## **NESC REPORT NO. 14**

# POPULATION PROJECTIONS 1971-86: THE IMPLICATIONS FOR SOCIAL PLANNING - DWELLING NEEDS

Price: £1.50

# NATIONAL ECONOMIC AND SOCIAL COUNCIL

Population Projections 1971–86:
The Implications for Social Planning
—Dwelling Needs

# NATIONAL ECONOMIC AND SOCIAL COUNCIL CONSTITUTION AND TERMS OF REFERENCE

- 1. The main task of the National Economic and Social Council shall be to provide a forum for discussion of the principles relating to the efficient development of the national economy and the achievement of social justice, and to advise the Government, through the Minister for Finance on their application. The Council shall have regard.
  - (i) the realisation of the highest possible levels of employment at adequate reward
  - (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

inter alia, to:

- (vi) the social implications of economic growth, including the need to protect the environment.
- 2. The Council may consider such matters either on its own initiative or at the request of the Government.
- 3. Members of the Government shall be entitled to attend the Council's meetings. The Council may at any time present its views to the Government, on matters within its terms of reference. Any reports which the Council may produce shall be submitted to the Government and, together with any comments which the Government may then make thereon, shall be laid before each House of the Oireachtas and published.
- 4. The membership of the Council shall comprise a Chairman appointed by the Government in consultation with the interests represented on the Council

Ten persons nominated by agricultural organisations.

Ten persons nominated by the Confederation of Irish Industry and the Irish Employers' Confederation,

Ten persons nominated by the Irish Congress of Trade Unions,

Ten other persons appointed by the Government, and

Six persons representing Government Departments comprising one representative each from the Departments of Finance, Agriculture and Fisheries, Industry and Commerce, Labour and Local Government and one person representing the Departments of Health and Social Welfare.

Any other Government Department shall have the right of audience at Council meetings if warranted by the Council's agenda, subject to the right of the Chairman to regulate the numbers attending.

- 5. The term of office of members shall be for three years renewable. Casual vacancies shall be filled by the Government or by the nominating body as appropriate. Members filling casual vacancies may hold office until the expiry of the other members' current term of office and their membership shall then be renewable on the same basis as that of other members.
- 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

Population Projections 1971-1986:

The Implications for Social Planning
—Dwelling Needs

DUBLIN.
PUBLISHED BY THE STATIONERY OFFICE.

To be purchased through any Bookseller, or directly from the GOVERNMENT PUBLICATIONS SALE OFFICE, G.P.O. ARCADE, DUBLIN 1.

Price: 30p

(Prl. 4928)

## NATIONAL ECONOMIC AND SOCIAL COUNCIL MEMBERS

Chairman: Prof. W. J. L. Ryan

#### Nominated by the Government:

Mrs. H. Burke Mr. A. N. O'Brien Mr. G. A. Meagher Prof. N. J. Gibson Mr. P. Rock Mr. C. H. Murray Prof. D. Hannan Mr. J. Walsh Mr. T. O'Cearbhaill Dr. K. Kennedy Dr. T. K. Whitaker Prof. P. Lynch Mr. M. J. Barry Mr. C. Mac Gabhann Dr. B. Hensey

#### Nominated by the Confederation of Irish Industry:

Mr. F. A. Casey Mr. J. P. Culliton Mr. J. H. D. Ryan Mr. L. Connellan Mr. R. I. Morrison

#### Nominated by the Irish Agricultural Organisation Society.

Mr. J. Buttimer Mr. P. Kelly Mr. P. Raftery

#### Nominated by the Irish Congress of Trade Unions:

Mr. A. Barr Mr. B. G. Harkin Mr. D. Nevin Mr. J. Carroll Mr. D. Larkin Mr. R. Roberts Mr. W. J. Fitzpatrick Mr. D. Murphy Senator F. Kennedy Mr. P. Murphy

#### Nominated by the Irish Creamery Milk Suppliers' Association:

Mr. P. Hourigan Mr. D. Murphy Mr. T. J. O'Callaghan

#### Nominated by the Irish Employers' Confederation:

Mr. M. Greene Mr. A. Shiel Mr. J. J. O'Reilly Mr. D. J. McAuley Mr. P. Murphy

#### Nominated by the Irish Farmers' Association:

Mr. D. Cashman Mr. P. Lane Mr. S. Healy Mr. J. Richards-Orpen

#### CONTENTS

		Page
Prefa	ce	5
l.	Introduction	7
II.	Recent Trends in Household Formation	9
III.	Projections of Household Formation, 1971–86	15
IV.	Shared Dwellings	22
V.	Needs in Terms of Overcrowding and the Question of Under-Occupation	23
VI.	Needs Related to the Unfitness of the Dwelling Stock	29
VII.	Needs Related to Obsolescence, and the Significance of Internal Migration	32
VIII.	Conclusions	34
Appei	ndix A—Change in Households by Component of Change	39
Appei	ndix B—Household Formation by Marital Status	41
	ndix C—Household Formation in Ireland, in Comparison with England and Wales	43
Apper	ndix D—Smaller Households	46
Apper	ndix E—Statistical Appendix	47

#### **PREFACE**

In February 1975, the Council published\* projections of the growth in population and the labour force for this country up to 1986. These projections have important implications for social planning and the provision of social services. The Social Policy Committee of the Council has been examining these implications. This report deals with the implications of the projections for housing. Subsequent reports will cover health, education, social welfare and the implications for rural areas.

The objective of this and the other studies in the series is to assess the degree of expansion which would be required in the social services in order to ensure that the population in 1986 will enjoy at least the same standard of service as in 1971, should Professor Walsh's projections be realised. These projections, therefore, and the assumptions on which they are based, have been taken as data in this report. Information to date on some of the assumptions underlying the projections (e.g. the birth rate, and the school participation rate) indicate that they could require some revision. However, the assumptions cover the whole period 1971–86, and too short a time has elapsed for it to be possible to assess with any confidence the accuracy of these assumptions for the period as a whole. Any possible policy changes during the period have also been ignored.

In its Report No. 7,\*\* the Council attempted to quantify the size of the gap in living standards between Ireland and some other EEC countries, and the growth rates in national output, employment and productivity that could be required if full employment is to be achieved and that gap narrowed; the Council has on hands a number of studies aimed at

<sup>\*</sup>NESC No. 5: Population and Employment Projections: 1971-86. Prl. 4193.

<sup>\*\*</sup>NESC No. 7: Jobs and Living Standards: Projections and Implications. Prl. 4402.

identifying the changes in policies required to achieve these objectives. At this stage the investigations of the implications for social planning must necessarily be based on the assumption that enough jobs will be created and economic progress achieved to support the necessary social development.

The projections of population up to 1986 carried out by Professor Walsh on behalf of the Council refer to the country as a whole. No one has yet undertaken a break-down of these figures on a regional basis. Hence, this and the other studies which examine the social planning implications can only be expressed in national terms. It is hoped, however, that they will make a contribution to assessing the magnitude of the task facing the country in coping with the consequences of an increase in population unprecedented in the history of the State.

#### I. INTRODUCTION.

- 1. The aim of this study is to assess possible future dwelling needs, in the light of Professor Brendan M. Walsh's population projections up to 1986 (NESC, 1975). For the purposes of this exercise it is assumed that there will be no change in present housing policy. This patently does *not* mean that the current housing conditions are acceptable—for example, that the present levels of overcrowding should be tolerated, or that involuntary sharing in multi-family households should be allowed to continue. Present policy aims to eliminate these conditions over a period of time. However, current broad definitions of overcrowding and of housing unfitness, and the present system of subsidies, are assumed to continue. Hence, the main needs which will be taken into account are those arising from:
  - (a) the projected population change as outlined by Professor Walsh;
  - (b) the elimination of overcrowding and of the involuntary sharing of dwellings by families;
  - (c) the needs arising from the unfitness of the present dwelling stock as defined by current standards;
  - (d) the needs arising from future obsolescence.

This study leaves out of account the effects of resource constraints: for example, whether these needs are compatible with other social needs.

2. The term "dwelling needs" requires some elaboration. A useful working definition of need is: the number of dwellings which are required at any time "to make it possible to offer a separate dwelling to households which according to some normative judgement ought to have one" (United Nations, 1973, p. 23, emphasis added). Market forces do not operate in an unfettered fashion in housing, and implicitly the

<sup>\*</sup>Following discussions in the Social Policy Committee, successive drafts of this report were prepared by John Blackwell and Catherine Keehan in the Council's Secretariat. The co-operation of the CSO in providing data is acknowledged.

Government does not equate housing need with effective demand at the present relative prices. Thus certain families, who cannot purchase housing services out of their disposable incomes, are able to acquire dwellings for rent. "Local authorities provide houses for persons living in unfit and overcrowded conditions, for persons who cannot afford to provide adequate accommodation for themselves, and for special classes such as the aged, disabled persons, and newly weds". (Department of Local Government 1975, p. 5). In this study, the term "dwelling needs" covers dwellings for those families who are willing and able to pay for housing services, and dwellings provided by Local Authorities. The effective demand for housing is conditional both on the availability of finance from lending agencies and on the existing subsidies, both explicit and implicit, for owner-occupied and rented housing. However, needs are not synonymous with desires-for example, some single people might be prepared to live in separate dwellings, if they were made available on sufficiently attractive terms. Such cases are not included in the need calculation, although those single people who are able ro purchase housing services out of disposable income are included.

