

Solving Rural Housing Problems: Building a Better Understanding

Occasional Paper No. 21

**edited by Tom Carter
1990**

The Institute of Urban Studies





THE UNIVERSITY OF
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SOLVING RURAL HOUSING PROBLEMS: BUILDING A BETTER UNDERSTANDING

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INTRODUCTION

Housing problems in rural areas have not always received the same attention that has been focused on problems in urban areas. Far removed from the more immediate and constant scrutiny of the media, rural areas have in the past suffered from an "out-of-sight, out-of-mind" syndrome. More recently, rural residents have begun to demand assistance to address a variety of needs. A weak economy in the agricultural sector and lower prices in the resource sector have had a negative effect on many small communities in rural and remote areas, and created a difficult set of circumstances for the residents. The difficult economic situation, combined with stronger, better organized and more politically focused community organizations, have prompted renewed interest from government departments and agencies that have a mandate to address rural issues.

This renewed interest, however, has not always resulted in the successful implementation of policy and program vehicles to address the difficulties of the small communities and their residents. Housing programs in particular have been criticized for lacking sensitivity and suitability in the rural environment. More than once, it has been suggested that programs are really only modified models of urban based initiatives. Their success has been limited because they fail to recognize some of the basic differences that exist between the major urban centres and small rural and remote communities.

It is obvious that we must build a better understanding of rural characteristics and needs so that we can respond with more adequate and effective initiatives. Working within the environment of scarce resources that we face, it is essential that we make the greatest impact possible with what little funding is available. The three papers in this publication focus on building a better understanding of the rural, remote and small town environment, particularly the housing environment.

Ron Corbett's paper, entitled "Between the Devil and the Deep Blue Atlantic: The Dilemma of Rural and Small Town Development in Atlantic Canada," provides a grassroots perspective on small communities in the Maritimes. Using the results of a rural residential survey, the paper analyzes a number of key indicators in an attempt to understand the unique nature of rural communities. It then draws out the implications for community development policy, of which housing is an important component. Rowe's paper, entitled "Self-Build: The Informal Sector and Housing Policy in Canada," points out the importance of self-help housing in rural areas. His discussion details the who, what and how of self-building, and illustrates the effectiveness of this approach in addressing the housing needs of low and moderate income households. His discussion suggests that current policy does not adequately utilize the potential of the informal sector to address the housing requirements of community residents. The final paper by Tom Carter focuses on an evaluation of housing policy in rural and remote communities. Building on the

lessons learned from a critical assessment of housing programs introduced since the 1950s, the paper suggests how future initiatives could be structured. Community involvement in planning and development, a theme throughout Corbett's paper, and an emphasis on self-help, the focus of Rowe's paper, figure strongly in the structure of housing initiatives suggested by Carter to address rural community housing problems more adequately.

The three papers were presented at the 1988 Canadian Urban and Housing Studies Conference sponsored by the Institute. As a group, the papers provide a better understanding of how solutions might be structured to respond to the housing needs of rural residents.

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BETWEEN THE DEVIL AND THE DEEP BLUE ATLANTIC: THE DILEMMA OF RURAL AND SMALL TOWN DEVELOPMENT IN ATLANTIC CANADA

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INTRODUCTION

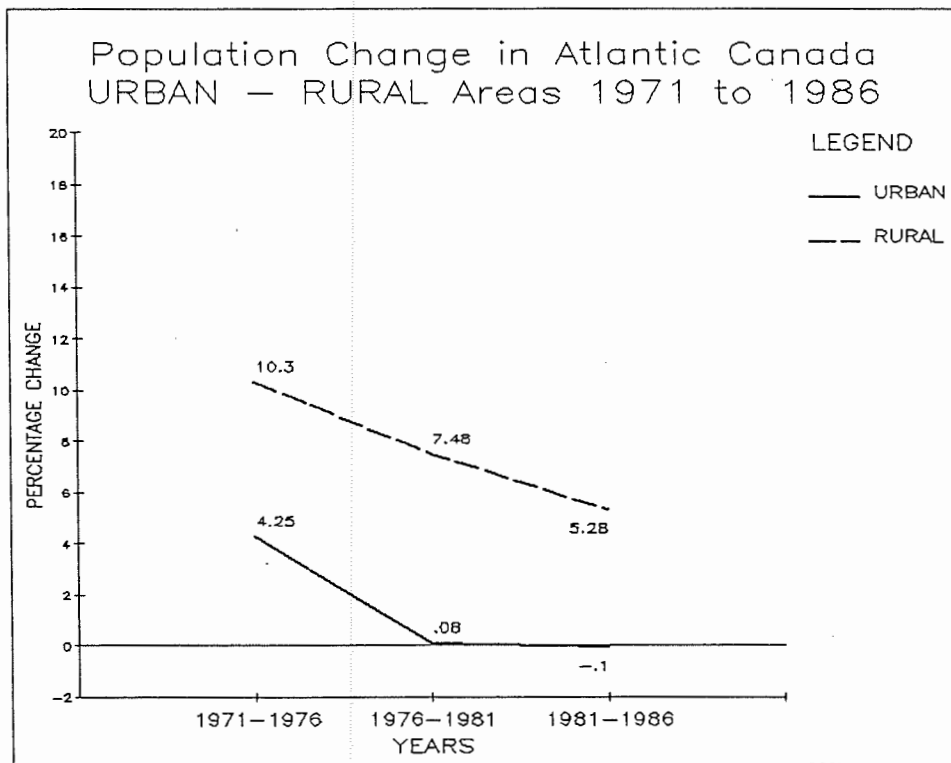
Atlantic Canada is primarily a rural small town region, in terms of settlement type and population distribution. Within the region, there are 513 incorporated centres and over 3,000 additional unincorporated communities (1981 Census). Over 80 percent of the incorporated centres have populations less than 2,500. In terms of population distribution, 40 percent of Atlantic Canadians live in rural areas,¹ while 39 percent live in urban areas with populations in excess of 20,000.

Historically, the pattern of population growth in the region has been very different from national trends. Canada, as a nation, has experienced a period of urbanization since 1921. In the Atlantic Region, the urbanizing trend has been much weaker than in the rest of Canada (MacPherson, 1972, p. 50).

During the past decade, however, there has been a shift in growth trends, with rural growth on the increase in Canada (Statistics Canada, 1984), and in other countries such as the United States (Weber and Howell, 1982) and Sweden (Folkesdotter, 1986, p. 9). As illustrated in Figure 1, this has also been the case in Atlantic Canada, where growth in rural areas has been substantially higher than growth in urban centres. Rural growth is taking place both on the urban fringe and in more isolated areas away from urban centres. While growth in the smaller centres has often not been as spectacular as that in the larger cities, particularly during the periods between 1971 and 1976, they have generally continued to maintain a steady and modest rate of growth. This is particularly true of centres with populations between 500 and 5,000 (Statistics Canada Census Data, 1971-1986).

The settlement patterns in Atlantic Canada have long been of interest to geographers, housing officials and planners working in the region (Harris and Warkentin, 1974, ch. 2, 5; Hughes, 1986, pp. 1-7; MacPherson 1972, ch. 2). A common perception is that the small urban and rural residential type of development dominant in the region (not including resident operations on farms) is fraught with problems, primarily in terms of economies of scale and efficiency. Simply put, the present pattern of rural residential development, characterized by low density scattered development, is extremely inefficient from a service-delivery point of view. Brewis (1969), Whitby and Willis (1978), Cloke (1979) and Johansen et al. (1984) have given numerous examples of these inefficiencies including: bussing children to school; maintaining an expensive and inefficient ribbon road system; and providing expensive and inefficient services such as fire, police, and medical systems. Rural development also has the potential to be detrimental to rural

FIGURE 1



Source: Statistics Canada Census Data

resource development, as illustrated by a number of authors including Parenteau (1981, p. 70), FitzSimons (1985, p. 307) and Huemoellar et al. (1976, p. 10). As well, it is perceived that rural residents are faced with a number of problems and disadvantages: the burden of limited service; limited job opportunities; and long distance to travel for the material necessities of life (Fuller and Starr, 1977, pp. 17-22).

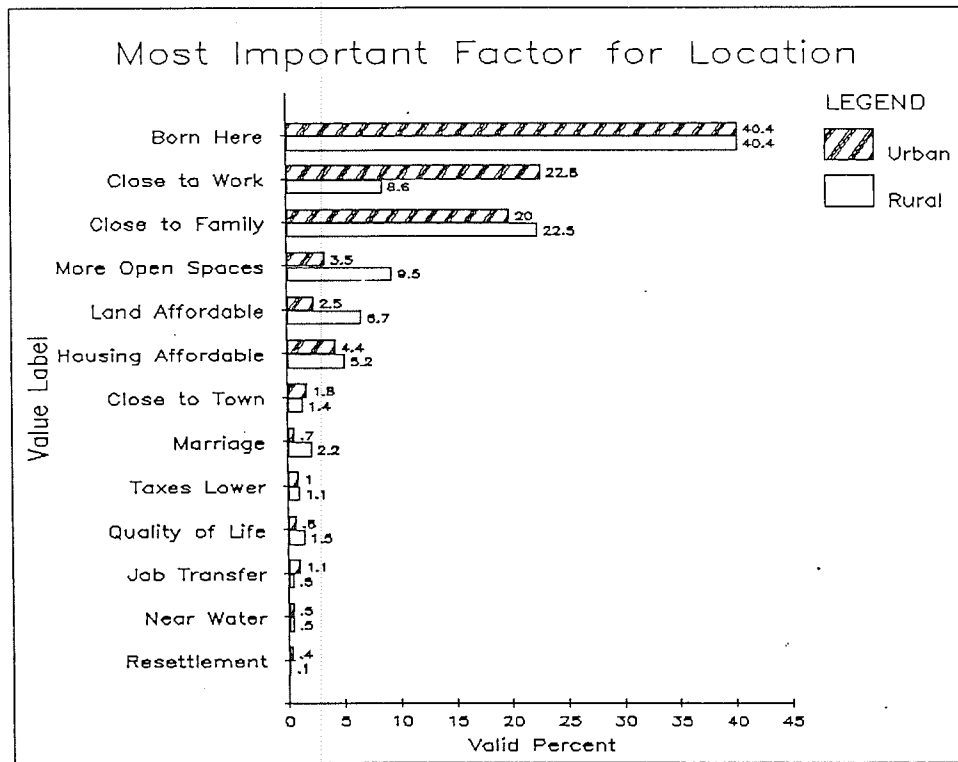
It is therefore hard to understand, given the problems faced by rural residents, why rural populations continue to grow. There are three major blockages that limit not only our understanding of rural growth, but also our ability successfully to address the problems associated with rural development. The first is the paucity of research carried out in rural areas, particularly in the Atlantic Region, but also in the rest of Canada.

Secondly, the analytical tools presently being used are often inappropriate. As Hodge (1984) has pointed out, the "urban systems" approach, which emphasizes the dependency of small towns and rural areas, and is often used to analyze rural and small town social milieus, simply does not work as an analytical framework for rural areas and small towns. Moreover, the problems are exacerbated by the fact that professionals and practitioners working in rural areas have generally been trained in the urban systems approach, which might be suitable for Halifax, St. John's, or Fredericton, but not for Bath, Berwick, Bryant's Cove, or any of the other numerous small communities within the region. This is also true of government programs and policies (Bowles, 1981, p. 83). Too often, government policy and programs, reflecting an urban bias, are unsuccessfully implemented due to the fact that policy makers and advisors have not recognized the uniqueness of rural and small town areas. An example of this is the proliferation of industrial parks throughout the region, touted as the panacea for the economic ills of communities of all types and sizes. In 1979, over half of the industrial parks built in the Atlantic Region were located in smaller communities. These industrial parks were, on the average, only 20 percent occupied, compared with the industrial parks in the larger communities where the average rate of occupancy was 60 percent (Government of Canada, 1979, p. 64).

Hodge (1984, p. 55) has suggested that a better way of understanding rural small town areas is what he describes as the "community studies" approach. This approach recognizes the importance of human choice in rural and small town urban communities, and attempts to understand the dynamic forces and logic behind the decisions that are being made in terms of locational preference, housing, employment, etc.

The third problem is the lack of institutional or governmental infrastructures that could be used to address rural problems in an integrative fashion in Atlantic Canada (Dykeman, 1988). At the provincial level, Newfoundland is the only province that has a department whose specific focus is rural problems and rural development. At the municipal level, Nova Scotia is the only province in the region that has

FIGURE 2



local government representation in the rural areas. Comprehensive rural planning which could be used as a tool for understanding and dealing with rural development issues is, for the most part, non-existent in the Atlantic Region except in a few isolated instances.

Given the problems of rural residential development and the importance of the rural areas and small towns to the region, the Rural and Small Town Research and Studies Programme undertook a survey of rural and small town residents of the Atlantic Region in the fall of 1986, in order to gain a greater understanding of the Atlantic Region from a grassroots perspective (Strople, 1987, pp. 1-2).

Using the results of the rural residential survey and utilizing the "community studies" approach, this paper will examine a number of key indicators in an attempt to understand the unique nature of rural and small town Atlantic Canada, and its implications for community development policy. To give meaning to the data, a comparative analysis will be made of urban and rural areas.² Specific emphasis will be placed on examining how rural residents feel about their communities compared with what has been written about rural residential development.

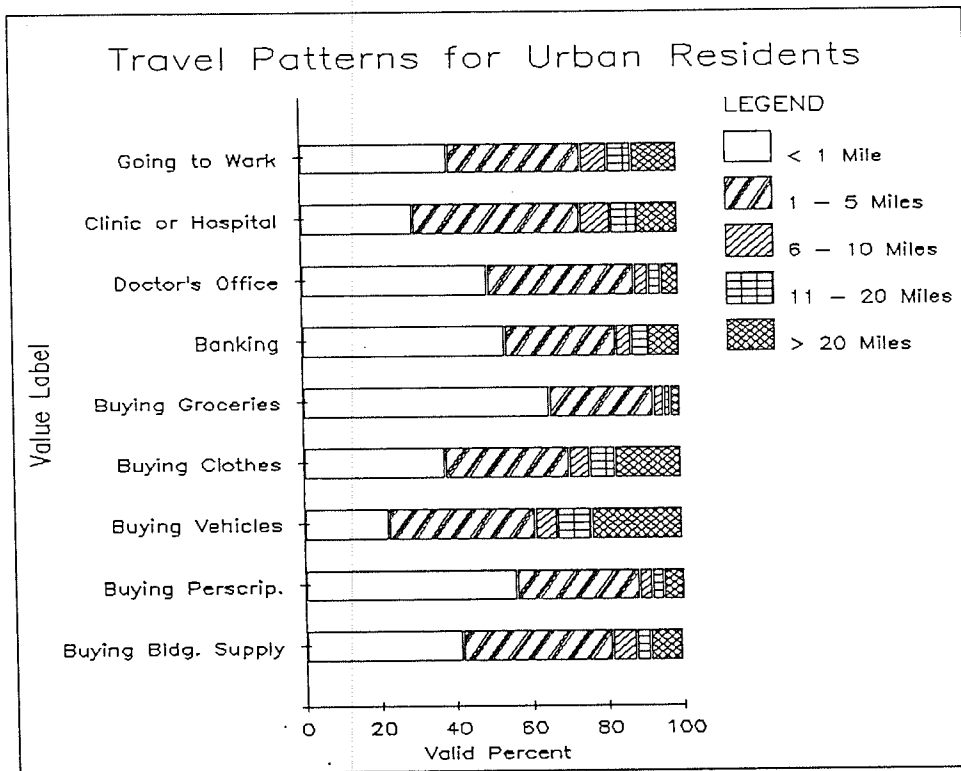
THE RURAL RESIDENT SURVEY

The major objective of the survey was to collect basic information about residents of rural areas and small towns regarding their socio-economic situation, locational preferences, community perceptions and housing situation. In order to limit costs and reduce interviewer bias, the mailout survey method was used.

The sample universe was the total adult population (18 years old and over) in Atlantic Canada. Provincial electoral lists were used as the sampling frame, since they represented the total adult population and ensured that both genders and all age groups would be represented in the study. The list was stratified by provinces, provincial sub-regions and community sizes as means of ensuring that all provinces, sub-regions, and communities of varying sizes were represented in the survey. Urban areas with populations exceeding 20,000 were excluded from the survey, since the primary purpose was to survey rural and small town residents.

A total of 3,013 questionnaires were mailed, with 195 being invalidated because the respondents were incapable of answering the questionnaire, or because they had moved from the area. A total of 1,840 completed questionnaires were returned, giving a valid response rate of better than 65 percent. Prince Edward Island had the highest rate of return at 69 percent, and Newfoundland had the lowest at 62 percent.

FIGURE 3



LOCATIONAL FACTORS AND TRAVEL PATTERNS

LOCATIONAL FACTORS

In the survey, all respondents were asked to give the most important reason for their choice of residential location. In urban areas, three factors accounted for 83 percent of the responses: (1) "born here" (40%); (2) "being close to family and friends" (20%); and (3) "close to work" (23%) (see Figure 2). In rural areas, there were two major locational factors which accounted for 63 percent of responses: "born here" (40%); and "close to family and friends" (23%). Proximity to work as an important locational factor was only mentioned by 8 percent of rural residents. Several other factors which were more important to rural residents than to their urban cousins included affordable land (6.7%) and open spaces (9.5%). Lower taxes, often cited as an important reason for preferring a rural location, was rated low at 1 percent.

