Housing Requirements for Northern Ireland

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THE Northern Ireland Development Programme 1970–75[1] concluded: "that a large housing programme is needed is not in doubt". It estimated that, between 1970 and 1975, completions should rise to 17,000 dwellings a year, providing 75,000 new houses in five years. This figure, the Report maintained, would allow for a substantially increased slum clearance programme, and the elimination of the existing housing shortage; and at the same time accommodate additional new families, and hold more houses vacant to help mobility. One-third of an estimated 100,000 dwellings ultimately needing demolition could be cleared under this programme, and resources made available to enable the renovation of houses, where suitable. This article summarises an extensive analysis of housing statistics[2] based on Census data and the Northern Ireland quarterly Housing Returns—an analysis which allows us to assess the adequacy of the proposed programme.[3]

Estimates of requirements for new dwellings have been drawn together under three headings: Estimates of current shortages; short-term estimates of new demand; and long-term estimates of new demand. The first two of these estimates can be made with some confidence. Although they involve a range of assumptions open to dispute, the assumptions adopted have been largely of a conservative nature leading to an underestimate of demand. The long-term estimates, however, are based not only on assumptions, but on projections of population and household formation which are largely speculative.

ESTIMATES OF CURRENT SHORTAGES

Indications of existing housing shortage are provided by:

(a) Evidence of Overcrowding and sharing

In 1966, 10·8 per cent of households were living in overcrowded conditions.

1. *Northern Ireland Development Programme 1970–75*, Belfast, H.M.S.O., pp. 105–106.
2. W. D. Birrell, P. A. R. Hillyard, A. Murie and D. J. D. Roche, *Housing in Northern Ireland*, University Working Paper, Centre for Environmental Studies (in press).
3. Government of Northern Ireland, *Proposals for Dealing with Unfit Houses*, Cmd. 398, 1959.

Making allowance for some decrease since 1966, we estimate a figure of 8 per cent in 1970. This represents some 32,000 households. In view of the underestimate of overcrowding experienced at different stages of housing history, and of the essentially conservative use of a density of 1·5 persons per room as a criterion of overcrowding, the requirement of 32,000 houses to reduce overcrowding in the short term is not excessive, especially as it includes households at present sharing accommodation. (The Northern Ireland Development Programme, 1970–75, suggests the need for 20,000 dwellings to provide for existing shortages and sharing).

(b) Evidence of occupation of inadequate housing not suitable for improvement

In 1956, Local Authorities in Northern Ireland were required to submit schemes for slum clearance. Their returns, published in 1959, showed that 95,364 houses were declared unfit to live in. The Authorities identified some 53,722 houses as beyond repair. Since 1959, 22,063 houses have been demolished, and 18,578 have been improved through grant aid schemes. It becomes clear, then, that some 54,723 houses identified as unfit in 1959 are still occupied, representing 12 per cent of the housing stock. Taking into account deterioration since 1959, it is reasonable to suggest a figure of 60,000 unfit dwellings in Northern Ireland. In addition to unfit houses, analysis of Census data indicates that at least 100,000 dwellings in Northern Ireland do not have all Census services,[4] and although they may be structurally sound, require considerable improvements.

SHORT-TERM ESTIMATES OF NEW DEMAND

It is possible to assess new demand for housing over the next 10 years without indulging in "speculative" forecasting. Although household size cannot be forecast without making assumptions about the birth rate, it is possible to identify the population in the household-forming age groups. Survival rates applied to the existing population will give a reliable projection of future population aged over 15. Mortality rates are unlikely to change radically, and marriage rates will most probably change only slightly. It is even possible to assume that change in family size will not be marked, and that the tendency towards reduction of family size will continue. This way, even household size can be estimated with some accuracy. The major components of new demand for housing over the next fifteen years can then be assessed under three headings:

(*a*) Requirements arising from changes in total population and household formation;

(*b*) Requirements arising from demolition of fit and unfit dwellings arising out of economic or social policies or out of natural catastrophes;

4. (1) A fixed bath, or shower, in a bath room. (2) A wash hand basin. (3) A hot water supply to the sink, wash hand basin and fixed bath. (4) A water closet in, or contiguous to, the dwelling. (5) Satisfactory facilities for storing food.

(*c*) Requirements for a reserve of dwellings vacant between tenancies, used seasonally or occasionally; undergoing repair or permanently vacated as a result of internal migration.

We will consider each factor in turn.

