disguised as charges for extra subjects could emerge. The increase in capitation grants for secondary schools announced earlier this year may have improved the position of secondary schools relative to vocational schools.

26. At the third level no explicit decision has been made officially or criteria accepted, regarding total commitment of money and resources or their distribution among the different institutions. Any such decisions must have regard to the varying types of demand for third level education and to social policy generally, and must of course be related to manpower policies. If objectives are identified, changes in the level of subsidies, fees, student grants and/or loans are methods that might be used to achieve them. Better information on course costs is also necessary if rational financial decisions are to be made. We understand that the HEA is addressing itself to some of these problems.

27. At all levels of the educational system, decisions on capital expenditure appear to be made by reference to short-term require-

*To some extent the more favourable position of vocational schools may be explained by the following:

- (a) pupil/teacher ratios tend to be lower in vocational schools than in secondary schools;
- (b) the subjects taught in vocational schools tend to require greater expenditure in non-teacher items;
- (c) vocational schools since 1970 have started teaching to Leaving Certificate level.

ments because of financial uncertainty. While inflation at present rates makes it difficult to maintain real public expenditure, in practice there are some areas where exceptional problems arise. Capital expenditure poses particular difficulties, because of the time lags involved. These difficulties are currently most acute at primary school level. Under the Constitution, the State is obliged to provide free primary education.* While the State provides a high proportion of the building costs of primary schools, local communities are obliged to find—and purchase—the land for such schools themselves. Given the cost of land—particularly in urban areas—local communities have great difficulty in raising the necessary finance. Unless the State provides the cost of the land needed for schools, a situation could arise in developing urban areas in which children are denied the right to a proper education because the schools are not there.

Manpower Policies and Expenditure

28. We have already discussed manpower policies at some length—in our comments on the OECD Report on Manpower Policies in Ireland.† They are mentioned here in the context of expenditure and resource allocation in education.

29. In their Report No. 16 *Comments on 'Investment in Education'*,** the National Industrial Economic Council emphasised the relationship between education and economic growth. They pointed out that “additional education increases the individual's earning capacity by enhancing his potential contribution to production”. They also stated that “education, by equipping people for the fulfilment of their duties as members of a democratic society, improves the quality of economic and social decisions”.‡ These views, which we accept, together with the population projections contained in our Report No. 5: “Population

*Article 42 (4)

†NESC No. 6.

**NIEC Report No. 16: *Comments on "Investment in Education"*, Pr. 8886, Dublin 1966, Paragraph 7.

‡*Op. Cit.* Paragraph 8.

and Employment Projections 1971-1986", highlight the need for a close relationship between education and manpower policies.

30. At the second level a wide range of subjects and a comprehensive curriculum enable students to choose the subjects (if they so wish) that prepare them for the job opportunities that are likely to be available. The policy of amalgamating some existing small secondary and vocational schools into community schools, and of increased co-operation between schools, will both help in this direction. However, secondary schools will contain a majority of second-level pupils for many years to come, and pressures that would tend to narrow their curriculum (especially in the science subjects) would not be desirable.

31. At the third level, the relationship between the current financial and institutional framework is extremely complex. The importance of technological training to the economy is generally accepted—and any current short-term economic and employment difficulties should not obscure this. However, the current system of financing the individual at third level may mean an over-production of some types of graduates (medicine being the most notable case) and a scarcity of others. Furthermore, because of the high earnings prospects of some graduates, the present method of university financing results in a very large discrepancy between the relatively low costs incurred by the individual (because of the very high subsidy from public funds) and the income he may subsequently earn.

32. This is only one example of how a greater differentiation in the subsidy/fee/loan/grant mixture between third level courses could serve manpower (as well as social) policies. Such measures also require better data about the cost of different subjects and courses. Such data are necessary if the present position (in which the relation between university fees and the costs of the courses provided seems largely to be determined by tradition) is to be improved.

Information Needs

33. Published information on the education system has in recent years been inadequate in several respects :

—there is a long time-lag before information becomes available*

—less information tends to be published†

—the type of information being provided is inadequate‡

—no enrolment or other forecasts are published regularly

The gap in information is sometimes filled by answers to parliamentary questions. In its comments on "Investment in Education" (Report No. 16) the NIEC also points to the inadequacy of the information available to those responsible for education planning.

34. Coherent planning for the future development of education is possible only if there is good statistical and other information available about the education system. It was one of the main reasons why *Investment in Education* so strongly recommended the setting-up of a development unit within the Department of Education.

35. The need for public accountability for expenditure is another reason why more information on education should be made available. The needs of financial accountability for expenditure are, of course, fulfilled by normal budgetary accounts and the reports of the Comptroller and Auditor General. But it is our view that accountability to the community should have a wider meaning, especially in education where every family is at some time an interested party, and where social research as well as informed comment are dependent on the flow of information from Government departments.

*For example statistics relating to 1967-68 were published in mid-1972; statistics for 1968-69 to 1971-72 became available in mid-1974, but in this case the amount of information was reduced.

†The omission of comprehensive data on enrolments and participation by age from 1968/69 onwards is an important example.

‡There is a tendency to publish a lot of material on examination and promotions (and non-promotion) between classes which is a by-product of administration; while adequate information on financial, regional, and survey based data is scarce.

36. What is required is reasonably up-to-date annual information on the numbers of schools, pupils and teachers of various categories, examinations and expenditure. In addition, information on regional educational flow patterns, aggregate participation and school building should be made available annually. Other information could be gathered and published at less frequent intervals, as part of a process of building up a stock of data on the social aspects of the educational system. Finally, published data should include forecasts of participation rates, enrolments, teacher requirements and school-building needs over a period of 10 to 15 years. The improvement of educational statistical information is a first step towards improved policy making, control, and public accountability.

Education and Social Policy

37. The educational system has an extremely important role to play in the development of people and therefore of society. It is an integral part of all policies, whether they be economic or social. It is therefore essential that there should be a set of coherent educational objectives, which sets out clearly the future developments for education, and relates education to other policies.

38. So far, successive Governments have not published any coherent set of objectives for the educational system. However, from time to time there have been statements on specific aspects of the system. Since the publication of *Investment in Education* in 1965—which was published jointly by the Government and the OECD—there has been no White Paper on Education. Since educational interests are not represented on the NESC, we do not see it as our role to fill this gap. We would see our function as commenting on Government proposals when these are published.

Conclusions and Recommendations

39. Our main conclusions can be summarised as follows:

- (i) Increased expenditure on the compulsory education age-group would do most to promote equality of opportunity in education.

- (ii) A more rational approach needs to be taken towards second level education. There are two aspects of particular importance here. First, secondary schools have, on a per-pupil basis, been getting a decreasing level of non-teacher current resources in recent years. This could have educational consequences which are undesirable from both a social and manpower policy point of view. Second, vocational schools, although getting relatively more public resources than secondary schools, face particular problems. There is some evidence that the vocational schools may have to deal with more than their fair share of those students who have suffered from educational disadvantages in primary schools. This problem needs to be investigated further, in particular with regard to the need for special teachers and curricula to deal with such problems.

- (iii) Under present arrangements, many parents may find it difficult to keep their children at school after the compulsory school leaving age of 15 years. This means that these children are effectively denied access to third level education. It also works in the same direction as other forces in perpetuating inequalities.

- (iv) At the third level, the cost to its participants does not seem to be closely related to either equity or manpower criteria.

40. In Paragraph 12 above, we stated that at this stage in our work we could not give priorities for different categories of public expenditure until our study of public expenditure as a whole was completed. The following recommendations therefore do not mean that additional expenditure on education is being recommended. Some of those recommendations which would require additional expenditure might be financed by a reallocation within the existing expenditure on education. If it should happen that funds were made available for education over and above what would be required to maintain standards as the number of pupils grows, then our recommendations indicate the areas which should be given priority.

41. Our recommendations are as follows :

- (i) Increased expenditure is needed on education for compulsory age-groups.
- (ii) Long-term decisions relating to the development of third level education need to be taken urgently.
- (iii) A significantly greater flow of information relating to all levels of education is needed to inform both policy makers, and educationalists, and so make possible coherent and comprehensive educational planning.
- (iv) Education is important in contributing towards the redistribution of both incomes and opportunities. Arrangements should thus be made to assess the impact of present policies on the redistribution of income and life chances.
- (v) A mixed system of loans and grants for student support at senior second level and third level should be examined, as should the possibility of a graduated fee system where the payment of fees is related to the ability of a student's family to pay.
- (vi) Adequate provision should be made for remedial teachers, so that children who are educationally disadvantaged will be able to gain full benefit from education.
- (vii) Consideration should be given to the possibility of extending the present free books scheme at primary school level.

PART II

EDUCATIONAL EXPENDITURE IN IRELAND

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INTRODUCTION AND SUMMARY

This paper* examines the trend of educational expenditure in Ireland in the past 10 years (i.e. since the publication of *Investment in Education*). Some conclusions emerge which are of relevance to social policy. They are briefly set out at the end of this introduction.

Chapter 1 discusses the policy background—i.e. *Investment in Education* and subsequent policy developments, notably the creation of new types of educational institutions such as community and comprehensive schools and Regional Technical Colleges, and also changes intended to promote increased educational opportunities such as "free" second level education.

Chapter 2 analyses current expenditure per pupil in first and second level schools. Estimates are made of real expenditure—i.e. the inflation in the price of goods and services used to provide education is allowed for. The result is remarkably low growth in real expenditure in many areas notably primary schools, and also secondary schools, once the displacement of fees by public expenditure is allowed for.

Chapter 3 analyses capital expenditure at the first and second level. The sources of demand for new school places are examined, with a view towards the formulation of priorities and long-term building programmes. Also, the number of temporary pre-fabricated classrooms

*The author is grateful to Mr John Beggs for his help in compiling statistical material and for comments on early drafts of the paper. Also the secretariat of the NESC have been most helpful at every stage with the provision of facilities and the arrangement of interviews. The author would also like to express his thanks to officials of the Department of Education, especially Mr W J Hyland for the information, statistical and otherwise, they have provided. Any shortcomings of the present paper must of course be attributable to the author alone.

built in recent years is estimated, together with the replacement needs which will follow over the next decade.

Chapter 4 is a brief summary of expenditure trends at the third level.

Chapter 5 compares expenditure levels per pupil in England and Wales, Northern Ireland, and the Republic (this follows on an earlier, less detailed comparison by the NIEC in 1966). Expenditure is significantly lower at most levels in the Republic, but especially for primary schools' non-personnel items (school heating, cleaning, painting, classroom materials, books etc.), and for "non-educational" items (meals, milk, health, transport etc.).

Chapter 6 examines manpower policies which must form part of any assessment of past expenditure or of future development plans for the educational system. It is argued that the emphasis should be on short-term forecasting and on educational developments which allow for the flexibility necessary to meet changing situations in labour markets. Longer-term target-oriented manpower planning is founded on dubious premises and if past performance is anything to go by is not sufficiently accurate.

The principal social policy conclusions, most of them relating to the promotion of increased equality of opportunity and of access to the educational system, are :—

- (i) Greater emphasis should be given to the universal-education age-groups (under 15's), especially with regard to primary schools which at present have low levels of resource endowment. The probability of increased expenditure benefiting disadvantaged groups is by definition greater when it is concentrated at this level (this does not necessarily imply however that the key to social and economic opportunity is educational opportunity. There are many other factors at work).
- (ii) Within the second level, secondary schools have, on a per-

pupil basis, been getting a decreased absolute and relative* level of real expenditure in recent years. The social and manpower consequences of this could be undesirable if curricula are restricted because of expenditure constraints.

- (iii) The direct support given to second level pupils aged 15+ needs to be examined with regard to influences on subsequent (i.e. third level) opportunities. At this stage of the second level the real costs of education are high because of forgone earnings from work, and are a strong disincentive to children of poorer and larger families (and to their parents).
- (iv) At the third level financial as well as institutional policy decisions need to be taken urgently. These decisions involve the size of the third level and the way it is to be paid for. Both social (i.e. equity regarding opportunities) and manpower factors are relevant to any such decisions, and for some areas where third level education confers high earning power, the repayment of educational costs by the recipient should be considered.
- (v) At all levels a significantly greater flow of information is needed from official sources to all policy makers and interested parties. This is necessary for proper decision-making and for informed policy debate.

*Relative to vocational and community/comprehensive schools.

CHAPTER 1

EDUCATIONAL POLICY DURING THE PAST 10 YEARS

This first chapter summarises recent policy developments and the policy background to educational expenditure decisions since the publication of *Investment in Education* in 1965.

INVESTMENT IN EDUCATION: In October 1962, the Minister for Education, in conjunction with the Organisation for Economic Co-operation and Development (OECD) initiated a survey of the Irish educational system. The purpose of this survey was to assess the likely needs of the Irish economy for skilled and educated manpower and to examine ways in which the Irish educational system might be utilised in order to meet these manpower needs.* The report of the survey team, entitled *Investment in Education* was published in 1964-65. This report has formed the basis for much of Irish educational policy since 1964, and a brief description of its method of approach and of some of its principal findings is essential to any discussion of the development of Irish educational expenditure.

While the main purpose of the survey team's report was an assessment of the economy's manpower requirements (classified by educational level) and their relation to the educational system's projected output of manpower, there is a large amount of information and analysis in the report which is of more general social, educational and economic interest.

First, new statistical information which the survey team collected was considerable. This is because Irish educational statistics had usually been collected as a by-product of the process of administering

*See *Investment in Education*, Dublin 1964, terms of reference Vol. 1, p. xxix.

a largely privately owned and managed grant-aided system. The most important new information was on the flow-pattern of pupils of various ages through the educational system, and on the stock of human and material resources available.

In addition there were survey-based data of participation in full-time education by socio-economic group, and for manpower forecasting purposes special demographic forecasts were constructed. Some of these statistics have since been gathered annually by the Department of Education—notably those on pupil flows,* but information on the stock of human and material resources, participation by socio-economic group and estimates of private expenditure have not been available on a regular basis.† Public expenditure data for education is available from the annual Budget estimates and appropriation accounts, but they are widely scattered through various headings and there are problems in interpreting the figures as published.‡ In the course of the present study, the availability of statistical information will be the subject of further comment.