3. The provision of housing could by itself affect dwelling needs through an impact on marriage rates, on fertility, and on internal migration, but such "second round" effects are not considered. This study is at the national level, and no attempt is made to project regional or local needs, although a very imprecise allowance is made for the impact of internal migration on national needs.\* Finally, this study leaves unanswered the question of the likely gap between housing need and effective demand, given the expected changes in real incomes and a continuation of existing subsidies. This raises issues which have important implications for public policy and public expenditure, but which are quite outside the scope of this study. In particular, given the resources and information currently available to the Council, it is not possible for the Council to estimate the contribution of local authority housing and private housing towards meeting total housing needs.

\*In addition no allowance is made in these calculations for a vacancy reserve, partly because no data are available on the proportion of the dwelling stock which is vacant. In any event, there are no internationally agreed standards on a reserve of vacant dwellings.

#### II. RECENT TRENDS IN HOUSEHOLD FORMATION

- 4. Some definitions are necessary at this point. In the Census a *family* is defined as a man and his wife, or a man and his wife together with one or more single children, or one parent together with one or more single children. A *private household* is defined as a group of persons jointly occupying the whole or part of a private dwelling, and who share the principal meals and make common provision for living needs. A *private dwelling* is the set of rooms occupied by a private household. Thus, the term "private household" includes those households which occupy a dwelling rented from a Local Authority.
- 5. In 1971 there were 2,859,000 persons in private households in permanent housing units,\* 15,000 persons in private households in temporary housing units, and 105,000 persons who were not in private households. The percentage of persons in private households (in permanent housing units) has increased from 95·3% in 1961 to 95·5% in 1966 and to 96·0% in 1971. Between 1961 and 1971 the total population in these private households increased by 172,300, and the number of households increased by 50,000. This study limits itself to these private households. Over the last forty years, the average size of household changed as follows:

1936:	4.31
1946:	4.16
1961:	3.97
1966:	4.01
1971:	3.94

<sup>\*</sup>The 1971 Census collected data on *housing units* for the first time. A housing unit is a conventional dwelling-house or a structurally separate flat, regardless of the number of households it contains. Thus a housing unit can contain more than one dwelling.

Table 1 classifies the households by type in 1961, 1966 and 1971. There was an increase of 50,000 households in the decade 1961–71, and 39,100 of this increase occurred in the period 1966 to 1971. There was an exceptional increase in the number of single-person households in the period 1966 to 1971: from 89,000 to 103,000. Despite the increase in the marriage rate in the period 1961–71, and the resulting fall in the number of potential female heads of household in the middle age groups, there has been a significant increase in the number of single person households which are headed by females. There are a number of plausible reasons for this increase in households which are headed by single people, among them changes in tastes, increases in incomes, and—less easily tested—greater job mobility.

TABLE 1 Households classified by Type: 1961, 1966 and 1971

1961

Household Type	With Male Head	With Female Head	Total
	′000	′000	'000
Married Couple	392.4	7.7	400.1
Single Parent	30.0	67.5	97.5
One Person	45⋅6	39.8	85.4
Multi-family	17.9	4.3	22.2
Other	42·1	29·1	71.2
Total	528.1	148-3	676-4

1966

Household Type	With Male Head	With Female Head	Total
	′000	′000	'000
Married Couple	408.8	8.7	417·5
Single Parent	27.5	60∙2	87.7
One Person	46.9	42·1	89.0
Multi-family	20.0	4.5	24.6
Other	39.4	29-2	68.5
Total	542.6	144-7	687:3

TABLE 1—continued
1971

Household Type	With Male Head	With Female Head	Total
	′000	'000	'000
Married Couple	441.2	9.8	451.0
Single Parent	25.0	56·1	81.1
One Person	52.2	50.6	102.8
Multi-family	20.9	4.3	25.2
Other	36.9	29·3	66.3
Total	576·1	150-3	726-4

Source: Census of Population (CP) 1966, Volume VI: Table 17, Appendix; information from Central Statistics Office (CSO).

#### **Headship Rates**

- 6. The projections of household formation in this study rely on projections of headship rates and of the population by age and sex. A headship rate is the proportion of the population in a certain age-sex group who are heads of household.\* For example, in 1971, there were 197,000 males between the ages of 25 and 44 who were heads of household, while the total population of males in this age group was 316,500. Thus the headship rate was 197,000 divided by 316,500 or 62% for this age group. A central role is given to headship rates in the projections. If the proportion of a population who are heads of household is assumed, then given a projected population, the number of household heads—and therefore of households—can be derived immediately.
- 7. Table 2 shows the headship rates for twelve age groups, for males and females, in Ireland in 1971. The relatively low headship rates for those aged 15 to 24 is undoubtedly due to the relatively low proportion of single people who are heads.\*\* The headship rates for males increase gradually from age 25, and reach a plateau between the ages of 50 and 64. In the latter age group about 82% to 84% of males are heads of

<sup>\*</sup>At the Census it is deliberately left to the person completing the form to indicate which member of the household is the head. Thus in some households where there is husband and wife, the wife is entered as the head.

<sup>\*\*</sup>For evidence on this see the "Buchanan Report" (Ireland, 1968) paragraph 14.

household. The headship rates for males are higher than those for females, for all ages; this reflects the fact that the male has assumed the role of principal earner.

TABLE 2
Headship rates by age and sex. 1971

Age Group	Male heads of household	Female heads of household
	%	%
15–24	5.9	2.4
25-29	43.1	3.6
30-34	63.0	3.4
35–39	70.7	4.6
40-44	75⋅2	7.6
<b>45–4</b> 9	79-2	11.3
50-54	82.1	17.0
55–59	84.0	23.4
60-64	84.0	30-3
65–69	81.9	36.3
70–74	76.3	40.7
75 and over	66-1	39.0

Source: CP 1971, Volume II; information from CSO.

8. Table 3 shows the headship rates at each of the three census dates from 1961—the first year in which this information was collected at an Irish census—to 1971.\* Between 1961 and 1971 all the male headship rates increased; the biggest increase was recorded in the age group 25–44 where the headship rate increased from 53·4% to 62·3% over the decade. This undoubtedly reflects the increase in the marriage rate in this period, which rose from 18·5 in 1961 (per 1,000 unmarried population) to 26·7 in 1971.\*\* Indeed, the change in headship over five-yearly

\*Some assumptions are needed to estimate headship for age groups 15–19 and 20–24. Headship rates for males aged 15–24 are assumed to be 70% for married males, 50% for widowed males. The arbitrary assumption is made that headship rates for single males aged 20–24 are four times greater than for single males aged 15–19. Finally, the headship rates for females aged 15–19 are assumed to be 1% lower than for males in the same age group.

\*\*The influence of the incidence of marriage on male headship for those aged 25–44 is confirmed by the "Buchanan Report" (Ireland, 1968) paragraph 20. Source for data on marriage rate: Walsh (1972); An Roinn Sláinte, Quarterly Report on Births, Deaths and Marriages . . ., December 1974.

periods mirrors the change in the marriage rate: the big increase in male headship at ages 20–44 between 1966 and 1971 occurred when the marriage rate jumped from 20·4 to 26·7. It is striking that, for both males and females, in every age group the increase in headship rates over 1966–71 was greater than that which occurred in 1961–66 (apart from females aged 20–24). In the case of females aged 25–64, where headship has been declining, the decline was much less in the 1966–71 period than in the previous five-year period.

TABLE 3

Percentage of males and females, in each age group, who are heads of households: 1961, 1966 and 1971

Age Group		Change in headship rates 1961–71: change in percent-		
	1961	1966	1971	age points
		Males		
	%	%	%	
15–19 (a)	0∙5ე	0∙5ე	0.7	0.2
	≥3.0	<b>3.7</b>	5.9	2.9
20-24 (a)	6·6 <sup>J</sup>	8.3	12.2	5.6
25–44	53⋅4	57.3	62·3	8.9
45-64	80∙1	81 · 1	82.3	2.2
65 and over	74.6	74-2	74.9	0.3
		Females		
	%	%	%	
1519 (a)	0.4	0.4	0∙6 ๅ	0.2
20-24 (a)	2.6	4.0	4.7 } 2.4	2.1
25-44	5∙7	5.0	4.8	-0.9
45-64	21.7	20.4	20.0	-1.7
65 and over	38-2	37.3	38.7	0.5

Note: (a) These are estimates, based on method outlined in footnote to para. 8. Rates for age group 15–24 are actual data.

Source: CP 1966 Volume VI, Table 17 and Appendix; CP 1971 Volume II, Tables 1B, 1C; information from CSO.

