

**MAKING SENSE OF DIVERSE DATA SOURCES: REFLECTIONS ON AN  
APPLIED RESEARCH PROJECT**

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**1. INTRODUCTION**

The aim of my paper today is to explore some of the tensions between 'practical' and theoretical issues involved in applied social analysis. I try to accomplish this aim by reflecting on an applied research project on demographic trends and housing need in Northern Ireland (Heenan, Gray and Paris, 1994). I do not simply summarise that project, however, but use it as the base from which to raise some wider issues which confront researchers and policy makers working in applied social research.

The rest of this paper is in five parts. Section 2 introduces the applied research study and outlines some of its main results. Section 3 identifies the strategic housing policy context within which the research was undertaken. Section 4 focuses on some of the research issues involved in analysing demographic change. Section 5 explores the relationships between demographic analysis and public sector housing need assessment methodologies. My conclusions are set out in Section 6.

**2. THE APPLIED RESEARCH STUDY**

**Background and content**

The Northern Ireland Housing Executive (NIHE) commissioned a small team from the University of Ulster to investigate social, economic and demographic trends in Northern Ireland and their effects on housing requirements, especially regarding the provision of new build in the public and private sectors over the planning period 1994/5 - 1997/8 (Heenan, Gray and Paris, 1994). Research was conducted in early 1994 and the results were fed into the NIHE's *Housing Strategy 1995-1998*.

Although our contractual client was the NIHE, the project Steering Group included research and policy specialists from the Department of the Environment Northern Ireland (DoE). The composition of this group meant that we sometimes felt that we were working for two clients.

There was fundamental agreement regarding the overall objectives of the study and concerning the need to produce a strong technical basis for programme funding within the wider governmental planning process. The NIHE and the DoE, however, have different concerns and priorities. The NIHE is concerned that its planning is based on the best available technical arguments and that it continues to meet its own statutory and policy objectives. The DoE operates within a different organisational and policy context and is also the initial assessor of the NIHE's bid for programme funding. Its representatives on the Steering Group, therefore, were both concerned with the internal logic of the research project and also with the wider context of *programme* funding within overall *government priorities*. The mixed composition of the Steering Group resulted in the research team occasionally feeling that we were being pulled in two directions at once and that technical concerns were at times conflated with the 'realities' of making a case for funding within a particular policy making environment.

### **The research brief, main results and conclusions of the study**

The brief specified four main tasks (see Appendix 1). Firstly, we had to review the main social, economic and demographic trends in Northern Ireland in comparison with LTK and EU trends. Secondly, we were required to consider the NIHE's method of assessing need. Our third main task was to review housing need estimation methodologies with regard to their application in Northern Ireland. Finally, we had to assess the implications for future housing need in Northern Ireland.

The main demographic trends between 1981 and 1991 included:

- falling household size and growth in single living,
- a falling proportion of nuclear families,
- a changing pattern of household headship,
- a growing proportion of lone parents,
- increasing age at marriage,
- declining marriage rates, more remarriage and cohabitation,
- an ageing population,
- lower fertility and birth rates,
- a decreasing death rate,
- an increase in illegitimate live births, and
- out-migration between 1981 and 1991 of 69,400 persons, largely males.

Most of these trends were reflected in the NIHE waiting list but they had less impact on allocations due to the high proportion of 'urgent' cases, especially homeless people. Most of the trends identified for the 1980s could be expected to continue in the 1990s, although there is less certainty over the future pattern of net migration.

Demographic trends, within a changing social and economic context, have numerous implications for changing patterns of housing provision:

- declining average household size has resulted in more dwellings per 1,000 of the population,
- a changing household structure, with many more small households, requires a more diverse housing stock and/or different social housing allocation policies,
- growing labour market diversity is resulting in 'work-rich' households finding home ownership more affordable and 'work-poor' households having to rely increasingly on social housing,
- an ageing population may occupy dwellings for longer periods,
- a declining volume of new households, especially in the longer term, may ease pressure on supply.

Demographic trends were not expected to exert significantly new influences on trends in new build in the next few years. Other factors are at least as, if not more, important, including the changing socio-economic profile of social housing tenants and applicants. Home ownership was expected to continue to grow due to relatively low private house prices and as 4,000 NIHE tenants a year buy their homes through the House Sales Scheme.