As well as gathering new and valuable data, *Investment in Education* conducted a cost-effectiveness analysis of resource use in primary schools. This consisted in comparing cost per pupil (both current and capital) in schools of various sizes with various indicators of "output" or benefit per pupil—such as range of subjects in the curriculum, rate of progress through school etc.

The very small (i.e. one and two teacher) schools were shown to be inefficient in terms of the indicators used. This analysis has been important in influencing subsequent Department of Education policy towards small national schools. In addition *Investment in Educa-*

*However information relating to the 1969-1974 period has not been published
†There have been special surveys and studies on some aspects: for example, on participation K. Cullen, *School and Family*, Dublin 1969; on capital expenditure, J. Beggs *Public Capital Expenditure on Education in Ireland 1948-1973* (unpublished M.A. thesis, UCD, 1974) on attainment at the third level, M. Nevin, *School Performance and University Achievement*, Dublin (HEA) 1974.

‡See J. Beggs, *op. cit.*

tion analysed certain aspects of resource-use at the second level— notably the supply of specialist teachers for various subjects in relation to the demand for them, and also the utilisation of school buildings.

The principal purpose of the Investment in Education survey was, as has been stated, the estimation of supplies of and demands for manpower during the 1964–1970 period. On the demand side, the economic growth targets of the Second Programme for Economic Expansion provided a starting point, from which forecasts of total employment, employment classified by skills and qualifications, and finally the educational requirements for these skills and qualifications were derived. On the supply side a forecast was made of the numbers expected to leave the educational system with various levels of completed (and incomplete) education. This was done on the important assumption that existing (i.e. 1962–63) policies and levels of finance would prevail, i.e. that the relative price of education to its “consumers” would remain constant. The principal result of these supply and demand forecasts was a very large expected surplus (about 7,000 per annum) of school leavers with minimal amounts of education, i.e. completed first level or less. This was matched by an equally large forecast deficit (7,500 p.a.) of those with completed junior-cycle second level education.*

For senior-cycle second level and for third level, supply and demand were expected to be in balance.† The survey team commented further that these findings were consistent with the low educational level of most emigrants in the past. Furthermore they were consistent with a growing shortage of technicians which had already been identified in a previous OECD report;** trainee technicians require a junior-cycle second level qualification, in technical subjects if possible.

The only specific policy proposal‡ of *Investment in Education* was

*i.e. with Intermediate or Group Certificate, or equivalent.

†This refers to totals. Individual specialist qualifications may be scarce, e.g. science and mathematics graduates.

***The Training of Technicians in Ireland*, OEDC Paris 1964.

‡Investment in Education, Ch. 13.

the creation of a development unit in the Department of Education. Such a unit was seen as an essential prerequisite for the formulation and execution of any programme of educational development. The development unit, according to the recommendations, was to be an integral part of the administration of the Department, but at the same time it was to maintain professional independence in its work of statistical analysis, conduct social surveys, and promote and assist educational research. The overall purpose of the development unit was seen generally as the provision, directly or indirectly, of the information necessary for national decision-making and plan formulation, and specifically the provision of more up-to-date and comprehensive educational statistics.

In 1966 the NIEC published its comments on *Investment in Education*.* The Council drew attention to the social implications of unequal educational participation as revealed in the report, and to the manpower needs of industry. It also made some recommendations as to how scholarships and grants might be used as a means of improving the situation. The final and most emphatic of the NIEC's comments was about the proposed development unit in the Department of Education, and may be summarised as follows:

- (i) The proposed development unit was urgently needed in order to provide more information, not only for internal decision-making, but also to inform professional and other interests outside the Department of Education.†
- (ii) Educational planning required the formulation of policy objectives, as well as plans directed towards their fulfilment. The institution of a Council of Education was urged in order to channel professional advice to the Minister for Education. Also more outside (i.e. outside the Department of Education) advice on such matters as examinations and curricula was desirable.

*NIEC Report No. 16 *Comments on Investment in Education*, Stationery Office, Dublin, 1966.

†Also the unit should probably be larger than that proposed in *Investment in Education*.

From all of this it can be seen that in 1965 and 1966 the publication of *Investment in Education* and its aftermath provided the basis for many subsequent educational policy developments. First, it supplied a great deal of new information on the Irish educational system. Second, it revealed how future expansion and development were desirable for both social and economic reasons. Finally, and most important, it opened up a considerable volume of official and private comment and debate, of which the NIEC report mentioned above was just a small, but important, part.

MAIN POLICY DEVELOPMENTS, 1963-1974: Some of the principal findings of *Investment in Education* were anticipated by policy innovations in 1963 and 1964. In May 1963 the then Minister for Education, Dr Hillery, announced the proposed establishment of comprehensive schools controlled and financed by the Department of Education. These were introduced to counteract regional deficiencies in educational provision and to provide broader second level subject choices than had hitherto been available. The proposed Regional Technical Colleges were announced at the same time. Then in 1964 a scheme of building grants for secondary schools was announced. These developments foreshadowed subsequent major advances in State financial and organisational involvement at that level.

Following the publication of *Investment in Education* in 1965 a large scale rationalisation of primary schools was started,* with the objective of eventually closing most one and two teacher schools.

This was complementary to the development of generally free school transport services (which started in 1967-68) and with the introduction of a new and broader primary school curriculum in 1970-71. By 1972, about 400 one teacher and 900 two teacher schools had been closed or amalgamated. In 1972 the minimum school leaving age was raised from 14 to 15 years; this however had its principal effect on second level enrolments as the transition to second level is almost complete by the age of 13.

*See *Investment in Education*, Ch. 9, for the cost effectiveness analysis of primary schools, already referred to.

At the second level, policy developments were radical and far-reaching, and they have not yet (1974) worked themselves out fully. In September 1967, second level education was made available free of charge to all who wished to avail of it.* A few schools, mainly in the Dublin area, opted out of this scheme. Free school transport was introduced at the same time for those living more than 3 miles from the nearest second level school. Also, vocational schools were expanded to cater for increasing demand for places, and were broadened in scope by offering Intermediate and Leaving Certificate courses. Finally, the move towards comprehensive schools, started in 1963, was given a further impetus in 1970 when it was decided to establish community schools in areas where agreement could be reached on the amalgamation of existing second level schools, and in areas of rapidly expanding population. The community school has a comprehensive curriculum, and in addition a local community involvement in its affairs which includes representation on the school board, the use of school sports and other facilities by the local people, and the provision of adult education.

Policy developments at the third level have been complex, and at the time of writing are a matter of continuing discussion. The Commission on Higher Education (1960-1967) recommended that the NUI Colleges should get independent university status and that new Liberal Arts colleges ("New Colleges") be founded. The most important immediate policy development resulting from the Commission's report was however the establishment of the Higher Education Authority (HEA) in 1968. The HEA was to act as co-ordinator of future third-level developments and finance was to be channelled through it. In 1969 a grants scheme for university students was introduced—and approximately one quarter of all students were eligible. In the university sector there has been continuing uncertainty about institutional development. A Ministerial proposal in 1968 for the amalgamation of TCD and UCD did not come to fruition; neither did the universities' own counter proposals for rationalisation and co-operation. Recent

*This development affected the secondary schools mainly. Vocational and comprehensive schools did not charge fees to any significant extent. A separate scheme of scholarships and grants was instituted for Protestant schools.

ministerial statements (December 1974) have proposed separate but co-operating universities in Dublin, a new National University embracing UCC, UCG and some other institutions, together with freedom of some other colleges (including technological institutions) to affiliate or associate with the university of their choice.

Apart from changes to and expansion of existing third level institutions, a number of Regional Technical Colleges (RTCs) has been provided. These colleges combine second and third level technical and technological activities, with a tendency to concentrate more on the third level. They were founded in response to the widely felt need for technician training and in order to provide technological education in areas where it was largely non-existent. A new National Institute of Higher Education (NIHE) has been established in Limerick, with a strong scientific and technological base, and a national college of physical education has been established in conjunction with NIHE. (It is further proposed to establish an institution similar to NIHE in Dublin). All of these institutions, together with the existing colleges of technology in Dublin and Cork (and also the teacher training colleges from 1974-75), now offer courses up to degree level. Degrees and diplomas are awarded by a National Council for Academic Awards set up in 1972, but recent (December 1974) proposals are for degrees to be awarded by a university with which the particular college becomes associated.

Complementary to these policy changes there have been changes in the structure of the Department of Education, in addition to the setting-up of the Development Branch. In 1967-68 a Building Unit was established, and has responsibility for planning, cost-control and supervision of all second level building. Since 1969 it has also been involved with third level building, and in respect of HEA-funded institutions, acts as technical adviser to that body. Responsibility for the technical aspects of first level building rests with the Office of Public Works, but it is proposed to transfer this to the Building Unit soon. Finally a programme budgeting unit was established in the Department in 1969, and to date two programme budgets have been prepared.

These policy developments may be summarised briefly as follows :

- (i) At the first level, the emphasis was on the rationalisation and improvement of facilities, as enrolment growth was relatively low.
- (ii) At the second level the increase in demand for places consequent on the abolition of fees has led to rapid enrolment growth and significant institutional development—notably comprehensive and community schools.
- (iii) At the third level there has been increasing emphasis on technological education, but most growth to date has been a response to rising demand rather than a consciously promoted development.

EXPENDITURE : Partly as a result of the policy developments outlined above, public expenditure on education rose from £19.5m in 1961-62 to £35.6m in 1965-66, £76.5m in 1970-71 and £144.7m in 1973-74. However the main reason, especially in more recent years, for this increase has been the high rate of inflation. This will be demonstrated later when changes in the level of real expenditure on various types of education are calculated.

A preliminary indicator of the increasing importance of public educational expenditure is its share of GNP : 3.05% in 1961-62, 4.34% in 1965-66, 5.39% in 1970-71 and 6.29% in 1973-74. It is worth noting that large increases in education's share are the rule in most countries since the Second World War.*

Table I-1 shows the increase in expenditure both in absolute terms and as a proportion of national product and government expenditure since 1969-72.

*See F Edding's *International Developments in Expenditure*, (UNESCO, Paris, 1969) where the rising share of education in the national incomes of nearly 90 countries, of all regions and stages of development, is demonstrated.

TABLE I-1

Educational Expenditure in Relation to Government and National Expenditure 1961-62 to 1973-74

	Current Educational Expenditure £m	Capital Educational Expenditure £m	All Education Expenditure as % of GNP	Current Share of all Public Current Expenditure (%)	Capital Share of all Public Capital Expenditure (%)
1961-62	17.36	2.15	3.05	9.37	4.22
1962-63	19.45	3.06	3.26	9.91	5.20
1963-64	21.01	4.32	3.45	9.81	6.65
1964-65	26.18	5.62	3.85	10.42	7.03
1965-66	28.70	6.91	4.09	10.32	7.88
1966-67	33.58	5.66	4.34	11.06	6.85
1967-68	34.73	8.77	4.38	10.28	8.69
1968-69	40.46	11.59	4.64	10.39	8.87
1969-70	56.46	14.16	5.53	12.33	9.02
1970-71	63.60	12.93	5.39	11.58	8.23
1971-72	76.12	13.46	5.58	11.79	7.54
1972-73	93.83	16.16	5.79	12.17	8.04
1973-74	122.89	21.85	6.29	12.75	8.09

Sources: Annual Estimates and Appropriation Accounts. Also *National Income and Expenditure* (Annual).

Notes: (i) Lines (a) and (b) include all education votes except the National Museum and National Gallery. Capital Expenditure by the Office of Public Works on primary schools is also included. VEC's finance some expenditure from rates. This is now a small proportion—£1.8m in 1973-74, and is not included in the above figures.

(ii) Line (c) is the total of (a) and (b) as a % of GNP at factor cost.

(iii) Line (d) is line (a) as a % of all public authorities' (i.e. central and local government, current expenditure as given in *National Income and Expenditure*).

(iv) Line (e) is line (b) as a % of all public authorities' capital expenditure (from *National Income and Expenditure*). This is of course less than the total public capital programme.

While education's share of GNP rose fairly continuously over the 13-year period, its share of public expenditure increased irregularly.

(Public authorities expenditure itself rose from 22.4% of GNP in 1961-62 to 30.9% in 1973-74). Current education expenditure increased from 9.37% of all public current expenditure in 1961-62 to 11.06% in 1966-67. From then until 1971-72 its share fluctuated, and only in the last two years (1972-73 and 1973-74) has it again risen substantially, to 12.75% in 1973-74. These trends do not fit in with policy changes—one would have expected education's share to start rising immediately after free second level education was introduced in 1967-68, together with other policy measures around the same time. Similarly with capital expenditure: all of its increasing share occurred before 1969-70. The reason for this is that the expansion of other government and social services, and the increase in government capital spending in recent years* have been at least as great in their impact as the educational policy changes which have taken place.

Privately financed educational expenditure has in the past been more important in Ireland than in most developed countries. Estimates of total private expenditure are extremely difficult to make. *Investment in Education* estimated that 24% of total educational expenditure was privately financed in 1961-62;† this was expected to fall to about 20% by 1970-71. In fact the share of private finance has almost certainly fallen much more than this because of the abolition of secondary school fees, the institution of student grants, and the rapid expansion of relatively high-cost activities which are practically 100% publicly financed. While the present study is primarily concerned with public expenditure, estimates of private expenditure are made in certain cases where significant policy implications arise.

The coverage of this paper is incomplete. The privately financed sector (including non-aided primary schools) is excluded because of lack of information. Imputation of the value of certain resources, for example the administrative services provided by school managers

*Housing is an example where expansion since 1970 has been considerable in relation to previous years.

†*Investment in Education*, Vol. 1, Table 5.21.

and religious orders, and the "ploughback" of salaries of religious into the schools has not been undertaken, because of insufficient information. Special schools are not included because of their small economic importance (they account for less than 1% of current educational expenditure). Of course their educational and social importance is very great, but their activity is not easily amenable to economic analysis. Third level education is dealt with relatively briefly because of its institutional complexity and the lack of detailed cost information for many institutions. Also, the HEA reports already provide information on an analysis of the activities of many third level institutions; no corresponding reports are published for the first and second levels.