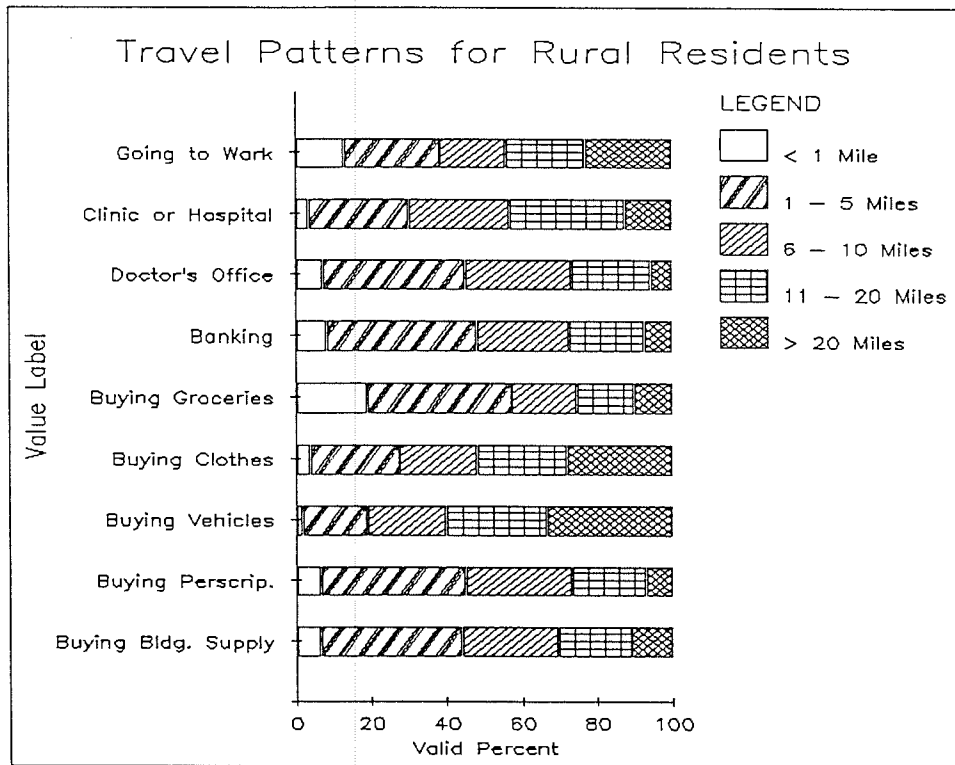
The primary locational factors for both urban and rural residents were quality of life factors: birth place, closeness to family and friends, and open space in rural areas. Economic factors such as proximity to work, affordable land and housing and lower taxes were much less important, particularly in rural areas.

TRAVEL PATTERNS AND ACCESS TO SERVICES AND SHOPPING FACILITIES

The survey indicated that the majority of urban residents had access to a wide range of services and shopping facilities within their immediate area (see Figure 3). For example: 74 percent lived five miles or less from work; 73 percent were within five miles of a clinic or hospital; 92 percent bought groceries within five miles of their homes, and 88 percent were able to buy pharmaceutical supplies within five miles of their residence. The only purpose for which residents tended to travel some distance was to purchase a vehicle, with 24 percent of respondents indicating that they travelled more than 20 miles for this reason.

As would be expected, the majority of rural residents had to travel further for the majority of their service and shopping needs than did their urban counterparts (see Figure 4). However, the vast majority of rural residents travelled only ten miles or less for employment, shopping or services. For example: 69 percent lived ten miles or less from work; 70 percent were within ten miles of a clinic or hospital; 83 percent were within ten miles of their doctor; 86 percent bought groceries within ten miles of their homes; and 83 percent were able to buy pharmaceutical supplies within ten miles of their residences. Again, as in the case of urban residents, rural residents seem to be prepared to travel further to buy a car, with 33 percent of respondents indicating that they travel more than 20 miles to buy a vehicle.

Figure 4



The excessive distances which residents must travel in order to meet their daily needs is sometimes cited as a disadvantage faced by rural residents (Momsen, 1984; Dillman, 1979). While the majority of rural residents travel further for necessities than urban residents, travel time is relatively short, probably less than 30 minutes, given the improved transportation systems and road maintenance schedules. In actual travel time, this is probably less than the time spent by those living in larger urban centres in the United States and Canada (Yeates and Garner, 1980, p. 14; Wekerle and Rutherford, 1987).

COMMUNITY SATISFACTION

Availability of services and employment opportunities have often been mentioned as problem areas for rural residents. In order better to understand this particular problem, the residents surveyed were asked to indicate their satisfaction with a number of items felt to be important to a community. Both urban and rural residents agreed that the areas needing improvement were availability of jobs, efforts to create jobs and road conditions (see Figure 5).

Since the majority of rural respondents were on private water and septic systems, it would be expected that these items would be of major concern. In fact, more urban residents indicated that water and sewer facilities needed improvement than rural residents. Rural residents, on the other hand, were more concerned about improving road conditions and recreation facilities than were urban respondents.

In order to determine further how residents viewed their community, respondents were given a number of positive statements that related to their community, and asked to agree or disagree (see Figure 6). The majority of both rural and urban respondents gave positive ratings on their communities, with surprisingly few differences between urban and rural residents. A few minor differences can be highlighted. For example, over 94 percent of both rural and urban residents agreed that their communities were good places to raise children and that people were friendly; more than 82 percent felt that the schools were very good and that fire protection was good; over 70 percent agreed that police protection was good and that there was a strong sense of community. The only areas of disagreement were in the statements relating to sufficient land for housing, variety of stores and the availability of recreation facilities. Urban residents had a higher positive response concerning variety of stores and recreation facilities, while rural residents were more satisfied with the availability of land for housing.

The data from the survey suggest that the perceived disadvantages of living in rural areas are somewhat different than the actual experience. This is particularly true in relation to the provision of services and facilities.

FIGURE 5

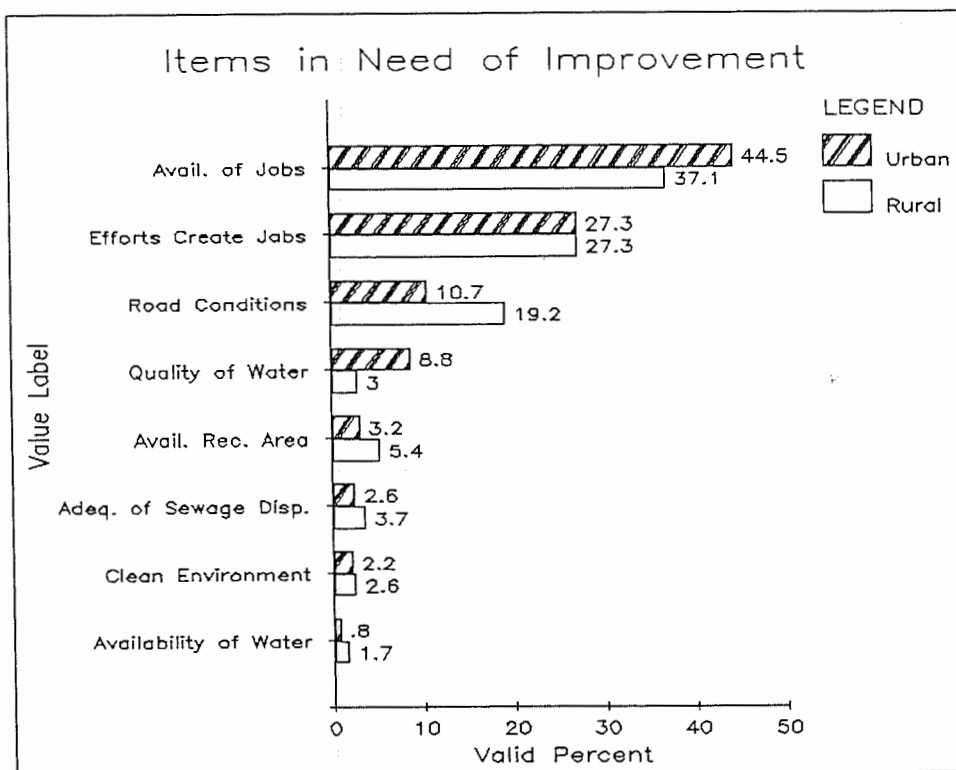
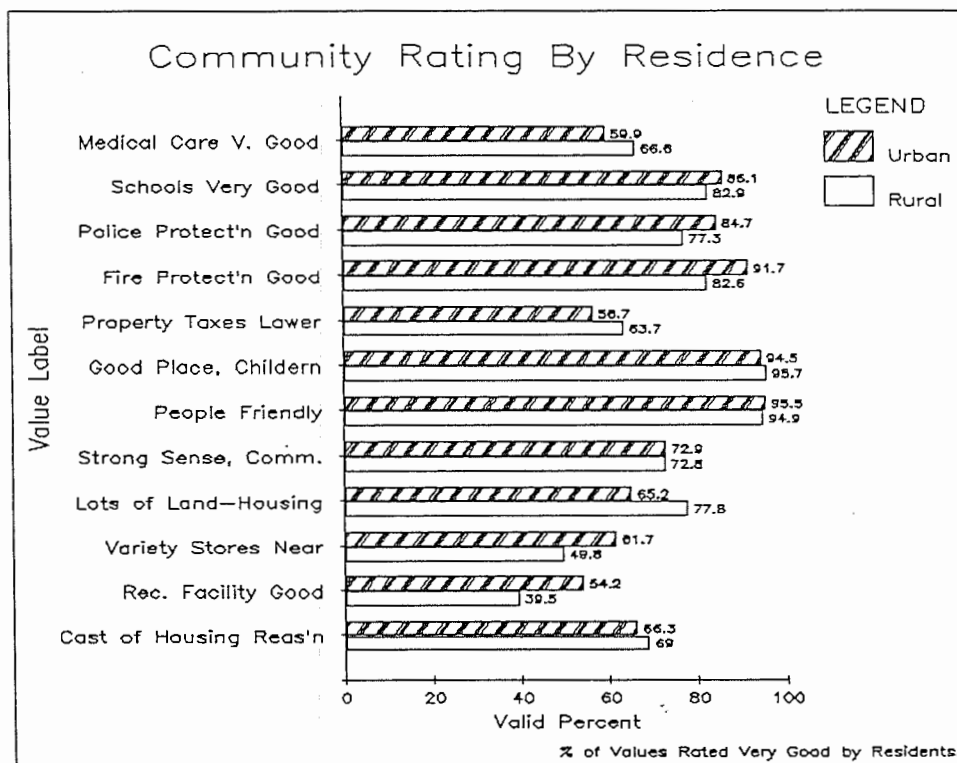


FIGURE 6



HOUSING

TYPE AND TENURE

The vast majority of both rural and urban residents lived in single family dwellings (see Figure 7). In urban areas, 82 percent of respondents indicated that they lived in a single family dwelling. Apartments were the second most common form of tenure at 8 percent, followed by duplexes at 6.4 percent. In rural areas, single family dwellings were even more common at 89 percent. Mobile homes were the second most common at 6 percent, followed by duplexes at 4 percent. Less than 1 percent of rural respondents indicated that they lived in apartments.

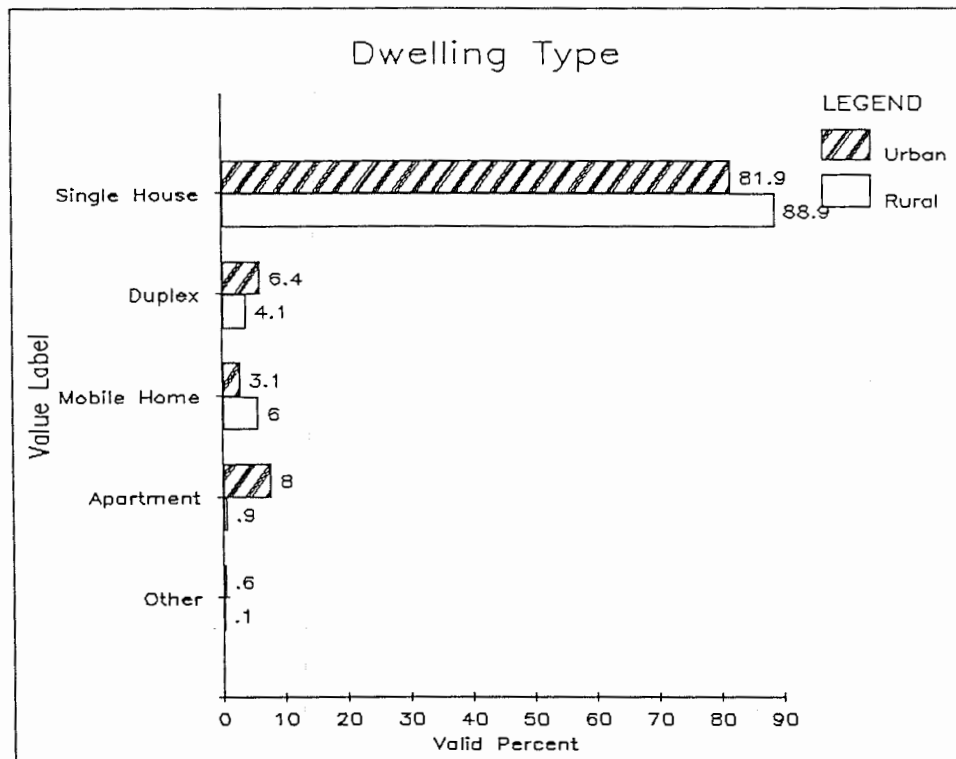
In terms of tenure, the vast majority of urban and rural residents owned or were in the process of buying their homes as illustrated by Figure 8.³ The percentage of those living at home was somewhat higher for rural residents, indicating that rural children tend to live at home longer than their urban counterparts.

ACQUISITION AND FINANCING

The survey asked homeowners how they acquired their land and their homes, and how these purchases were financed. Although 45 percent of homeowners in urban areas reported buying their homes from others, a surprising 32 percent indicated that they worked on their homes; 25 percent had built most of their homes, while 8 percent helped to build their homes (see Figure 9). The self-help component was even higher in rural areas, with a total of only 33 percent indicating that they had bought their houses from others. Forty-one percent of the homeowners reported they had worked on their homes; 30 percent had built most of their homes; while a further 10 percent indicated that they had helped build their homes.

Respondents were also requested to indicate the most important source of financing for their homes. Forty-two percent of urban homeowners listed a mortgage as the most important source. Twenty-five percent indicated that personal savings were the major source of financing (see Figure 10). A further 12 percent listed a bank loan (other than a mortgage) as the principal source of financing, while 16 percent indicated that they had built their homes in stages when they could afford to pay cash. Mortgages, as the primary source of financing, were even less important to rural residents, with 39 percent of residents listing mortgage as the most important source of financing. Bank loans were of greater importance to rural residents, with 16 percent listing this form of financing as the most important source compared with 12 percent of urban respondents. Sixteen percent of all respondents indicated that they had built their homes, as they could afford to pay cash.

FIGURE 7



A comparison of the data on housing between rural and urban residents appears to corroborate the view of rural residents' image of self reliance and self sufficiency (Nicholls, 1981, p. 172), in relation to the high proportion of single family houses, low reliance on mortgages and the high level of self-help. This may be one of the reasons for growth in rural areas, in that it provides a greater opportunity to express a self reliant and self sufficient lifestyle, an option not generally available in urban areas because of land use and subdivision regulations, and building code enforcement.