The review of housing need estimation methodologies concluded that the most viable GB model for Northern Ireland was the net stock approach used by the Audit Commission (1992.) This approach used an estimate of new household formation as the basis for predicting the need for additional dwellings during the planning period. An application of this methodology, using local data, produced an outcome which did not differ significantly from the output of the more 'bottom-up' approach to assessing housing need which had previously been used by the NIHE.

A mechanistic application of the net stock approach in Northern Ireland provided an estimate of the need for an additional 24,800 social housing units due to new household formation in Northern Ireland between 1991 and 2001. Three other factors, however, would need to be considered in any overall needs assessment: any existing backlog at the beginning of the period, various forms of 'mismatch' and the possible effects of Care in the Community policy.

### **3. THE CONTEXT**

The straightforward context of the study was the development of the NIHE bid for funding which had to be based on objective methods of housing need assessment. Three other contextual issues, however, affected how we were able to do the research project: the context of a particular definition of housing 'need', the tension between researchers' and policy advisers' conceptions of demographic analysis and housing need assessment methodologies, and the impact of strict deadlines on the planning process.

#### **A residual definition of housing need**

Government funding for social housing currently is based on a residual concept of 'needs' (Kleinman, 1995; Maclellan, 1994). It is assumed that the market is the main provider of housing and that the role of the state is limited to assisting with the accommodation of those people unable to access satisfactory housing through market mechanisms. The development of housing strategies by statutory and public housing bodies thus requires both estimates of the aggregate growth or decline in households and assumptions about their capacity to gain housing through the market. This approach to determining housing need underpinned the applied research study, although part of our task was to review various housing need assessment methodologies including some which advocated a different approach to defining housing need (Audit Commission, 1992; Bramley, 1991; Whitehead and Kleinman, 1992; Wilcox, 1990).

Recent research on changes in housing markets, however, has raised serious questions about any assumptions which may have to be made regarding households' capacities to exercise tenure choice. Housing market changes which may affect both perceptions and behaviour include the growth of 'negative equity' (Forrest and Murie, 1994), the changing relationship between labour markets and home ownership and the profound changes to the private rental sector (Maclellan, 1994.) In particular, doubts have been expressed regarding the capacity of an additional proportion of households to gain access to home ownership and, crucially, about the ability of 'marginal' buyers to sustain home purchase in the longer term (Bramley, 1994.)

#### **Different perspectives on research results**

The study had to reconcile diverse technical issues of concern to researchers and bureaucratic conceptions of the nature of research output. Technical issues which had to be addressed included a concern for appropriate data selection, manipulation and analysis. Other technical issues involved the specification of reasonable assumptions within demographic analysis and housing need assessment methodologies. We were concerned, as well, to incorporate an appreciation of the

uncertainties involved in population projections, especially when overall projections are disaggregated by household type.

Such technical concerns were a source of frustration for some colleagues whose main objective was to achieve a definite basis for housing need estimation: they wanted the 'right' number of households in need, within a given definition of need. It was as if uncertainty over the numbers involved was expected to be a sign of weakness within subsequent debates over resource allocation. The tension between a research concern for the limitations of modelling and a bureaucratic desire for certainty in the policy process, have been noted frequently within the public policy literature (especially Hogwood and Gunn, 1986 edn.). This is not simply a tension between 'academic' and 'practical' perceptions of the world, rather it is commonly observed within public agencies whose research sections may have to struggle to convince policy makers that any analysis, but especially projections and predictions, may be fraught with complexity and uncertainty (op. cit.). Such tensions can become particularly acute when a PQ has to be answered!

### **The influence of planning deadlines**

The third key contextual issue which affected the research was the need to work within firm planning deadlines. The results of the study had to be available in time to feed into the NIHE strategic planning cycle. This meant that some decisions concerning data selection and *analysis* had to be made pragmatically. There was no time to wait for better data or to undertake new primary data generation. The limitations of data availability, for example, meant that some of the British models could not be applied in Northern Ireland within the time available. This limited our scope in part of the study, although the model which was used has a clear and logical structure and is useful for demonstrating the effect of demographic change on housing need. Like any model, however, its outcomes were crucially affected by assumptions which had to be made concerning some variables and their interaction.