- 9. It is noteworthy that the one instance where headship rates declined in the decade was for females aged 25–44 and 45–64. This was to be expected—it is another reflection of the rise in the marriage rate. If women are single or widowed, then they are more likely to have their own households. This is also in accordance with the experience of other countries—studies in Europe, USA and Japan have shown that in general headship rates have increased over time in all age-sex groups except in the ages 35–54 for females (United Nations, 1971, p. 350).
- 10. With regard to the significant increase in single-person households in the decade 1961–71, the male single heads in these households increased from 35,400 in 1961 to 40,900 in 1971. As a percentage of single males (aged 20 and over) this is an increase from 10·2% in 1961 to 12·4% in 1971. The equivalent figure for females is an increase from 21,300 in 1961 to 25,300 in 1971, or from 8·0% to 10·3% of single females.
- 11. The extent to which the changes in headship rates led to an increase in the number of households is evident from Appendix A. This shows that in the period 1961-71 most of the increase in households was due to the change in headship rates, rather than to the change in the population by size and structure. This evidence is vital in the context of this study, which argues that much of the housing need generated by demographic change comes from changes in headship rates. If a "projection" of households had been made in 1961 on the basis of unchanged headship rates, and if the future population had been known with certainty, the "projected" increase in households would have been 12,100—compared with the increase of 50,000 which actually occurred. Finally, how does the rate of household formation in Ireland compare with that in Great Britain? If British headship rates are applied to the Irish population, then a "hypothetical" number of separate households if Irish headship rates were the same as in Britain-is obtained. This is done in Appendix C, which shows that in 1966 the rate of household formation was higher in Ireland than in England and Wales. But due to a seemingly big increase in headship rates among single and widowed persons in England and Wales by 1971, the rate of household formation was higher there than in Ireland in that year.

#### III. PROJECTIONS OF HOUSEHOLD FORMATION, 1971–1986

12. The method used is as follows. Given the projections of population in age-sex categories, the application of headship rates to these projections gives the number of household heads in each age-sex group. A summation of all the household heads gives the total number of projected households. The choice of headship rates is now discussed.

#### **Influences on Headship Rates**

13. There are a number of variables which affect headship rates. First, if real personal disposable income per head increases, headship rates are likely to increase. The higher incomes make it possible for both young single people and for older people to set up independent households. Second, headship rates are likely to be higher in urban areas, other things being equal. Experience in European countries is that urbanisation and industrialisation result in a change in headship rates (United Nations, 1973, p. 16). Third, "the experience of other European countries (than Britain) shows that headship rates can rise to levels never before anticipated when the distribution of income and procedures for allocating and subsidising housing change in favour of widows, students, single people and others whose opportunity of finding a separate home were previously restricted" (Donnison, 1967, p. 246). This effect of the provision of housing is confirmed by the work of Eversley and Jackson who studied "household fission"—that is, larger households dissolving into smaller ones, which typically takes the form of single persons setting up independent households. They measured this in Britain and in other countries, using household size as the dependent variable, but finally found that the most important factor was the availability of dwellings at prices people could afford (Eversley, 1973). Finally, the increase in separate households, e.g. those comprising single people, can depend on the relative price of housing, and among older people can depend on the trends in pensions

and the provision of social services, or on Local Authority decisions concerning housing allocation among older people.

14. It is clear from the above discussion that a dominant influence on headship has been the increase in the marriage rate. If neither of the persons married was previously a head of household then there will be a net increase in households. The above discussion shows that an increase in the marriage rate results in an increase in the male headship and a decrease in the female headship rates. To a certain extent the marriage rate will in turn be related to the real income in the community.\* This is the indirect way in which income affects headship.

#### Assumptions regarding headship rates in future

- 15. It is assumed that headship rates by age and sex will increase in Ireland over the period 1971–86, for the following reasons:
  - (i) It is assumed in Professor Walsh's projections that there will be a steady increase, in all age groups, in the proportion of the female population which has ever been married. Even if the marriage rate simply remains at its historically high level of 1971, this would be a justifiable assumption. It is, however, assumed in this study that the marriage rate will increase (holding other factors constant), although not by the large increment which was the case in the 1961–71 period.\*\* The marriage rate has already increased since 1971.†

\*The annual marriage rate per 1,000 unmarried population aged 15–64 is related principally to the real personal disposable income per head (Walsh, 1972). Hence, changes in real income affect headship both directly (chiefly through influencing the number of single-person households) and indirectly through the marriage rate.

\*\*While Professor Walsh does not make an explicit projection of the marriage rate, he does say: "Provided the long-term rate of growth in real income does not exhibit a discontinuity in or about 1971, our approach will yield the same results as would be obtained from an attempt to measure the association of real income with these demographic variables (marriage and fertility rates) in the past and to use this as the basis for the projections" (NESC, 1975, p. 55).

†In 1971 the marriage rate per 1,000 unmarried population aged 15–64 was 26·7. The figures for subsequent years (which extrapolate the proportions unmarried based on the trend in 1966–71) are 27·1 in 1972, 27·7 in 1973 and 27·6 in 1974.

- (ii) It is assumed that real incomes will increase, although at a lower rate than that which occurred in the 1961-71 decade. This buttresses the assumption that the marriage rate will increase, and also means that headship rates among single people are likely to increase.
- (iii) The proportion of the population living in urban areas is likely to rise. Even if other factors such as income are held constant this should result in an increase in headship rates.\*

Nevertheless, because of the imprecision which is inherent in any projection of headship rates over a fifteen year period based on the experience of ten years, two variants of headship rates are given. The changes in headship rates could begin to level off after some period: first, because the change in real personal disposable income per head per annum is likely to be less than in the 1960s; second, the proportion of households which contains more than one family is likely to be smaller. The two assumptions regarding headship rates differ only in the figures for 1986.

16. **Variant A:** the assumption is that headship rates continue to increase in accordance with the trend of the 1961–71 decade. This means, for example, that over the ten-year period 1971–81 the projected increase or decrease in headship will be the same as that which occurred in the decade 1961–71.

Variant B: here the projected headship rates are the same as in Variant A until 1981, then the change in headship between 1981 and 1986 is half of that which occurs in Variant A.

The resulting projected headship rates for 1986 under both these variants are given in Table 4.

\*Data are not available on headship rates by age or marital condition in rural areas, but the experience of other countries would suggest that they should be lower than in urban areas. One indirect indication of lower headship in rural areas is the high proportion of multi-family households whose heads are in agricultural occupations: 37% of the total in 1971.

TABLE 4
Headship rates 1971, and those projected to 1986

		Males		Females			
Age Group	Actual	Projecte	1		Projecte	ected 1986	
	1971 <i>(a)</i>	Variant A	Variant B	Actual 1971 <i>(a)</i>	Variant A	Variant B	
	%	%	%	%	<del></del>	%	
15–19	0.7	1.0	0.95	0∙6	0.9	0.85	
20-24	12.2	20.6	19-2	4.7	7∙9	7⋅3	
25-44	62.3	75∙6	73-4	4.8	3.4	3⋅6	
45-64	82-3	85∙6	85.0	20.0	17.4	17.9	
65 and over	74-9	75-3	75-2	38.7	39.4	39.3	

Note: (a) Figures for age groups 15-19 and 20-24 are estimates (Table 3).

#### **Projections of households**

- 17. Professor Walsh uses a number of alternative assumptions concerning future trends in nuptiality, fertility, and emigration:
  - (i) In this study the high nuptiality assumption of Professor Walsh is used, for working purposes. However, the sensitivity of the projections of households to an assumption of low nuptiality is tested in Appendix B.
  - (ii) For the purposes of projecting the number of households to 1986, the assumption about fertility, in which Professor Walsh places least confidence, is not crucial. This is because the projected increase in the number of children will not affect the number of households formed up to 1986, although it will affect the average size of households. The earlier discussion shows that separate households are not likely to be formed until people are at least 20 years of age. A combination of high nuptiality and high fertility assumptions would be implausible (NESC, 1975, p. 64), and the low fertility assumption is used in this study.

(iii) The behaviour of emigration would affect the formation of households. Professor Walsh used two assumptions regarding emigration. His first is net emigration at zero from 1971 to 1976 and at 5,000 per annum from 1976 to 1986. His alternative assumption is zero net emigration over the whole period 1971–86. In this study Professor Walsh's first assumption (i.e. net emigration of 5,000 per annum in 1976–86) is accepted.\* The resulting projections of households, using both Variant A and Variant B on headship, are given in Table 5 hereunder.\*\* The sensitivity of the calculations to the assumption of zero net emigration (Professor Walsh's projection No. 2) is also illustrated in this Table.

TABLE 5

Projection of households 1971–1986, for two assumptions on emigration

Projection No. 1: Net emigration 5,000 a year, 1976–86

Year	Male heads	Female heads	Total heads	Average persons per household
	′000	′000	′000	
1971 actual	576⋅1	150-3	726-4	3.94
1976	616·8	152.5	769-3	3.97
1981	675∙5	154.5	830.0	3.91
1986 (variant A)	742.5	156-4	898-9	3.85
1986 (variant B)	728-4	157.5	885.9	3.91

<sup>\*</sup>In NESC Report No. 5 the population projections are not broken down by age and sex. The ESRI kindly made available the work sheets on which the projections were based, and the distribution of each projected population by age and sex is taken from these. The projected population, for the assumption of 5,000 a year net emigration between 1976 and 1986, is shown in Appendix E, Table E1.