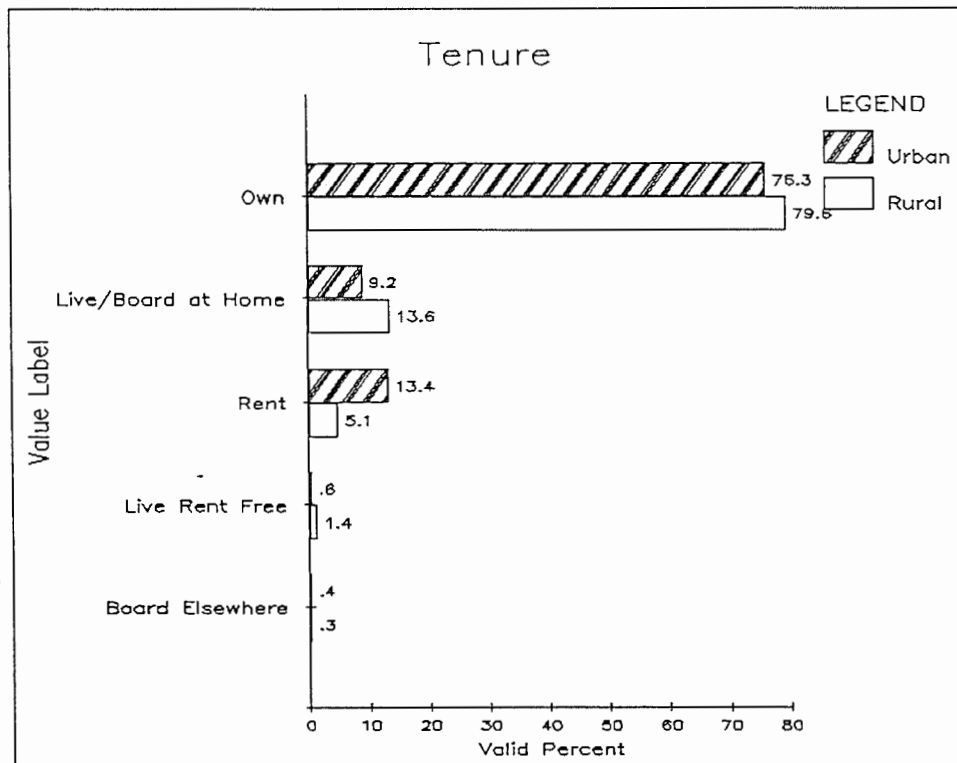
RURAL RESIDENTIAL DEVELOPMENT: A PERCEPTUAL PARADOX

The survey data examined in this paper clearly demonstrate that rural residents are generally satisfied with their lifestyle, in spite of what has been written about the disadvantages of rural living. They have chosen rural living for lifestyle reasons, not economic ones. Distance of travel is generally not excessive, and in fact, rural residents probably spend less time travelling than people living in large metropolitan centres. Their major concerns were identical to those of urban residents--availability of jobs and efforts to create jobs--which is indicative of the poor economic climate in the Atlantic Region, regardless of community location or type. The rural view of their communities is very similar to the urban view; both groups see their communities in a similar positive light. Further, urban and rural residents are generally satisfied with the provision of key services such as medical care, schools, police and fire protection. Rural residents indicated a higher rate of self-sufficiency in the acquisition and financing of housing, but both groups exhibited a fairly high degree of self-reliance and self-sufficiency in providing homes for their families, which is indicative of the lifestyle of Atlantic Canadians in general. Based on the findings of the survey, rural living is seen, for the most part, as being a positive experience, without the major disadvantages often attributed to a rural lifestyle.

At the same time, there are unquestionably *public costs which result from rural development*. These costs include those associated with providing services, the decline in resource accessibility and development, and environmental degradation. These costs will in all likelihood continue to grow, given the present population growth trends in the Atlantic Region.

The major dilemma, therefore, appears to be one of public costs versus private preference relative to rural development. One of the major obstacles in solving this dilemma is the difficulty in assessing specific costs to rural development (Comay et al., 1980, p. 13). Not only is it difficult to locate hard data sources regarding the provision of urban and rural services, it is also extremely difficult to assess future or unknown costs of rural development (costs of environmental degradation and loss of income due to decrease in natural resource land base--agriculture, forestry, mining, etc.).

Figure 8



Therefore, as an initial step toward solving this dilemma, a concerted effort must be made to develop a workable method for determining the public costs of rural development. Such a method would: (1) provide a method for identifying all costs of residential development, both in the short and long term; and (2) provide a framework for comparing costs on a number of development options including urban, suburban, rural fringe and remote rural residential development.

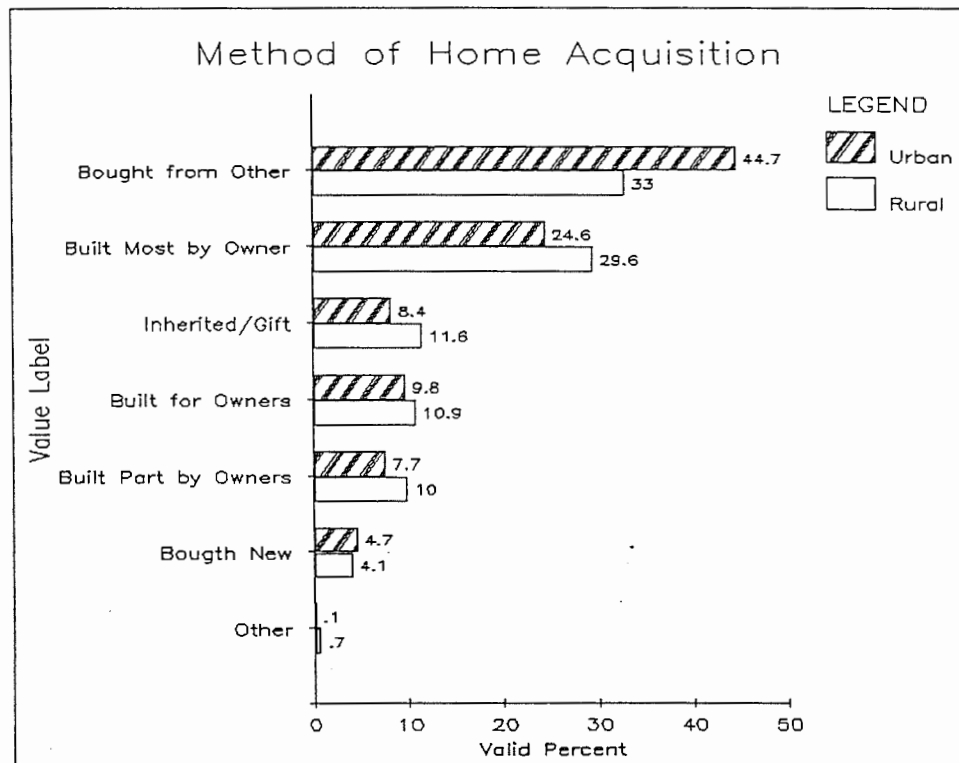
At the same time, it is necessary to address the other horn of the dilemma, public preference for a rural residential location which has been increasing over the past several decades. An approach that attempts to make decisions simply on the basis of public costs will probably not work, since it ignores the "private benefits" accruing to those choosing to live in rural areas, as was done in Newfoundland. Besides being fraught with political problems, it is questionable whether this option creates more problems than it solves (Bowles, 1981, pp. 89-91).

How, then, does one go about addressing this dilemma in a manner which is sensitive both to public costs and to those wanting to live in rural areas? One method which appears to have had some limited success in addressing the problem of rural residential development is comprehensive development planning. For example, the Municipality of the County of Kings in Nova Scotia has had a comprehensive development planning strategy in place for a number of years as a means of protecting agricultural land, providing a range of residential location options, and providing a wide range of services in an economic and efficient manner to the residents living with the Municipality (Municipality of the County of Kings, 1979). In accordance with the planning strategy, rural non-farm residential development is strictly limited within the agricultural designation, and new residential subdivision is not permitted within the forestry designation. The plan provides a number of options for those wishing to live in rural areas, including rural estate subdivisions on land having a low resource development capability, and permitting single lot development along existing roads within the forestry designation.

Within the Municipality of Kings, the most population growth over the past several years has occurred within the serviced communities, in contrast to the general trend within the Atlantic Region of increased population growth in the rural areas. This suggests that comprehensive development planning has a role to play in addressing the issue of rural growth.

Comprehensive development planning can be used to identify the goals and objectives of all residents, including public expenditures, resource development and residential location objectives. Within the planning process, these goals and objectives can be discussed, and a strategy designed which guides development to protect the rural resource base, strengthen the urban settlements, provide economic and efficient services and provide a number of residential location options.

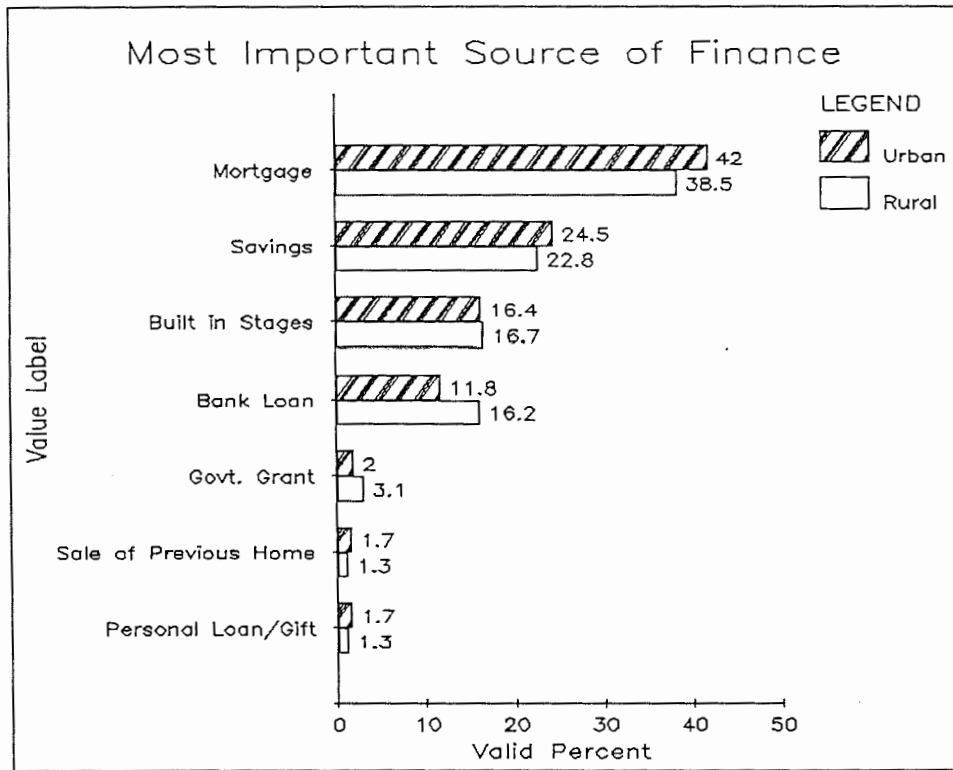
FIGURE 9



One of the major problems in using a comprehensive development strategy in the Atlantic Region is the fact that rural planning is virtually non-existent within Atlantic Canada. Planning, for the most part, has been concentrated on the urban areas within the region, despite the fact that rural area populations are increasing and urban area populations are in decline. Such a scenario increases the probability of spiralling public expenditures to support rural growth.

To address this dilemma, a commitment to a two-pronged approach is needed. First, a method must be developed which can be used to assess and compare the cost of rural residential development with urban residential development. This will provide the much needed basis for evaluating a number of development options. Second, there needs to be a concerted effort to establish and strengthen development planning which would integrate both urban and rural concerns within Atlantic Canada as a means of developing a strategy for the long range growth of the region. Together, the two provide a reasonable basis or starting point for dealing with the issue of rural residential development. If this problem continues to be ignored, rural growth will continue unchecked, and public expenditures will increase, along with potentially irreversible damage to the environment and the resource base of the region.

Figure 10



NOTES

1. For the purposes of this paper, "rural" is defined as all unincorporated areas which do not have some form of local government, and does not include villages, communities (Newfoundland), towns and cities.
2. For the purposes of this study, all respondents that lived in incorporated centres (cities, towns and villages or communities [Newfoundland]) were included in the "urban" category. All respondents who lived in unincorporated areas were included in the "rural" category.
3. In this survey, the universe was the total adult population, i.e., everyone 18 years of age and over. The tenure patterns in this paper, therefore, reflect the tenure of all adults, not household tenure.

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SELF-BUILD: THE INFORMAL SECTOR AND HOUSING POLICY IN CANADA

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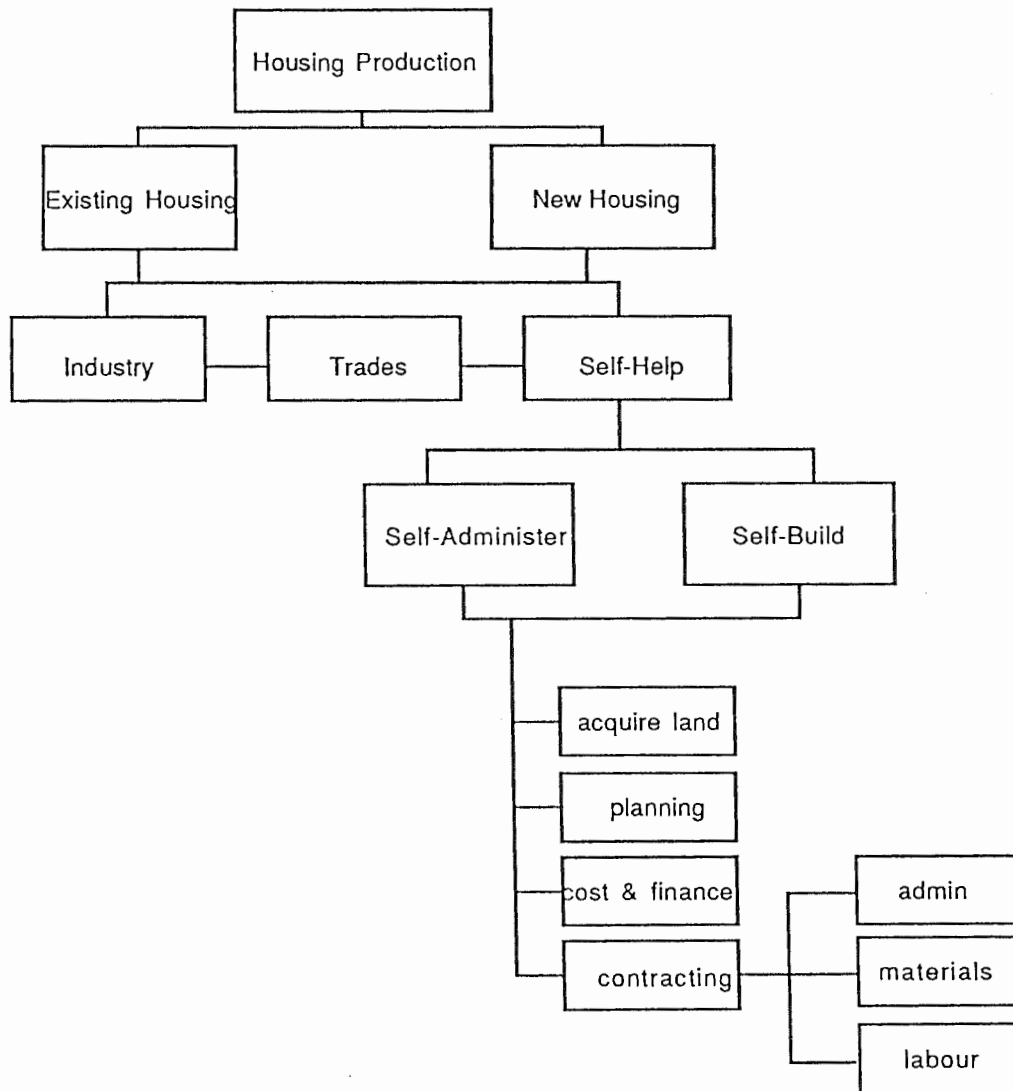
INTRODUCTION

The deepening economic crisis has seen dramatic cuts in state funding of social programmes in Canada, and a greater emphasis upon state activities which enhance the profitability of industry. This is not unique to Canada, of course; the same trend can be seen in all industrialised nations. However, the form and intensity of the impact of the crisis varies. In most of these nations, many politicians and economists are calling for increased individual self-reliance and an environment where barriers to the expression of individual talents are removed. This position is opposed by critics claiming that the new environment is one in which the distribution of society's wealth will become even more concentrated, and both the frequency and level of misery for those without their own resources will increase. In this environment, analysts and practitioners of public policy face increased difficulties in justifying expenditures, and have had to become much more rigorous and systematic in their targeting of those programmes which have survived the cuts.

Under these circumstances, self-help housing production gains in importance. Bearing in mind that many housing analysts have demonstrated the economic, political, social and psychological importance of a dwelling, what better example is there of the expression of individual talents than the production of a house by an individual household? Further, since self-help production is virtually unaided by the state and it can represent as much as 50 percent of total annual additions to the housing stock in some provincial housing markets, self-help housing production is a potentially unique issue in the debate surrounding "new right politics," offering all sides fertile ground for their arguments. For example, since self-help produced dwellings are more affordable and the tenure of the household is more secure, and since self-help production is more frequent where incomes are lowest and least secure, it could be a shining example of the virtues of economic individualism.

Thus the current economic and political climate greatly increases the profile of self-help housing production. Previously, self-help production was often discounted as a regional eccentricity. In that context, the main task on the research agenda for self-help housing production was to produce estimates of the level of output for as many housing markets as possible, in order to be able to demonstrate that it was not confined to the Maritime Provinces and Newfoundland, or unique to rural areas.¹ Progress has indeed been made in this task, and this is summarized in the first part of this paper. A related task was to begin to describe self-help production and to develop a conceptual approach to this activity. This task is addressed on the following pages. The unique opportunity to contribute to an evaluation of the current

FIGURE 1
ORGANISATION OF SELF-HELP HOUSING PRODUCTION



direction of public policy debates in general adds a new dimension to the research agenda for self-help housing. The major focus of this paper is on policy. An assessment of policy options is presented in Section 3. Finally, in Section 4, a research agenda for self-help housing research is proposed.

WHAT IS SELF-HELP HOUSING?