## **4. UNDERSTANDING DEMOGRAPHIC CHANGE**

Demographic analysis is widely recognised as an important element of the study of housing (Myers, 1990). Ermisch (1990, 1991) has identified significant social changes associated with demographic change, especially the probability of decline in new household formation during both the 1990s and the second decade of the next century. Demographic changes will affect the overall age structure with impacts on labour and housing markets as well as public policies on income support and welfare provision.

Demographic analysis is an established element in *housing policy formation* and governments often use household projections within assessments of housing needs. Quite *how* demographic analysis can assist housing strategy, however, is by no

means as clear cut as the general agreement that it is relevant. Many conceptual and practical problems are involved in trying to utilise demographic analysis within applied policy work.

This section briefly discusses some of these conceptual and practical problems. Discussion is limited for illustrative purposes to some conceptual and practical issues in demographic analysis, some issues involved in data identification and manipulation, and some issues involved in household projections.

### **Conceptual and practical issues in demographic analysis**

Any applied research on demography and housing has to deal with many conceptual and practical issues in analysis. Two issues which arose during our study illustrate the difficulty involved in reconciling conceptual and practical concerns within demographic analysis: problems with the meaning of the term 'household' in demographic projections and how to deal with the interaction of demographic and other factors.

#### *Problems with the 'household' concept in demographic projections*

Most demographic models used in strategic housing policy are based on assessment of the changing number and type of households in a given geographic area. The idea of the 'household', however, is far removed from being a straightforward concept within planning for housing need, especially because 'households' and 'dwellings' are frequently defined by reference to each other (Myers, 1990:5.) This leaves an apparent tautology because households=dwellings=households (Kemeny, 1992; Paris, 1993).

The notion of 'concealed households' tries to address this problem but it is far from objective and opens the door for rhetorical debate. Feminists such as Watson (1991) have criticised the notion of male-'headed' households, especially under circumstances of greatly changed labour force participation (Balls and Gregg, 1993). Domestic arrangements, moreover, have involved great empirical diversity and have changed over time. Any classification of household types is thus both complex and debatable. Respondents in surveys and censuses may even report 'household' composition to reflect their assumptions about taxation or welfare benefits.

A separate problem with official definitions of households is that part of the population is effectively defined as comprising 'non-households'. This raises a particular problem for projecting the number of households because individuals can move from one status to the other and back again! One effect of Care in the Community policies in Northern Ireland, for example, may be to redefine part of the population formerly excluded from 'household' data as households. There was no

standard way of determining how to deal with this issue in demographic projections and so a pragmatic decision had to be taken about the probable impact of such changes on the number and types of household.

Data on households are produced by complex social processes and are inherently less reliable than data on births, deaths and age. These concerns are difficult to incorporate in any projection of households by type, let alone trying to include further disaggregation by other variables, such as age. In practice, therefore, we had little choice but to accept the complexities and tautologies, rely on census categories with explanatory footnotes and do as sensible a job as was possible in the time available!

### *The interaction of demographic and other factors*

The relationship between demographic change and housing availability provides a delightful example of the logical insolubility of the question 'which came first, the chicken or the egg?' The question, in this instance, is 'which comes first, demographic change or housing availability?'

Can we simply project past processes of demographic change and then work out mechanistically what number of dwellings is required to cope with that change? That, it seems, is the logical structure of most housing need assessment methodologies based on demographic projections. The problem with this approach, however, is that the availability of housing, together with other factors, is also a factor in *explaining* demographic change. Put simply, acute housing shortages on the one hand, or an abundance of cheap housing on the other hand, provide entirely different contexts of constraint and opportunity within which decisions are made concerning household formation. Analysts and policy advocates sometimes try to resolve this paradox by use of arguments about 'concealed households' but this simply reopens yet another Pandora's Box!

### **Issues involved in data identification and manipulation**

Many issues had to be addressed within the study concerning data identification and manipulation. Most were resolved pragmatically in practice, but such practical decision making leaves significant question marks regarding the precision of analysis and its application within demographic projections. I have selected three issues to illustrate such concerns for present purposes: the need to identify changes in household type and structure, the problem of identifying cohabitation, and difficulties associated with defining and identifying lone parents.