For economic and social reasons the publicly-financed first and second levels, on which our attention is concentrated are of overwhelming importance. They account for over 80% of current and capital expenditure on education. Nearly every child spends a minimum of 10 years in them, and they probably influence people's life-chances in a more important way than any other public institution.

CHAPTER 2

CURRENT EXPENDITURE ON FIRST AND SECOND LEVEL EDUCATION 1961-62 TO 1973-74

This chapter presents the trend of public current expenditure on all first and second level schools during the past decade (non-aided primary schools are excluded; they represent about 4½% of first level enrolments and financial data are almost impossible to obtain). Initially public expenditure figures only are given. Some estimates are however made of private expenditure where this has important policy implications due to recent and proposed changes in educational financing.

Considerable reworking of published budgetary and educational statistics was necessary because most Irish schools are privately managed, grant-aided institutions. Grants are not always tied to specific resource-use (especially at the second level) and may be supplemented by considerable locally-raised private finance (especially for primary schools).

FIRST LEVEL (Aided primary schools)

The following table (2-1) shows public current expenditure (total and per enrolled pupil) for various years in the 1961-62 to 1973-74 period.

The very large increases of over 300% in total expenditure over a 12-year period are largely due to inflation: enrolments increased by less than 5% between 1961-62 and 1973-74. The pupil-teacher ratio showed some improvement, but increases in teachers' pay accounted for over 95% of the increase in teaching costs per pupil.

TABLE 2-1

Total and per pupil annual public current expenditure on Aided Primary Schools 1961-62 to 1973-74

A: Total Expenditure (£m)

	Teachers salaries(a)	School transport	Other	Total
1961-62	10.85	0.03	0.17	11.05
1965-66	17.70	0.05	0.35	18.10
1970-71	26.59	1.13	0.66	23.38
1973-74 (b)	43.39	2.25	1.28	46.92

B: Expenditure per enrolled pupil (£)

	Teachers salaries(a)	School transport	Other	Total
1961-62	22.56	0.06	0.35	22.97
1965-66	36.79	0.10	0.72	37.61
1970-71	52.89	2.24	1.31	56.44
1973-74 (b)	84.04	4.35	2.47	90.86

Sources: *Estimates for The Public Services* (Annual) S.O., Dublin; *Appropriation Accounts* (Annual) S.O.: Dept. of Education Reports 1966, 1968, 1969-72; *Investment in Education*, S.O., Dublin 1965.

Notes:

(a) Teachers salaries include superannuation contributions by the Department of Education in this and all subsequent tables.

(b) 1973-74 figures are from official estimates in this and all subsequent tables.

Table 2-2 below indicates the trend of real expenditure. The method used to derive this table and similar tables for other sectors of the educational system is as follows. Either an input price index with which to deflate money expenditure, or a quantity index of resources purchased, is necessary in order to estimate real expenditure, in the sense of real resources or inputs into the educational system. In the case of teachers' salaries, which is by far the largest item, a quantity index was constructed, based on the number of teachers employed

TABLE 2-2

Real expenditure per enrolled pupil in Primary Schools 1961-62 to 1973-74

A: Expenditure at 1961-62 input prices

	Teachers' Salaries	School Transport	Other	Total
1961-62	22.56	0.06	0.35	22.97
1965-66	23.59	0.08	0.60	24.27
1970-71	24.43	1.45	0.85	25.73
1973-74	23.90	2.13	1.21	27.24

B: Real expenditure indices 1961-62 = 100

	Teachers' Salaries	School Transport	Other	Total
1961-62	100.00	100.00	100.00	100.00
1965-66	104.57	125.00	171.43	105.66
1970-71	103.86	2,414.66	242.86	112.02
1973-74	105.94	3,550.00	345.71	118.59

Sources' See Table 2-1.

Notes' See text.

in the initial year (1961–62).^{*} For subsequent years the number of teachers of various categories (trained, untrained, etc.) was weighted by their base-year relative salaries to get an employment (i.e. quantity) index. Other items were deflated by a general price index, as special indices for school transport, maintenance etc. were not available. It seems reasonable to assume that costs of current items other than teachers' salaries rose approximately at the same rate as the general price level.[†]

Nearly half the increase in average real expenditure per pupil is attributable to the introduction of free school transport for a significant number of pupils in 1967–68. However this benefit is concentrated on relatively few pupils; by 1972 just over 10% (48,800) of primary pupils were being conveyed to school free of charge. Teacher inputs, which are quantitatively the most important item, increased by about 5% per pupil over the 12-year period. This is due to two factors, first the reduction in the pupil-teacher ratio from 34.3:1 in 1960–61 to 32.5:1 in 1972 and 32.2:1 in 1973; second the continuing replacement of unqualified teachers by qualified and retrained teachers. Other current items showed a large increase in real terms, reflecting the introduction of new grant schemes for school painting, for new equipment, and also increases in existing rates of grant. Two points should however be noted at this stage: (i) the increases are from a very low base and public expenditure per pupil on non-teacher current items is still extremely low;[‡] (ii) in the period since late 1973 exceptional inflation of certain input prices—notably oil for school heating—have had an effect on the real level of expenditure which is not adequately reflected by the use of a consumer or other general price index as deflator. The overall increase in real public expenditure is small, especially when compared with changes which have taken place elsewhere in

^{*}A similar method is used to obtain real expenditure estimates for certain government services in the national accounts. See *National Income and Expenditure 1972*, p. 43.

[†]Vaizey and Sheehan *Resources for Education* (London, 1968) found that this was the case in the UK for the 1945–65 period. In the period since October 1973 many school costs—notably heating and transport—have increased relatively rapidly (i.e. relative to prices in general) because of increased oil costs, but this is almost entirely outside our period, and is clearly due to exceptional circumstances.

[‡]This is dealt with again in Chapter 5.

the educational system, or when compared with other education systems including that of Northern Ireland.

Private Expenditure: Information on private expenditure (i.e. expenditure financed by school managers or their local communities) in the national school system is difficult to obtain. *Investment in Education*^{*} gave estimates for 1961–62. Total private expenditure was approximately £0.95 per enrolled pupil in the Dublin area; nearly all of this went on non-teacher items.

In recent years, enquiries conducted by the Catholic Primary School Managers' Association have produced further information,[†] based on a nationwide and on several diocesan surveys. As there are wide differences between individual schools of similar size, and as the national survey was not based on a random sample, the figures given here are approximate. In 1971–72 expenditure per pupil financed by localities was between £3.00 and £3.50,[‡] excluding expenditure on new equipment.

These figures are net of any matching grants received from the Department of Education.^{**} In recent years therefore approximately 21% of expenditure on current non-teacher items is financed by the Department, and 79% by the localities. This is almost exactly the same as the situation a decade earlier, as revealed in *Investment in Education*.^{††}

^{*}Vol. 2, Appendix VB, page 288. This figure refers to all current locally financed costs, recognised (i.e. eligible for grant-aid) and unrecognised.

[†]The author is grateful to Rev. L. Quinlan, Secretary of the Association for information quoted here.

[‡]The exact figure depends on assumptions made about class-size, as the original data relate to expenditure by schools with different numbers of classrooms.

^{**}These figures exclude £1.50 to £1.70 per pupil spent on new furniture and equipment, which is partly offset by Departmental grants. The figures in the text therefore relate to heating, cleaning, painting and classroom supplies.

^{††}*Op. cit.* Vol. II, Appendix V B.

SECOND LEVEL

As the ownership and finance of different types of second level education differ widely, and as the cost-structures also differ, it is necessary to consider three types of second level institution separately: (a) secondary schools (b) vocational schools and (c) community and comprehensive schools.

Secondary Schools: Table 2-3 below shows total and per pupil current expenditure from public funds. As in the case of primary schools, inflation has meant large increases in monetary expenditure, but in addition the introduction of extra capitation grants in 1967 to cover the abolition of fees in nearly all schools has been an important factor in the increase of non-teacher expenditure. School transport is excluded from consideration at this stage as all categories of second level pupils are transported under the same scheme and a breakdown between categories is not available.

Teachers' salaries increase because of inflationary trends, at much the same rate as for the primary sector. As enrolments more than doubled during the period under review, the aggregate increase is more than twice the per pupil increase. Expenditure on other items (mostly capitation grants to schools) shows an especially large increase between 1965-66 and 1970-71. This reflects the increase in grants in 1967-68 which compensated nearly all schools for the loss of fee income. It is worth noting also that between 1970-71 and 1973-74 non-teacher expenditure per pupil remained virtually static (at £33.00 per annum)—a period in which the general price level rose by approximately 30%.

TABLE 2-3

Total and per pupil current expenditure on Secondary Schools 1961-62 to 1973-74

A: Total expenditure (£ m.)

	Teachers' Salaries	Other	Total
1961-62	2.37	0.65	3.02
1965-66	4.61	1.13	5.74
1970-71	11.65	4.94	16.59
1973-74	21.75	5.65	27.40

B: Expenditure per pupil (£)

	Teachers' Salaries	Other	Total
1961-62	29.47	8.08	37.55
1965-66	46.32	11.35	57.67
1970-71	77.87	33.02	110.89
1973-74	127.04	33.00	160.04

Sources: See Table 2-1.

Notes:

- (i) 1973-74 figures are from official estimates.
- (ii) *Teachers Salaries* includes all expenditure on incremental salaries and on superannuation by the Department. It also includes an estimate of expenditure by schools on basic salaries of teachers—which ranged from approximately £200 per teacher in 1961-62 to £400 in 1973-74.
- (iii) Other items include all capitation and other current grants to secondary schools *minus* the amount of those grants estimated as spent on teachers' basic salaries.

The following table (2-4) shows the trend of real expenditure on secondary schools (using similar methods of deflation to those used in Table 2-2 on primary schools).

TABLE 2-4

Secondary Schools: Real public current expenditure per recognised pupil 1961-62 to 1973-74

A: Expenditure at 1961-62 input prices

	Teachers' Salaries	Other	Total
	£	£	£
1961-62	29.47	8.08	37.55
1965-66	28.23	9.47	37.70
1970-71	29.07	21.32	50.39
1973-74	29.16	16.15	45.31

B: Real expenditure indices

	Teachers' Salaries	Other	Total
	£	£	£
1961-62	100.00	100.00	100.00
1965-66	95.79	117.33	100.40
1970-71	98.64	263.42	134.19
1973-74	98.94	199.88	120.67

Sources: See Table 2-1.

Notes: See text and Table 2-3.

The principal increase in real resources per pupil going to the secondary schools from public funds is in the 1965-66 to 1970-71 period, due to the abolition of fees in nearly all schools and the consequent increase in capitation grants: non-teacher expenditure per pupil more than doubled during that period. However the trend is reversed during the past four years as inflation has eaten away the real value of grants to secondary schools.

There are however two important reservations to be made concerning Table 2-4.

- (i) Capitation grants, which are the principal source of non-teacher or "other" expenditure, are not tied to specific resource use. The schools can use them to finance part-time or non-registered extra teachers.

Insofar as they do and insofar as such teachers' salary rates rise in line with those of registered teachers, then the use of a consumer price index as deflator will understate the true input price increase of other items, and the resulting real expenditure increase will be correspondingly overstated. Thus the figures in Table 2-4 show the maximum possible increase in real expenditure.

- (ii) During a period of transition to "free" education when extra grants replaced fees it would be interesting to estimate the privately financed resources during the earlier period in order to get an idea of total real current expenditure per pupil. This is done in Table 2-5 below.

Table 2-5 uses *Investment in Education's* estimate of fees for 1961-63. Some of these fees were used to finance capital expenditure; the portion going to finance current expenditure (£7.05 per pupil) was calculated as the difference between total current costs per pupil and total Departmental expenditure per pupil.* No information on fees is available between 1961-62 and 1968-69. For the latter year, when the supplemental grants which replaced fees were in full operation, expenditure on such grants was £1.89m, or £14.45 per pupil.

Ignoring the small proportion of fee-paying pupils continuing in 1968-69 we assume that these grants displaced £14.45 of fees per

*Costs were based on data for day schools, so that boarding school fees and possible transfers of Departmental grants within schools to finance boarding costs do not distort the picture. Throughout this analysis we exclude the boarding element from costs and expenditure as far as possible.

pupil attributable to current expenditure on the schools. Fees for the intervening years were estimated by interpolation (the increase between 1961-62 and 1968-69 is approximately 11% p.a.) and reduced to real terms. The resulting estimates are given below, and assume no fee income in 1968-69 or subsequently even though many schools are known to charge fees for "extras" or ask parents for voluntary contributions. There is no way we could estimate these items, even to an approximate degree.

TABLE 2-5

Secondary Schools: Real current expenditure (Public and Private) per pupil 1961-62 to 1973-74

A: Expenditure at 1961-62 input prices

	Teachers' Salaries	Other Public	Private	Total
1961-62	29.47	8.08	7.05	44.60
1965-66	28.23	9.47	8.79	46.49
1970-71	29.07	21.32	—	50.39
1973-74	29.16	16.15	—	45.31

B: Indices of real expenditure

	Teachers' Salaries	Other Public	Private	Total
1961-62	100.00	100.00	100.00	100.00
1965-66	95.79	117.33	124.68	104.23
1970-71	98.64	263.42	—	112.98
1973-74	98.94	199.88	—	101.59

Sources: As in Table 2-1; also *Investment in Education*, Vol. 2, Appendix V C.

Notes: See text.

From Table 2-5 it is clear that overall real expenditure per pupil has changed very little in the 12 years up to 1973-74 once the displacement of private by public finance has been allowed for. The only significant increase was in the years immediately following 1968-69 when total grants were more than enough to displace school fees (as evidenced by the high level of real expenditure in 1970-71). However, since that time inflation has caused the real level of expenditure per pupil to fall by about 10% overall, and by over 20% in the case of non-teacher items. It is worth asking whether this has put pressure on schools to reduce the range of facilities and subjects provided, or to attempt to raise private voluntary contributions for "extras" or other special items such as libraries etc.