Self-help housing production is a generic term, usually used to identify the participation of individuals in the production of accommodation. This includes concepts such as "self-administration"¹ where household involvement is limited to the provision of general contracting services, through to "self-build," where the household is actively involved in the construction process. In this paper, reference is to the self-building activities of households. Specifically, self-building is said to have occurred if the household takes the lead role or initiative in all four major phases of the construction process:²

- acquisition of land;
- planning the project and obtaining approvals and permits;
- design selection, costing, and financing;
- general contracting.

The final stage identified above, general contracting, has three distinct elements:

- administrative and financial tasks, including sub-contracting;
- organization and provision of materials;
- organization and provision of labour.

Figure 1 places self-building in the context of overall housing production.

If self-building occurs on a substantial scale, then it is useful to identify these activities as the "informal sector" of housing production, where informal sector includes not only the self-building households, but also the individual sub-trades and contractors who are employed by the household in the production of the dwelling.³

On the other hand, a developer may take the initiative in all stages of the project, or a contract builder may assume responsibility for the construction phase and the household for the development stages. When either type of behaviour occurs, it is called "formal construction," and the organizers of such construction are called the formal construction sector. It is the initiative which is the key to the distinction between informal and formal sectors. Some other authors (e.g., Seligman, 1973; Turner, 1982;

¹The term "self-administration" is analogous to "self-provision," which is used elsewhere and which I have adopted in more recent publications.

Burgess, 1985) have also used initiative as the distinguishing characteristic while others have focused more upon who actually does the work (see, e.g., Fuoco, 1984; Manitoba Department of Co-operative Development, 1978; and Middleton, 1983).

An important characteristic of self-built dwellings is that they are relatively inexpensive. Labour savings are certainly an important aspect of cost reduction, but this is also realized through savings in other areas such as interest charges on financing, overheads and land. The initiatives of the household in these areas can achieve cost reductions at least as great as can be realized through the provision of labour. Similarly, in the formal sector, property developers who undertake all aspects of new housing developments are better placed to make more out of their activities than are individual building firms which only engage in the construction process. Thus, "initiative" provides a useful distinction between sectors.

It is always possible to adopt an alternative specification of the activity. For example, it is somewhat arbitrary to require that the household undertake responsibility for all stages of construction in order to be identified as being part of the informal sector. Some of the activity defined as being within the formal sector involves the household extensively in the first three major stages of production, but sees the contracting out of much or all of the construction to a builder. Such activity could also be defined as being within the informal sector, since it is indeed the household which is undertaking the initiative and most of the general tasks of dwelling production. This definition becomes particularly important in international comparisons of self-help, either as production (e.g., Portugal, Italy and Canada), or as provision or administration (e.g., Germany, England or Japan). Alternatively, it is also possible to speculate that some of the production identified as "informal sector" may be better defined as "formal sector" activity. This involves, for example, individuals with construction skills building a dwelling for their own occupancy with the intent of selling the house within a relatively short period.

The particular operationalized definition selected for this work is intended to be as cautious as possible within the limits of the available data. Consequently, households must undertake responsibility for all of the major stages in the production of the dwelling.

HOW BIG IS THE INFORMAL SECTOR?

There is little direct empirical evidence about the scale of self-building. In his comparative study of two counties in Ontario (1978-82), Fuoco found that about 65 percent of new housing starts in rural areas and about 5 percent of starts in urban areas were produced by self-help means (1984, pp. 19-20). Similarly Bishop found that most new (1981-83) construction in Colchester County in Nova Scotia was self-help (1985, ch. 4). Skaburskis (1981, p. 38) found that almost half of new dwelling starts in rural British Columbia suburbs in the late 1970s were initiated by households themselves. In addition, the

Saskatchewan Housing Corporation reports that 30-50 percent of new construction (single detached) in Saskatoon is through the informal sector. Similar sources in New Brunswick indicate that 70-80 percent of new dwellings are initiated by the informal sector except in Saint John, Fredericton and Moncton, where 20-50 percent are said to follow informal sector initiatives.

In the most comprehensive survey of new construction in a provincial housing market to date, Rowe (1983) estimated that two-thirds of new single detached starts in Prince Edward Island during the 1978-81 period were initiated by the informal sector. Bishop's Nova Scotia study (1985) was based upon the methodology applied in the PEI study. Her results are similar to the PEI results. The indications of the level of activity outside the three cities in New Brunswick appear to be consistent with those of both PEI and Nova Scotia. The informal sector is known to be at least as important in Newfoundland (see Rowe, 1973 for an indication of this). It appears that somewhere in the order of 65 to 80 percent of current single detached housing starts outside the major urban areas in the Maritime Provinces are initiated by the informal sector. Moreover, in these areas, housing starts are almost exclusively single detached dwellings. This housing form is most amenable to informal sector production.

Unfortunately, there is little information about the level of informal sector activity in the cities of the Maritime Provinces or elsewhere in Canada. Aside from Skaburskis' information about rural British Columbia suburbs and the informed opinions from Saskatoon and New Brunswick, there are no apparent sources by which this could be determined. In the PEI survey, the informal sector was as active as the formal sector in the capital city of Charlottetown; however, since the population of even metropolitan Charlottetown is only slightly in excess of 30,000, this cannot be taken as representative of other areas with much larger populations. However, if we take the low estimate from urban New Brunswick (20%) and 70 percent for other areas, then the informal sector could account for a minimum of 50 percent of single detached output in the Maritime Provinces and Newfoundland, and 37 percent of total output, between 1974 and 1984.⁴

In summary, it is difficult to estimate the size of the informal sector because very little direct work has been done on this subject and established data sources do not identify the sector of production. Indications are that the informal sector accounts for substantial output in the Maritime Provinces. While little is known about the informal sector elsewhere, we can still safely claim that it exists (e.g., Fuoco and Skaburskis) and is not trivial. Consequently, at this stage in the self-help research project it would be very useful to be able to use an alternative measure as a predictor of the informal sector until further work can be done. As an interim measure, non-mortgage financing of new construction is used as an indicator of the relative importance of informal sector construction.

FINANCING SOURCES AS AN INDICATOR OF SECTORAL ACTIVITY

The mortgage is well suited to transactions in the formal sector, where the household needs a large lump sum to purchase the completed dwelling. This is obtained by providing the lending institution with a completed and marketable dwelling as security. This financing is for the sale of the dwelling; construction financing must be obtained by the builder or developer. This construction financing is short-term in nature, and is usually repaid through sales, or rolled over for future projects.

The financing requirements of the informal sector are more akin to the construction financing of the formal sector builder. Funds must be available to pay for major material and labour purchases (and often also for land purchases) at various points in the construction process, which is more protracted than for the formal sector. Moreover, informal sector builders do not receive as enthusiastic a reception from lending institutions as does the formal sector builder. There are a number of very good reasons for this. Lending institutions prefer dwellings where an easy and speedy sale can be made if necessary. Their perception of such dwellings (as revealed by their lending preferences) appears to be suburban bungalows or other similarly located and designed dwellings. Moreover, the dwelling must be complete and fully landscaped, and preferably be on a paved road and within a municipal jurisdiction. Finally, the disbursement practices of most lending institutions are not well suited to informal sector production. There are usually three disbursements, one following completion of the foundation, one following completion of the framing and closing in with rough services, and the final payment once the building is complete (including landscaping) and has an occupancy permit. This disbursement schedule is suited to formal sector builders who build on contract or speculatively and usually complete a dwelling within three months.

Informal sector builders often fail to satisfy lenders on one or more of these preferences. Firstly, the typical informal sector dwelling is occupied before it is fully complete, and it is often at least another year before the landscaping is finished (Rowe, 1983, p. 104; Bishop, 1985, p. 46). The normal disbursement practices of mortgage lenders are badly suited to this manner of construction. While informal sector designs are usually identical to those of the formal sector and at least as good with respect to quality of construction, they sometimes are built in locations where land can be obtained at a low price, often outside organized municipalities and occasionally not on paved roads. This by no means implies that all of these features characterize every informal sector start; however, they are not uncommon in that sector while they are unusual in the formal sector. The consequence is that most mortgage lenders are not as keen on informal as on formal sector production.

At the same time, informal sector builders themselves may not be keen on mortgage financing. The nature of mortgage financing is that the purchase can be made from future income over the term of the mortgage, commonly as long as twenty-five years. Mortgage financing thus accommodates a wide gulf between current income and savings and the costs of acquiring a dwelling. The major advantage of informal sector production is that it is possible to realize considerable cost savings in land, construction costs, overheads and interest charges. While some informal sector households choose to take advantage of the lower costs to build larger dwellings, others welcome the savings, and find that the gap between current income and savings and the costs of their dwelling is not so large as to require mortgage financing. They often use a number of financing sources and finance a far lower proportion of the total (lower) costs of their dwelling.

Thus from both sides—the lender and the borrower—there are a number of situations where mortgage lending might be considered inappropriate in the informal sector. This is not the case in the formal sector, where the relationship of costs and incomes virtually ensures that a big ratio mortgage will be necessary, except in the cases where there is existing equity obtained from the sale of a former home.

To the extent that these speculations hold—and clearly there will be considerable variation—then relatively larger levels of non-mortgage financing of new dwellings can be employed as an indicator of the likely occurrence of more informal sector production as compared with areas where mortgage financing is more common. This is useful, since there are regular sources of information on financing.

Table 1 presents levels of residual financing for new dwellings by province for selected years. "Residual" financing was identified as financing from sources other than a mortgage from either public or conventional lenders. Rowe (1981) discusses this more fully. However, the major point here is that dwellings financed from residual sources are unlikely to have used mortgage financing as the principal source.⁵

The levels of residual financing in the Maritime Provinces correspond with the incidence of informal sector production discussed above.⁶ It appears possible to use residual financing as an indicator of the relative levels of informal sector activity between provincial housing markets.

In recent years, financing patterns have been affected at times by factors such as high interest rates, and, in some locations, large capital gains in housing. The impact of these factors has been uneven; for example, capital gains are high in the Toronto and Vancouver markets but far less important in rural markets and in many urban markets. In addition, where debt financing is less common, as in the Maritime Provinces and Newfoundland, the impact of interest rates is less than in locations where debt financing is far more frequent. Consequently, Table 1 encompasses some widely varying factors and should only be used as an indicator until further work is completed.

TABLE 1
RESIDUALLY FINANCED HOUSING STARTS
BY PROVINCE, SELECTED YEAR AVERAGES (%)

Province	Year			
	1949-56	1957-72*	1973-86	1981-82
Newfoundland	92.2	62.6	69.5	79.7
Prince Edward Island	40.5	51.3	50.4	79.7
Nova Scotia	40.3	31.2	36.2	72.1
New Brunswick	66.9	34.4	53.0	80.2
Quebec	55.7	21.9	49.3	58.7
Ontario	28.3	12.3	35.0	41.6
Manitoba	40.4	20.3	27.5	26.9
Saskatchewan	69.5	35.4	40.1	38.6
Alberta	40.1	13.7	39.4	57.1
British Columbia	40.5	30.2	50.9	65.6
CANADA	41.3	29.0	43.1	54.8

*Total starts (1957-72), all other years single detached dwellings only.

Source: Calculated from Canadian Housing Statistics, various years.

However, if residual financing can indeed be used as an indicator of informal sector activity, then Newfoundland, the Maritime Provinces and Saskatchewan would appear likely to have the highest levels of informal sector production over the time frame depicted in Table 1. Quebec and British Columbia also appear to contain considerable informal sector activity. Ontario, Manitoba and Alberta appear to have the lowest levels of informal sector activity. This distribution is consistent with the available information cited above.

SUMMARY: RESIDUAL FINANCING AS AN INDICATOR OF INFORMAL SECTOR ACTIVITY

At this stage of the research project, it is possible to conclude that informal sector production is not an Atlantic quirk. It can be shown to be probable elsewhere, and scattered evidence of its presence has been provided to support this proposition. Although the situation is still cloudy, there is evidence that informal sector production is also an element in single detached dwelling production in urban locations. The least that can be said is that it is now possible to identify the informal sector as a component of housing production, and consequently the allocation of research and planning resources firmly to establish the size and character of the informal sector is warranted.

THE WHO, WHAT AND HOW OF SELF-BUILDING

Table 2 presents some characteristics of the Prince Edward Island (PEI) housing market. Information for this case study was collected through a statistically reliable survey of the first occupants of new single detached dwellings built between 1978 and 1981 in PEI. The survey was called the Prince Edward Island Residential Financing and Construction Survey and is reported in Rowe (1983).

As can be seen from this table, there are a number of similarities between the occupants of industry-built dwellings and self-built dwellings. The dwellings themselves are quite similar in terms of area and number of rooms, and the household heads are about the same age and have similar levels of income.

TABLE 2
SELECTED CHARACTERISTICS OF PEI HOUSING PRODUCTION

Characteristic	Industry Built	Self- Built
Number of dwellings built (1978-81)	711	1,548
Number of dwellings built (1980-81)	150	450
1980-81 self starts/total starts (%)	21.1	29.1
Average household Income (\$)	23,688	20,662
Average Age of Household Heads	38.8	35.2
Average Number of Rooms	8.6	8.5
Average Gross Area of Dwelling (m ²)	140	135
Average Cost of Construction (\$)	56,177	39,402
Main Financing a Mortgage (%)	74.2	57.7
Main Financing a Bank or Trust Co. Mortgage (%)	73.2	44.7
GDS Ratios over 30%—first mortgage (%)	29.2	27.8
GDS Ratios over 30%—all debt financing (%)	21.1	13.3
Average Duration of Construction (months)	4.2	7.9
Unpaid Labour Provided by Household (%)	6.1	46.1

Source: Calculated from Prince Edward Island Residential Financing and Construction Survey data.

There are also very significant differences between the two sectors. The costs of producing by self-build are far lower, due to the unpaid labour or "sweat equity" provided by the households themselves. As a consequence, the dwellings take about twice as long to complete, but they are still normally started and occupied during one building season. All of the dwellings were of wood frame construction, and, when finished, appeared to be of at least as good quality as those produced by the residential construction industry.

Although unemployment at the time of the survey averaged about 12 percent in PEI, the unemployment rate among self-builders was about 2 percent. In addition, while self-builders included some quite young heads of household (under 25), there were even more older households, either retired or about to retire. Thus self-building appears to be possible for anyone; the physical and skill requirements of the undertaking do not exclude any group. However, it is significant that self-builders are less likely to be unemployed. This is because it is usually necessary to have an income in order to be able to make the necessary payments for land, materials and other inputs to the construction process.

Although about half of the self-builders in PEI were likely to use mortgage financing, a parallel study in Nova Scotia found that self-builders there are far less likely to use mortgage financing. In Colchester County, 72.1 percent of 1981-83 starts were residually financed (Bishop, 1985, p. 69). The main elements in non-mortgage financing in both Colchester County and PEI are savings, loans and the sale of an asset such as land or a house.

The conclusion which can be drawn from this and other sources is that the type of financing tends to change according to local conditions. For example, in PEI it appears that an important reason for the greater use of mortgage financing is that mortgage lenders are not as reluctant to lend as they are in other locations such as Colchester County, or in non-metropolitan Newfoundland (Rowe 1981, 1973) and New Brunswick. One reason for this might be that there are fewer alternatives for the financial institutions in PEI, while in the other provinces there are large metropolitan markets with high levels of activity by the residential construction industry.

Self-builders often have a more secure hold on their dwelling not only because they are far less likely to use debt financing, but also because of the lower costs to be financed and more conservative financing strategies as they indenture a lower proportion of the value of their dwellings. This is shown in Table 2, with the lower levels of gross debt servicing for total debt financing in the informal sector. This lower frequency of debt financing is probably part of the reason for the resilience of self-building during the high interest rate period of 1980-81 (see Table 2). These factors are particularly important in areas where incomes are lower and less reliable.

Households in the poorest areas of Canada are more likely to own their own dwelling, and this is far less likely to be encumbered by debt. Since this phenomenon is associated with very high levels of self-help building, it can potentially provide some considerable strength to the claims that individual initiatives and talents are the engines of economic wellbeing, and that the appropriate role for the government is to reduce barriers inhibiting the expression of initiatives. Before considering these arguments directly, it is first useful to establish the ways in which households that build their own dwellings manage to reduce costs. In the following sub-section, the Prince Edward Island Residential Financing and Construction Survey is used as a case study to develop the basis for a framework for the policy evaluation exercise later in this paper.

COST ADVANTAGES OF SELF-BUILDING

Three types of savings occur through self-building:

- savings on inputs (land, labour and materials);
- savings on organization (overheads, margins and profits);
- savings on cash flow.

Savings on Inputs

Savings on land are only available to households that buy the land themselves; savings on land are therefore possible only for self-builders or for households which employ a builder for land they have previously purchased. In PEI, average land costs are not very different between the two sectors—\$3,646 for self-builders and \$4,560 for the construction industry. The average saving on land is thus approximately \$1,000. However, 31.6 percent of building sites in PEI for self-builders were obtained free, frequently from relatives. In addition, a significant number of purchased sites was also obtained from relatives or other individuals as opposed to developers or real estate dealers. For self-builders, the average cost of land obtained from relatives was \$285, and from other individuals \$1,465. Thus, many self-building households saved considerably more than the \$1,000 average through alternative land purchases.