<sup>\*\*</sup>Since these projections are based on the total population in age groups from 15–19 upwards, they are invariant under the assumptions concerning nuptiality. Nuptiality *does* affect the subsequent checks, since it has an impact on household size, and it affects the checks which are contained in Appendices B and C.

TABLE 5—continued

Projection No. 2: Net emigration zero, 1971–86

Year	Male heads	Female heads	Total heads	Average persons per household
	′000	′000	′000	
1971 actual	576-1	150-3	726-4	3.94
1976	616.8	152·5	769.3	3.97
1981	677-2	155-1	832.3	3.93
1986 (variant A)	753.3	157.7	911.0	3.88
1986 (variant B)	738.7	158-9	897-6	3.94

- 18. The projected number of households in 1986 is 899,000 under Variant A on headship, and 886,000 under Variant B. Two methods are used to check the credibility of these projections:
  - (i) An examination of average household size shows that it is projected to be 3.85 persons in 1986 under Variant A on headship, or 3.91 under Variant B.\* This projected decline in average household size is in line with the long-run trend which was given in paragraph 5, and is thus plausible. However, it is difficult to project household size with confidence. Higher marriage rates could increase the average household size, depending on the extent to which the married couples come from single-person households. "Household fission", and the lower fertility rates which are projected, would both tend to lower the household size.
  - (ii) Appendix B uses data on headship by marital status to check the household projections for 1986. This Appendix suggests a somewhat higher projection of households in 1986, than that given in Table 5, i.e. 919,300 under the high nuptiality

\*In 1971 the percentage of persons in private households was 96%, and this proportion has been increasing over time. It is assumed here that this proportion would reach 96.5% in 1976 and in 1981, and 97% in 1986, in line with the long run trend. This partly reflects the present policy which seeks to provide care in homes rather than in institutions, where this is possible. The projected size of household would be lower, e.g. 3.80 rather than 3.84 under Variant A on headship, if an allowance were made for the additional households due to elimination of involuntary sharing. The next section discusses these "concealed households".

assumption. If the low nuptiality assumption is accepted then this Appendix gives a projection of 896,900 households. In addition, in Appendix C there is a set of *projected headship rates for married males in England and Wales* in 1986, modified to take account of the likely difference in household formation in Ireland. These data are combined with projections of Irish married males, and result in projections of households headed by married males in 1986.

The two checks lead to a broad agreement with the projections of Table 5, given the assumptions (detailed in paragraph 17 above), regarding nuptiality, fertility and emigration. If the assumption of zero net emigration is accepted then projected households in 1986 would be 911,000 using Variant A on headship, or 898,000 using Variant B.

19. In summary, assuming net emigration of 5,000 a year in 1976–86, the projection which is accepted for 1986 is in the range of 886,000 to 899,000 households. This implies a projected increase of 160,000 to 173,000 households over this fifteen year period. Table 6 shows that the projected increase of 61,000 households over the 1976–81 period (as shown in Table 5) is greater than the actual increase of 39,000 which occurred in the 1966–71 period. A further increase of up to 69,000 households is projected over the five year period 1981–86. It is not possible to break down the projections by size of household without making further assumptions.

TABLE 6
Projected change in households, 1971–86, compared with actual change 1961–71

Period	Change in households		
	′000		
1961–66 (actual)	10-9		
1966–71 (actual)	39.1		
1971–76	42.9		
1976–81	60.7		
1981–86 (Variant A)	68.8		
1981–86 (Variant B)	55.9		

#### IV. SHARED DWELLINGS

- 20. By definition, the number of dwellings is equal to the number of households (see paragraph 4 above). It is quite possible therefore for one *dwelling* to contain only one *household* but more than one *family*. This study is interested in the number of families who live with other families involuntarily. It is possible to count the number of multifamily households, but there is no firm information about the extent to which this is involuntary sharing. An estimate of this is difficult, partly because the data do not distinguish between a multi-family household where a married couple lives with in-laws, and one where, say, a widow with one or more single children lives with a married couple.
- 21. The extent to which households share dwellings can be a reflection of low incomes, the relative price of housing, or can be a result of a lack of suitable housing in a particular area. Thus an increase in the supply of housing can result in a "concealed household"—which is at present sharing a dwelling—becoming an actual household. The number of multi-family households has increased from 22,200 in 1961 to 24,600 in 1966 and 25,200 in 1971 (of which 24,700 were households with two families). In 1971, the number of multi-family units which were in agricultural occupations was 9,400; the 1969 White Paper (Ireland, 1969) implies that, because of this, much of the sharing is voluntary. This may have been the case in the past, although the evidence is not very explicit, but such sharing is less likely to be acceptable in the future (Macra na Feirme, 1973, paragraphs 6.4.3., 15.1.3). In this study it is assumed that 10,000 dwellings would be required to eliminate involuntary sharing.

## V. NEEDS IN TERMS OF OVERCROWDING, AND THE QUESTION OF UNDER-OCCUPATION

- 22. This section estimates the number of new dwellings which would be needed to eliminate overcrowding. There are no internationally agreed standards on overcrowding (United Nations, 1968). A commonly used measure is an occupancy of 2 persons and over per room\*, on average, although it can be argued that an occupancy of more than one person per room constitutes overcrowding (Cullingworth, 1958, p. 10), and a figure of 1.5 persons per room and upwards was used when calculating housing needs for Northern Ireland (Roche et al, 1971–72, p. 347) and also in an authoritative study for Great Britain (Stone, 1970, p. 73). Rather than use a standard measure of occupancy as a dividing line, it would be more satisfactory to use different occupancies for households of different size and of different age-sex composition.\*\*

  Occupancy is not entirely satisfactory for other reasons—it ignores the differences which exist between dwellings in the sizes of rooms and in the use made of rooms, and differences in the quality of dwellings.
- 23. Nevertheless, for working purposes, a figure of two or more persons per room is taken to measure overcrowding. In 1966 there were 59,200 dwellings in the country which were overcrowded by this criterion. In 1971 the number of overcrowded dwellings had fallen slightly to 54,400, of which 28,600 were in town areas. About 37% of overcrowded households in 1971 were in rented Local Authority housing, while about 51% were in tenant purchase or owner-occupied housing. The incidence of overcrowding was much higher among those households which contained more than one family. In 1971 almost one fifth, or 4,800 of the 25,200 multi-family households, were overcrowded.

<sup>\*</sup>The *number of rooms* in a dwelling includes the kitchen, but excludes a scullery or a bathroom.

<sup>\*\*</sup>The Housing Act 1966 Part IV does contain a definition of "overcrowding", essentially a bedroom standard, but it is not possible to gauge from the Census the number of overcrowded units on this definition.

- 24. Any discussion of overcrowding must be qualified by the limitations of the criteria used in defining it. For example, the proportion of overcrowded households is dependent on the mix of housing by size. For any given degree of separation of function (eating, sleeping etc.), small households will necessarily have lower occupancy than larger ones (Hole and Poutney, 1971). The calculations of numbers overcrowded are most sensitive to the criteria used, and if a lower overall density were employed the numbers judged to be overcrowded could increase greatly.\*
- 25. Overcrowding is a reflection of the prevailing distribution of dwellings among households of different sizes. Table 7 shows the distribution of dwellings by number of rooms in 1961 and 1971, and the distribution of households by number of persons in the same years. This table clearly indicates a mismatch between dwelling size and household size. For example, the number of 1–2 person households in 1971 was 252,300, but the number of 1–2 roomed dwellings was only 59,400. Table 8 illustrates the overcrowding in households of different sizes, and shows that most of the larger households are overcrowded. Once the household size rises above 7, the proportion of overcrowded households rises sharply. Many overcrowded households were in relatively small-sized dwellings: half of these households were living in dwellings of three rooms or less in 1971.
- 26. The Census gives a static picture of overcrowding—a phenomenon which is in essence dynamic. For example, a family living in the same house over an extended period of time may experience overcrowding in the early stages, and underutilisation of the accommodation later on. Therefore, it can be argued that in a "needs" calculation, there should be an additional allowance for those households which are likely to be overcrowded at some further time. While this is a defensible position, it is not accepted in the essentially conservative projections made here.

\*To illustrate this point, the following criterion uses a lower occupancy for the smaller sized dwellings, where overcrowding is more intolerable. This defines overcrowding as: two or more persons in one room, three to five persons in two rooms, six or more persons in four rooms or less, and ten or more persons in five rooms or less. By this criterion the number of households judged to be overcrowded would increase by 38,000 in 1971.

TABLE 7

Distribution of private dwellings by number of rooms, and distribution of private households by number of persons, 1961 and 1971.

Number of Rooms		tage of Ilings	1		ntage of eholds
11001113	1961 1971	household	1961	1971	
	%	%		%	%
1	2.3	2.4	1	12·6	14.2
2	6∙5	5⋅8	2	20.3	20.6
3	17·8	15⋅3	3	17.3	15.9
4	33.0	30.2	4	14-5	14.1
5	<b>17</b> ⋅3	21.0	5	11.6	11.6
6	12-2	15.1	6	8.8	8.9
7	4.9	5⋅8	7	6.0	6.0
8 and over	4.6	4.2	8 and over	8.9	8.7
Not stated	1.6	0.2			
Total	100-0	100.0	Total	100.0	100.0

Average number of rooms per dwelling 1961: 4.42
Average number of rooms per dwelling 1971: 4.56
Average number of persons per household 1961: 3.97
Average number of persons per household 1971: 3.94

Source: CP 1961, Volume VI, Table 10; CP 1971, Bulletin 38, Table 6; CP 1971, Bulletin 39, Table 9.