Vocational Schools: Compared with secondary schools, there are fewer problems in calculating financial data for vocational schools, as they are maintained entirely from public funds, except for a small fee income (mainly from night classes) which can easily be allowed for. The principal problems are the relatively large number of part-time teachers and pupils who must be converted to full-time equivalents if expenditure per pupil is to be calculated on a meaningful basis. This was done by taking the number of hours worked by part-timers as a proportion of hours of full-timers and weighting the part-time totals accordingly. Statistics show considerable variation in hours per part-timer between Vocational Education Committees and are available for only some years; therefore the weighting is approximate: 10 part-time pupils make a full-time equivalent and 5 part-time teachers a full-time equivalent. However, the numbers involved are such that full-time-equivalent pupil-teacher ratios, and expenditure per pupil are not sensitive to changes in the weighting. Only very large errors in our weighting estimates, or large changes in the weights between years would significantly affect the results presented here.

Costs per pupil are significantly higher for vocational than for secondary schools. This is largely because technical and scientific subjects which are an important part of the vocational schools' programme use laboratories, equipment and materials which are relatively expensive. In addition, about 5% of VEC expenditure is on administra-

tion, which is largely undertaken on an unpaid basis by secondary authorities. Expenditure on teachers' salaries is also higher than for secondary schools on a per pupil basis; this is partly a reflection of the smaller pupil-teacher ratios in vocational schools (approximately 14.71:1 for full-time equivalents in the years 1970-74 compared to 15.8:1 for secondary schools).

It is also a reflection of a feature of secondary school finance mentioned previously,* namely that secondary schools finance the salaries of part-time teachers from their capitation grants and that therefore their teaching costs in Table 2-3 are underestimated.

TABLE 2-6

Vocational Schools: Total and per full-time pupil current expenditure 1961-62 to 1973-74 (current prices)

A: Total expenditure (£ m.)

	Teachers' Salaries	Other	Total
1961-62	1.59	0.92	2.51
1965-66	3.07	1.70	4.77
1970-71	6.89	4.25	11.14
1973-74	12.47	5.90	18.37

B: Expenditure per pupil (£)

	Teachers' Salaries	Other	Total
1961-62	45.19	26.14	71.33
1965-66	69.23	38.33	107.56
1970-71	107.61	66.37	173.98
1973-74	173.60	82.15	255.75

Sources: As in Table 2-1.

Notes: See text.

While the vocational schools charged some fees prior to 1968 (about £3.00 per pupil) these have been accounted for in the above figures, which relate to total expenditure of the authorities on vocational education from all sources of finance (Department grants, rates and fees).

*Page 24 above.

Comparing secondary and vocational schools' overall current expenditure, the increase in total public expenditure per pupil is 326% for secondary pupils and 258% for vocational. However, when allowance is made for (a) the displacement of private finance (fees) in secondary schools and (b) the relatively labour intensive inputs into the secondary schools, these trends are reversed. Overall *real* expenditure per pupil in vocational schools has risen both absolutely, and relative to such expenditure in secondary schools.

The following table, showing the trend of real expenditure in the vocational schools will help to make the above factors explicit.

TABLE 2-7

Vocational Schools: Real expenditure per full-time equivalent pupil 1961-62 to 1973-74

A: Expenditure at 1961-62 input prices (£m)

	Teachers' Salaries	Other	Total
1961-62	45.19	26.14	71.33
1965-66	46.68	31.80	78.48
1970-71	52.01	42.79	94.80
1973-74	52.07	40.20	92.27

B: Indices of real expenditure

	Teachers' Salaries	Other	Total
1961-62	100.00	100.00	100.00
1965-66	103.30	121.65	110.02
1970-71	115.09	163.70	132.90
1973-74	115.22	153.79	129.36

Sources: As in Table 2-1.

Notes: See text.

Comparing the trend of real expenditure per pupil in secondary schools (Table 2-5) and in vocational schools (Table 2-7), the discrepancies are quite clear. There was virtually no difference between real expenditure per pupil in secondary schools in 1961-62 and 1973-74—the increase of the 1961-62 to 1970-71 period being almost entirely offset by the decline of the 1970-71 to 1973-74 period. The vocational schools on the other hand show an increase of nearly 33% between 1961-62 and 1970-71, which was followed by a very slight (2.7%) fall between 1970-71 and 1973-74.

Thus in real terms vocational schools expenditure has been improving *relatively* throughout most of the 1961-1974 period. This is understandable given the introduction of new Leaving Certificate level courses in vocational schools, and given the generally acknowledged need for improvement in facilities which would hopefully lead to better student attainment. However resources within second level as a whole have not been sufficient to avoid a decline in real expenditure per pupil in the 1970-71 to 1973-74 period and secondary schools have suffered the major share of this decline. Furthermore, we have probably underestimated the labour intensiveness of secondary schools and therefore have underestimated their cost increases.

Comprehensive and Community Schools: Between 1966 and 1973, a total of 14 comprehensive schools was completed, with all costs financed directly by the Department. In the post-1970 period the setting up of community schools (with largely similar curricula) has commenced. The community schools have a degree of local management and financial responsibility, unlike the comprehensives. In this section, and elsewhere in this report, community and comprehensive schools will be considered jointly, because of their educational and economic similarities, and because their administration by the Department is closely linked.

It is not possible to produce the same kind of analysis of the trend of real and monetary expenditure as was done for other schools, because these schools have been in existence for such a short time. As they are in many cases unlikely to have built up their full enrolment,

with the appropriate balance between age-groups, their resource-use and their unit costs may be distorted, and are likely to be higher than normal.

Current expenditure from public funds on comprehensive and community schools has grown from approximately £0.25m in 1970-71 to £1.65m in 1973-74, which may be compared to a total of just over £50m for secondary and vocational schools combined. However it is expected that their share will rise significantly (the estimates for 1975 show a total of £3.2m compared to £64m for all other second level). Also their share of capital expenditure is already quite large as Chapter 3 will show.

Current expenditure per enrolled pupil was £152 in 1970-71 and £320 in 1973-74, a rise of over 110% in four years. This is much higher than the corresponding increases for secondary and vocational schools—45% and 83% respectively.

Furthermore, it does not seem to be accounted for by heavy expenditure on school equipment during the build-up phase (such expenditure is often classified as "current") because teachers' salaries account for around 80% of the total increase. Teachers' salary costs per pupil in 1973-74 were over £250, which is twice as much as for secondary schools and 50% greater than for vocational schools.

It may be that in 1973-74 enrolment was lagging behind teacher-recruitment and the completion of community and comprehensive schools. If so, then the high unit costs, and the low pupil-teacher ratio (8.2:1)* should correct themselves rapidly. In the long run one would

*Estimated for 1973-74 from data supplied by the Department of Finance. This ratio is less than half of the officially approved incremental pupil-teacher ratio and is distorted by the overlap between figures which are partly on a financial year and partly on an academic year basis. At a time of rapidly growing enrolment such distortions can assume large proportions.

The high teaching costs are not accounted for by honours graduate supplements or by higher salary scales for comprehensive/community school teachers especially when the large number of young teachers recruited is taken into account. These would of course be relatively low on the incremental scale.

expect unit costs in comprehensive-type schools to be between those of secondary and vocational schools. Certainly with their larger size and potentially more efficient use of expensive laboratories and equipment their unit costs should be less than for vocational schools. The present high level of current expenditure per pupil in the community and comprehensive schools when compared with other second level schools should not continue beyond a short transitional phase. Otherwise the ultimate budgetary implications of any significant comprehensivisation of second level education could be serious.

CHAPTER 3

CAPITAL EXPENDITURE ON FIRST AND SECOND LEVEL EDUCATION 1961-63 TO 1973-74

The coverage of this chapter is similar to Chapter 2, i.e. non-aided primary schools are excluded. Estimates of private and local capital expenditure are included throughout, as capital grants from the Department of Education are usually an agreed proportion of total capital expenditure on projects. For some years, secondary schools did not receive any capital grants, so independent (and very approximate) estimates of their capital spending had to be constructed.

FIRST LEVEL

The capital expenditure needs of primary education are a function of the following (in order of quantitative importance) :

- (i) Population movements and residential construction
- (ii) Obsolescence of existing buildings
- (iii) Enrolment growth
- (iv) Policy on building standards and related matters.

(i) *Population movements* into areas of new residential construction have been large in recent years of heavy housing investment. The impact is especially important in the case of local authority housing where in order to qualify for a house in some areas (including Dublin) it is normally necessary to have 2 or 3 children. In the case of private housing, demand for places, while felt immediately, takes several years to build up to a "normal" level.

(ii) *Obsolescence of existing buildings* is especially important in the case of Irish primary schools. Much of the existing stock of buildings

at the beginning of the 1960s consisted of small schools in rural areas with very low enrolments and primitive lighting, heating and sanitation facilities.* Many of these buildings date from the nineteenth century, and together with rural depopulation, this has left us with a large number of badly located, outdated buildings. Lack of proper maintenance has contributed to this problem. Since the publication of *Investment in Education*, significant progress has been made in improving facilities, as the table below indicates. The Department expects a further significant improvement when the results of a survey, undertaken in October 1974, are known. Also, in some cases, facilities have not been improved because small schools are due to be amalgamated under Department policy—which is to centralise one and two teacher schools, except in special circumstances.

TABLE 3-1
Percentage of National Schools with water, heating and sanitary facilities

	1963-64	1972
Percentage of schools with piped drinking water	47.4	70.4
" " " " flush toilets	45.9	81.0
" " " " space-heating	19.8	55.2
" " " " electric lighting	62.5	91.1

Sources: 1963-64: *Investment in Education*.

1972: February 1972 survey, information supplied by Department of Education.

Notes: There are minor differences in the categories used in 1963-64 and 1972, e.g. "central heating" and "storage heating" in 1963-64 are taken as the equivalent of "space-heating" in 1972. Any resulting errors are almost certainly very small.

The table understates the effective average provision of facilities, as small schools have the worst facilities (e.g. in 1963-64, about 75% of schools with 4 or more teachers had space-heating, compared with about 5% of 1 and 2 teacher schools). The improvement in facilities has partly been due to closure and amalgamation of small schools. There were 4,821 national schools in 1963-64, of which 66% were one and two teacher schools, and 3,874 in 1972, of which 47% were one and two teacher.

*See *Investment in Education* Chapter 9 pages 247-252.

(iii) *Enrolment growth* is not very important in quantitative terms. During the past decade primary school enrolments have grown by less than 10% of the new places provided by the primary school building programme. A continuation of recent rises in the number of births (which is to be expected for some years as long as the number of marriages continues to increase) will not have a large effect on building needs, because population movements and replacement demand are likely to be relatively high.

(iv) *Policy on building standards and related matters*: Educational objectives and needs influence school building standards and design. In recent years the introduction of the new primary school curriculum as well as the economic arguments of *Investment in Education** have influenced policy decisions to centralise primary education in schools of at least 3 classes and teachers if possible. In the short run this has meant increased capital and transport costs, but there are important long run educational benefits and reductions in current costs (the latter tend to be very high in small schools). Also, given that many small schools were obsolete, poorly maintained and in need of replacement, the opportunity cost of centralisation is much lower in the long run than statistics of capital spending indicate.

In practice there is interaction between the above influences. For example population shifts from rural to urban areas, i.e. from areas where there may be old schools needing extensive repair or complete replacement to areas where new schools will not exist. Similar factors apply when population shifts occur from slum-clearance areas with old school buildings to new housing estates. Thus adding the independent obsolescence and population-shift influences may over-estimate needs.

The Department of Education's primary school building section has a priority order of capital needs, in conjunction with the programme budget, which is

- A. New schools in new housing areas.
- B. Additional classrooms in new housing areas.
- C. New special schools.

**Op cit.* Chapter 9.

- D. New central schools (i.e. resulting from amalgamation of existing small schools).
- E. Essential facilities in existing schools (e.g. sanitation, heating, lighting).
- F. New schools to replace old buildings.
- G. Upgrading of existing schools (i.e. less essential facilities than in E).

Categories A and B correspond fairly closely to our previous population-shift and population-growth categories, and are quantitatively as well as qualitatively important, as together they will account for about 75% of the estimated needs for primary school places in the 1974-75 period (roughly 65% is population shift and 10% population growth). Obviously if actual capital budget provision should fall short of estimated need, categories A and B, having top priority, would account for an even larger share.

One implication of the foregoing discussion is that the level of house building should be a good indicator of short-term pressures for primary school building needs, and that because housebuilding tends to fluctuate so will pressures for new schools. Forecasting the level and location of housebuilding in the medium-term tends to be extremely difficult according to Department of Education officials. Even in the public sector information is scarce beyond the very short term (houses in progress or actually put out for tender). In the private sector, planning permissions are no reliable guide because they do not specify time limits, and are taken up according to the state of the housing market.* It would appear that a greater flow of information from Local Authorities and the Department of Local Government is called for, both in respect of public sector housebuilding plans, and private planning permissions. In addition a temporal dimension to planning permission might be of use.

*The new planning bill (at present before the Dail) contains a provision that, in general, planning permissions will lapse if not taken up within five years. This is, in our view, a step in the right direction.

The course of primary school building in the 1961-62 to 1973-74 period is summarised in Table 3-2.

TABLE 3-2
Capital expenditure on primary schools 1961-62 to 1973-74

Year	Expenditure (£ m.)	Number of pupil places provided	Expenditure per pupil place
1961-62	1.75	14,284	£123
1965-66	3.62	23,840	£151
1970-71	4.47	24,430	£183
1973-74	6.19	28,100	£220

Sources: Annual Estimates and Appropriation Accounts. Number of pupil places provided: 1970-71 Board of Works; 1961-62 and 1965-66 Department of Education's Appraisal of Public Capital Expenditure (1969-70).

Notes: Expenditure is the annual average for the financial year shown and the previous financial year. The number of pupil places for 1973-74 is an estimate of the number to be provided by grants sanctioned in 1972-73 and 1973-74. For other years the figures refer to actual completions during the year in question. This procedure of averaging capital expenditure and lagging its relation to places provided is necessary because (a) capital expenditure (both estimated and actual) fluctuates from year to year, as does the number of completions and (b) grants are paid out over a period of 1 to 2 years in relation to specific projects; consequently completions in any one year largely relates to expenditure during that year and the year before.