The land prices quoted above are very low compared with more metropolitan areas in Canada (including the Maritime Provinces and Newfoundland), where a building site will usually cost \$25,000 to \$35,000. However, even in these locations, self-builders are not uncommon. For example, in Saskatoon, Saskatchewan (population 200,665) self-builders are known to be active in the construction of new single detached dwellings.

Significant savings on labour costs are made by self-builders, who provide about 46 percent of total labour requirements themselves in PEI. For the years of the PEI study, this represented a saving of about \$7,150, compared with households which did not supply any labour themselves. Many households contributed far higher levels of labour to the construction of the dwelling; consequently, the reduction in costs would also have been far greater. The most common labour provided by the household was rough carpentry, e.g., framing and closing in the building. However, it was not unusual to see households also completing rough plumbing and electrical tasks, and a considerable amount of finish carpentry (Rowe, 1983, pp. 83-85; Bishop, 1985, p. 56).

Savings on materials are very difficult to estimate because of the variety in designs and the range of options in finish and materials. About 25 percent of self-building households obtained materials at reduced prices from alternative sources. The majority of these were wood-related. Few households purchasing a dwelling from the residential construction industry have an opportunity to realize any savings on materials; however, contractors have greater opportunities to negotiate discounts on material purchases, some of which may be passed on to the purchasing household.

In sum, significant savings in inputs are possible for self-builders. Land is an average of \$1,000 cheaper in Prince Edward Island, and self-building households save on average \$7,150 on labour costs. Thus self-builders save, on average, \$8,150 on inputs.

Savings on Overheads and Profits

As in the case for savings on inputs, there are few opportunities for savings on organization for households who purchase a dwelling from the residential construction industry. Overhead, margins on materials and labour, and profits are added whenever a general contractor is hired. These are usually about 10 percent of construction costs.⁷ The average cost of construction and land for dwellings built by the industry in the PEI case study was \$56,177; savings on organization available to self-builders were therefore approximately \$5,500.

Savings on Cash Flow

Savings on cash flow are not reductions in costs. Rather, these savings are ways in which self-building households reduce the financial demands of construction. Problems with cash flow occur at two distinct stages of construction: in the initial stages, when the foundation and materials must be paid for, and towards completion, when households have frequently exhausted their savings or credit limits and the effect of underestimating construction costs are felt.

TABLE 3
OCCUPATIONAL STRUCTURE OF OCCUPANTS OF NEW DWELLINGS
PEI, 1978-81

Occupation	New Occupants (1978-81)		Total Population (1981)		
	Informal Sector	Formal Sector	Owners	Renters	Total
Managerial	8.29	28.09	6.34	4.35	5.85
Teaching	5.70	5.62	2.82	2.17	2.66
Health	4.66	2.25	2.82	3.26	2.93
Technical & Artistic	5.70	8.99	2.11	5.43	2.93
Clerical	6.74	6.74	6.69	8.70	7.18
Sales	4.15	6.74	5.99	8.70	6.65
Services	3.11	8.99	4.58	16.30	7.45
Primary	17.10	1.12	14.79	1.09	11.44
Processing	3.63	2.25	2.82	3.26	2.93
Machine and Fabric	5.70	3.37	8.10	3.26	6.91
Construction Trades	21.76	11.24	11.27	5.43	9.84
Transport	6.74	3.37	6.34	5.43	6.12
Other	na	na	3.52	2.17	3.19
Unemployed	1.04	2.25	na	na	na
Retired	4.66	7.87	na	na	na
Other Not Working	1.04	1.12	na	na	na
Total Not Working	6.74	11.24	21.83	30.43	23.94
Total	100.02	100.26	100.20	99.98	100.02

Source: Formal and informal sectors calculated from the Prince Edward Island Residential Financing and Construction Survey, PEI population calculated from the 1981 Census of Canada micro data file.

Many households either live with relatives during construction, or arrange inexpensive accommodation near the building site so that it is possible to commit more of their current income to construction. Of self-building households, 24 percent lived with relatives during construction, 36.8 percent in a dwelling they owned, and 37.3 percent in rented accommodation. In contrast, 6.8 percent of households purchasing a dwelling lived with relatives during construction, 52.3 percent in a dwelling they owned, and 40.9 percent in rented accommodation. This difference is not attributable to differences in the ages of the households (see Table 2).

Towards the end of construction, many households circumvent problems in cash flow by occupying their dwellings before they have been completed. Early occupancy allows the household to save on current costs of accommodation or extend the duration of the project, thereby paying for construction costs out of current income. Nearly one-third of self-building households (27.8 percent) occupy their dwelling while there is still a significant amount of work remaining to be done. The corresponding figure for households purchasing a dwelling is 2.2 percent. Furthermore, self-building households continue to work on their houses after early occupancy. For example, the interior of 42.8 percent of informal sector dwellings were complete at occupancy, the interior of 67.3 percent at time of interview; the corresponding figures for the formal sector are 82.8 percent and 96.5 percent.

Summary—Cost Savings

Total savings on inputs average \$8,150, on organization, \$5,500. The average self-building household can therefore save \$13,650.⁸ This provides a rough indication of how the differential in total costs of construction reported in Table 2 occurs. In housing markets such as PEI, where self-production dominates, this has an important downward impact on the costs of accommodation in addition to the clear cost advantages for individual households.

WHY CAN'T EVERYONE DO IT?

Self-building and informal sector production are essential to an understanding of housing production in the Maritime Provinces and Newfoundland. It also appears likely that they play a role in housing markets elsewhere, particularly, but not exclusively, in non-metropolitan markets.

Self-building presents opportunities for reducing the costs of a new dwelling—opportunities which are not available through the formal sector. These cost reductions are an important factor in the continuing high levels of home-ownership in non-metropolitan markets, despite lower incomes and frequently higher construction costs.

TABLE 4
RANGE OF CONSTRUCTION COSTS FOR SELF-BUILDERS AND PURCHASERS

Type of Cost	Self-Build (\$)		Purchasers (\$)	
	Min	Max	Min	Max
Land	5,000	5,000	5,000	5,000
Materials	30,000	30,000	30,000	30,000
Labour	0	30,000	27,000	30,000
Sub-total	35,000	65,000	62,000	65,000
Overheads	0	0	6,200	6,500
Total Costs	35,000	65,000	68,200	71,500

Source: Calculated from Prince Edward Island Residential Financing and Construction Survey.

TABLE 5
DISTRIBUTION OF DWELLING VALUES BY SECTOR, PEI, 1978-81

Value of Dwelling (\$)	Starts by Sector		
	Informal	Formal	Total
less than 30,000	205	0	205
30,001-40,000	269	166	363
40,001-50,000	355	166	521
50,001-60,000	229	134	363
60,001-70,000	166	119	284
70,001-80,000	71	55	126
80,001-90,000	24	47	71
over 90,001	126	32	158

Source: Calculated from Prince Edward Island Residential Financing and Construction Survey.

However, self-building as a form of production still requires capital outlays for land, foundations, and materials even in the extreme situations where the household itself provides all of the labour. In reality, most households provide between one-quarter and one-half of all the required labour. In order to meet the capital requirement, however, self-builders must either have access to debt financing or have previously accrued capital in some form. Debt financing is more difficult for self-builders than for purchasers of completed dwellings, because of the lending preferences of financial institutions. However, in order to obtain debt financing, or to accrue capital in advance, potential self-builders must usually have had an income, usually earned income. This requirement is reflected in the occupational structure of households presented in Table 3. Wealth-based income is unusual among self-builders and transfer income levels are too low for the required level of accumulation.

The financial barrier is a fundamental restriction facing self-building. This makes it unlikely that many of the households which usually have difficulty participating in housing markets (e.g., the unemployed, single parent households and the homeless) will be able to find a solution in self-building without assistance. In addition to the financial barrier, the skill and time requirements of self-building mitigate against many households building their own dwellings. In the current economic crisis, many more households will find the barriers to self-building more difficult to overcome. However, as will be shown below, policy options for encouraging housing production should be considered.

WHAT DIFFERENCE DO POLICY INSTRUMENTS MAKE?

In order to evaluate the impact of changes in input prices or interest rates, it is useful to create a somewhat abstract structure to facilitate the comparison of self-built production with production by the residential construction industry. To make things easier, it will initially be assumed that all dwellings are mortgage financed. This would be unrealistic for many of the areas where self-production is strongest, but does have the advantage that it permits comparison on a common basis. Later, the effect of reducing the proportion of total costs financed by debt is examined, as are the effects of modification of the rules applicable to debt financing.

FIGURE 2

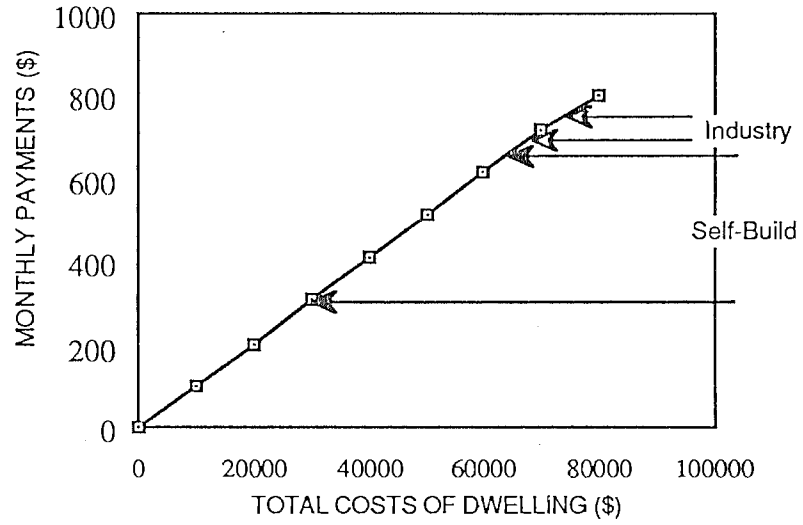
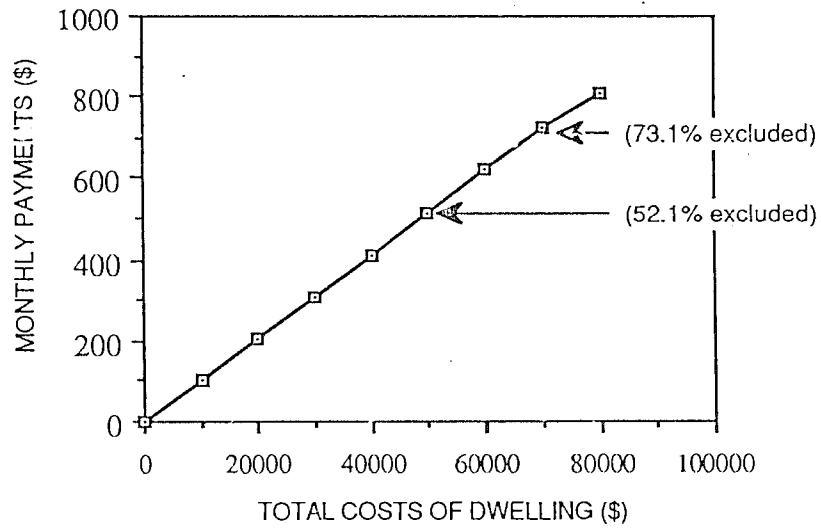


FIGURE 3



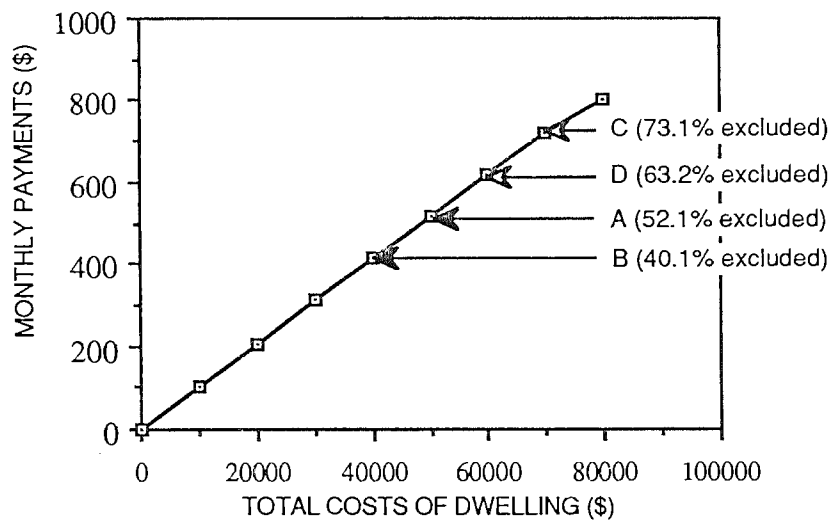
If we assume that for both self-building households and households purchasing a dwelling from the construction industry, all direct costs (mainly land and materials) are identical, and that there is a 10 percent charge by the general contractor for overhead and profit, then it is possible to construct a simple illustrative model. The only sources of variation between the two sectors are overhead charges and the amount of unpaid labour supplied by households themselves. The maximum and minimum costs are presented in Table 4. There it has been assumed that purchasing households will provide a maximum of 10 percent of labour requirements themselves. Based on the results from PEI and Colchester County, this slightly exaggerates the labour provided by households in the formal sector; however, it simplifies the presentation.

As can be seen from Table 4, the potential range of costs for self-builders is much broader than it is for purchasers. Under the assumptions made, this is entirely due to the much wider options that self-builders have in the provision of labour. Once overheads are included, it can be seen that the most expensive self-built house costs less than the least expensive purchased dwelling. This is not an unrealistic observation given the distribution of PEI values presented in Table 5. In the simplified model here, however, the average informal sector dwelling costs \$50,000, and the average formal sector dwelling, \$70,000.

Figure 2 represents the range of all building costs from Table 5, and the associated monthly payments. As we have seen, self-building costs are lower than the costs of purchasing options, while the rest of the curve represents self-building.⁹ The left hand axis represents the monthly payment necessary to purchase a dwelling whose corresponding total costs are shown on the horizontal axis. In Figure 2, it has been assumed that the dwellings are 100 percent financed at 12 percent interest over a 25 year period. Thus, to obtain the average informal sector dwelling costing \$50,000, the household would be required to pay \$515 per month, while the monthly costs of the average priced formal sector dwelling would be about \$722 per month.

In Figure 3, the proportion of households in Newfoundland and the Maritime Provinces which could not afford to make the monthly payments are indicated to the right of the payment schedule. This has been determined according to the currently prevailing rules in Canada, which are that the maximum payment level is 30 percent of total household income. The \$50,000 informal sector dwelling could potentially be within the reach of about 50 percent of the population, while the average purchased dwelling at \$70,000 could only be accessed by about 25 percent of the population.

FIGURE 4



IMPACT OF CHANGES IN THE PRICES OF INPUTS

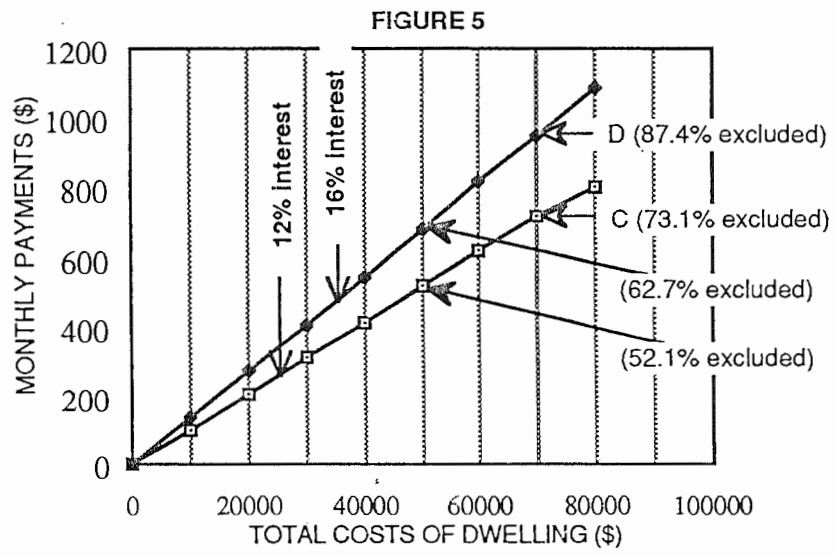
Figure 4 depicts a situation in which \$10,000 has been deducted from the total costs of the dwelling, moving both the formal and informal sector positions down the repayment schedule. This can arise by obtaining free land or through acquiring less expensive materials. Comparing the previous average self-built dwelling A with its new costs B, we can see that the monthly payments have fallen. Following the arrow to the right we can see what the effect is on access. This will depend upon the particular costs of the dwellings being considered. For example, if the cost of the informal sector dwelling was originally \$50,000 (A) and was reduced to \$40,000 (B), then a further 12 percent of Atlantic households would be able to afford accommodation. However, if the \$10,000 decrease was on a formal sector dwelling costing \$70,000 (C), lowering its costs to \$60,000 (D), then access would be increased by only 9.9 percent. Generally, the higher the costs, the fewer the number of households able to benefit from a cost decrease. This is because incomes are skewed towards the lower levels. Thus, an equal decrease in the price of two differently priced dwellings will usually give more people access to the now less expensive, lower-priced dwelling than to the now less expensive, higher-priced dwelling.