Population

To assess the future demand for dwellings occasioned by changes in population it is necessary to estimate not only population size, but also household formation within that population. This exercise is normally carried out by applying headship rates, i.e., the proportion of a given population that are heads of households. Unfortunately, headship rates are not available for Northern Ireland even in the more recent Census figures. With no current information, some indications are provided by headship rates estimated, or provided, by the Census of Great Britain.[5] These show some increase in headship rates between 1951 and 1961. The extent of this increase is, however, "a matter of speculation".[6] For Northern Ireland it is difficult to assess not only the precise changes in headship rates, but any firmly established base for these rates. We can assume, however, that Northern Ireland headship rates are following the trend evident throughout Europe.[7] In fact, it is likely that the pace of increase in headship rates will be greater in Northern Ireland, where demographic changes similar to those experienced in Great Britain are occurring. Headship rates are likely to increase not only because of economic or demographic changes. The number of separate households formed is likely to be directly influenced by the availability of housing. The nature of the housing shortage in Northern Ireland will itself have influenced headship rates, and the alleviation of this shortage will almost certainly contribute to a rise in headship rates. Assuming that these changes are to some extent influenced by similar social and economic trends, Northern Ireland headship rates are likely to converge upon but not, for a variety of reasons, to equal those of Great Britain.

To assume that patterns of development in two separate communities will be similar, of course, is to ignore a range of evidence which suggests the opposite. In adopting headship rates based on British experience we are not making such an assumption. In the absence of other material, however, we assume that British headship rates provide some indication of trends likely to be experienced by Northern Ireland; and that particular differences in the detail of development may cancel out a second range of differences.

For the purpose of this study the population projections (Mid-1970) for

5. Headship rates are available for Great Britain from the 1951 Census. Rates from the 1961 Census have not been published, but estimates have been made for 1961 by D. C. Paige, and presented in P. A. Stone, *Urban Development in Britain*, alongside rates used in the study itself.

6. P. A. Stone, *Urban Development in Britain*. NIESR. Cambridge University Press, London, 1970.

7. See for example—*The Housing Situation and Perspectives for Long-term Housing Requirements in European Countries*. United Nations, Geneva, 1968.

Northern Ireland made by the Registrar General have been used.[8] To estimate the total number of households produced by this population requires the application of headship rates; and the total number of households is dependent on the headship rates adopted. For this purpose we have made use of the rates made available by Stone.[9] The application of 1951 British headship rates to the 1951 Census for Northern Ireland, however, underestimates by approximately 2,500 the number of households formed in the population. Applying the same headship rates to the 1961 population results in an underestimate approaching 10,000. The available headship rates for Great Britain in 1961 are as inaccurate as those of 1951, but err in the opposite direction when applied to the Northern Ireland populations of both 1951 and 1961.

From this it appears that British headship rates are reasonably applicable to Northern Ireland in 1951, and that, although headship rates for Northern Ireland have increased between 1951 and 1961, the increase is not considerable. It appears that, in 1951, Northern Ireland headship rates may have been higher than in Great Britain, but by 1961 were considerably lower. Indeed, the stability these calculations suggest is in marked contrast to the experience in England and Wales, and to United Nations predictions. It is possible that headship rates remain stable over long periods.[10] This is certainly likely in periods of depression. It may be that economic conditions in Northern Ireland will contribute to stable headship rates, in contrast to the changes occurring elsewhere. However, it seems most probable that headship rates will increase, although more slowly than in England and Wales.

If the 1961 rates for Britain are accurate for the projected population of Northern Ireland in 1985, there would be 466,343 households, an increase of 67,194 over 1966. This still involves an average household size similar to that at present, which does not seem probable. The headship rates used by Stone in his study, when applied to Northern Ireland, imply a reduction in household size to slightly below 3·4. This is a figure very similar to one arrived at on a simple extrapolation of trends in household size.[11] The application of Stone's headship rates suggests

8. The projection has been prepared on the basis of the following assumptions:
Mortality: Death rates at the outset are based on recent experience. At ages under 40 for males and under 50 for females, death rates are assumed to decline over the period of the projection until, after forty years, they are one-half or less of present rates. Above these ages the assumed rates of decline become progressively smaller as the age advances until they vanish at ages over 90. At almost all ages the assumed rates of decline are smaller for males than for females.
Births: The estimates assume 32,000 live births in the year mid-1970 to mid-1971 and a gradual increase thereafter to 34,000 births in 1976 to 35,000 in 1981, to 41,000 in 1991 and 43,000 in 2001. The ratio of male to female births has been taken as 1·07.
Migration: A net outward migration has been assumed of 7,000 in the first year; 6,000 a year from mid-1971 to mid-1981 and 5,000 a year thereafter.