The figures of expenditure per pupil-place in the above table are approximate, because of the averaging used to derive total expenditure, and the time lags between capital grants and completion of schools. (This is explained in a note to Table 3-2; similar considerations apply to other tables of capital expenditure). The amount of capital expenditure in real terms has risen rapidly, when one considers the number of pupil places provided (Table 3-2) and the substantial improvement in school facilities (Table 3-1). Preliminary figures for the March-December 1974 financial period and the 1975 financial year suggest a continued rise in provision (it is hoped to provide for at least 35,000 places in 1975), but there is uncertainty because of the recent and expected rapid inflation of building costs. From 1961-62 to early 1974, primary school building costs per permanent pupil place rose at an

approximately similar rate to the implicit price index of Gross Domestic Fixed Capital Formation (GDFCF). This is apparent both from the cost-limits and from the actual expenditure in the table above. There were however design changes and small changes in the allowed area per pupil-place which complicate any exact cost comparisons.

There is however one trend in recent years which is disturbing. This is the large number of places which have been provided in pre-fabricated and temporary classrooms. There are reasons to believe that such accommodation is uneconomic in the long run and that it does not provide the same level of comfort as permanent structures. The large-scale provision of temporary classrooms started in 1965-66. Table 3-3 below shows the estimated number of such places provided from 1965-66 to 1973-74, and the percentage of total new places accounted for by temporary buildings.

TABLE 3-3
Primary School building: Estimates of pupil-places provided in temporary buildings 1965-66 to 1973-74

Year	Estimated temporary places	As percentage of total new provision for year
1965-66	4,280	17.9
1966-67	9,600	39.4
1967-68	11,200	42.4
1968-69	11,200	36.8
1969-70	5,700	22.6
1970-71	6,000	24.6
1971-72	7,000	24.5
1972-73	5,000	21.1
1973-74	5,000	21.1
1965-66 to 1973-74	64,980	27.6

Sources: 1965-66 and 1966-67: Department of Education's *Appraisal of Capital Expenditure*. 1967-68 to 1971-72: Office of Public Works. 1972-73 and 1973-74: Estimates based on ministerial statements and information from Office of Public Works.

Note: For 1965-66 and 1966-67, the information originally specified the number of classrooms provided. This was multiplied by 40 to get pupil-places. For other years the information gives pupil places directly.

During a nine-year period, over a quarter (27.6%) of all places provided for primary pupils was in temporary buildings. Such buildings are not normally expected to last much longer than 10 years, and therefore (assuming they have not been replaced to a significant extent by 1974), about 65,000 replacement places will have to be provided by 1985.

In February 1972 there were 1,315 temporary classrooms in existence, out of a total of 14,000 in national schools. This was 9.4% of all classrooms.* It represented a much greater percentage of effective pupil places as the temporary classrooms are often in areas of expanding population with class sizes of over 40. Many of the permanent classrooms are in small rural schools and contain low numbers.

There is little information on the cost of pre-fabricated buildings, except for 1970-71, when the Board of Works made the following estimates of cost per square foot:

Transportable timber classrooms	£4.35
Temporary timber classrooms	£4.25
System-built semi-permanent timber classrooms	£4.36
System-built permanent timber-framed classrooms	£4.72
Permanent classrooms (i.e. traditional and concrete systems)	£5.75

In 1975, the Department of Education estimated that temporary structures cost £6.00 per square foot and permanent structures £10.00. This indicates a somewhat larger cost differential in relative terms than the 1970-71 figures, which could be due to several factors such as differential changes in materials costs, productivity, building techniques, etc.†

Using the Board of Works figures given above, together with an assumed 10 year life-span for temporary structures, and a 50 year

*On a 40 pupil per class basis this gives 52,000 places. Allowing for 10,000 more temporary places constructed in 1972-73 and 1973-74, and for the fact that some rooms have considerably more than 40 pupils, this is consistent with the 65,000 places of Table 3-3.

†See *Investment in Education*, Vol. 2, Appendix V. 13.

life-span for permanent ones, an interest rate of 20% is needed to equate the initial amortisation and interest payments to finance the two types of buildings. Furthermore, higher maintenance and heating costs of temporary buildings have to be taken into account. Given the cost of Government borrowing (less than half of 20% per annum in 1970-71), temporary buildings are clearly more costly, even without heating and maintenance cost differentials, and with very conservative assumptions about the life-span of permanent buildings.

During the past 2 or 3 years the Department of Education has attempted to phase out the provision of temporary classrooms. In future it is hoped to provide such classrooms only in cases of exceptional need, or in cases where an unbalanced age-structure in a locality creates a temporary "peak" in the demand for places. Also in future temporary classrooms are to be of the transportable type where possible.

A very large proportion of the stock of school places now consists of temporary accommodation, and this will impose significantly on future buildings needs—to the extent of between 5,000 and 6,500 replacement places per annum until 1985. Whatever past short-term savings have been made (and these seem to have been surprisingly small), future costs will more than outweigh them.

SECOND LEVEL: It is only in recent years that there has been significant public capital expenditure at the second level. Prior to 1966-67, secondary schools relied entirely on private finance for capital purposes, and publicly financed comprehensive school building commenced at about the same time. There is no accurate information on the total provision of pupil-places during the past decade. (Division of total expenditure by pupil-place cost limits is not feasible because of the varying mix of permanent and temporary prefabricated buildings). There has been considerable difficulty, especially since 1967-68, in accommodating the rapidly increasing numbers at school, and the indications are that a large backlog of temporary classrooms exists, as in the primary sector, with significant implications for future replacement needs.

TABLE 3-4
Capital expenditure on second level education 1961-62 to 1973-74
(Annual averages)

	1961-62	1965-66	1970-71	1973-74
	(£ m.)			
A. 1. Secondary Schools/Private	1.79	1.50	0.20	0.29
2. " " /Public	—	—	2.69	1.21
3. Vocational Schools	0.41	2.39	2.30	1.41
4. Comprehensive/Community: Private	—	—	—	0.61
5. Comprehensive/Community: Public	—	0.16	0.42	5.50
6. Total	2.20	4.05	5.61	9.02
B. Percentage Line 1	81	37	4	3
" " 2	—	—	48	13
" " 3	19	59	41	16
" " 4	—	—	—	7
" " 5	—	4	7	61
Total	100	100	100	100
Percentage from public funds	19	63	96	90

Sources. *Capital Budgets, Appropriation Accounts, Investment in Education*. Volume II, Appendix V C, *National Income and Expenditure 1965-1971*, Table A.21.

Notes: Private capital expenditure is estimated: 1961-62 data are from *Investment in Education*. For 1970-71 and 1973-74, it is assumed that 30% of secondary and 10% of community school expenditure is privately financed. All vocational and comprehensive school expenditure is public.

For secondary schools, all capital expenditure was privately financed until 1966-67 when a scheme of partial grants from public funds was introduced. In the following 3 years this scheme was widened in scope and at present (1974), approximately 70% of most capital costs are met by the State and a loan of 30% repayable over 15 years is available for the remainder. It is very difficult to give an accurate estimate of the number of pupil-places provided in recent years, as the only information given* is on the number of projects. Also, while it is known that

*That is, the only information with sufficiently wide coverage, and for a sufficient number of years.

a significant number of temporary prefabricated classrooms have been constructed in recent years to meet the rapid enrolment growth, no precise figure exists. Any information we have suggests that 20% at least of accommodation provided in the 1967-1974 period was temporary and that the figure is probably higher.

*Investment in Education** shows that in 1961-62, with an enrolment of just over 80,000, capacity utilisation was 75%, with small schools showing much lower utilisation rates than large ones (e.g. 55% for schools with less than 100 pupils; 88% for schools with more than 300 pupils). The number of pupil places in 1961-62 was 106,500, and the maximum feasible utilisation rate was estimated at 90% (allowing for a reduction in the number of small schools and consequently under-utilisation of capacity which is inevitable in such schools). By 1973-74 secondary school enrolments were 171,000, and assuming 90% utilisation the number of pupil places would have been about 190,000. While we do not know exactly how many places were constructed, it is well known that secondary schools have found it extremely difficult to accommodate the demands made on them in recent years, and utilisation rates are almost certainly in the 90% to 100% range.† Assuming there are between 170,000 and 190,000 available places in 1973-74, the net addition to places since 1961-62 has been 64,000 to 84,000. In addition, some building has replaced old and obsolete accommodation, which *Investment in Education* estimated as being 9,000 places in 1961-62.

If one tries to estimate school building by looking at annual capital expenditure in conjunction with cost limits or cost levels (whether per square foot or per pupil place) there is the difficulty that between 1961-62 and 1965-66 no expenditure figures are available, and between 1966-67 and 1973-74 when grants from public funds were made available, the exact percentage of public finance in the total is not known. Furthermore the scheme for giving grants has changed during

*Vol. 1, Table 4.31, page 61.

†Increasing school size would make it progressively easier to attain such utilisation rates.

the 1966-67 to 1973-74 period. *Investment in Education* estimates private capital expenditure in the secondary sector at £1m per annum in the 5 years up to 1961-62. We will assume a similar figure for the 1961-62 to 1965-66 period, and that public finance* in the 8 years 1966-67 to 1973-74 (£14.25m) was 90% of capital spending in those years. It would thus appear that the rate of school building doubled after 1966, from about 3,500 places per year (1961-62 to 1965-66) to 7,500 per year (1966-67 to 1973-74).† if 20% of building in the latter period is temporary structures (i.e. 1,500 per year), this gives an estimated stock of 12,000 such places in secondary schools in 1974.

Vocational school building programmes have also been heavily dependent on pre-fabricated classrooms. The appraisal of capital investment made by the Department of Education in 1969-70 shows that in the 3 years 1967-68 to 1969-70 (which followed the introduction of the free education and school transport schemes), a total of 17,160 pupil places were provided, of which 13,500, i.e. 78.7%, were in temporary classrooms.‡ Also, since 1967-68 the Department, in conjunction with the VECs has run a scheme for the provision of mobile classrooms to meet short-term needs of schools. Precise information on the provision of pupil places since 1969-70 is not available, but expenditure was about 90% of secondary school spending in the entire 1966-67 to 1973-74 period, and in conjunction with the common second level cost limits which have prevailed in recent years suggest the construction of about 6,750 places per annum. While the percentage of those in temporary buildings in 1967-68 to 1969-70 is 78.7%, in subsequent years it has fallen, and if a conservative 20% is taken for 1970-71 to 1973-74, this gives 5,500 places in temporary buildings. Together with the 13,500 places provided in 1967-68 to 1969-70, there are thus an estimated 19,000 pupil places in temporary buildings in 1974.

*Including grants to schools for the repayment of building loans.

†These figures are roughly consistent with cost per pupil place data.

‡*Appraisal of Capital Investment*, Department of Education, 1970, page 51. These figures are on the basis of 20 pupil-places per classroom—a ratio commonly used for vocational school calculations. Whatever the ratio used, the *high proportion* of places in prefabs is not in doubt.

This is about 35% of the total at vocational level, and is consistent with estimates made by various VECs of their replacement requirements for pre-fabs.*

Community and comprehensive schools have accounted for an important part of school building in recent years. In 1970-71 the estimates gave the community school programme 48% of capital expenditure at the second level and in 1973-74 68%. There is not, as far as we are aware, any significant problem of overcrowding or temporary accommodation in these schools, as they seem not to have built up their enrolments to full capacity.† As far as future needs are concerned, what will dictate the pace of development of community schools‡ is the rate at which agreement can be arrived at between the Department of Education and various local community interests.

FUTURE NEEDS

Clearly, the foregoing analysis shows that estimation of the need for school building is a hazardous process. At the first level, population and enrolment growth will account for only a small proportion (at the most 10% to 15% of total requirements), and the biggest factor will be the rate of population movement, which is a function of house-building which in turn is extremely difficult to forecast. At the second level it appears that in recent years building was almost entirely related to enrolment growth; in fact as a result of "free" education, enrolments grew rapidly and building programmes were forced to rely on temporary provision to a significant extent, in order to overcome the accommodation crisis. Forecasting future enrolments at the second level is especially difficult in Ireland because at the end of a period of change induced by "free" education and other reforms in 1967, transition ratios, (i.e. the proportion of children of a given age who will continue in school the following year), have almost certainly not

*See the *Education Times* 7.3.1974, "Goodbye to Prefabs". For example, counties Mayo and Galway appear to have nearly 1,800 pre-fab places each (i.e. about 90 classrooms). Co. Cork VEC has 38% of its pupils in pre-fabs.

†See Ch. 2 above.

‡It is not proposed to build any more comprehensives.

stabilised. Such ratios are one essential piece of information for enrolment forecasting, and experience elsewhere shows that they are not stable but drift upwards over time. Still it is likely the rate of increase in enrolment will slacken, as participation rates have already reached relatively high levels.*

*See Chapter 5 below for a discussion of this.

CHAPTER 4

EXPENDITURE AT THE THIRD LEVEL—1961-62 TO 1973-74

Our analysis of the third level will be relatively brief for two reasons. First, the recent report* of the Higher Education Authority on the 1968-1973 period provides a comprehensive review of activity for much of higher education. Second, the recent ministerial statement† on the future of third-level education announced so many changes which have yet to be worked out in detail that any lengthy analysis is of doubtful relevance.

The university colleges are the principal HEA-funded institutions. The Department of Education is directly concerned with the finance of the training colleges for primary teachers, National Institute of Higher Education (NIHE), Limerick and the National College of Physical Education as well as specialised establishments providing subjects such as Domestic Science at the third level. Finally the Vocational Educational Committees are involved with the Regional Technical Colleges (RTCs) as well as colleges of technology in Cork and Dublin, all of which have a significant amount of third level activity.‡

*HEA Progress Report 1974, Dublin 1974.

†December 1974.