Since the advantage of self-build is that it is less expensive, any change in the prices of inputs which raises or lowers the price of the dwelling will have a greater impact on self-builders than on industry builders. This is an important observation, because given the lower costs of self-build, it might otherwise be assumed that self-build is less affected by the impact of economic forces and policy on the pricing of inputs. Figure 4 shows the reverse to be true.

The implication of this is that self-builders are more sensitive to changes in the prices of inputs than are purchasers of industry-built dwellings. Factors which could bring about a reduction in costs are therefore very important to self-builders. State support in the form of direct grants would be very beneficial to the self-build sector. The analysis above indicates that this would increase access to housing more through self-build housing production than through industry production.

IMPACT OF CHANGES IN INTEREST RATES

Another major factor in the costs of a dwelling is the amount that has to be paid in interest—the financing charges. Because of the greater frequency of debt financing for formal sector production, it might appear that it would be more affected by interest rates. However, this is not necessarily so. This is considered in Figure 5. The lower curve is from Figure 3, while the upper curve is produced under exactly the same assumptions, except that interest rates have been increased to 16 percent from 12 percent.



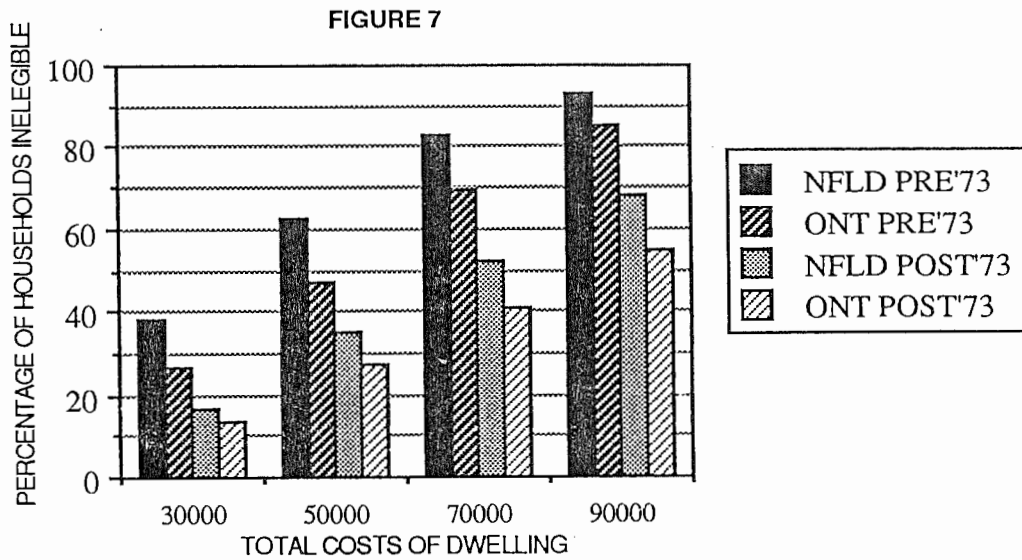
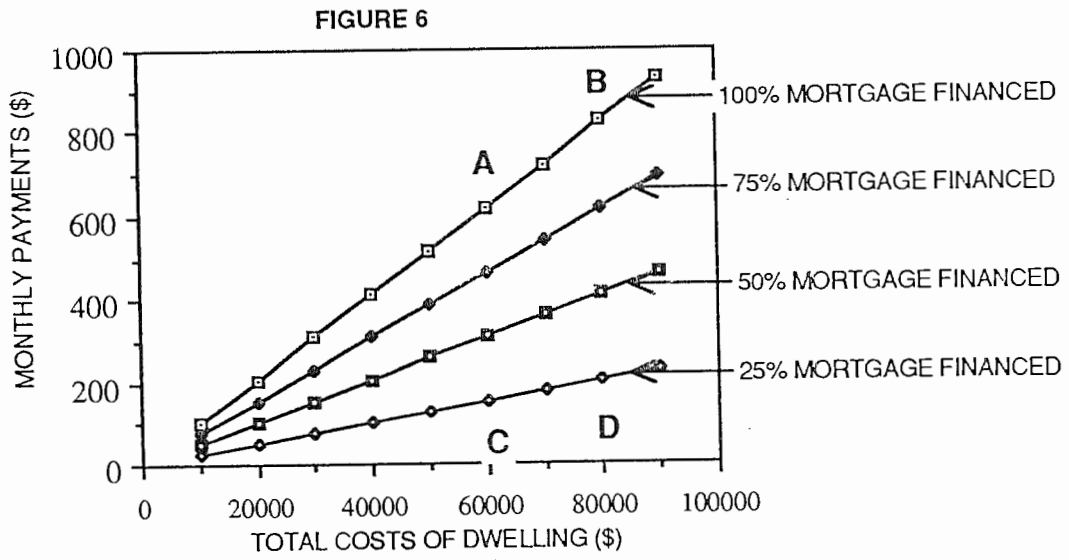
Here again, the impact on self-builders is significant, although it is not as great as for industry-produced housing. Access through self-building is reduced by 10.6 percent with the increase in interest rates, but by 14.3 percent for industry produced housing. This is because the skewed income distribution is more important in inhibiting access at the lower cost positions, while the compounding effect of interest charges becomes more important at the higher cost position. If non-mortgage financing and the larger downpayments by self-building households were taken into account, the gap between the two sectors would be even wider. This is considered below.

The balance between these two contradictory effects on the impact of changes in interest rates will depend upon the specific location on the curves. In general, the effect of income distribution is greater and interest compounding less at lower positions. At the higher positions, income skewing will have less impact, but the compounding of interest charges is significant for higher priced dwellings. Thus, state policies directed toward lowering or subsidising interest rates would have an impact upon access to both types of housing production; however, it would have a greater impact upon the higher priced, industry-produced dwellings.

NOW, RELAX THE FINANCING ASSUMPTIONS

So far, the analysis has assumed 100 percent mortgage financing.¹⁰ While this simplification enhances the presentation of the analysis above, it is unrealistic. One lesson from the PEI survey is that the actual financing arrangements used by any given household are often quite complex. However, to simplify matters it is useful to identify two forms of financing: debt financing (paid from future earnings), and non-debt financing (paid from past or current earnings).

Figure 6 shows the repayment schedules for four different levels of debt financing: 100, 75, 50 and 25 percent of dwelling costs. A reduction of the debt portion of financing flattens the curves. Thus, as a generalization, since debt financing is less frequent for the informal sector, the informal sector curves would be flatter than the formal sector curves. However, the significant differences between the financing arrangements in PEI and Colchester County militate against attempting to generalize beyond this. Thus, while flatter informal sector curves would affect the analysis of changes in input prices and interest rates above, the extent of the impact would be determined by how flat the curves were.



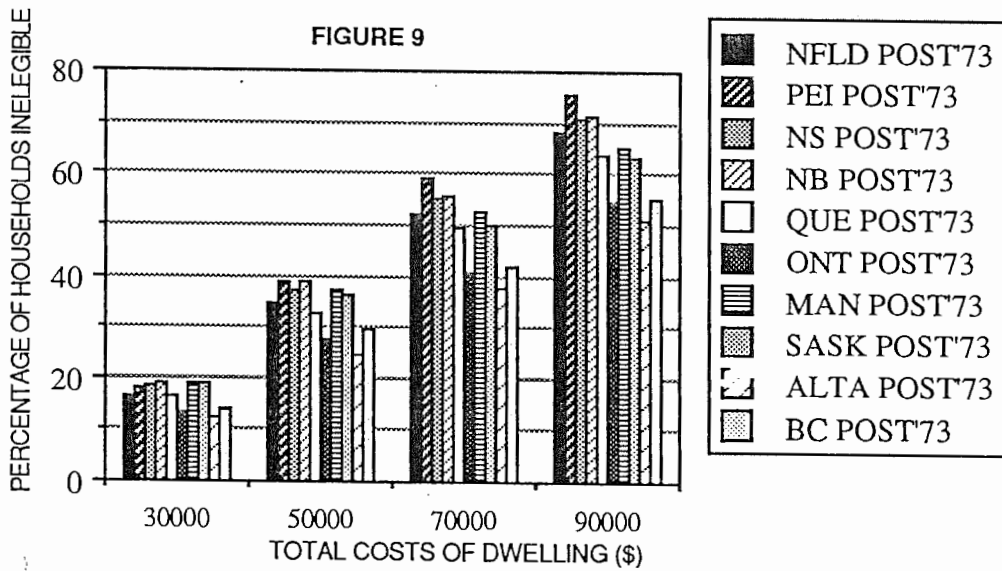
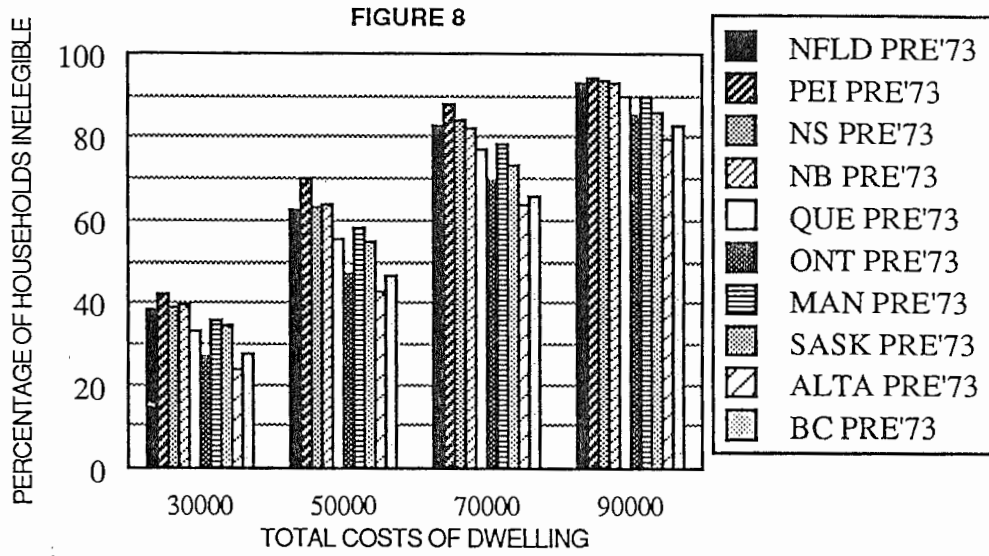
The advantages of reducing the costs of a dwelling with high levels of debt financing are dramatically illustrated in Figure 6. Compare the impact of a change in price from \$50,000 to \$70,000 at 100 percent debt financing and at 25 percent debt financing. With 100 percent debt financing, monthly payments increase by \$206 from A to B. However, with 25 percent debt financing, monthly payments increase by \$52 from C to D. What this means is that sensitivity to costs increases directly with the level of debt financing. Recall that the informal sector can be shown to be more sensitive to changes in the prices of inputs. Since this was at one level of debt financing, that observation would now have to be modified to say that at any given level of debt financing, the informal sector is more sensitive to changes in the prices of inputs, and further, that the higher the level of debt financing, the greater the sensitivity to changes in the prices of inputs.

Considering the impact of interest rates, recall that on the lower sections of the curve the effect of income skewing is stronger than the interest compounding effect, and that on the upper sections of the curve, the reverse is true. Also, since informal sector curves are flatter than formal sector curves, this will amplify the differences between income skewing and interest compounding, and lead to the observation that the formal sector will be much more sensitive to changes in interest rates than is the informal sector.

FINALLY, CHANGE THE MORTGAGE LENDING REGULATIONS

There is one final assumption in the above analysis which can now be relaxed. It is always possible to change the regulations governing mortgage lending. Indeed, this was done in the early 1970s, when the definition of eligible income was changed from 100 percent of the male income plus 25 percent of the spousal income to 100 percent of both incomes, and the maximum repayment commitment was increased from 25-27 percent of eligible income to 30 percent of the newly defined eligible income. The impact of these changes is presented in Figure 7 for two selected provinces, assuming 75 percent financing. Eligibility for a mortgage loan increased dramatically with the change in regulations.¹¹ The impact is stronger where incomes are more skewed, as in Newfoundland. However, as the total cost of the dwelling increases, the impact becomes less. In Ontario, the reverse is true. The effect of the change in the regulations was to improve access as the cost of the dwellings increased. Clearly this type of policy affects provincial housing markets in very different ways.

The result of changing the mortgage lending regulations is effectively to allow the household to assume more debt for the purposes of acquiring a dwelling. However, it can also be seen that if this had not been done, then few households in any province would have been able to purchase a dwelling produced by the formal sector. If we take the average price of a formal sector dwelling to have been



about \$50,000 in the early 1970s, then Figure 8 shows that for every province, there were few households which could afford to purchase a dwelling. And, of course, it is likely that many of those which could afford to purchase a dwelling would not have been in the market for a new dwelling. An effective policy response to such a situation was to liberalize the mortgage lending regulations. Any risk associated with this was borne by the household, and this may have had as significant an impact on the inability of households to meet their mortgage responsibilities as did the problems sometimes associated with the AHOP Programme and the general conditions prevailing at that time.

WHAT NOW?

Turning to the current situation as represented in Figure 9, and assuming that the cost of a new single detached dwelling constructed by the formal sector is now about \$90,000, it can be seen that a similar affordability problem exists today. Few households can afford to purchase industry-produced dwellings. This raises the question of policy, and we can use the preceding analysis to guide our observations.

We have seen that the informal sector is better at providing access to homeownership for those households who are able to provide the monetary, skill and time resources. It has also been illustrated that interest rate policies, including further liberalization of mortgage lending regulations, can be useful in addressing the affordability problem of the formal sector, but are not as effective for the informal sector. The following section briefly reviews some policy options better suited to the informal sector.

WHAT COULD POLICY DO?

More households can potentially gain access to housing through self-production than through the purchase of industry-produced housing. However, self-production is not possible for all households. The reduction in costs is important in providing access for more households, but it is necessary to have access to sufficient funds to be able to finance the production. One of the important advantages of self-production is the opportunity for cost reduction in a number of areas. Some of these savings, such as on land and overhead costs, may be available to a wider number of households than labour savings where access to the necessary construction skills may be restricted. However, the overhead savings also require managerial skills. This is an important factor for households planning to obtain housing through self-building, and which also intend to contract out much of the labour. The higher the costs, the greater the risks of significant overruns as a consequence of inadequate management skills. It is important that the difficulties of self-build are carefully considered, for they can easily eliminate the cost advantages of

this approach. In some provincial jurisdictions in Canada, the state has provided support and training for self-builders, but with the cuts in public expenditures, this has become far less common.

Thus, self-building offers great potential for cost reduction and a consequent increase in access to homeownership, and often improved housing circumstances which cannot be obtained in any other fashion. State policies directed toward the direct subsidization of these activities, perhaps through the provision of inexpensive land, can greatly increase the potential access through self-production. Information and advice are also important, and this has been effective in Newfoundland, for example, with the provincial Small Loans Programme. Policies directed towards encouraging the financial institutions to respond to the particular requirements of self-builders have recently been initiated in PEI, and the outlook for this programme is said to be favourable.

Programmes directed toward modifying the conditions of financing, such as interest rates or lending regulations, are more effective for the formal sector, although they also have an impact on the informal sector. However, the formal sector appears to be facing a critical affordability problem, and in this context, attention must be paid to the equity issue of who bears the risk. Programmes designed for the formal sector often address both fiscal and social objectives; however, they sometimes do so in a fashion which leads to the household purchasing the output by increasing its exposure to debt and risk. From an equity point of view, it is usually considered inappropriate for individuals to bear the risk for policy efforts intended to assist the wider community.

Given the greater opportunities for both social and fiscal improvements through the informal sector and the serious constraints on the formal sector, it is incumbent on analysts, both public and academic, to begin to encompass the informal sector in housing research. Items for this research agenda are suggested in the final section of this paper.

WHAT SHOULD THE HOUSING RESEARCH AGENDA INCLUDE?

In the first section of this paper, I tried to demonstrate that we are now in a position to provide a positive response to the first priority of the self-help research agenda. Self-help production exists, is important, and is very unlikely to be just a regional eccentricity. It was suggested that active levels of self-help building can be found elsewhere. Thus, the first objective is only partially met and *further work is necessary in other locations in order to establish the level of self-building of new dwellings in urban areas and west of New Brunswick*. Since the methodological and empirical work in PEI and Colchester County was completed for less than \$30,000, this is not a daunting task. It could most readily be met with two or three questions on a HFE or FAMEX Survey, but repetitions of a modified version of the PEI and Colchester County surveys could also meet the objective.