9. See P. A. Stone, *op. cit.*, p. 63.

10. *Ibid.*

11. Average number of persons per household Northern Ireland, 1851–1966:

1851	*1861*	*1871*	*1881*	*1891*	*1901*	*1911*	*1926*	*1937*	*1951*	*1961*	*1966*
5·18	4·99	4·89	4·89	4·71	4·60	4·57	4·45	4·13	3·99	3·70	3·61

that in 1985 there would be 511,008 households, an increase of 111,859 (see Table 1).

TABLE 1: *Households in 1985*

Projected Headship Rates Used	*1951*	*1961*	*Stone*
Number of households, 1985	447,948	466,343	511,008
Increase over 1966	48,799	67,194	111,859
Average household size	3·84	3·69	3·37

From 1970–1985, it is likely that some 7,000 dwellings per annum will be required to cater for changes in population and household formation. This figure is an annual average. Strictly, it will be lower at the beginning of the period and considerably greater in 1985.

Demolition of fit and unfit dwellings

We are primarily concerned here with the rate at which houses become inadequate. Estimates of the rate of obsolescence among non-slum houses of considerable age, with high incidence of overcrowding, low standards of density, size and space, must be drawn up. This obsolescence will increase as average standards of housing rise, and the older houses become less comparable in quality: we are thus not only assessing physical but "social" obsolescence.

Improvements to existing dwellings will not prevent their becoming obsolete. In the assessment of existing shortages it is argued that, of all the substandard accommodation in Northern Ireland, some 100,000 houses might be suitable for improvement and would not require immediate replacement. These, it is estimated, are dwellings without major structural deficiencies, but with standards well below those suitable. The provision of standard amenities, and minimum repair and maintenance, to these dwellings will still provide, in many cases, a limited life. In few cases will improvements postpone indefinitely the need for replacement. On the basis of English experience, it would seem unlikely that more than 12,000 older dwellings in Northern Ireland should be preserved for historic or architectural reasons. If this is the case, and assuming that improvements considerably extend the life of much of the older housing in existence, by 1981 at least 100,000 dwellings would be obsolete. This would include the bulk of pre-1881 accommodation not of historic value and not included previously in clearance as structurally unsound. Improvements to this stock, in comparatively few cases, would extend usefulness to 100 years. Dwellings built between 1881 and 1921 would have had a life of over 60 years. In view of the quality of this accommodation it is likely that half of it will be obsolete. In addition, a considerable number

of dwellings built before 1921 and 1941 are unlikely to remain suitable for 60 years. This rate of obsolescence is not surprising. In fact the neglect of maintenance and improvement, especially in the private rental sector, will probably create physical obsolescence at a more rapid pace.

In addition to obsolescence, a considerable amount of replacement is required for fit houses demolished in redevelopment schemes, road schemes or other major planning developments. In recent years nearly 5 per cent of demolitions have been of such houses. As redevelopment activities expand, the number of fit dwellings would be expected to increase, but not at a rate equal to overall demolition. Thus between 1970 and 1985 we have assumed that 3 per cent of demolitions will be of fit dwellings. This will create a replacement demand of 3,000 houses.

Requirements for a reserve of vacant dwellings

The proportion of uninhabited dwellings in Northern Ireland was 5·1 per cent in 1966 compared with 4·6 per cent in 1961. In Great Britain it is considered that 3 per cent of dwellings is an adequate reserve for turnover and mobility. It seems probable that the rate of internal and external migration, and the local significance of the tourist industry, may necessitate a higher proportion of vacant dwellings in Northern Ireland. On this basis vacancies may continue at approximately 5 per cent. However, some of this will consist of inadequate and unfit housing which has been included in replacement elsewhere. To avoid double counting, therefore, it is assumed that 3 per cent of all new housing in the period will be required for vacant dwellings. This suggests some 7,000 dwellings between 1970 and 1981.

Regional distribution of new housing

No attempt has been made here to break aggregate estimates down into regional estimates. However, a number of broad generalisations can be made. The two major constituents of the estimates, replacement and new demand, will be regionally very differently distributed. Most of the new demand, in the absence of markedly new economic policies, is likely to be in the east of the province, especially in the greater Belfast area. In contrast, the present distribution of unfit dwellings, and the rate of obsolescence, is heavily weighted towards the west of the province. Population in the latter area is unlikely to increase. However, replacement of unfit houses would require a considerable programme in these regions.