### *Identifying changes in household type and structure*

Census data do not readily enable researchers to respond sensitively to the changes in household composition over time. It is relatively easy to identify data which can generate average household size which, although conflating much complexity, can be a useful yardstick by which to measure aggregate change. It is also easy to identify the number of single person households, although much greater difficulty is involved in determining the diversity of household forms and living arrangements in all other cases.

Any full analysis of all changes in household type and composition, however, would inevitably be extremely lengthy and complex, even when limited to available census household classifications. It is unclear, moreover, that such analysis would be of much use in any modelling exercise, because considerable margins of error should be built in even for aggregate projections.

### *The problem of identifying cohabitation*

The growth of cohabitation is widely accepted as a fairly recent social phenomenon. Its measurement, however, raises particular difficulties for attempts to identify changes in household types. The census does not record cohabitation, but instead may record cohabitees as a sole parent and a single person. The census may also not be very reliable regarding change over time, as it is widely accepted that social attitudes have changed and that people may be more willing to admit to cohabitation than was the case twenty or thirty years ago. Social housing allocation processes throughout the UK have increasingly treated married couples and cohabitees as if they were in the same familial circumstances.

### *Difficulties associated with defining and identifying lone parents*

Any attempt to identify the number of lone parents from census data runs into the same difficulties as measuring changes in cohabitation. In addition, however, published census volumes for Northern Ireland do not enable researchers to establish time series comparisons which distinguish between lone parents of families containing dependent and non-dependent children.

Our study noted that the number of lone parent households in Northern Ireland increased from 43,800 to 66,600 between 1981 and 1991. About 15,000 of the latter figure comprised non-dependent adult children living with parent(s). No equivalent data were available for 1981 and so we had to make an (untestable) assumption that the proportion was constant between 1981 and 1991. On that basis, it was possible to estimate that the number of sole supporting parents rose from 32,780 to 51,600.



What proportion of these sole parent families were female-headed? The published census volumes for Northern Ireland did not record this data item and there was no time available to obtain unit record data from the census. More assumptions, therefore, had to be made. *Social Trends* contains GB data which indicated that lone mothers outnumbered lone fathers by about 10:1. An application of that ratio in Northern Ireland implied that there had been growth in the number of sole supporting mothers from about 29,600 to 46,400 between 1981 and 1991, representing a 55-60 per cent increase over ten years.

### **Some issues involved in household projections**

The preceding discussion has raised a number of problems regarding the application of demographic analysis to the planning process. The point of raising problems has been to emphasise the need for attention to the assumptions underlying such analysis which can critically affect the outcome of any model. This does not mean that demographic analysis should not be used, but such analyses should be used in the clear understanding that they are the base for *projections* rather than *predictions*.

This point can be illustrated by reference to three elements of uncertainty within our overall attempt to project households in Northern Ireland over the period 1991-2001: a high probability of declining birth rate, later marriages and falling household size but uncertainty over *rates* of change; the problem of anticipating changing patterns of migration; and uncertainty over homelessness.

*A high probability of declining birth rate, later marriages and falling household size but uncertainty over rates of change*

There were no reasons for doubting that most of the demographic trends identified in Northern Ireland between 1981 and 1991 would continue during the 1990s. A key problem for projecting the future population, however, was the determination of the rates of change.

Some processes, especially falling household size, must by definition begin to slow down (it can not fall below 1!). Other trends could reverse. For example, there had been a slight reversal in the downward trend of birth rates in Scotland during the 1980s. Any attempt to project past trends in household composition onto a projected population for 2001, based on the Government Actuary's projections, had to involve some assumptions about such rates of change because they would significantly affect the overall structure of household types.

Different methodologies exist for making such estimates. We decided that a simple forward projection of falling average household size in line with trends throughout the UK would give a reasonable scenario from which to work. An alternative approach was proposed by the DoE based on household headship rates. The DoE,

however, was unable to provide such estimates for Northern Ireland due to lack of suitable base data.

Our household projections were thus somewhat less mechanistic than a simple projection of the 1991 base distribution of household types but they inevitably incorporated assumptions which in practice may not hold. Finally, any such projection of household formation leaves unresolved the problem of the inter-relationship between demographic change and housing availability which was discussed in a previous section.