TABLE 8

Number of overcrowded households, classified by number of persons in household, 1971

Number of persons in	Number of overcrowded	Overcrowded house-
household	households, i.e. with two or	holds as percentage of
	more persons per room	all households
	′000	%
2	3⋅7	2⋅5
3	1.4	1.2
4	4.2	4⋅1
5	1.9	2.2
6	6.6	10-2
7	4.0	9.2
8	10-9	40.3
9	6.7	41.5
10	7.2	69.3
11	3⋅2	<b>71</b> ⋅7
12 and over	4.7	85.7
All Households	54·4	7.5

Source: CP 1971, Bulletin 39, Table 10.

27. The above discussion suggests that there has been a lack of building of smaller and of larger dwellings. The concentration in building on a narrow range of dwelling sizes is evident from Table 9 which compares the net change in dwellings with the net change in households by size over 1961-71. Most of the net increase in dwellings occurred in the 5 and 6 room and to a lesser extent the 7 room sizes. and there was an actual decrease in most other dwelling sizes. This is also shown by the data on dwelling completions for the period 1970-74.\* In 1974, 59% of completions had five rooms, and 23% had six. The proportions in 1970 were 39% with five rooms and 23% with six. There are probably a number of reasons why house-building has concentrated on a few standard sizes: work in Britain suggests that both the cost of building per square metre and the demand for housing by young purchasers influence the concentration on the 3-bedroom house (Hole and Poutney, 1971, p. 32). Another cause must be the tax relief on loan interest payments, which gives an incentive to those households who can acquire a loan to maximise this and acquire the biggest house

TABLE 9

Net change in number of private dwellings, and in number of private households classified by size, 1961–71

Number of rooms	Net change in dwellings	Number of persons	Net change in households
	'000		<b>'00</b> 0
1	+ 1.7	1	<b>+17·4</b>
2	<b>— 1</b> ⋅5	2	+12.2
3	8.8	3	<b>— 1·1</b>
4	<b>— 3</b> ⋅9	4	+ 4.0
5	+36⋅0	5	+ 5.6
6	+27.2	6	+ 5.8
7	+ 9.3	7	+ 2.8
8	+ 0.7	8	+ 0.8
9	0⋅5	9	+ 0.5
0 and over	<b>—</b> 0·9	10 and over	+ 2.0
Not stated	<b>—</b> 9·2		
otal	+50.0	Total	+50.0

Source: As for Table 7.

\*Source: Annual Bulletin of Housing and Building Statistics for Europe. 1973, 1974.

possible, within the rules of the lending agencies. Moreover, as inflation increases there tends to be a greater demand for real assets as a protection.

- 28. In principle the overcrowding problem could be attacked in a number of different ways:
  - (i) New dwellings, of a greater variety of sizes, could be constructed.
  - (ii) The existing dwellings could be extended.\* As an elaboration of this there is another alternative: "If houses are built in a way that makes them easier to subdivide and combine as the needs of the household change, the family can secure additional space as it expands and contract out of it again as its numbers shrink" (Donnison, 1967, p. 280). This seems eminently logical, since households at early and at late stages in the life-cycle will typically need less space than at other stages. But there could be a question about this alternative due to the increase in building costs over time. It is not often practicable to extend dwellings in urban areas because of high costs and lack of space. The data available support this, since relatively few extensions seem to be built in urban areas, where half of the overcrowding occurs.\*\* There would also be a question about the acceptance by home-owners of extensions over the family life-cycle.
  - (iii) The incidence of overcrowding would fall if there were a better match between dwelling size and household size. This could be achieved through a redistribution of households among the existing dwellings. This can happen in Local Authority housing at present—Local Authorities do facilitate requests from tenants for transfers, and if the tenant moves to a smaller Local

\*In the financial year 1974–75 the total number of reconstruction grants paid was 11,800 (source: *Quarterly Bulletin of Housing Statistics* (QBHS), quarter ended 31 March 1975, Table 5). Many of these grants would have involved the provision of an additional room or rooms. But it is not known what proportion of the extensions was directed to overcrowded households.

\*\*In the financial year 1973—74, of the 9,600 reconstruction grants which were paid, only 1,000 related to the County Boroughs of Cork, Dublin, Dún Laoghaire, Limerick and Waterford (source: QBHS, quarter ended 31 March 1975, Table 6).

Authority dwelling the rent can be lower. A better match between dwelling size and household size could also be achieved if households were prepared to move more often between houses of different sizes, at different stages in the family life-cycle.

29. Nevertheless, it must be concluded that it would be difficult to reduce significantly the mismatch between dwelling size and household size, in the absence of a radical change in the institutional framework which would give more explicit incentives to increase mobility and to encourage a more effective use of the existing housing stock. It is therefore assumed that the brunt of the re-housing of overcrowded households must be achieved through new construction. However, if overcrowded households were transferred to new and larger dwellings, this would in some cases free the vacated dwellings for use by smaller households. But this would not necessarily happen in the (widely-defined) owner-occupied sector, where about half of the overcrowding occurred in 1971. Furthermore, some of the overcrowded dwellings must be deficient (if not unfit) in space and in amenities, and would not realistically be available to re-house another household. After allowing for the re-occupation of vacated dwellings, and for the limited possibility of building additional rooms on to existing dwellings, the amount of net new construction needed to eliminate overcrowding is estimated to be in the range of 20,000-30,000 dwellings. None of this overlaps with the allowance made earlier for the elimination of involuntary sharing of dwellings.

#### Under-occupation

30. There is some evidence that under-occupation of dwellings occurs in those occupied by small households. The definition of under-occupation is a value judgement—it could, for example, be arbitrarily defined as a situation where there are on average at least two rooms per person. This question is simply adverted to here. A calculation could be made about the degree of under-occupation, but it is likely that only a small proportion of the occupiers of households which were under-occupied by "objective" criteria would say that they have more space than they need! Relatively few of these households would consider a move.

31. The last time that Local Authority assessments of unfit dwellings were made was in 1967, when approximately 35,000 unfit dwellings were estimated to exist (Ireland, 1969). The 1969 White Paper admits that this is low in comparison with the 160,000 houses which were more than 100 years old in 1961. Its explanation of the discrepancy is that many of the older houses were reconstructed or improved, partly due to State grants. An alternative explanation of the seemingly low figures from the 1967 assessments is that the Local Authorities underestimated the number of unfit dwellings, and that there was no uniform basis for the assessments of the individual Local Authorities. The "Buchanan Report" stated that, when an allowance is made for those local areas not included, 50,000 dwellings needed replacement in 1967 (Ireland, 1968, para 41), but unfortunately no evidence was cited for this assertion. A sample survey of the national housing stock was commissioned by the Minister for Local Government and was carried out during 1973 by An Foras Forbartha with the assistance of housing inspectors from his Department. The results of the survey are currently under consideration by that Department. In the absence of published information on the condition of the dwelling stock it is necessary to rely on proxies such as the age of housing from the Census data.\*

#### Age of dwelling

32. One indicator of quality is age of dwelling. This is not an unfailing indicator of fitness, since householders can compensate for depreciation through repairs and improvements—which can at least postpone decay—and building standards can vary over time.\*\* Nevertheless, there are reasons to expect a strong correlation between fitness and the age of the dwelling. In the first place, standards improve over time. Second,

<sup>\*</sup>A further qualification is that even if the data on "structural" fitness were available. they would not give an unequivocal picture of unfitness. A dwelling may be structurally sound, but if the quality of the environment in the neighbourhood is decaying then the dwelling can be "socially" obsolete.

<sup>\*\*</sup>For example, in 1965 the Scottish Housing Survey found that in terms of most amenities the dwellings over 100 years old showed up better than the housing of the later 19th century (cited in Duncan, 1971).

the older the dwelling the less likely it is that repair would markedly prolong its useful life. The relation of quality to age is implied in the following comment in the sample survey on housing conditions in Northern Ireland undertaken in 1974, which found that 38% of all dwellings required remedial action of some sort: "It is to be expected that in a country with 34.5% of its dwelling stock over 50 years old (remedial) action on this (i.e., a large) scale would be necessary". (Northern Ireland Housing Executive, 1974.) A third reason for a correlation between quality and age is the extent of the privately rented sector in Ireland—a total of 96,900 dwellings in 1971. In these dwellings. some 40,000-50,000 of which are subject to rent control, it is less likely that improvements would have been made. This is confirmed by a study which suggests that in 1961 poor amenity provision was concentrated in the privately rented sector (Murie et al., 1972), and also by the fact that 50% of the dwellings in the privately rented sector in Northern Ireland were unfit in 1974. Table 10 gives data on the age distribution of housing units in the Republic in 1971. This information must be treated with caution, since many householders were not clear when their houses were built.\* In 1971, 45% of the 705,200 permanent housing units—that is 316,000—were built before 1919.