LONG-TERM ESTIMATES OF NEW DEMAND

Longer-term estimates, in this case estimates of between 20 and 35 years, can be made under the same headings as those used for short-term estimates. However, the estimates are more speculative. To assess changes in total population and household formation over such a long period requires assumptions—about death rates, birth rates, the balance of migration and headship rates—for which there is little reliable basis. Certainly it is fair to assume that mortality rates are now

sufficiently low for any reduction which may occur to have a minor impact. However, this cannot be argued for the three other factors. The assumptions which have been made in this study in forecasting population and household formation are unlikely to prove accurate over 20 years. However, they have been made with the intention of avoiding exaggeration of future demand, and it is unlikely that estimates of housing demand derived from these will prove excessive. In the period up to the year 2000 the increase in obsolescence of dwellings will continue at a high rate. Not until this date will the replacement of pre-1919 housing allow some breathing space in slum clearance. In addition, some portion of inter-war buildings is likely to have a short life. Certainly 50 per cent is unlikely to have a life of over 60 years. On this basis it is estimated that between 1985 and 2001 some 70,000 houses will become obsolete. This, of course, assumes that no radical changes in housing standards and expectations occur in that period.

In addition, the increase in total population and rate of household formation is likely to remain high, and to exceed the 7,000 new households per annum previously identified. Indeed, if household size declines to 3·2 persons in 2000, the Registrar General's projections suggest that some 125,000 new households would be formed by 1985 to 2000. This is an annual rate of over 8,000 households. These tentative conclusions have some significance for policy makers. If it is felt, for social, political or economic reasons, that the solution of Northern Ireland's housing problem should be spread over a long period, these calculations should be borne in mind. We emphasise that the long-term estimates of new demand, made here, are likely to prove to be too low. This becomes obvious when the impact of economic change is considered. The connection between economic circumstances and headship rates has already been mentioned. Any significant change in economic prosperity could considerably increase demand for housing by contributing to higher headship rates. At the same time it could contribute to earlier marriage and a reduction in celibacy. These factors, combining with a growth of the aged population and a decline in family size, would considerably increase demand. In addition to this, improved employment opportunities, for example, might result in considerable changes in migration patterns.

For example, the volume of emigration was considerably reduced in the war years, 1939–45. There is no reason to believe that this was a result of physical controls—indeed there was considerable placement of Northern Ireland labour outside the province. What is more significant is that 1938 was a year of peak unemployment in Northern Ireland—higher even than the early 1930s. Conversely, the 1944 level of unemployment of 3·4 per cent is the lowest on record. This change in employment resulted in a consistent increase in incomes per head in actual terms, and relative to the United Kingdom.[12] Because employment was initially lower in 1938, wartime expansion raised employment and wage rates more than in Great Britain.[13] Isles and Cuthbert suggest that the policy of en-

12. K. Isles and N. Cuthbert—*An Economic Survey of Northern Ireland*—Belfast, H.M.S.O. 1957.
13. *Ibid.*, p. 12.

couraging industrial development has already reduced the willingness of unemployed persons to emigrate.[14] Emigration from Northern Ireland is largely influenced by economic conditions in Great Britain and Northern Ireland. Thus, "an increase in employment in Great Britain relatively to Northern Ireland, which means a rise in the differential unemployment rate, tends to attract workers from Northern Ireland. By causing some re-distribution of workers, in this way, it partly offsets the rise in the differential unemployment rate for which it is itself responsible. On the other hand, a trade recession in Great Britain, even if it strikes Northern Ireland with equal severity, tends to cause the more mobile of those emigrant Ulster workers who are thrown out of work, to return home".[15]

"If the rate of growth of employment in the past had been greater than it was, fewer workers might have emigrated to Great Britain or abroad, and more of those who did go to Great Britain for work might have returned".[16]

Following this line of argument, it is reasonable to assume that if policies in Northern Ireland effectively reduce the gap in employment and incomes in comparison with Great Britain, emigration would decrease and some portion of emigrants return. The consequence of this for housing policy is evident.

Increasing prosperity, earlier marriage and the elimination of the housing shortage will combine to raise the number of separate households that are formed particularly by young married couples.