‡The recent HEA progress report estimated that in 1973-74, £0.937m of a total current expenditure by the RTC of £1.369m was attributable to third level activity. We will therefore take the RTC's expenditure as being one-third second level and two-thirds third level. (See HEA Progress Report 1974, op. cit., p. 58.)

TABLE 4-1

Third level: Current expenditure 1961-62 to 1973-74 (£m)

	1961-62	1965-66	1970-71	1973-74
1. Universities	0.98	1.66	5.03	11.83
2. Teacher training colleges	0.21	0.28	0.66	1.43
3. RTC's	—	—	0.26	1.00
4. Other	—	0.11	0.20	0.47
5. Total third level	1.20	2.05	6.15	14.73
6. 5 as percentage of all current educational expenditure	7%	7%	10%	13%

Sources: Annual Estimates and Appropriation Accounts.

Notes: RTC's third level expenditure is taken at two-thirds of total current expenditure. Colleges of Technology (other than RTC's) are excluded.

Current expenditure at the third level has increased rapidly since 1961-62, and accounts for an increasing share of total current educational spending. The colleges of technology in Cork and Dublin are excluded from the figures given here, as their finances are linked to the general expenditure of the VECs.

Table 4-1 shows that third level almost doubled its share of current educational expenditure since 1965-66 having remained static during the previous four years. Enrolments show a strong upward trend throughout the period: for example the universities which account for about 80% of full-time third level students had 10,297 students in 1961-62, 14,142 in 1965-66, 19,428 in 1970-71 and 20,435 in 1973-74. In other sectors (where the calculation of full-time equivalents can give rise to problems) the rise is also large. In all cases it is spread throughout the 1961-62 to 1973-74 period.

Regarding participation rates, the evidence also shows a large increase in recent years, although it should be remembered that by the standards of most developed economies Ireland's participation rates at the third level are relatively low.

TABLE 4-2

Percentage participation rates at third level 1964 to 1973

	1964	1968	1973
Percentage of 18 year olds enrolled	4.6	7.0	9.0
" " 19 " " "	6.5	8.3	10.3
" " 20+ " " "	6.1	6.5	6.7

Source: February Censuses of Department of Education, published in *Investment in Education* (1964), Annual Reports of the Department (1965-68), subsequently unpublished.

Note: For those aged over 20, the participation rate is got by dividing by the number in the 20-24 age group.

Table 4-2 shows that participation rates and enrolment increased more for the relatively younger age groups. This may be partly explained by a tendency to make an earlier transition from second to third level, but there are other factors at work such as relatively low expansion or even contradiction of numbers in long courses (architecture, medicine, dentistry and veterinary medicine),* and also the impact of more stringent rules about repeating examinations.† Against this, the number enrolled in post-graduate courses showed a large increase (41.7%) compared to undergraduates (13.2%) in the 1968-69 to 1973-74 period. Also the number of part-time students has fallen over the same period from about 3,000 to about 2,000, largely due to the curtailment of entry to evening degree courses at University College, Dublin.

An analysis of expenditure per student at the third level is not of much use because of the present state of the data. It is well known

*The number in these four areas of study rose by about 1.5% between 1968-69 and 1973-74, compared to a rise of 13.2% in all undergraduate numbers.

†This would tend to have a minor direct affect as many repeaters are not full-time students. However it does mean that degrees tend to be taken over a shorter period and the number of older students who have previously repeated one or more years is reduced.

that costs per student differ by very large amounts (the Robbins committee on higher education demonstrated this for the United Kingdom) and that averages for large institutions are therefore meaningless if not misleading. The Higher Education Authority is at present arranging for the collection of improved cost data for the universities showing the breakdown of expenditure by departments and subject groups.

Fees at present account for 15% to 20% of current income of the universities (and for a negligible proportion of the income of other institutions). The HEA has put forward the view that fee income should be from 20% to 25% of the total. At present fees are lower for low-cost faculties such as Arts, Commerce and Law, and are higher for Science and Engineering and especially for Medicine and Dentistry. It is not known whether the variation in fees bears any precise relation to departmental or faculty costs or what University policy is in relation to this. Information on costs is necessary before any policies can be formulated in this area, but other matters must also be taken into account such as the level and terms of student grants or loans, and the relation of manpower policy to the incentives or disincentives to particular courses of study.

CAPITAL EXPENDITURE: The rapid expansion of enrolments at the third level naturally creates a large need for expenditure on new buildings. In addition the long-run neglect of third level building (especially in the universities) meant that by 1960 a serious backlog of needs had accumulated. Furthermore many existing buildings as well as being overcrowded were unfit for their present use.* During the 1950s and earlier 1960s third level accounted for a very low proportion of public capital expenditure on education: 0% in 1949-1953, 2% in 1954-58, 7% in 1959-63, 16% in 1964-68 and 21% in 1969-73.† During the 1970-74 period, third level capital expenditure

*See especially the *Report of the Commission on Accommodation Needs in the Constituent Colleges of the National University of Ireland*, Stationery Office, Dublin 1958.

†See J. Beggs, *Public Capital Expenditure on Education in Ireland 1948-72*, unpublished M.A. thesis, University College Dublin, 1974.

was approximately £4½m per annum (there is considerable year-to-year fluctuation due to the bunching of a relatively small number of large projects). In 1970 the then Minister for Education agreed to provide £15m over six years to 1975-76 to the HEA in capital grants. This was done in order to enable the HEA to plan university building with a reasonable amount of certainty. Since 1970 however, increases in building costs have halved the real value of this grant and uncertainty has reappeared in another form. There is a danger that building will not proceed at a rate sufficient to prevent the re-emergence of serious over-crowding.

Overall, there are serious short-term financial pressures on higher education, especially on grant-aided institutions such as the universities and on the real value of capital budgets. One of the main reasons for this is that there has been no explicit decision about the size of most third level institutions. There is (especially in the case of universities) a relatively open-ended commitment to cater for a rising social demand, and a seemingly great reluctance in a period of financial difficulty to put a limit to this commitment, thus bringing pressure on staffing ratios, equipment purchases and library facilities. Similarly, decisions about the price of education to its consumers—the students—have not been made, nor has there been much public discussion about how they should be made. It is probably the case that because these decisions involve bodies which are autonomous but financially dependent on others (e.g. the Universities, the HEA—which has statutory and financial powers over Universities but is itself entirely dependent on year-to-year government grants—and at least two government departments), that the necessary co-ordination has been lacking. While the universities and the HEA obviously need their autonomy to function properly they also need greater certainty in which to plan their activities. Long-term government decisions about the size and real level of public financial support are therefore urgently needed as soon as the HEA is able to provide its hoped-for cost data for institutions under its control. Recent ministerial decisions may remove some long-standing uncertainty about institutional development; the problem of financial uncertainty and the related question of the medium term (say 5 years ahead) size of the third level need to be tackled also.

CHAPTER 5

INTERNATIONAL AND INTER-REGIONAL EXPENDITURE COMPARISONS

In 1966 The National Industrial Economic Council (NIEC) published its comments on *Investment in Education*,* and made some comparisons of educational spending in Northern Ireland and the Republic. For political as well as social reasons there has been considerable public interest in the relative levels of social welfare and other state benefits North and South. It could be said that in recent years one of the main aims of social policy has been to move towards parity with Great Britain and Northern Ireland in such matters as pensions, children's allowances and unemployment benefits. It has been agreed also that in recent years (i.e. since the mid-1960s) there has been a considerable closing of the gap in social welfare expenditure—especially when benefits in kind to pensioners, which are relatively generous in the Republic, are taken into account.

Consequently, a comparison of educational expenditures should also be of interest, as education is an important constituent of social expenditure. There is also the reason for which the NIEC made its earlier comparison: the level of investment in education is an important influence on the development of skills and thus on economic development generally.

The NIEC's comparisons, like our own, necessarily confined themselves to public expenditure.‡ Per head of population, current and

*NIEC Report No. 16, *Comments on Investment in Education*, Stationery Office Dublin, 1966.

†“Investment in education” here refers to expenditure on education generally (i.e. both current and capital), which is regarded as an investment developing the skills and aptitudes of the future labour force.

‡NIEC, *op. cit.*, Appendix A, p. 32.

capital expenditure on education in Northern Ireland was £23 in 1963-64 and £25 in 1964-65; in the Republic the corresponding figures were £10 in 1963-64 and £12 in 1964-65. Expenditure per full-time student was £106 in Northern Ireland in 1963-64 and £120 in 1964-65; in the Republic it was £43 in 1963-64 and £55 in 1964-65. In rough terms, Northern Ireland was spending from public funds at between twice and two-and-a-half times the rate of the Republic. Of course private expenditure was almost certainly greater in the Republic, so this biases the comparison, but as private expenditure in the Republic was about 25% of the total,* it would not close the gap significantly, even if Northern Ireland's private expenditure was assumed to be zero.

The following table (5-1) gives the NIEC estimates and our own estimates for recent years. All public expenditure both current and capital, and excluding transfers to persons is taken, per head of population and labour force. Expenditure per pupil is not given here; subsequently a more detailed analysis is made of this according to type of expenditure and level of education.

TABLE 5-1

Public educational expenditure per head of population and of labour force; Northern Ireland and Republic of Ireland 1963-64 to 1973-74 (£)

	1963-64	1964-65	1970-71	1973-74
<i>Per head of population:</i>				
Republic	10	12	27	47
N. Ireland	23	25	48	81
Republic as percentage of N. Ireland	43	48	56	58
<i>Per member of labour force:</i>				
Republic	25	31	80	144
N. Ireland	57	62	127	217
Republic as percentage of N. Ireland	44	50	63	66

Sources: NIEC Report *op. cit.*, for 1963-64 and 1964-65. Northern Ireland Educational Statistics (HMSO), Annual Estimates and Appropriation Accounts (S.O. Dublin).

*See *Investment in Education*, Chapter 5.

Table 5-1 shows that public spending in the Republic is now greater in relative terms than it was a decade ago, but that there is still a large gap; per head of population public education expenditure is only 58% of that in Northern Ireland in 1973-74; per head of the labour force the figure is 66%. The higher percentages throughout the period for the labour force based figures reflect the Republic's higher dependency ratio.*

Furthermore part of the rise in the ratios in Table 5-1 is accounted for by the increase in public expenditure due to the implementation of "free" secondary education. As has been said previously this displaces private expenditure which in the later years (1970-71 and 1973-74) is a lower proportion of total expenditure. Thus part of the rise in the Republic's relative level of public expenditure is due to a shift in the composition of total resources going to education rather than to growth.

There are several further questions which follow from Table 5-1. To what extent are the figures biased by higher enrolment rates in one area? To what extent have relative rates of growth of enrolment been important? What differences in school staffing, other facilities and resource availability in general lie behind the figures? In many of the comparisons which follow, England and Wales will be included, because its educational system has many common features with that of Northern Ireland, and because it provides a measurement of the Northern Ireland policy goal of equal provision with the rest of the United Kingdom.† Third-level education is omitted because differences in structure make any meaningful comparisons extremely tedious and difficult. Also private sector institutions are omitted, for obvious informational reasons.

*For similar reasons, expenditure is high in Northern Ireland relative to England and Wales—about 10% higher per head of population and 30% per head of labour force. This difference is *not* as far as can be ascertained, due to differences in expenditure per pupil, which are very small (see tables 5-4 and 5-5 below).

†Exactly how much, it is impossible to say in the absence of any estimate of the elasticity of demand for education.

‡Scotland has a separate educational system and publishes almost all data separately.

Changes in the age-structure of the population could account for changes in aggregate expenditure on education, independently of any participation or other changes. The proportion of the population in the 5 to 19 age group is a reasonable measure of age-structure for this purpose.

TABLE 5-2

Percentages of population aged 5-19; Republic of Ireland, Northern Ireland, England and Wales

	Republic of Ireland	Northern Ireland	England and Wales
1961	28.8	27.0	22.1
1971	29.5	27.7	22.6
Percentage change in 5-19 share	+2.43	+2.59	+2.26

Source: Censuses of population for Ireland and the United Kingdom, 1961 and 1971.

Table 5-2 shows that in the intercensal period 1961-1971 the proportion of the population aged 5-19 increased in all areas at almost exactly the same rate, leaving the inter-area differences almost constant. Thus differential changes in age-structure of populations have a negligible influence on expenditure in the period under review.

Changes in participation rates, i.e. the proportion of children of a certain age group enrolled in full-time education, have been much more important than changes in population structure. Also, differences in participation between areas may be significant, but in this case caution is necessary because differences in methods of measurement and in coverage may influence the figures. The basic data are given in table 5-3 below. The 6-14 age-group is omitted as participation has been virtually 100% in recent years; 15 year olds are on the

borderline between voluntary and compulsory education depending on the year and country, as well as birthday. All schools (public and private) are included.

TABLE 5-3

Percentage of 15 to 18 year olds in full-time education at first and second level 1964-74

(a) Republic of Ireland		1964	1966	1969	1973
Age on 1 February:	15:	51.5	54.1	69.3	74.2
	16:	36.8	39.0	50.4	57.7
	17:	23.6	25.8	32.3	38.3
	18:	9.9	9.2	10.6	12.2
(b) Northern Ireland		1966	1970	1972	
Age on 1 January:	15:	41.8	60.9	62.5	
	16:	25.0	33.5	34.9	
	17:	16.8	23.8	24.0	
	18:	6.5	11.0	10.6	
(c) England and Wales		1966	1970	1972	
Age on 1 January:	15:	47.1	57.7	60.6	
	16:	28.6	35.5	37.5	
	17:	15.1	20.1	21.2	
	18:	4.9	6.5	6.9	

Sources: Republic of Ireland: February Censuses, published by the Department of Education up to 1968, subsequently unpublished.

Northern Ireland: *N. Ireland Educational Statistics*; No. 15, Table II, HMSO, Belfast 1973.

England and Wales: *Statistics of Education 1972*; Vol. 1, Table 10. London, HMSO, 1973.