#### **Amenities**

33. There are other indicators of quality apart from age. In 1971 there were 154,200 permanent housing units which had no piped water

TABLE 10
Age distribution of permanent housing units, 1971

Period in which built	Number of housing units	Percentage of all housing units
	′000	%
Before 1919	315-8	44.8
1919 to 1940	139-1	19.7
1941 to 1960	141-2	20.0
1961 or later	108-6	15.4
Not stated	0.6	0-1
Total	705-2	100.0

Source: CP 1971, Bulletin No. 39, Table 14A.

\*CP 1971, Bulletin No. 39, p. 5.

supply, and 73.600 of these were built before the year 1900. In 1971 there were 140,200 housing units which had no toilet or closet: of these 72,900 were built before 1900.\* The data on age conceal a lot of regional variation. Almost all of the housing units without water supply or toilet were in rural areas, and in 1961 the dwellings in the west of the country were the most ill-equipped (Murie et al., 1972). The above data show that in 1971 many of the older houses lacked basic amenities. Moreover, a correlation between amenity and unfitness is evident from the Northern Ireland survey.\*\* Thus, it is assumed that many of the housing units which were 100 years old, and some of those between 70 and 100 years old, were unfit in 1971. This compares with the average life of a dwelling which is thought to be about 70 to 90 years. This assumption is also in line with the evidence from the Northern Ireland survey. The age distribution of the dwelling stock in Northern Ireland is not dissimilar,† and the sample survey for 1974 shows that 20% of the dwelling stock in Northern Ireland was statutorily unfit.

34. In summary, an estimate of the number of dwellings which need to be replaced due to unfitness would be in the range of 30,000 to 50,000. It is assumed that it would not be worthwhile to repair these dwellings.‡ This is unfitness which existed in 1971, and it is distinct from the estimate of dwellings which are likely to become unfit over the period 1971–1986. This is discussed in the next section. This allowance for unfitness does not overlap with the estimates made earlier of new dwellings needed to eliminate overcrowding. Some unfit dwellings contain overcrowded households, but this would not significantly affect these very approximate calculations of need.§

\*CP 1971, Bulletin No. 39, Table 12A; special tabulation from CSO.

\*\*In Northern Ireland over 91% of the dwellings which are statutorily unfit lack at least four of the five basic amenities (which include an internal w.c. and water facilities).

†35% of the stock in 1974 was built before 1919. Thus, in Northern Ireland there is, if anything, a lower proportion of older dwellings.

‡The choice between the renovation of dwellings, and their demolition and replacement, depends on a number of variables, including the cost of demolition and rebuilding, maintenance costs, the life of the renovated dwellings, and the rate of interest.

In 1971 about 13,600 of the 54,400 overcrowded households were in dwellings which were built before the year 1900 (source: special tabulation from CSO).

## VII. NEEDS RELATED TO OBSOLESCENCE AND THE SIGNIFICANCE OF INTERNAL MIGRATION

- 35. Obsolescence is really a shorthand term which covers loss from the dwelling stock for a number of different reasons:
  - (i) demolition of unfit dwellings;
  - (ii) demolition of dwellings due to road widening, and loss of dwellings due to a change from residential to non-residential use;
  - (iii) conversions of two or more dwellings to one larger dwelling;
  - (iv) dwellings which become vacant; some of these may be without structural faults, but with standards of space and amenity which are inadequate. Many vacant dwellings are "locationally obsolete"—a reflection of internal migration. Some of the latter dwellings may already be unfit, others will surely become progressively unfit due to lack of maintenance. None of these need to be replaced in the same area, but internal migration can result in pressure on the dwelling stock, which can create additional needs elsewhere in the country.

The data do not exist which would enable a distinction to be made between these losses, some of which are likely to be significant only in urban areas (categories ii and iii) and others only in rural areas (category iv). The question of internal migration is beyond the scope of this study. Even if data were readily available on the gross flows between regions (and they are not), they would need to be supplemented by information on the age, sex and marital status of migrants, and on the fate of the dwelling stock which the migrants relinquish. This is because any internal migration which depopulates an area where the dwelling stock is in surplus can result either in an increase in the number of derelict or vacant dwellings, or in the number of second homes. There can also be an increase in dwelling need if the migration is towards areas where there

is a shortage of housing. It is likely that much internal migration results in the formation of one-person households, or else in the involuntary sharing of dwellings for a limited period (Lomas, 1975).

36. An estimate of the number of dwellings which are lost each year can be obtained by comparing the net change in housing stock between 1961 and 1971 with the sum of completions over the decade. The Census shows that the net increase in the dwelling stock between 1961 and 1971 was 50,000 dwellings, while the number of dwellings completed in the same period\* was 105,300. The difference between these two totals—55,300 dwellings—is the number of dwellings which went out of use in this decade. There was an estimated loss to the dwelling stock of about 5,500 dwellings a year (about 0.8% of the stock), on average. This is a lower rate than would be expected, because of the relatively large number of old dwellings.\*\* It is also lower than the obsolescence rate of about 1.1% of the 1946 dwelling stock which was estimated for the period 1946-1961 (Ireland, 1964, p. 23). It is assumed that the allowance for obsolescence-including the national needs arising from internal migration—is in the range of 6,000 to 7,000 dwellings a year. The lower of these figures implies an obsolescence rate of about 0.7% of the stock per year; the higher figure implies a rate of about 0.8% per year.

<sup>\*</sup>Sum of completions from year ended March 1962 to year ended March 1971 inclusive. Source: QBHS.

<sup>&</sup>quot;Between 1961 and 1971 there was an "increase" of about 10,000 in the number of dwellings which had been built between 1919 and 1939. This could be due to the uncertainty concerning the data on age of dwelling. It could also be due in part to the repair and re-use of dwellings which were vacant in 1961, which would imply that more than 55,000 dwellings went out of use in the 1961–71 period.

#### VIII. CONCLUSIONS

37. Section III shows how the projected numbers of households in the period 1971–86 are related to the size and composition of the projected population. Section IV discusses the number of dwellings which is needed to eliminate involuntary sharing by households. Section V indicates the dwelling needs which are related to present levels of overcrowding, using a conservative definition of overcrowding. Section VI gives an approximate estimate of needs which relate to the present unfitness of the dwelling stock, and Section VII discusses the likely levels of obsolescence and the effect of internal migration. The projected needs from all sources are brought together in Table 11. No allowance is made for second homes in these calculations. Rather than give a spurious impression of precision, two estimates of dwelling needs are given, which differ in their assumptions regarding overcrowding, unfitness and obsolescence. Each of these embodies the two alternative figures for household formation.

Assumption A assumes net emigration of 5,000 per annum between 1976 and 1986, and the high nuptiality assumption used by Professor Walsh. It also assumes the following:—

- (i) dwelling needs in order to eliminate involuntary sharing existing in 1971—10,000.
- (ii) dwelling needs in order to eliminate the over-crowding in 1971—20,000.
- (iii) dwelling needs due to unfitness in 1971—30,000 (i.e., the low figure in the range given in Section VI).
- (iv) dwelling needs due to obsolescence-90,000.
- (v) allowance for the 4,200 households who lived in mobile homes in 1971—4,000.

These allowances are spread over the whole period 1971-1986.

The allowance in *Assumption B* for the elimination of overcrowding is higher, at 30,000 dwellings. The needs due to unfitness in 1971 are assumed to be 50,000 dwellings—that is, the high figure in the range given in Section VI. The needs due to obsolescence are assumed to be 105,000 dwellings over the period 1971–1986. All the other needs are the same as in Assumption A.

- 38. Table 11 shows that the projected total dwelling needs over the period 1971-86 are in a range between 314,000 and 372,000.\* Under Assumption A the needs due to the net increase in household formation (i.e., due to increase in population combined with change in headship rates) account for a little over 50% of the projected total needs. Thus the increase in household formation is the dominant influence on projected dwelling needs. Appendix D suggests that, due to the projected increase in the number of one and two-person households. there is a need for a significant increase in the number of smaller-sized dwellings, especially since there is at present a limited supply of purpose-built dwellings for the smaller households. There is a very specific need-separate dwellings for older people who form, or who wish to form, separate households. But past experience suggests that, without a change in policy, an increase in the number of small households would not be matched by an equivalent increase in smaller dwellings. It must be emphasised that these calculations hold constant the broad definitions of overcrowding and unfitness which exist at present, and assume a continuation of present policies—including the existing mix of subsidies to occupiers of dwellings.
- 39. These calculations of need cannot be precise for the following reasons. First, the projected number of households depends in part on tentative projections of headship rates, which are based on past trends over a mere ten-year period up to 1971. The longer the future period for which calculations are made, the more tenuous any projection of headship rates is likely to be. The projected headship rates for the period 1981–86 are therefore more speculative than those for the period 1971–81. Second, the allowance for the elimination of overcrowding cannot be precise since, as has been indicated, there are ways of attacking this

<sup>\*</sup>Appendix E, Table E2 shows the rates of dwelling completion in recent years.