Opportunities for establishing separate households may affect headship rates, and will certainly affect sharing of dwellings and the demand for secondary dwellings. The rate of household formation as defined by "separateness" will be influenced by economic and housing trends as well as demographic trends. As Donnison points out, "the experience of other European countries shows that headship rates can rise to levels never before anticipated when the distribution of incomes and procedures for allocating and subsidising housing change in favour of widows, students, single people and others whose opportunities of finding a separate home were previously restricted".[17]

CONCLUSIONS

Notwithstanding these reservations, we estimate an immediate shortage of 92,000 dwellings in Northern Ireland. In the period 1970–1985, a further 100,000 dwellings will be required to replace obsolete housing, and a similar number to cope with new demands from the population. A further 10,000 dwellings in the same period may be required to provide a sufficient reserve of vacant dwellings, and to meet other demands. A fifteen-year programme to build over 300,000 dwellings seems to be essential. As it is reasonable to assume that the building

14. *Ibid.*, p. 252.
15. *Ibid.*, p. 25.
16. *Ibid.*, p. 26.
17. D. V. Donnison, *The Government of Housing*, Penguin Books, 1964, p. 246.

industry could not adapt immediately to meet this demand, planning should anticipate an output of something like 25,000 dwellings a year by 1985.

It is useful to look at the calculations upon which the 1970 target of 75,000 dwellings by 1975, was based.[18] This assessed a demand for 6,250 dwellings a year from new household formation. This figure is very similar to that above. One hundred thousand dwellings were considered unfit and not worth improvement (compared with our figure of 60,000 at present, and 160,000, 1970–1985). Some 20,000 dwellings would be required to meet existing shortages reflected in overcrowding and sharing (compared with our figure of 32,000). In addition, 1,000 dwellings a year are desired to facilitate mobility of labour (compared with our figure of 7,000 dwellings over 11 years).

Table 2 indicates the estimated housing need for Northern Ireland between 1970 and 1975.

TABLE 2: *Northern Ireland: Estimated Housing Need 1970–75*

	Development Programme	*Our Estimates*
New household formation	31,000	35,000
Loss of fit houses through redevelopment and public works	5,000	1,000
Increasing vacancies to facilitate mobility		3,500
Existing shortages	20,000	32,000
Replacing obsolete houses	100,000	160,000*
Total:	156,000	231,500

*A proportion of these houses will not demand replacement but will require extensive improvement.

Some indication of the impact of a housing programme of 20,000 houses a year is provided by Table 3. Following the example of Donnison,[19] this programme gives priority to meeting the demands of demographic change. It makes a realistic allowance for increasing vacancies and demolitions not associated with the replacement of obsolete housing. A consistent policy of increasing vacancies is realised. Existing sharing and overcrowding are spread over a five-year period, and consequently the pace of replacement of obsolete housing increases markedly after five years.

18. See the *Development Programme 1970–75*, pp. 104–105.
19. D. V. Donnison, *op. cit.*, p. 248.

TABLE 3: *A Programme of 20,000 houses a year: Northern Ireland*

	Output per Annum	*Years 1970–75*	*10 years*
For demographic growth and change	4,300	21,500	43,000
Increasing headship rates	2,700	13,000	27,000
Reduction in sharing and overcrowding	6,400	32,000	32,000
Increasing vacancies	700	3,500	7,000
Replacing obsolete housing	5,700	28,500	89,000
Other conditions	200	1,000	2,000
Total:	20,000	100,000	200,000

In assessing a programme of this nature two points should be borne in mind. First, as has already been stated, the output of the building industry is likely to be lower than 20,000 at the outset. Consequently, if this programme is to be achieved, a greater output per year must ultimately be envisaged. Second, after ten years it is evident that some 70,000 obsolete dwellings will still remain in use. Even with an active programme of improvement this still represents a major housing programme. The rate of obsolescence over the years up to 2000 is unlikely to provide much respite. Even if output is in terms of improvement, a consistently maintained target of 20,000 dwellings is likely to prove inadequate.

Furthermore, we should not underestimate the likelihood of a major increase in demand arising out of social, economic or demographic change.

The desirability of arriving at some figure of output for which demand can be guaranteed for a long period does not only effect the achievement of a housing programme. It is also essential as a basis for any further expansion of the building industry. From these considerations it would appear essential that the Northern Ireland Government commit itself to a minimum programme of 20,000 dwellings a year, and more realistically to a programme of 25,000 dwellings a year. By the time building was mobilised to provide a 20,000 dwellings a year, this target would no longer be sufficient to meet needs, and a larger target becomes necessary. Already only 27,000 houses have been built in the first two years of the development programme. This indicates that it will be some time before a target of 20,000 dwellings per year could be fulfilled, and by then a considerable backlog will have accumulated.

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