The Republic of Ireland has higher participation rates than both Northern Ireland and England and Wales, especially in recent years. Thus the enrolment rate of 16 year olds in the Republic grew by 48% (i.e. 5.7% p.a.) between 1966 and 1973. In Northern Ireland the enrolment rate for 16 year olds grew by 40% (4.9% p.a.) and in England and Wales by 31% (3.9% p.a.) between 1966 and 1972. Only in the case of 18 year olds is this trend reversed: in this case, the Republic's already high enrolment rate showed a relatively slow growth, which may have been due in part to a tendency towards earlier completion of the second level course.

Thus the tendency noted in *Investment in Education** has continued: Ireland has participation rates which are high relative to the United Kingdom. Furthermore they have grown faster. Together with a relatively high young age group dependency ratio this has tended to increase education's share in National Income and in public spending. However the participation rates shown above for Ireland are roughly comparable to those obtaining in Europe a decade earlier†—and are not unusually high compared to developed countries generally.

However the most striking difference is in expenditure per enrolled pupil. Table 5-4 below summarises the position for primary schools 1971-72, the latest year for which it is possible to make a detailed comparison at the time of writing. The figures for England and Wales are available with a breakdown between items such as expenditure on maintenance and heating of school buildings, expenditure on books, classroom supplies etc. and expenditure on the salaries of non-teaching personnel.

While overall expenditure per pupil in the Republic is about 60% of the Northern Ireland level, much as expected, and while the expenditure on teachers' salaries reflects the pupil teacher ratios‡—32.3:1 in the Republic, 28:1 in Northern Ireland and 26.1:1 in England and

**Op. cit.* Table 1.5.

†*Idem.*

‡Salary scales did not differ widely in 1971-72.

TABLE 5-4

Current expenditure per enrolled pupil in Primary Schools; Republic of Ireland, Northern Ireland, England and Wales 1971-72 (£)

	Teachers' salaries	Heating, cleaning, painting etc.	Books, classroom materials etc.	Non-teacher salaries	Total
England and Wales	74.98	15.76	5.30	10.22	106.26
Northern Ireland	69.94	30.60			100.54
Republic of Ireland	59.77	1.70			61.47

Sources: As in Table 5-1.

Notes: Private expenditure, and any expenditure in conjunction with "non-educational" items such as meals, transport, medical services etc., are excluded.

Northern Ireland has a decentralised educational system with responsibility (and finance) divided between local education authorities and the Ministry for Education. In recent years the Ministry has been assuming direct responsibility for many more items (including teachers' salaries). This, together with the fact that some financial items are given only for first and second levels together, necessitated the use of *relative* unit expenditures in England and Wales as weights. For England and Wales there are no problems—all figures are fully broken down. Pupil-teacher ratios provide a rough cross-check on the results.

Wales—the non-teacher item shows a very great difference. Expenditure in Northern Ireland is over *seventeen* times greater on a per pupil basis for these items. Even if one includes our earlier maximum estimate of £3.50 locally financed expenditure per pupil in the Republic,* and excludes *all* private expenditure elsewhere, non-teacher expenditure is still almost *six* times as great in Northern Ireland and England and Wales. These are extremely large differences and must reflect significant differences in resources available to teachers and

*See Chapter 2 above, p. 47.

children in schools,* and it would be unlikely if they did not have some effect on educational attainment in the long run. The new scheme for primary school capitation grants of £6.50 per pupil in the Republic will close this gap somewhat. However, it must be compared to 1975-76 expenditure in Northern Ireland, which will undoubtedly be significantly larger than the 1971-72 figures used above.

The differences in pupil-teacher ratios are also reflected in a different size distribution of classes. This is more pronounced than simple average pupil-teacher ratios would indicate because the Republic has a relatively large number of small schools with small class sizes and low pupil-teacher ratios. In the Republic in 1971-72, 19.3% of all classes had more than 45 pupils; these classes contained 37.7% of all pupils.† In Northern Ireland 0.2% and in England and Wales 0.3% of classes had more than 45 pupils, in each case less than 1% of all pupils were in such classes. Since 1971-72 there has been an improvement in staffing in the Republic. This was announced by the Minister for Education in a Dáil Debate‡ on the Education Vote.

Table 5-5 below gives corresponding figures for second level education. In England and Wales, "secondary" includes grammar, secondary modern and comprehensive schools. In Northern Ireland the term covers all grammar and secondary intermediate schools (there were no comprehensives). These institutions are (especially in Northern Ireland) reasonably close to secondary schools in the Republic in terms of age-group and curriculum. They do not have the same concentration on high-cost technical subjects as vocational schools in the Republic.

*For example, school books are provided free to all pupils in Northern Ireland and England; they are provided on a highly selective basis to a small number of necessitous children in the Republic.

†See *Department of Education Report (Statistical Tables) 1968-69-1971-72*, pp. 14 and 15. The Republic's figures only give classes in the range 30-44; Northern Ireland and England have relatively few (about 2.5%) classes in the 41-45 size range also.

‡See Dail Debates for 23rd Oct., 1973 (Vol. 268, No. 3).

TABLE 5-5

Current expenditure per enrolled pupil in Secondary Schools: Republic of Ireland, Northern Ireland, England and Wales 1971-72 (£)

	Teachers' salaries	Heating, cleaning, painting etc.	Books, materials etc.	Other salaries	Total
England and Wales	126.07	28.12	13.48	17.09	184.86
Northern Ireland	124.47		57.52		181.99
Republic of Ireland	89.87		33.00		122.87
Republic of Ireland (Vocational)	119.45		73.67		193.12

Sources and Notes: See Tables 5-1 and 5-4. N.B. In 1971-72, private fees in the Republic had been almost entirely displaced by extra Department of Education grants to schools.

Again, expenditure per pupil in the Republic's secondary schools is about two-thirds that of Northern Ireland. However, the discrepancy in non-salary items is not nearly as great as for primary schools. For teachers' salaries the expenditure figures are somewhat misleading because the pupil-teacher ratio is 17.6:1 in England and Wales, 18.6:1 in Northern Ireland and about 18:1 in the Republic.* Obviously secondary teachers in the Republic earn significantly less on average than their counterparts elsewhere, partly because of the way methods of remuneration affect the large number of teachers who are members of religious orders.† Vocational schools in the Republic have expenditure levels roughly similar to second level schools in Northern Ireland and England and Wales. Overall, secondary schools in the Republic have somewhat similar teaching resources per pupil to elsewhere (although these resources cost less), and have non-teaching resources which are significantly less (50%-55%) than elsewhere.

*Ratios for the Republic are approximate as full-time equivalents of teachers are not readily available.

†Our calculations have allowed for the payment of "basic" salaries to lay teachers, as well as for incremental salaries. See Chapter 2 above.

A further important point can be made concerning differences within the Northern Ireland education system. *County schools* which are maintained by the educational authorities account for about 50% of total enrolments at the first and second level and are attended almost exclusively by Protestant children. *Maintained Voluntary* and *Voluntary* schools are mostly owned and run by Roman Catholic authorities (some voluntary grammar schools being the largest exception). It is not possible to calculate expenditure figures for the various types of school but pupil-teacher ratios and class-sizes give an indication of the most important current resource input, teachers. There is little difference between various schools either in the quality or quantity of teachers. The following numbers of pupils per teacher were found in 1971-72:

	County	Maintained voluntary	Voluntary
Primary	28.2	28.8	27.5
Secondary	18.7	18.5	18.5

The voluntary and maintained voluntary schools would have relatively lower ratios if infant classes were excluded.

Expenditure on Other Services: The figures already analysed relate to direct educational expenditure only. Other items such as school meals and milk, transport and health services are important for social policy. Table 5-6 summarises expenditure on these items. It is not possible to separate primary from secondary schools in Northern Ireland and England; in most cases similar provision of services is available to all pupils. In the Republic, school transport facilities are available to all age groups, but meals are only provided for primary pupils out of public funds. It is not possible to estimate expenditure on school health services in the Republic but such services are known to be small.

The overall level of public spending on school transport, meals and

milk and school health services in 1971-72 was £3.97m in the Republic and just over £9m in Northern Ireland. However 85% of the Republic's expenditure was on transport alone compared to 22.7% in Northern Ireland. This is not simply a reflection of the greater transport needs of the Republic's scattered population; it is primarily due to the lack of meals, milk and health services on a wide scale. Put on a per pupil basis the figures are as follows:

TABLE 5-6
Expenditure per pupil on meals, milk, health and transport (£)

	Health	Meals and milk	Transport	Total
Republic of Ireland (Primary)	N.A.	0.51	2.92	3.43
Northern Ireland (Primary and Secondary)	3.40	13.02	4.81	21.22
England and Wales (Primary and Secondary)	3.97	14.28	4.29	22.54

Sources: Annual Estimates and Appropriation Accounts (Dublin, S.O.).

Northern Ireland Educational Statistics, op. cit.

Statistics of Education, op. cit.

Notes: For the Republic of Ireland, services other than transport do not apply to second-level schools. For other areas only aggregate first and second level figures are available. The indications are that, apart from transport, levels of provision and spending are similar for first and second level pupils.

Figures for Northern Ireland and England and Wales are net of parental contributions.

The above figures include, as far as possible, all sources of expenditure. Responsibility for finance varies, for example, maintenance costs of pupils in special schools are financed by the Health authorities in the Republic and by education authorities in Northern Ireland.

The above table shows extremely low provision of services in the Republic compared to other areas—and the same applies to second level schools. Taken overall, the provision of educational and non-educational services to primary school pupils may be aggregated as follows. (The figures once again refer to 1971-72, but they may be taken as a reliable guide to more recent years because policy develop-

ments have not been significant* since that date). In the Republic, expenditure per pupil in primary schools from public funds was £64.90, of which £59.97 went on teachers' salaries, £1.70 on other "in-school" expenditure and £3.43 on "non-educational" items (meals, transport etc.) In Northern Ireland public expenditure was £121.76 per primary pupil, of which £69.94 went on teachers' salaries, £30.60 on other "in-school" items and £21.22 on "non-educational" items.†

In secondary schools, the Republic spent a total of £125.79 per pupil (£89.87 on teachers' salaries, £33.00 on other "in-school" items and £2.92 on "non-educational" items); Northern Ireland spent £203.21 per pupil, (£124.47 on teachers' salaries, £57.52 on other "in-school" items, and £21.22 on "non-educational" items).

Capital Expenditure: During the 1960-1971 period an annual average of 8,700 primary pupil places were completed in Northern Ireland. Enrolments increased by 2,750 per annum. Thus about 6,000 places per annum were to meet needs arising from replacement of existing buildings and population shifts. For all secondary schools, average completions were 6,700 p.a., and the increase in enrolments was 4,375 p.a. Thus in relation to population, the level of school building was not high in Northern Ireland compared with the Republic, at least on a pupil-place basis.

Costs, and probably building standards, were however different. During 1970-71 and 1971-72 the average value of completed pupil places was £696.70 for primary and £1,125.37 for secondary. These figures include site acquisition and development, and professional fees, unlike the figures given in Chapter 3 above. Allowing a quarter of total costs for these extra items, the building cost of a primary school place in Northern Ireland is £523 and a secondary place £844. These figures could imply more generous provision of space and ancillary facilities (kitchens, libraries, assembly halls etc.) in Northern Ireland.

*Significant in the sense of upsetting the very large discrepancies existing in 1971-72.

†Assuming primary pupils got as much "non-educational" items as secondary pupils.

Alternatively they imply lower building costs in the Republic. While there is little general difference in building costs between the two areas, the Department of Education is of the opinion that centralised cost-control introduced in recent years has yielded significant advantages to the Republic and that the school building costs are significantly lower as a result, thus helping the authorities to cope with the relatively rapid expansion of second level enrolment and the larger stock of obsolete primary schools.

Summary: Whether judged in relation to population, labour force or school enrolments, public educational expenditure in the Republic is at a significantly lower level than that in Northern Ireland. There has been a closing of the gap in recent years, but this is partly offset by a displacement of private fee expenditure in the Republic.

This lower level of expenditure corresponds to significantly larger primary school classes, and less provision of meals, milk and health services in the Republic. The gap would seem to be larger than for some other social-service type expenditures—especially direct personal transfer payments which are often the focus of public comment.

In certain areas the difference in level of provision is very large—notably in primary schools, where Northern Ireland spends seventeen times as much from public funds as the Republic on non-teacher items, and where any reasonable allowance for privately financed expenditure comes nowhere near closing the gap. Together with the differences in "non-educational" items this raises issues of social policy (and perhaps wider issues also).

At the second level, the differences, while large, are not nearly as great as at the first level, except in the case of "non-educational" items such as school meals, milk and health services where publicly financed provision is virtually absent in the Republic. Overall, one should allow for certain unpaid-for inputs both in the Republic and in Northern Ireland—notably administration costs of schools by local managers. While these items are relatively more important in the Republic, it is very difficult to estimate their value in money terms.

CHAPTER 6

MANPOWER POLICIES

Two kinds of manpower policy have emerged in Ireland and elsewhere in recent years. The first is the use of GDP forecasts or projections to derive aggregate and sectoral manpower demand forecasts or projections. These are in turn converted into educational demands or needs, and the result compared with projected supplies in order to derive targets for the development of the educational system. This type of exercise (originating in the OECD's Mediterranean Regional Project) was applied to Ireland in *Investment in Education*, with results which are now well known. The second type of manpower policy is orientated more towards the short-term (i.e. less than 5 years) and towards training programmes, the provision of labour market information, placement services and related activities. This *active manpower policy*, as it is sometimes called, has received extensive attention and comment from the OECD and the NESC in recent years.* In this chapter we will be mainly concerned with the first, educational planning, type of manpower policy and its relevance to the Irish educational system at the present time.

When *Investment in Education* and the NIEC's comments† on it were written in the mid-1960s there were confident expectations among economists and others that manpower-related educational planning would remove obstacles to economic growth and development, as well as provide an economic rationale for devoting more resources to the educational system. In recent years however, many economists have become sceptical about the validity and accuracy of manpower-educational

*See *Manpower Policy in Ireland*. OECD Paris 1974, and NESC Comments on the OECD Report on Manpower Policy in Ireland, Report No. 6, 1975.

†NIEC Report No. 16, *Comments on Investment in Education* Dublin 1966.

tional plans of various kinds, but especially the GDP based forecasts of aggregate and sectoral labour requirements together with system-wide forecasts and projections of educational "output".