TABLE 11

Projected dwelling needs over fifteen years 1971–86

	Additional dwellings needed				
Component	Assum	ption A	Assumption B		
	Variant B on headship	Variant A on headship	Variant B on headship	Variant A on headship	
	′000	′000	′000	′000	
Net increase in household formation, 1971–86	160	173	160	173	
Elimination of sharing of dwellings in 1971 Elimination of overcrowding	10	10	10	10	
in 1971	20	20	30	30	
Replacement of dwellings unfit in 1971 Obsolescence (including national needs due to	30	30	50	50	
internal migration), 1971– 1986	90	90	105	105	
Households in mobile homes in 1971	4	4	4	4	
Total	314	327	359	372	

problem other than by new construction. Third, the estimates of needs due to unfitness and obsolescence are approximate, partly because the underlying data are imprecise, and partly because it is not clear what proportion of dwellings should be repaired rather than replaced. Furthermore, these are the needs which are most sensitive to changes in the standards desired by households, to changes in Government policy on standards and to the number of years taken to clear the unfit dwellings. In order to make any firmly-based estimates of needs due to unfitness and obsolescence, published data on the condition of the dwelling stock—which can be obtained only from a survey—are

needed. Fourth, the patterns of needs over time will not be constant. The reduction in overcrowding is a priority, especially in those cases where it is likely to be most intolerable—in large families and in households where there is more than one family. Furthermore, the time path of replacement needs depends on the age distribution of the dwelling stock, since older dwellings are more likely to be replaced at first.\* For all these reasons, an annual average figure of dwelling needs over this fifteen year period cannot be suggested. Any annual figure is dependent on the speed with which sharing of dwellings, overcrowding and unfitness are tackled. It therefore depends on the evolution of policy. It will be necessary to monitor the needs continually, and to test the outcome of the household projections, in future years.

#### Other policy issues

40. The policy implications of this study, however tentative, go beyond the mere projection of a set of figures relating to need. First, the mismatch between the size distribution of households and of dwellings has been discussed in Section V. Both the level of overcrowding and of under-occupation, at any one time, are related to this. Overcrowding could be reduced somewhat if there were a better match between household size and dwelling size. This would, in the absence of an "instantaneous" or "once-for-all" change, require that households move more often over time as their housing requirements alter. There would need to be greater incentives to mobility-or at least a reduction in the positive disadvantages which exist at present for those households who are prepared to move, due to the transaction costs involved in changing house. The problem of overcrowding has no simple solutions, not least because it involves people's decisions about where they wish to live, which sometimes impels them to resist any re-location. It may often be difficult, although desirable, to re-house an overcrowded household in its immediate area. Section IV suggests some of the reasons for the lack of variability in house size. A further important policy issue, which is not discussed here, is the proportion of unfit dwellings which should be improved, rather than demolished and replaced.

<sup>\*</sup>A speculative calculation: if a maximum useful life of 80 years is assumed then relatively high replacement needs—based on the age distribution of dwellings—would arise between now and 1980.

41. As stated in paragraphs 3, 13 and 21, the more dwellings which are provided the more likely it is that separate households will be formed: for example, this can lead to less sharing of dwellings by families. It is unlikely—given suitable location and mix of tenures—that any dwellings provided would be left empty, although there could be an impact on the relative price of houses. Thus, even if the actual rate of house-building overshoots a needs figure, the effect of this is to give a greater opportunity to people to set up separate households, and to increase the rate of replacement of unfit and obsolescent dwellings and thus lower their average age. In short, it can lead to an increase in housing standards.

#### APPENDIX A

#### Change in households by component of change

It is pertinent to ask what has been the dominant influence on the change in the number of households which has occurred in the period 1961–71. Has it been the change in the size and structure of the population by age and sex which has been the main impetus, through the increase in population in those age groups where most people are heads of household? Alternatively, has it been the change in headship rates—and at one remove the underlying changes in economic and social conditions—which has been the prime reason for the increase in households? Apart from its intrinsic interest, the answer should also help the formation of assumptions about the future trends in headship up to 1986.

In this Appendix a well-known method is used to divide the total change in households into its components (Easterlin, 1968). The component due to the change in the population is obtained by multiplying the change in the population, which occurred in the decade 1961–71, by the headship rate which existed in 1961. This is done for each age-sex group. In other words, this shows what the change in the number of households would have been if the age-specific headship rates had remained constant over the decade. The second component is the change in the number of households due to the change in headship rates: this is obtained by multiplying the population in each age-sex group in 1971 by the change in headship rates which occurred in the period 1961-71. The two components add to the change in households which occurred in the decade. These calculations show that an increase of 50,000 occurred in the number of households. Of this increase, 37,900 were due to the change in headship rates, and the remaining 12,100 were due to the change in the size and structure of the population. Thus most of the change in households in the decade was due to the change in headship rates. Finally, what component of the projected increase in households

up to 1986 is due solely to the change in the size and in the composition of the population by age and sex? This is calculated by applying the headship rates for twelve age groups in Table 2 in the main text which relate to 1971, to the projections of population for 1986. Implicitly this gives the projection of households on the extreme assumption that headship rates remain at their levels of 1971, over the 1971–86 period. Table A1 shows that little over half the projected increase in households is accounted for by the projected change in the population by age and sex.

TABLE A1

Projected change in households 1971–86, showing component which is due to the change in population by size and structure

	Change in H	ouseholds	Component of change in households due solely to change in population by		
Period Projection No. 1: Net emigration		Projection No. 2: Net emigration	age and sex		
	5,000 a year	zero	Projection	Projection	
	1976–86	1971–86	No. 1	No. 2	
	′000	,000	′000	′000	
1971–76	42.9	42.9	17·5	17·6	
1976–81	60.7	63.0	32·1	32.0	
1981–86	68.8	78.7	39-3	44.4	
1971–86	172.5	184-7	88.9	94.0	

#### APPENDIX B

#### Household formation by marital status

In this Appendix the projections of household formation in 1986 in the text (see Table 5) are checked, using headship rates by marital status. This is a less precise method than that in the text, since the data are classed by only three types of marital status. The assumptions used with regard to headship rates in 1986 are as follows:

- (i) For married males, the 1971 headship rate is used. (The headship rates for 1961–71 are in Table B1.) For married females, headship rates are assumed to decline to 2.0% in 1986.
- (ii) For widowed males and females, the headship rates of 1971 are used.
- (iii) For single males and females, the 1961–71 trend is extrapolated to 1981, and the trend increase is reduced (by half) over 1981–86. Thus, headship for single males is assumed to be 19·1%, and for single females 14·3% in 1986.

All other assumptions are the same as those in the main text.

TABLE B1

Percentage of single, married and widowed males and females who were heads of households, 1961–71 (a)

	1961	1966	1971
	%	%	%
Males			
Single	18-2	18· <b>4</b>	18·6
Married	90.4	89∙6	89.7
Widowed	70.8	69-5	70.8

TABLE B1-continued

		00//000	
	1961	1966	1971
	%	%	%
Females			
Single	11.4	11⋅8	12·7
Married	4.2	3.4	2.8
Widowed	67∙5	66∙0	67·9

Note (a): As percentage of population aged 15 and over. Source: CP 1966 Volume VI: information from CSO.

When combined with the projected population by marital status\* the resulting projections of households in 1986 are shown in Table B2.

TABLE B2
Projections of households, 1986, assuming net emigration 5,000 a year 1976–86

000's

Marital status of head	Males	Females	Total
	High Nuptiali	ity Assumption	
Single	<b>87</b> ⋅5	51.3	138⋅8
Married	631·7	14.3	646.0
Widowed	31⋅9	102.7	134.6
Total	751∙0	168-3	919-3
	Low Nuptialit	y Assumption	
Single	94.0	56⋅9	150∙9
Married	601·2	13.6	614·8
Widowed	31∙9	99-3	131.1
Total	727.0	169-8	896.9

\*The projected population by marital status is obtained as follows. For each age group from 55 upwards, the proportion of the female population ever-married in 1971 is calculated, and this is increased by 6 percentage points under high nuptiality, and by 3·3 percentage points under low nuptiality, to derive the proportion evermarried in 1986. This is in line with the projections for contiguous age groups in NESC (1975), Table A3. Numbers of females ever-married are allocated to married and widowed constituents based on the proportions which existed in 1971. The ratio of married men to married women is based on the ratio which existed in 1971. The number of widowed men is assumed to be 45,000. The projection of single males is very approximate since it is obtained as a residual.

## Household formation in Ireland, compared with England and Wales

#### "Predicted" heads of household in 1966 and 1971

If British headship rates are applied to the Irish population, then a "predicted" number of separate households in Ireland—if British headship rates were applicable to this country—would be obtained. This is done for 1966 and 1971. The headship rates used relate to England and Wales\* (EW), and the results of the calculations are in Table C1.

For 1966 the striking result is that the "predicted" households are less than the actual households formed in that year. The rate of household formation in Ireland in 1966 therefore exceeded that in England and Wales. The "predicted" number of households headed by married persons is very close to the actual number. In 1971, the "predicted" number of households headed by married persons is slightly higher than the Irish actual number. However, there seems to have been a big increase in headship rates among single and widowed persons in England and Wales in the 1966–71 period. In 1971 the rates of household formation in England and Wales were significantly higher for single males, single females and widowed females than similar rates in Ireland.