### *Changing patterns of migration*

Census data could be used in a straightforward way to provide estimates of net outward migration of 69,420 from Northern Ireland between 1981 and 1991, although it was not possible to identify under-counting of population during either census. The possible future impact of migration patterns, however, was much less easy to estimate, not least because it is likely to be affected by the interaction of demographic and many other factors, especially the relative economic performance of Northern Ireland.

The research team had no choice other than to use the Government Actuary's population projections as a basis for assessing the probable impact of in-migration on housing requirements. These data indicated that there was net in-migration of 2,000 persons during the year ending June 1991 and projected that net migration into Northern Ireland will switch back to an outflow of some 4,000 persons a year between 1995-96 and 2006-07.

Such projections can never be more than indicative. There are no reliable survey data regarding the reasons for in-migration decisions although most commentators accept that recent changes in net migration flows have been largely due to economic factors. This suggested to the research team that, unless there is significant job creation within Northern Ireland, then outward migration can be expected to increase. In the longer term, there appears to be a high probability of a significant decline in the number of 15-30 year olds in Great Britain as a direct result of births, deaths and the existing age structure (Ermisch, 1990). Such changes in the labour force, therefore, could result in higher net out-migration from Northern Ireland.

These considerations were virtually impossible to incorporate into the aggregate housing need model which was selected for the study, because they would have added even greater possible margins of error and begun to build in potentially very large variations between different scenarios. They had to be included in the overall analysis as a cautionary note regarding the need to treat the model as *indicative* of likely change rather than a prediction of what would happen. Migration is of particular concern for strategic housing policy, however, because a significant

increase in net out-migration could reduce pressure on housing supply with effects on private sector building activity and need for social housing.

#### *Uncertainty over homelessness*

One factor which significantly affects rates of housing allocation by household type is the varying extent to which public housing authorities determine statutory homelessness. The definition of homelessness and the appropriateness of responses to homelessness was under review at the time of the research project. The ways in which definitions and allocation processes might change, therefore, could have an impact on the types of household being allocated to social housing and the ways in which private rental housing might be utilised by public housing authorities to accommodate households deemed to be in certain types of specified housing need.

This issue essentially highlighted the extent to which categories such as 'homelessness' are defined in part by law and in part by practices of public agencies: they are not objective constantly measurable phenomena. At present, for example, homeless sole unmarried mothers supporting children may be classified as being in priority need and able to gain relatively quick access to social housing. One possible reform was a redefinition of their need status with the possibility that they would be expected to be housed within their parents' home and would therefore become 'concealed households'.

### **5. HOUSING NEEDS ANALYSIS**

It was extremely difficult in practice to incorporate most of the concerns about demographic uncertainties, whether due to data problems, interpretative uncertainty or to possible policy changes, into any aggregate model of housing need. All of the available models were based on demographic projections although they acknowledged, to greater or lesser degrees, that such projections contain crucial qualifying assumptions.

It was virtually impossible to use most of the British models in Northern Ireland due to data limitations. Our choice of the Auditor General's 'net stock' approach was pragmatic rather than based on any notion that it was the 'best' technical approach. Pragmatism was evident, too, in the way in which the model defined housing 'need': it focused on the extent to which demographic change would generate net *additional* households and what proportion of net additional housing requirements would be met by the private sector.

Household projections were central to this approach (see Appendix 2). It does not include any consideration of 'backlog' (existing shortages) or 'mismatch' (in terms of dwelling type or location). The approach also requires the user to make critical assumptions and estimates (or guesstimates) regarding the number of 'concealed

households', the number of households in temporary accommodation, the future rate of private sector completions, the future rate of demolitions and the likely vacancy rates in private and social housing sectors.

The model is unable to include consideration of the possible impact of policy changes. For example, we know that the growth in home ownership during the 1980s was stimulated by the sale of public housing to sitting tenants. Any significant variation in that policy could increase or decrease rates of tenure change as well as affecting the capacity of the public sector to house applicants through the use of relets. Recent reports that government may introduce some form of 'right to buy' for housing association tenants, and the growing importance of private finance within that sector, also could affect rates of change. The research brief had requested consideration of the likely impact of Care in the Community policy. This was made difficult by the lack of data on developments so far and so an estimate of the possible impact had to be made. We estimated that about an additional 100 dwellings would be needed per year, but that figure could in practice be substantially different.