The critique of manpower policies has developed along two lines (i) criticism of methods and assumptions used and (ii) criticism based on the poor performance of the forecasts when confronted with *ex-post* evidence, which has been forthcoming in recent years.

(i) **Assumptions of Manpower Forecasting:** The basic assumption behind all manpower planning is that labour markets, especially skilled labour markets, are not well behaved. That is, the price mechanism does not work so as to achieve a market-clearing equilibrium situation. This can happen because of imperfect information, time-lags and institutional rigidities. Imperfect information means that the planning process must provide and assess information of its own from surveys, censuses etc., and in this area there is still a great deal of ignorance about the precise educational requirements for various skills and occupations—especially when it comes to distinguishing what is strictly necessary from what is dictated by custom. (Do demands made by universities, professional bodies and others for increasing numbers, and higher grades of Leaving Certificate subjects signify increasing educational standards and professional skills or merely a response to increasing Leaving Certificate supplies? That is, is the educational system a rationing and screening device as well as a creator of skills and qualifications?). The information problem also arises when trying to forecast manpower needs: sectoral productivity trends are especially difficult to forecast (particularly when the erratic movements of measured productivity are remembered).* Asking employers about their intended demands is often meaningless, either because no specification is made of wage and salary levels or because the question implicitly assumes no supply constraints on manpower availability.† Finally, in his evaluation of the Mediterranean Regional Project,

*See J. W. Kendrick, *Productivity Trends in the United States* Princeton, 1961.

†See K. Gannicott and M. Blaug "Scientists and Engineers in Great Britain" in M. Blaug and B. Ahmad (Eds.), *The Practice of Manpower Forecasting* Amsterdam, 1973.

R. Hollister demonstrated that there is wide inter-country variation in the occupational and skill composition of the labour force which makes forecasts or estimates of requirements, or specification of optima extremely difficult.*

These and other considerations show that planning has run up against severe information problems, and that therefore its performance is not likely to be as good as had been expected by some, especially in the medium to long run when the number of relevant variables increases.

The second major impediment to equilibrium in labour markets is the existence of time lags in adjusting supply to changes in demand. When shortages or surpluses of various categories of manpower are perceived, students and future labour market participants adjust their career plans accordingly. But it may take several years before this has an impact on labour markets because of lengthy and specialised degree courses etc., and meanwhile further supplies of qualified manpower may produce an over-reaction to the original disequilibrium. Manpower forecasting and appropriate planning decisions are necessary to correct this type of situation, at least in theory. In practice the situation is not quite as simple, because the rule is usually one of persistent shortages or surpluses rather than a succession of shortages and surpluses, partly because relative earnings do not react sufficiently to produce labour-market corrections.†

In a situation like this it is important that manpower-planning policies either (a) provide sufficiently accurate long-term forecasts or (b) lessen institutional and market rigidities. The evidence on the former point is not impressive, as we shall see later. This brings us to the institutional aspect.

Institutional factors such as administered price and wage setting,

*See R. Hollister, *A Technical Evaluation of the First Stage of the Mediterranean Regional Project* OECD, Paris, 1966.

†See K. J. Arrow and W. M. Capron "Shortages and Salaries: The Engineer and Scientist Case in the United States", *Quarterly Journal of Economics* Vol. 73, No. 2, 1959.

inflexibility of pay differentials etc. can inhibit the functioning of labour markets. Either because the market cannot give the right signals or does not respond sufficiently to signals, the planning mechanism must substitute for it or reform it. This is a neglected aspect of most manpower-planning exercises, which have tended to concentrate on long-term forecasts of quantities of manpower, ignoring the price aspect. While it may be difficult to introduce more flexibility into earnings differentials in the face of vested interests, there are other possible courses of action. Anything which introduces flexibility into the educational system will make manpower adjustments easier. Thus comprehensive curricula at the second level can minimise early subject specialisation and thus reduce the "lead-time" for qualified manpower. The contrast made by Blaug between the United Kingdom and the United States is not without relevance to Ireland: "It seems obvious that the supply of highly qualified manpower is more rigidly determined in Britain than in the United States, and that students' educational choices are less firmly linked to job opportunities, and that in general the demands of the labour market have less influence on the structure of higher education in Britain than in the United States. If we add to this the contrast between British tri-partite secondary education with a university stream separated from the rest by the age of 12, and the comprehensive high schools of America that allow almost 50% of the age-group 16-18 to pass on to college, . . . we are forced to conclude that there is much less scope for short-run adjustments in the demand and supply of manpower in this country [Britain] and therefore a stronger possibility of imbalances in the labour market".*

Thus, imperfect information, time-lags and institutional inflexibilities are still important labour-market problems, and manpower planning exercises have so far either left them unsolved, or in some cases largely ignored them. Where labour markets do not adjust to excess supplies and demands, a premium is put on accurate forecasting, but this has not been forthcoming. If markets were more flexible, then the premium on accurate long-term forecasting would be less; the state

*M. Blaug, "Approaches to Educational Planning", *Economic Journal*, June 1967, Volume 77, No. 306, page 275.

of the art of forecasting would be more in line with the demands made on it.

Another important assumption underlying manpower planning is the degree of substitutability in factor markets. If shortages of skilled labour are going to constitute "bottlenecks" which hinder the growth of national output, this is equivalent to assuming fixed coefficients in production, or zero elasticity of substitution.* Otherwise, ease of substitutability solves both production bottlenecks and labour market excess supplies and demands.

A recent study by Dougherty† has estimated the importance of supply and demand as determinants of the occupational composition of the labour force in nine major sectors of nineteen countries. The demand variable is a function of output and labour-productivity, and is the same as the usual determinant of manpower requirements in forecasting exercises. The supply variable is measured by the influence of the supply of a particular category of labour in the economy as a whole on the amount of that labour in certain industries and sectors. The results show that supply is important; over 40% of the 228 supply coefficients were significant at the 5% level, and all but one had the expected sign. Furthermore supply was most frequently significant for technicians, clerical workers, engineers, secretaries and foremen, and seldom significant for professionals, administrators, service workers and natural scientists. One of Dougherty's principal conclusions, which has obvious policy relevance, is that "the manpower requirements approach gives a misleadingly rigid impression of the demand for labour, and hence of the derived demands of the educational system . . . for most occupations the supply variable was sufficiently strong to invalidate the notion of 'requirements' ".‡

*The elasticity of substitution measures the relation between changes in relative factor prices and changes in relative factor quantities. If there are fixed coefficients then relative factor quantities cannot change and the numerator of the elasticity of substitution expression is equal to zero.

†C. R. S. Dougherty "Substitution and the Structure of the Labour Force", *Economic Journal*, March 1972, Vol. 82, No. 325.

‡Op. cit., pp. 180-181.

(ii) **The Performance of Manpower Forecasts**: Not surprisingly, forecasts based on inappropriate or oversimplified assumptions give poor results, although it is often difficult to judge whether this is due to differences in general economic performance rather than specific errors in the manpower forecast.* Accurate assessment of forecasts involves two important questions—(a) has the forecast reduced the level of uncertainty about outcomes compared to the level of uncertainty before the forecast was made? and (b) how great is the loss-value attached to error in the planner's preference function? Since we do not usually know the answer to these questions we are reduced to making simple comparisons of percentage deviations between forecast and actual values of variables.

In a recent review of manpower-forecasting performance edited by Ahamad and Blaug,† large errors are revealed in global manpower forecasts—and for developed economies at least it seems doubtful if the forecasts have significantly reduced uncertainty in the medium to long run. This is true even the case of countries like France and Sweden where considerable experience of forecasting has been acquired and where data availability is much better than in Ireland. Even forecasts of requirements for easily quantified categories of manpower have performed badly. For example the demand for scientific personnel has been repeatedly over-estimated even over 3 to 5 year periods in Great Britain, using surveys of employers' expectations.‡ Also forecasts of supply and demand for teachers in Great Britain have performed fairly well over a 3 to 5 year period (i.e. within $\pm 1\%$ of predicted values) but over longer periods have tended to run into rapidly increasing error (15% to 20% after 10 years) as more and

*If GNP and manpower forecasts are both wrong, which is to blame? Given the fixed coefficients assumption it could be either. Errors in GNP forecasts could change manpower demand trends. Equally, underestimation of manpower demands could lead to bottlenecks and slower GNP growth.

†B. Ahamad and M. Blaug (eds.), *The practice of Manpower Forecasting*, Amsterdam, 1973.

‡K. Gannicott and M. Blaug, "Scientists and Engineers in Great Britain" in Ahamad and Blaug *op. cit.*

more variable factors act to invalidate the over-simplified assumptions of the forecast.*

This illustrates the serious policy problems which can arise when teaching is linked to specialised institutions (the colleges of education) to such a degree that an unrealistic dependence is put on accurate forecasting.

Manpower policies and the Irish Educational System. There are some important lessons to be learned from other countries' experience with manpower forecasting and planning, as well as some special features which must be noted about the Irish labour market.

First, Ireland is a small open economy in a way which is relevant to manpower policy. The Irish labour market is open as the extent of external mobility shows. Also in recent years there has been an increasing inward mobility of skilled and highly qualified manpower, many of them former emigrants. In itself, this mobility may make forecasting more difficult and less accurate, but taken in conjunction with the small size of the Irish labour force and the pool of potential labour supplies represented by previous emigrants, the need for accurate long-term forecasting is correspondingly diminished. Labour-market adjustment possibilities are potentially promising in Ireland.

Secondly, however, labour market adjustments tend to be compromised in Ireland because of a relatively inflexible wage and salary structure. If scarce skills are to be supplied, either from domestic sources or especially by inward mobility then earnings must be competitive. Our present rigid setting of differentials, especially in the public sector, creates difficulties in this regard. One of the tasks for manpower planners together with employers and unions, is to achieve greater flexibility in the structure of earnings, especially as the increasing mobility of labour in the European Economic Community will necessitate a response to external influences.

*B. Ahamad "Teachers in England and Wales" in Ahamad and Blaug *op. cit.*

Third, the educational system can be developed in a way which aids manpower policy. This does not mean the construction of long-term forecasts and the tailoring of institutions to some precise manpower plan. What it does mean is that (a) fairly obvious and serious scarcities should be met by appropriate institutional development* (b) a high degree of flexibility be aimed for in future educational developments:† an example of this is the development of comprehensive education at the second level. Greater flexibility in the training, education and certification of teachers is a possible future development, as degree-level work is done by all trainees.

Fourth, the financing of third level education, especially those courses which are directed towards the obtaining of professional qualifications needs to be re-examined. Present policies regarding fee levels and levels of student grants do not appear to take into account manpower differences between courses (they probably do reflect a general concern with scarcity as well as purely social policy considerations). It is well known that some qualifications are in chronic surplus (e.g. medical degrees). Yet there is no variation in fee and grant levels (or mixture of grants and loans) to bring the relative private costs of education into line with presumed shortages and surpluses of the corresponding categories of manpower.

Fifth, the development of information about labour markets is important both for job-seekers and for planners. Thus the work of the National Manpower Service, and the placement and vocational guidance services, can be seen as important sources of information for job-seekers, helping to promote labour market adjustments.‡ In addition, this information can also be of use in the longer-run in providing guidelines (rather than fixed targets) for educational development.

*The development of the Regional Technical Colleges in response to technician shortages (among other factors) is a good example of this, as is the way the colleges are open to change in response to local manpower needs. See the assessment of the H.E.A. in its *Progress Report 1974*, Chapter VII.

†See M. Blaug, "Approaches to Educational Planning", referred to above.

‡These aspects have been dealt with extensively by the NESC elsewhere—see Report No. 6, *Comments on the OECD Report on Manpower Policy* in Ireland, NESC 1975.

Therefore, manpower forecasting and planning should be principally concerned with relatively short-term "active manpower policy" instruments rather than with long term targets for the development of the educational system.* Experience with manpower planning as well as the nature of the Irish economy both point to this. If any medium to long term plans are to be developed for the educational system (e.g. in relation to enrolment and participation forecasts at the second level) then the planning process must be developed appropriately in order to make the best use of information in a changing and uncertain environment.

This means continuous revision and up-dating of plans rather than a "once-off" programme every 4 or 5 years. It also means more emphasis on policy *instruments* and their effects rather than on *fixed* targets. In a recent analysis of economic planning policy problems in Ireland, D. Norton has concluded: "Regarding the form of planning rationally appropriate to Ireland, both theoretical and immediately practical considerations lead us to conclude that the degree of openness of the economy, the uncertainty regarding the environment and considerations of optimal time horizon—all of these provide a conclusive case for the adoption of rolling plans, always maintaining a time horizon of approximately four years to the rolling terminal date.

"We in Ireland . . . have focussed on targets and projections . . . without due recognition of the fact that the instruments rather than the targets are the ultimate unknowns in any policy-orientated exercise".†

*Exceptions could be made where necessary, possibly in the case of specific specialised skills, e.g., doctors and health service personnel generally.

†Desmond A. G. Norton "Problems in Economic Planning and Policy formation in Ireland 1958-1974", E.S.R.I. Broadsheet Number 12, 1975. Note that uncertainty does not remove the need to plan; it means that planning is more difficult, and that intensive effort must be made to increase the amount and quality of information available to the planner.

NATIONAL ECONOMIC AND SOCIAL COUNCIL PUBLICATIONS

<i>Title</i>	<i>Date</i>
1. Report on the economy in 1973 and the prospects for 1974	April 1974
2. Comments on Capital Taxation Proposals	July 1974
3. The Economy in 1974 and Outlook for 1975	Nov. 1974
4. Regional Policy in Ireland: A Review	Jan. 1975
5. Population and Employment Projections: 1971-86	Feb. 1975
6. Comments on the OECD Report on Manpower Policy in Ireland	July 1975
7. Jobs and Living Standards: Projections and Implications	June 1975
8. An Approach to Social Policy	June 1975
9. Report on Inflation	June 1975
10. Causes and effects of inflation in Ireland	
11. Income Distribution: A Preliminary Report	Sept. 1975