#### A trial projection of married heads of household

In 1971 the rates of household formation in Ireland among married males were slightly lower than in England and Wales (Table C1). Thus, an application of modified projected EW headship rates to the Irish

<sup>&</sup>quot;The 1966 data are in Allnutt *et al* (1970) for three marital status categories, three household types, and fifteen age groups, for both males and females. In order to derive headship rates for "all household types", weights are used based on CP 1966. Estimates are made of EW headship rates for widowed persons aged 15–34. The 1971 data were kindly provided by the Department of the Environment.

TABLE C1

Actual heads of households in Ireland 1966 and 1971, compared with "predicted" heads using headship rates for England and Wales

	1	966	1971		
	Actual	Actual "Predicted"		"Predicted"	
	′000	′000	'000	'000	
Males					
Single	86.6	43.4	86·7	102-6	
Married	436·5	428.0	471·5	496-6	
Widowed	28.3	9.7	27.7	31.8	
Total	551·3	481.0	585∙9	631.0	
Females					
Single	43.8	39.5	46.6	89.7	
Married	15·1	10∙5	12·4	12.5	
Widowed	77·1	33.6	81·4	113-2	
Total	136-0	83-1	140-4	215.4	

*Note:* In the British data married men, by convention only, head married couple households. Thus, to retain comparability, the 8,700 females in Ireland in 1966 who head married couple households are included with married male heads. A similar adjustment is made for the corresponding 9,800 females in 1971.

Source: CP 1966, Vol. VI, Table 18; information from CSO.

population would yield a useful check on the projections of households which are headed by married males. This is done, using projections of headship rates for married males in EW for 1986. The projected headship rates for this trial projection are given in Table C2, and are combined with projections of the married male population. The following projected heads are obtained.\*

\*First, Department of the Environment projections for year 1986 are used, with downward adjustments, based on the difference between Irish household formation and that in England and Wales, in 1971 (Table C1). The projections of the Department of the Environment relate to 13 age groups; in order to convert these into data for the five age groups given in Table C2, weights are used—the number of married males in each age group in Ireland in 1971. Second, the Irish population projections for married males are derived by the method given in Appendix B. Third, in order to make the projection compatible with Irish Census definitions, an assumed 13,000 females heading married couple households is deducted from the household heads.

#### Projection of married male heads in 1986

7000 High Nuptiality 634·7 Low Nuptiality 603·9

The projections of male heads are very close to those in Appendix B—about 3,000 higher for both high and low nuptiality.

TABLE C2

Trial projection of headship rates for married males, 1986

Age Group	Headship rates
	%
15–19	70.7
20-24	83.9
25-44	92.1
45-64	92.8
65 and over	92.8

*Note:* These are based on EW headship rates, and thus assume that only married men head married couple households.

#### APPENDIX D

#### **Smaller households**

This Appendix concentrates on the smaller sized households that are likely to need smaller-than-average dwellings. Table 7 has shown that one significant change in the size distribution of households between 1961 and 1971 was an increase in the proportion of one-person households. This Appendix concentrates on two significant types of small household. First, there are single-person households, which are projected to increase from 103,000 in 1971 to about 122,000 in 1986. based on the population projections.\* Within this category there is a striking increase projected in heads aged 65 and over: from 43,000 in 1971 to 61,000 in 1986. Second, there are households which consist of man and wife and where the head is aged 65 or over. These couples are likely to have completed their family size. In contrast, other households which consist of man and wife may subsequently increase in size. These households, of man and wife where the head is aged 65 or over, have increased from 18,000 in 1961 to 26,000 in 1971. They are projected to increase to about 46,000 in 1986, based on the population projections.\*\*

\*The following method is used to obtain these projections. With regard to those who live in one-person households, it is assumed that they are single if aged 20–64, and that they are unmarried if aged 65 or over. For example, it is estimated that 28% of single males aged 45–64 were in one-person households in 1971, while 25% of unmarried males aged 65 or over were in one-person households in that year. In order to project these proportions to 1986, the 1961–71 trends, for the four age groups from age 20 upwards, are extrapolated to 1986.

\*\*These projections are based on the proportion of married males aged 65 or over who are heads of these households. The 1961–71 trend is extrapolated to 1986.

#### APPENDIX E

#### Statistical Appendix

TABLE E1

### Projected population by age and sex, assuming net emigration of 5,000 a year 1976–86

		M	ale		Female			
Age group	1971 (actual)	1976	1981	1986	1971 (actual)	1976	1981	1986
1519 2024 2544 4564 65 and over	'000 137 110 316 306 151	'000 152 136 347 298 154	000 157 140 405 285 160	'000 157 146 466 277 162	'000 131 105 310 302 179	'000 146 131 337 302 184	000 151 136 392 291 194	'000 149 141 452 282 202
Total	1,020	1,087	1,148	1,207	1,027	1,100	1,164	1,226

Source: ESRI, working papers; CP, 1971, Vol. II, Table 1.

TABLE E2

Dwellings completed each year, 1960–61 to 1974–75

Year ended 31st March	Number of dwellings completed (a)	
	′000	
1960–61	6.1	
1961–62	6.0	
1962–63	7.2	
1963–64	7.8	
196465	9.7	
196566	11.3	
1966–67	11.0	
1967–68	12.0	
196869	13.0	
196970	13.6	
1970–71	13.7	
197172	15.9	
1972-73	21.6	
1973–74		
1974–75	25·4 26·4	

Note: (a) Includes conversions.

Source: QBHS, quarter ended 31 March 1975, Table 1.

#### REFERENCES

- Allnutt, D. E., Cox, R. T. S., and Mullock, P. J. (1970), "The projection of households" in: Statistics for Town and Country Planning, Series III, No. 1, *Projecting growth patterns in regions*, London: Ministry of Housing and Local Government.
- Cullingworth, J. B. (1958), "The measurement of housing need", The British Journal of Sociology, Volume IX, 341–358.
- Department of Local Government (1975), Current trends and policies in the field of housing, building and planning: Ireland 1975 (mineographed).
- Donnison, D. V. (1967), The Government of Housing, London: Penguin.
- Duncan, T. L. C. (1971), Measuring Housing Quality, Centre for Urban and Regional Studies, University of Birmingham.
- Eversley, David (1973), A question of numbers? London: Runnymede Trust.
- Easterlin, Richard A. (1968), *Population, Labour Force, and Long Swings In Economic Growth*, New York: National Bureau of Economic Research.
- Hole, W. V. and Poutney, M. T. (1971), *Trends in Population, Housing and Occupancy Rates, 1861–1961*, Department of the Environment. London: H.M.S.O.
- Ireland (1964), Housing—Progress and Prospects, Pr. 7981. Dublin: Stationery Office. Ireland (1968), Regional Studies in Ireland, Technical Volume II. Dublin: An Foras Forbartha.
- Ireland (1969), Housing in the Seventies, Prl. 658. Dublin: Stationery Office.
- Lomas, Gillian (1975), "Population trends and housing needs", Built Environment Quarterly, June 1975, 24–27.
- Macra na Feirme (1973), Farm Inheritance and Succession, Dublin: Macra na Feirme. Murie, A. S., Hillyard, P. A. R. and Roche, D. J. D. (1972), "An Index of Housing Conditions for Ireland", Social Studies, Volume 1, 318–324.
- NESC (1975), Population and Employment Projections: 1971–86 Report No. 5. Prl. 4193, Dublin: Stationery Office.
- Northern Ireland Housing Executive (1974), Housing Condition Survey 1974.
- Roche, D. J. D., Murie A., Birrell, W. D. and Hillyard, P. A. R. (1971–1972), "Housing Requirements for Northern Ireland", *Economic and Social Review*, Volume 3, 403–412.
- Stone, P. A. (1970), Urban Development in Britain: Standards, Costs and Resources, 1964–2004, Volume 1, Cambridge.
- United Nations (1968), The Housing Situation and Perspectives for Long-Term Housing Requirements in European Countries, U.N.: Geneva.
- United Nations (1971), The Determinants and Consequences of Population Trends, Volume 1. U.N.: New York.
- United Nations, (1973) Housing Requirements and Demand: Current Methods of Assessment and Problems of Estimation. U.N.: Geneva.
- Walsh, Brendan M. (1972), "Ireland's Demographic Transformation, 1958-70", Economic and Social Review, Volume 3, 251-275.

### NATIONAL ECONOMIC AND SOCIAL COUNCIL PUBLICATIONS

_	Title .		Date	
1.	Report on the economy in 1973 and the prospects for 1974	April	1974	
2.	Comments on Capital Taxation Proposals	July	1974	
	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		1975	
7.	Jobs and Living Standards: Projections and Implications	•	1975	
8.	An Approach to Social Policy		1975	
9.	Report on Inflation		1975	
0.	Causes and effects of inflation in Ireland	Oct.	1975	
1.	Income Distribution: A Preliminary Report		1975	
	Educational Expenditure in Ireland	Sept	1970	
	The Economy in 1975 and Prospects for 1976	Oct.	1975	