It has already been established that the informal sector is a major factor in housing production east of Quebec. As such, *it is now necessary to address the labour and material requirements of self-building, and the role of sub-contractors, in order to reassess and, if necessary, modify our evaluations of the impact of housing on the economy, and in particular on local and provincial economies.* The framework for this has been partially developed as part of the Prince Edward Island Residential Financing and Construction Survey, and could be greatly assisted by the current work of the Research Division of CMHC in this direction. Residential construction is an important component of Gross Provincial Product (GPP), and it is likely that GPP estimates could be affected by such an investigation because the multipliers might be different for self- and industry-building. This, of course, could impact on intergovernmental transfers and possibly on state housing strategies intended for fiscal, as opposed to social, objectives.

The second and new item on the research agenda has to do with self-help building as a general policy issue. There are two approaches which must be considered. The first is that *the proponents of the subjective preference approach need to address the issue of self-help production of accommodation.* This is a potentially fruitful line of inquiry, not just because it is a good illustration of economic liberalism, but also because of opportunities it offers in the area of household production and consumer economics. From an alternative policy perspective, *it is essential to know more about the barriers to self-help production* if the lessons from Section 3 of this paper are to be considered further. In addition, *it is necessary that self-build be adequately conceptualized and integrated into our understanding of housing issues in Canada.*

Finally, self-help production is a major factor in the renovation of existing dwellings. The affordability problem discussed in Section 3 has encouraged many analysts inside and outside government to turn to renovation as a potential area of expansion for the construction industry. Undoubtedly this is true, but serious errors can be made if proper attention is not given to self-help and the informal sector. The situation is analogous to one which often occurs in the Maritime Provinces and in Newfoundland, where builders and developers continually aspire to, and often prepare for, the forecasted levels of demand without realizing that a large proportion of this demand will be met by households themselves through self-building.

It is important that self-building activities on existing dwellings be explicitly considered as part of any research agenda on renovation. The issues are largely the same as for self-building activities in new construction:

- *How large is the sector, who is involved, what do they produce and where are they?*
- *What are the labour and material requirements for self-building in renovation and are they different than for the construction industry?*

- *What are the barriers to self-building in renovation, and what policy initiatives would be suitable given the current policy agenda?*
- *How do we conceptualize self-building, where does it fit into our understanding of housing issues, and how do we address them?*

CONCLUSIONS

This paper has used the limited information available to assess the level of self-help activity in new residential construction. It is now known to be a major source of output in the Maritime Provinces and Newfoundland, and is also predicted to be important in Saskatchewan, British Columbia and Quebec, and to be present in the non-metropolitan areas of all provinces.

It has been argued that there are two fundamental reasons which warrant the allocation of research and policy development resources to the issue of self-help housing production. The first is that self-help is a major source of output in a number of housing markets. If this is not taken into account, then research and policy will be incomplete and uneven. The second reason is that self-help production of accommodation has much wider policy and political implications in the present economic and political environment. It provides a unique opportunity to address the currently fashionable trend of support for economic individualism, and this should be on the research agenda of both proponents and opponents of this approach.

This paper has also considered a number of conventional policy options, including changing input costs, interest rates, and mortgage lending regulations. In general, cost reducing measures are more effective in increasing access through the informal sector, while interest and mortgage lending measures affect access more in the formal sector. However, in comparing the two sectors, the informal sector is considerably better at providing access to homeownership for those households able to provide the capital, skill and time required. It was shown that these barriers tend to exclude those households having the greatest difficulty in accessing homeownership. However, carefully designed programmes directed to the informal sector, including technical and financial information and support, would be likely to realize more gains than programmes directed toward the formal sector. Given the affordability problem currently facing the formal sector, any programmes directed toward it could easily be construed as intended for fiscal rather than social objectives. While this is an entirely valid fiscal policy approach, the households acquiring the products should not be forced or encouraged to bear the increased risk as was the case in the last decade. Indeed, if we knew more about the labour and material requirements of self-building and the sub-contracting arrangements, we might find that the informal sector would be a more effective target for fiscal as well as social policy objectives.

NOTES

1. Every research programme needs patrons and allies. In my research on self-help housing, Philip Brown of the Research Division (now Director of Evaluation) and Paddy Fuller, Director of the Statistical Services Division of CMHC have been essential in obtaining financial resources, providing information and critical comments. The Canadian Housing Information Centre at CMHC have been very generous with material. I am grateful for this support, particularly to Philip Brown for his support and constructive commentary in the early stages of the work. Without the support of these and others at CMHC, this research would never have left the murky water of regional discontent.
2. This modifies previous definitions I have used, and is in recognition of comments on that definition by Peter Spurr, for which I am very grateful.
3. This paper is concerned with the production of new accommodation; however, the informal sector is even more important in the repair and renovation of existing dwellings.
4. Calculated from Canadian Housing Statistics, 1984. This underestimates the size of the informal sector, since the 70 percent factor was only applied to starts in communities and rural areas with a population less than 10,000.
5. There is always some mortgage financing from non-conventional sources in the residual. For example, credit unions were often not approved lenders under the NHA until the late 1960s, but were active lenders in several locations.
6. CMHC's annual survey of housing starts was strongly criticized in several years in the mid-1970s in the Maritimes (see, e.g., PEI Housing Corporation, 1978). This affects the calculation of the residual, which is the difference between the number of starts identified by lenders, and total starts estimated by the CMHC starts survey. This is discussed further in Rowe (forthcoming).
7. See Statistics Canada (annual) 64-208, Table 1.
8. In addition to the \$13,650, there will be savings on materials, and on overheads and profits where some contractors charge at a higher rate.
9. In Figures 2-6, solid arrows are used for self-build production and empty arrows for industry production.
10. The specific calculations are for mortgage financing; however, the observations would also hold for other forms of debt financing such as loans.
11. It would be interesting to investigate the impact this had on the prices of dwellings.

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HOUSING POLICY IN RURAL CENTRES: A CRITICAL ASSESSMENT

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INTRODUCTION

This paper is on housing policy in rural communities, specifically small communities in the Prairie Provinces. The comments, however, apply equally well to many small communities in the Maritimes and other parts of Canada. The communities that are the focus of discussion are small, scattered, often isolated, characterized by a weak and unstable economy, and have a low level of those basic services that are taken for granted in larger urban centres. These communities are also characterized by a near total absence of a market mechanism in housing. Housing is viewed as basic shelter as opposed to the dual purpose of shelter and investment that is characteristic of larger urban communities. They are considered as non-market communities. This in no way reduces the need or demand for housing, but it does mean that the supply of housing cannot be left to the private market to the extent that it can in larger urban centres where the supply and demand relationship functions in a more "normal" fashion.

THE EARLY HISTORY

The early history of housing policy in Canada as described by Bacher (1986) and Rose (1980) suggests that the early development of public policies and programs focused on the larger urban centres. Very little emphasis was placed on improving the housing conditions of households in smaller communities. Early initiatives under the 1935 Dominion Housing Act and subsequent amendments in 1938 as described by Hulchanski (1986) provided assistance for the purchase of new housing or the renovation of existing homes. Assistance, however, was based on low interest loans, and under program criteria the household had to provide a 20 percent down payment. The federal government provided 20 percent of the mortgage funds, and the remaining 60 percent was provided by private lenders. Smaller communities did not benefit from such assistance, as private lenders were not prepared to take the lending risk in non-market areas, nor were the lower income households in such communities able to afford the 20 percent equity. The successful operations of the Wartime Housing Limited in the period 1941 to 1947, as described by Wade (1986), also did little to improve housing circumstances in the smaller communities. Assistance was targeted to the war effort and returning veterans in major urban centres.

Many of the veterans returning to smaller communities were, however, appalled by the sharp differences that existed between housing circumstances in the smaller communities and the major urban

centres. Their outspoken criticism of the conditions under which households in these communities lived heightened the awareness of housing problems in these communities. Nevertheless, the 1949 amendments to the NHA, which for the first time in the history of Canadian housing policy introduced a major rental housing initiative for low income households, had little impact on improving conditions in small centres (Bacher, 1986). Projects under the program were located almost exclusively in major metropolitan areas such as Winnipeg, Vancouver, Toronto and Montreal. Canada, therefore, entered the '50s without a clearly defined housing policy for small communities, and few program vehicles existed under which households could obtain assistance to improve their housing circumstances.

HOUSING PROBLEMS IN SMALL COMMUNITIES

In the late 1950s and early to mid-1960s, the housing problems of small communities received greater attention. This was true of small communities in both the Northern and Southern parts of the Prairies. Provinces began to accept a greater role in the development of housing policy and the delivery of housing programs (Fallis, 1985). The Province of Ontario created the Ontario Housing Corporation in 1964, and several provinces followed Ontario's example within the next few years. This gave the provinces a much higher profile in housing issues, and also gave provincial politicians a vehicle they could more easily turn to when they wanted to highlight the housing problems of their constituents in both rural and urban areas. As well, during this period government finally came to recognize the unique housing conditions of the North. The crisis of the Northern poverty cycle brought to the fore the horrendous disparity between housing circumstances in the North and those in the South. As a result, government policy began to focus on improving the quality of Northern housing.

Recognition of the problems, however, did not necessarily result in the implementation of successful programs. Assistance targeted to needy seniors was much more successful than program assistance targeted to families. Public rental housing has been provided by the federal, provincial and municipal partnership under Section 40 of the NHA in several small communities throughout the country. To date, 18,068 units or 9 percent of the total portfolio has been built in rural communities (CMHC, 1990a), but the majority of the units are for senior citizens. Municipal non-profit and charitable organizations have also been active in providing elderly housing under Section 15 of the NHA. For example, over 1800 units of non-profit rental housing for the elderly were built in Saskatchewan in the 1960s, approximately half of it in small communities (Saskatchewan Housing Corporation, 1987). Although activity for seniors continues to be a strong and generally successful element in the housing platform for small centres, the story for families does not have the same happy record. Some rental housing has been built for families

in small communities, but most programs and policies have attempted to come to grips with shelter problems facing families by providing program options directed at homeownership. The homeownership approach has been used because it was believed that it would instill pride in recipients, enhance stability, and foster a greater sense of community, as well as respond to the strong tradition of homeownership that is characteristic of small communities. In addition, an ownership option has been favoured because it reduces the burden of maintenance payments by effectively transferring these costs from the government to the individual homeowner, assuming of course that the owner would maintain the unit because it would be in her/his self interest to do so.

This approach has often met with difficulties, since the first homeownership options were introduced in the late 1950s. Policies and programs appear to have been consistently founded on an urban mentality that incorporates the concepts of a mortgage, equity accumulation, regular monthly payments, urban standards and contract builders. This approach fails to recognize some basic differences between major urban centres and the small rural and remote communities. These differences revolve around the attitude of residents to homeownership, the process of achieving ownership and households' economic ability to handle debt financing. Chislett et al. (1987), discussing housing problems in small Northern Saskatchewan Métis communities, states:

. . . the greatest cultural, economic and social differences in Canada must surely be between densely populated urban industrial communities of the South and the small, scattered, and often isolated settlements of the North . . . yet the housing programs and policies designed for and delivered to these areas have still to recognize this fact.

In the Southern context, Abell (1972), when discussing the need for housing assistance for farm families in Southern Ontario, stated:

. . . negative attitudes about the use of credit for family living would indicate that particularly for farm families government credit policies for rural housing (if and when formulated) might not be of assistance to those families most in need of housing requirements yet fearful of debt.

THE ESKIMO HOME LOAN PROGRAM

A review of a number of programs introduced since the late 1950s clearly illustrates the difficulties that the various housing agencies have had in trying to match the housing needs of residents in small communities with policy and program objectives. One such initiative, although in a more Northern location, was the Eskimo Home Loan Program introduced in 1959. One bedroom houses manufactured in the South and shipped North were sold to Eskimo families. Houses were described as too small, with inadequate sanitation facilities, poor quality construction and sold to a clientele with little if any concept

TABLE 1
MÉTIS HOUSING PROGRAM

Centres	Number of Units
Air Ronge	9
Beauval	5
Buffalo Narrows	21
Cumberland House	11
Green Lake	10
Ile-a-la-Cross	16
La Loche	10
La Ronge	2
Turner Lake	10
Total	94

Source: Bailey, *Habitat*, 1968.

of the purchase process (Thomas and Thompson, 1972). Although education programs were incorporated with the initiative, 90 percent of the occupants soon fell behind in their payments, and 50 percent made only one payment (Thomas and Thompson, 1972). Later in 1965, this program was rescinded in favour of a rental housing program. The federal government assumed a major role as landlord, and incorporated a rent-to-income policy as well as an education component, which included budgeting, dietary instruction, home operation skills and child care. The program changes recognized that the concept of mortgage payments did not work, and that a housing program in such an area had to encompass more than the provision of a housing unit.

THE MÉTIS HOUSING PROGRAM

The Métis Housing Program in Northern Saskatchewan was another ownership option that had difficulties. Introduced in 1965 by the federal and provincial governments, the program was targeted at Métis and enfranchised Natives of low income. During the two years the program was in operation, 94 housing units were built in nine communities (Table 1).

When the program was introduced, it was estimated that the houses would cost \$4,500. The Province provided a grant of \$500, and owners were expected to provide \$500 in equity in the form of cash or labour (Bailey, 1968). The \$3,500 mortgage was to be secured by a 15 year mortgage, financed 75 percent by the federal and 25 percent by the provincial government. As income increased, purchasers' payments rose from 17 percent to 25 percent of income. Annual incomes of eligible recipients were generally under \$3,600 (Bailey, 1968). The operating deficit, or the difference between the purchaser's payment and the amount required to amortize the loan, was forecast to be \$13 per unit per month, and was shared 75 percent/25 percent by the two partners (Bailey, 1968).

From the very beginning, the program ran into difficulties. The actual cost of construction exceeded the proposed sale prices by just over \$1,000 per unit (Bailey, 1968). To resolve this matter, the Province provided an additional grant of \$500 a unit, and by Agreement the balance was shared by the two funding partners on a 75 percent/25 percent basis. The Agreement was also amended to permit the sale of houses at less than construction costs. In effect, a write-off of costs was accepted. It was also quickly discovered that the \$500 equity required of the purchaser was too high, and this was reduced to \$200 (Bailey, 1968). Soon after purchasers took occupancy, it was also discovered that the repayment scale (17%-25% of income) was too high. Low income families, particularly those living in the more remote communities where the costs of other basic necessities was higher, did not have sufficient residual income

to afford other basic goods and services after making their housing payment. Subsequently, payment for many households were reduced to as low as 10 percent of income (Bailey, 1968).

Because many households did not have a regular monthly income, it was necessary to change program regulations to permit annual as opposed to monthly mortgage payments. In spite of this flexibility, arrears were still a significant problem, and by 1972, 79 of the 94 households (84%) were in arrears, and cumulative arrears had reached \$18,164 (Saskatchewan Housing Corporation, 1987). It was pointed out that purchasers were not accustomed to making payments for shelter, and could really only make payments in their higher income months.

Problems also occurred with the resale of the homes. According to program guidelines, in the process of resale, the homeowner was responsible for finding someone able and willing to pay his or her equity of \$200, and then obtain approval from the Province for the new purchaser to take over the payments. However, sales were difficult, as it was not easy to find a low income household with sufficient cash to pay the equity. As well, many households were unwilling to buy the units because they were not accustomed to making regular mortgage payments, even though the unit may have provided improved housing conditions. As a result, most of the resale units went to higher income households outside program guidelines, and the original objective of the program to provide improved housing for low income households was weakened (Bailey, 1968).

It is obvious that the program guidelines, designed as they were on the basis of how ownership housing was provided in an urban situation, did not suit the circumstances in the small communities of the area. The provision of equity and the responsibility of making regular mortgage payments suited neither the economic circumstances nor the traditional approach to obtaining shelter. Although the houses provided might have improved the living conditions of many households, the process itself did not suit the environment. Perhaps the most positive aspect of the program was the use of local labour and the incorporation of training programs to provide construction skills. During the two-year life of the program, over 120 local people were employed for varying lengths of time, and \$65,300 was paid out in local salaries (Bailey, 1968).

THE REMOTE HOUSING PROGRAM

Following the Métis Housing Program, the Remote Housing Program, a similar initiative, was introduced in Alberta, Saskatchewan and Manitoba in 1969. Under the program during the period 1969 to 1974, approximately 500 units were built in Manitoba, 925 in Saskatchewan and 16 in Alberta (Anderson, 1987). Like the Métis Housing Program in Saskatchewan, it was cost shared on a 75

percent/25 percent basis between the federal and provincial governments, and other program guidelines were very similar. The program was perhaps even more holistic than the earlier effort in Saskatchewan, as it included job training, employment of local labour, educational programs offering family life and home maintenance skills, aspects of community development and, as well, in Manitoba, a delivery and co-ordination role by the Manitoba Métis Federation (MMF). The role of this third party or managerial group as played by the MMF was an effort to incorporate Native delivery and managerial skills into the housing process in small and remote communities.