Variations in the assumptions embedded within the net stock approach can have an enormous effect on the outcome of a mechanistic application of this model. The Research team and Steering Group considered at one stage developing a number of scenarios based on giving different values to the variables about which assumptions had to be made. That was desirable from a technical, 'research' perspective, but it quickly became clear that even quite small variations in some of the key assumptions could produce enormous variations in the model's output.

For example, simply to vary the total number of projected households by plus or minus 10 per cent resulted in a net additional social housing requirement of from 17,300 to 31,300 between 1991 and 2001. Even quite modest further variations in other assumptions would have produced outcomes ranging from negative social housing requirements to a figure well over 5,000 a year between 1991 and 2001.

Such variations are both counter-intuitive in a 'common sense' fashion and were met with what almost amounted to horror by some members of the Steering Group. It was agreed, therefore, to stick with mid-range estimates and assumptions but to qualify the operation and the output of the model very carefully.

Such concerns were noted in the Steering Group's Preface to our final report, but were seen in a constructive and positive rather than negative light:

*... two major conclusions may be drawn from this report. First, the existing methodologies for housing need estimation are very sensitive to the assumptions made ... An important benefit of the exercise, however, is that one is forced to consider carefully the assumptions made and the manner in which*

*they interact with one another ... Second, on the basis of the data that is available, the results largely match those generated by the Executive's current methodology, thus providing an independent indication of the validity of the Executive's approach to housing need assessment.*

## 6. CONCLUSIONS

The implications of demographic and other change for housing need in Northern Ireland are profound, complex and extremely difficult to pin down in a single figure specifying precise numbers of dwellings which should be provided by social housing agencies.

The use of the best available quantitative models inevitably requires making a host of assumptions which may require us to put to one side our knowledge of the real complexity of social relationships which are only partially grasped by the data. This is simply re-telling an old tale: quantitative analysis includes elements which are at least partly subjective and which are debatable if not always negotiable! Quantification is not thereby rendered inherently problematic, however, because it forces us carefully to examine the assumptions which we are making and the interaction of variables. Ultimately, however, judgements are required and monitoring of change and adjusting assumptions in the light of new data must be seen as integral parts of any planning process.

Such considerations point to the need for sensible pragmatism in applied social research. There has to be constant dialogue and mutual goodwill between 'academic' and 'practical' dimensions of applied social research. We need to reconcile (a) technical issues involved in data analysis, modelling and prediction, with (b) the priorities of civil servants working within an environment constrained by time, financial resources and government policies.

A minor conclusion concerns the problem which outside researchers, whether 'academics' or 'consultants' can face when dealing with different agencies or departments of government. There is a need for a clear contractor-client relationship. Contractors find it better to work for one client rather than two or more who may use them as a medium for having their own debates and differences. One agreed set of comments on drafts is infinitely preferable to getting copies of every department view or comment because they often contradict each other! External contractors should not be asked to resolve internal differences unless that task is clearly specified in the brief and costed as part of the consultancy!

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## **APPENDIX 1 THE RESEARCH TASK**

The review of the main social, economic and demographic trends in Northern Ireland, in comparison with UK and EC trends, involved consideration of six questions:

1. What were the main social, economic and demographic trends in household structure and formation between 1981 (revised census figures) and 1991?
2. To what extent are these trends matched by trends in the size and composition of the Housing Executive's waiting lists?
3. What is known about the scale and direction of recent population and household migration?
4. What are the main interactions between the economy and demographic change?
5. What are the main impacts on housing demand and housing need?
6. What trends are likely in the future (and what margins of error exist)?

The review of housing need estimation methodologies involved consideration of data requirements, ease of application and reliability. The research team had to consider two questions:

1. What range of estimates results from the various methodologies?
2. How does the NIHE approach match the output from alternative methods?

The study team also had the task of considering the likely future direction of trends and assessing their impact on the demand/need for and provision of housing. In particular, the study team was required to:

1. Assess the scale, effect and impact of these trends on future new build requirements in the Housing Executive, the Housing Association and owner-occupied sectors of the market.
2. Assess the scale, effect and impact of vacancy levels and stock turnover in each of the three main sectors of the market.
3. Assess in outline terms the possible impact of Care in the Community policies on the demand/need for and supply of housing in each of the three main sectors of the market.



**APPENDIX 2 A NET STOCK APPROACH IN NORTHERN IRELAND  
1991-2001**

Category	-10%	Projected Households 000	+10%
<b>Extra demand 1991-2001</b>			
New households <sup>1</sup>	63.4	70.0	77.0
Concealed households	-	3.4 <sup>2</sup>	-
Temporary accommodation	-	0.4 <sup>3</sup>	-
<b>Total extra demand</b>	<b>66.8</b>	<b>73.8</b>	<b>80.8</b>
<b>Extra supply 1991-2001</b>			
New private output <sup>4</sup>	-	62.0	-
Less demolitions <sup>5</sup> , and 4% vacancy in private housing	-	(10.0)	-
<b>Total extra supply</b>	-	<b>49.5</b>	-
<b>Social housing needed</b>			
Deficit	17.3	24.3	31.3
Plus 2% vacancy in new social	0.3	0.5	0.6
<b>Total needed</b>	<b>17.6</b>	<b>24.8</b>	<b>31.3</b>
<b>Total per annum</b>	<b>1.76</b>	<b>2.48</b>	<b>3.19</b>

**Table footnotes**

1. Based on Government Actuary population projections and average household size projected from census trend 1981-91.
2. 1991 Census.
3. 1991 estimate based on NIHE data on households in temporary accommodation.
4. Based on continuation of house completions during the 1980s but not allowing for replacement of existing dwellings by new dwellings.
5. NIHE estimates.

After Audit Commission 1992

## DISCUSSION

**Gerry Mulligan:** Professor Paris' paper discusses in detail issues arising from a research project commissioned by the Northern Ireland Housing Executive. The paper in particular reflects Professor Paris' thoughts on the relationship between the client, the Steering Group and the research team and the issues that arose in the course of the work. I thought it might be useful to provide my contrasting perspective as the Northern Ireland Department of Environment's statistical representative on the Steering Group.

There was, as Professor Paris suggests, clear agreement about the objectives for the research to produce a strong technical basis for the estimation and projection of housing need in the social rented sector. This was reinforced by the DOE's concern that for a number of years in the past, despite the public sector building fewer new houses than the forecasted level of need, the waiting lists for public sector had in fact decreased. This highlights the need to assess the methodology on which forecasts are produced or indeed the accuracy of public sector waiting lists as an indicator of housing need. Professor Paris' study was concerned very much with the former.

Agreement on reasons for the research was not matched, according to Professor Paris with agreement on technical concerns particularly when they were according to his paper, "at times conflated with the 'realities' of making the case for funding within a particular policy-making environment". The need for research to constantly address and have relevance to policy issues should not however be construed as constraining research output to any preferred policy option. Without the technical independence of experts research of this nature commissioned by policy clients would be of little value. In fact, the debate on technical issues within the Steering Group enlivened the project and highlighted areas of data deficiency, problems of definition and the need to commission further work on methods of estimating future rates of household formation in Northern Ireland. Thus, the diversity of professional viewpoints and backgrounds was, as I saw it, a very healthy aspect of the overall project. As a consequence of this discussion, work on filling gaps in our housing statistics and enhancing household projections is receiving attention.

Professor Paris' paper highlights the inability of housing needs assessment methodologies to produce precise answers to the question of housing need. Correct answers had not been our expectation however; indeed we were anxious that estimates of future need and social rented accommodation reflected varying assumptions of household formation, and variable future provision of houses by the private sector. It is appreciated that an important outcome of this research is to sensitise those involved in housing policy to the sensitivity of demand to demographic, social and economic factors.

In conclusion the research into methods of forecasting need for social rented housing has certainly enhanced our knowledge of the relationship between demography and housing need. It has also highlighted many data deficiencies which are currently being addressed. The tensions which Professor Paris highlights are more apparent than real and reflect divergent professional perspectives and responsibilities which act both as a balancing and a stimulating influence in the research process.