In spite of the fact that this approach was even more holistic than the earlier Saskatchewan program, the initiative ran into similar difficulties. Arrears were high from the beginning, and, in Manitoba, approximately 53 percent of the units are still in arrears ten years after the program was introduced (Manitoba Department of Housing, 1988). Unit deterioration has been an ongoing problem, and units requiring maintenance expenditures of up to \$15,000 to bring them up to acceptable standards are not uncommon, in spite of their relatively young age (Manitoba Department of Housing, 1988). Again, it is obvious that program guidelines did not suit the circumstances in small communities. As with the Saskatchewan model, the provision of equity (the program guidelines required equity of approximately \$200), and the responsibility of making regular mortgage payments, suited neither the economic circumstances nor the traditional approach to obtaining shelter of those households living in the communities. As well, the program did not instill in the clients a sense of ownership. The level of sales was not as high as anticipated, and the program today remains primarily rental (Anderson, 1987). It did not remove the government's need to make ongoing expenditures for regular maintenance and repair, as was planned.

THE RURAL AND NATIVE PROGRAM

In 1974, the federal/provincial partnership introduced the Rural and Native Housing Program, which replaced the Métis and Remote Housing Programs and other similar initiatives in the other jurisdictions of Canada. Despite the problems of the past, the Rural and Native Program incorporated many aspects that were common to the earlier Métis and Remote Housing Programs. The concept of ownership for low income households was maintained, as was the need for the client to provide equity and regular monthly mortgage payments, as well as responsibility for ongoing repairs, general maintenance and utilities.

TABLE 2
DISTRIBUTION OF RURAL AND NATIVE UNITS
(Prairie Provinces 1989)

Size of Centre	Manitoba		Saskatchewan		Alberta		Total	
	#	%	#	%	#	%	#	%
Under 500	714	25.4	1,460	38.9	183	10.0	2,357	28.1
501 - 1,000	714	25.4	754	20.1	402	22.0	1,870	22.3
1,001 - 1,500	672	23.9	781	20.8	256	14.0	1,709	20.4
1,501 - 2,500	211	7.5	417	11.1	366	20.0	994	11.8
2,501 plus	500	17.9	343	9.0	622	34.0	1,465	17.4
Total	2,811	100.0	3,755	100.0	1,824	100.0	8,395	100.0

Source: CMHC, Rural and Native Program Evaluation, 1989.

The Rural and Native Program is funded 75 percent by the federal and 25 percent by the provincial government. When the program was introduced, units were targeted to both Native and non-Native clients living in centres with populations of 2,500 or less, although some flexibility is provided to build some units in centres of 2,500-5,000 people. Eligible clients are those living in inadequate and unsuitable dwellings, and who pay 30 percent or more of their income for shelter. Program regulations initially required a minimum downpayment of \$500, part of which (\$300) could be contributed by the purchaser's sweat equity. Payments were set at 25 percent of income, and the cost of the unit was secured by a 25 year mortgage. Assistance under the program is targeted mainly toward the construction of new units, but when the program was introduced, funding was also made available under the Emergency Repair Program (ERP) to these same small rural and remote communities for repair and upgrading of existing units. This was a significant and beneficial step forward, as it recognized the need to address problems in the existing stock, and provided a program vehicle that was more affordable for low income households than commitment to regular payments on a 25 year mortgage. Currently under ERP guidelines, a maximum grant of \$3,800 is available in remote Northern areas, \$2,500 in Northern and \$1,500 in Southern and more accessible small communities. ERP provides one-time grants to rural households for the completion of emergency repairs required for the continued safe occupancy of their units. Assistance is available for dwellings that cannot qualify under the Residential Rehabilitations Assistance Program (RRAP) because repair costs exceed RRAP guidelines or because the units do not meet RRAP criteria or standards (CMHC, 1989).

Since the program was introduced in 1974, nearly 25,000 units have been provided on a national basis, over 90 percent of them new units. In addition, approximately 20,000 existing units have been repaired under ERP. Over 8,000 of the new units provided have been in the Prairies (Table 2). The considerable emphasis on the very small centres is illustrated by the fact that just under 30 percent of the units provided are located in centres with populations under 500, another 22 percent in centres ranging in size from 501-1,000, 20 percent in centres 1,001 to 1,500, and only 29 percent in centres over 1,500. One cannot argue that the program has achieved its objective of providing additional and improved housing for residents of small communities.

TABLE 3
COST OF REPAIRS BY NUMBERS OF UNITS

Number of Units	Percent of Units	Cost of Repairs Up To
1,632	82	\$5,000
247	12	10,000
75	4	15,000
27	1	20,000
29	1	20,000 plus
<u>2,010</u>	<u>100</u>	

Source: CMHC Program Files.

The success of the program, however, cannot be measured on volume alone. In fact, from the beginning the program has been plagued by problems. There are a number of problem areas that have become almost ingrained in the program. In remote areas of Saskatchewan, 86 percent of the households are in arrears (CMHC, 1989). In Northern Manitoba, for example, cumulative arrears stand at 80 percent of all revenues that should have been collected under the program (Manitoba Department of Housing, 1988). Arrears are lower in Southern areas, but in Saskatchewan, cash collections compared with expected payments often fall as low as 40-50 percent over a six month period (Saskatchewan Housing Corporation, 1987). Vacancies are also a problem, in spite of the high demand for improved housing units. Vacancies range between 10-15 percent of the portfolio in Northern Saskatchewan, and 5-10 percent in the South (Saskatchewan Housing Corporation, 1987). This is not due to a lack of demand, but units sit vacant because they need extensive repair after a household has left or been evicted from the unit. The program is also plagued by a substantial number of turnovers, foreclosures and walk-aways. This often necessitates quit claims—a lengthy process which contributes to unit vacancies. Saskatchewan was processing at least one quit claim a week (52 a year) in a portfolio of 1681 units in the Southern part of the province in 1987 (Saskatchewan Housing Corporation, 1987). Rapid deterioration of the unit generally prompted by neglect of routine maintenance and in some cases blatant misuse of the property is another significant problem. In Alberta, average per unit post-occupancy repairs vary from \$7,000 to \$10,000 (Alberta Housing Corporation, 1987), and repairs on some units in Saskatchewan have exceeded \$20,000 per unit (Saskatchewan Housing Corporation, 1987). The total repair bill in Manitoba is estimated to be \$13,000,000 or \$6,500 per unit. The distribution on the value of repairs by unit numbers is illustrated in Table 3.

The program is also plagued by households' dissatisfaction with both the program guidelines and the units they have received. In spite of the improved housing conditions, many households complain about the insensitivity of program guidelines to local needs, the lack of local control and input, and the reluctance of the various levels of government to address repair and maintenance problems. Because of these many problems, administrative costs are high, and this adds to the already high subsidy costs normally associated with the provision of housing to low income households.

The problems discussed above, however, are really only symptomatic of a more basic problem with the program approach. The Rural and Native Program was designed as an ownership alternative for low income families, but has successfully functioned as such on a very limited basis. The idea was to promote stability and responsibility among low income households, as well as to provide them with improved housing. As incomes increased, payments were supposed to rise until they covered the full cost of the principle interest and taxes (PIT). In Saskatchewan, the fact that less than 10 percent of the

clients have reached full PIT over the life of the program suggests that the objective of homeownership using this approach was not realistic in all areas (Saskatchewan Housing Corporation, 1987). Like the Remote Housing Program that preceded it, the program operates more as a rental than an ownership program in many locales.

There are important reasons why the program objectives have not been realized. Many of the households do not, and never will, have sufficient income to support the cost of utilities and maintenance as well as contributing 25 percent of their income to the mortgage payment. Average household income for clients that have received units is just under \$16,000 (CMHC, 1989), but one third of the households earn less than \$10,000 (CMHC, 1989). When households with incomes as low as this have to make a choice between spending their income on food, clothing and utilities or making the mortgage or rent payment, the choice is obvious, particularly if the threat of eviction lacks teeth. Also, many households that do have sufficient income refuse to make payments because they see very little use in doing so. With most units in small or remote centres, the mortgage generally exceeds market value. As Striech pointed out in a 1976 report for CMHC (Striech, 1976):

Mortgages are an extension of an urban economy. They make very little sense in a remote or rural setting. A mortgage is a loan with a price affixed that normally reflects the attractiveness of this loan as a form of investment. The individual takes out a loan in an urban setting with some assurance that it is both marketable and will yield a reasonable return on his equity. These two factors create some incentive for the borrower to keep up with the payments. He is also aware that if he fails to meet the terms of the contract there will be others who will be eager to take over, that is that it will revert to the lender and sold to someone else. Payments are structured on a monthly basis which is usually the same pattern as his income, because most urban dwellers are on a regular payroll. It is a simple matter for the bank which made the mortgage to make regular deductions from his account. Thus, in many respects, the mortgage instrument is ideally suited to an urban economy with financial institutions, a payroll economy and a housing market.

Many of these conditions do not apply in small rural and remote communities. The mortgage offers no security to the lender as it is not marketable if foreclosure is necessary. The borrowers have no assurance of recovering their equity. They may have a \$80,000 mortgage in a centre where market values do not exceed \$50,000. There is little incentive for them to pay or for that matter to stay in the unit if other options are available. The mortgage becomes meaningless, housing is not an investment, it is simply shelter--why should they pay off a mortgage?

RECENT SELF-HELP INITIATIVES

Are there policy and program changes that can address these problems? Recognizing the difficulties of past program approaches, government agencies have turned to new alternatives introducing programs that are delivered largely through self-help. Three such programs have been introduced: the Rural Housing Assistance Program (RHAP) in the Province of Alberta; the Home Ownership Assistance Program (HAP) in the Northwest Territories; and, the Rural and Native Housing Demonstration Program (RNH Demo) in other provinces and territories of Canada. The purpose of these programs is to determine whether a house construction program in rural areas, based on volunteer labour, is a viable way of providing sound quality housing for low income households (CMHC, 1990b). By incorporating substantive sweat equity, these programs are also designed to address the basic problems endemic in previous programs. Substantive sweat equity reduces costs, which reduces or eliminates regular mortgage payments, thus leaving more residual income for other basic needs. It also ensures that costs do not exceed sales value in these communities, enhancing clients' equity opportunities if they have to leave and sell the home. It will also, one hopes, more closely approximate the traditional approach to housing provision in these communities, and instill the sense of pride and ownership which is currently lacking.

These programs have some common features as well as key differences (Table 4). All programs serve essentially the same type of clientele—low income households living in substandard housing—which are willing to participate in building their own homes. HAP in the Northwest Territories is not restricted entirely to low income households, as the program is used as a vehicle to provide housing to meet all community requirements in the far North where a building industry does not exist. All programs place a heavy emphasis on self-help, and it is a requirement that clients provide sweat equity. Client involvement is emphasized right from the initial stages of site and design selection through construction to post-occupancy maintenance. The programs are all also targeted to small, generally remote communities with less than 2,500 people, and most of the recipients are Aboriginal or Métis.

The HAP and RNH Demo Programs provide forgivable loans that cover the cost of materials, freight, site development, specialized subtrade labour such as electrical services, and construction management fees and land acquisition. The RHAP Program provides a forgivable grant of up to \$18,000 based on income. This grant may rise to \$31,500 on remote Métis settlements. Forgiveness is over a five-year period under HAP and RHAP, and over twenty-five years under the RNH Demo if clients own their own land, or five years if the unit is built on land leased from the Crown.

TABLE 4
COMPARATIVE FEATURES OF RURAL HOUSING PROGRAMS

PROGRAM	EARLY INITIATIVES: NO SELF-HELP EMPHASIS				RECENT SELF-HELP INITIATIVES		
CHARACTERISTICS	ESKIMO HOME LOAN	MÉTIS HOUSING	REMOTE HOUSING	RURAL AND NATIVE	HOUSING ASSISTANCE	RURAL HOUSING ASSISTANCE	RURAL DEMO
	Yukon NWT	Saskatchewan	Prairies	National	NWT	Alberta	National
1. Year Units Started Built	1959 450	1965 '94	1969 1,450	1974 25,000	1983 700	1978 1,100	1986 300
2. Client Selection	low income substandard housing	low income substandard housing	low income substandard housing	core need	low/moderate income substandard housing skill and initiative to build	low income substandard housing skill and initiative to build	core need skill and initiative to build
3. Community Selection	remote Northern	remote Métis	remote Northern	under 2,500	under 2,500	Métis/remote	remote under 2,500
4. Assistance	payt-to-income	payt-to-income	payt-to-income	payt-to-income	forgivable loans no mortgage payment	grant to income \$9000-\$30,500 reduced mortgage payment	forgivable loan no mortgage payment
5. Client Responsibilities	payt-to-mortgage utilities, taxes maintenance	payt-to-mortgage utilities, taxes maintenance	payt-to-mortgage utilities, taxes maintenance	payt-to-mortgage utilities, taxes maintenance	partial utilities taxes maintenance	utilities, taxes maintenance	utilities, taxes maintenance
6. Client Input	none	\$500, cash or sweat equity	\$200 cash or sweat equity	\$500 cash or sweat equity	medium sweat equity	medium sweat equity	extensive sweat equity
7. Counselling Pre Occupancy Construction Post Occupancy	very little none none	very little none none	some limited limited	very little none very little	extensive extensive limited	extensive extensive limited	extensive extensive extensive
8. Contractors Involved	all work	all work	all work	all work	specialized labour materials package	specialized labour materials package	specialized labour materials package
9. Self-Build Emphasis	none	none	none	none	medium	medium	extensive
10. National Building Code Standards	wavers on many items	yes	yes	yes	yes, wavers on some items	yes	yes, wavers on some items
11. Delivery Agents	Government	Government and some Native Groups	Government and some Native Groups	Government	Government	Community Housing Authority	CMHC, Native Groups

Under the RHAP, the community must establish a Local Housing Association which is willing and able to take exclusive responsibility for the full range of activities associated with delivery, including organizing community members, obtaining permits, tendering for purchase of materials, managing construction and administering the funds. The RNH Demo is delivered by CMHC, but may involve assistance from local organizations such as Native groups. HAP is delivered by the Northwest Territories Housing Corporation. Both HAP and the RNH Demo use on-site supervisors that work with and provide technical advice to clients building their own houses.

Construction standards are implemented by inspectors, and all homes are built to National Building Code standards. Pre-occupancy, construction and post-occupancy counselling are provided under all programs. Self building is emphasized, but all programs utilize contractors for specialized trades such as electrical and plumbing where certain health and safety standards have to be met. As well as the extensive contribution of sweat equity, clients are responsible for taxes, maintenance and utility charges, although clients under HAP receive Northern utility allowances to offset the high cost of fuel in the North.

Over 2,000 units have been built under the three programs (Table 4). Although caution must be exercised when drawing conclusions based on the short time the programs have been operative, information from program files, discussions with program managers and client surveys suggest positive improvements compared with the Rural And Native Program, the most recent of the earlier initiatives. For example:

- *All three programs serve a low income clientele.* In fact, the average client income of \$15,400 under the RNH Demo (CMHC, 1990b) and \$15,800 under RHAP (Alberta Housing Corporation files, 1989) is marginally lower than \$16,400 under the Rural and Native Program (CMHC, 1990b). The average client income under HAP is much higher at \$41,000, but this is as expected, as the program is not as strictly targeted to lower income groups.
- *Using sweat equity to reduce or eliminate the mortgage payment vastly improves client affordability.* Only 6 percent of the RNH Demo clients and 8 percent of HAP clients were paying 30 percent or more of their gross household income for shelter. Under the Rural and Native Program, where clients are responsible for mortgage payments as well as utilities, taxes and maintenance, 58 percent were paying 30 percent or more for their shelter (CMHC, 1990b).
- *All three programs serve more Native clients than the Rural and Native Program.*
- *The programs elicit a more positive community reaction and greater community acceptance.* This may be related to the fact that clients become visibly involved in the housing provided as opposed to waiting on a government "hand-out." Community acceptance of RHAP and HAP is

very high, and this may also be partly attributed to the greater involvement of community organizations in the delivery of the program.

- Evidence from all three programs suggests that *client skill levels are enhanced* because of the significant self-help contribution, and *client awareness of responsibilities for maintenance and repairs is much higher* for those involved in self-help. However, this does not necessarily translate into better maintained dwellings. For example, 8 percent of the RNH Demo units show poor maintenance practices, the same proportion as for Rural and Native Program units of the same age, although 88 percent of the RNH Demo clients said that they know how to do repairs, compared with 60 percent of the Rural and Native Program clients (CMHC, 1990b). Limiting factors may well be the very low incomes of RNH Demo clients, the lack of materials in the remote communities, or the fact that self-built clients often move in before the unit is complete, and unfinished features are categorized as features needing repair. Evidence suggests, however, that *self-help clients do more of the repair work required* than clients in the other programs.
- Self-help clients naturally have far *higher levels of participation in design and construction* and have a *higher level of overall satisfaction* in their accommodation and are *much more satisfied with the design*.
- An evaluation of the RNH Demo Program suggests that *administration costs are substantially less than for ongoing subsidy programs*, although caution must be exercised in reaching this conclusion, because the Demo Program has only been in operation for a few years (CMHC, 1990b).

The positive experience with recent self-help initiatives, along with the potential for significant cost savings over the longer term, do not mean that self-help is without potential problems. Not all clients are physically able or willing to participate in a self-help approach. It is particularly time consuming for those who have regular employment. There is also no guarantee that it will result in better maintained units, raising the possibility that government assistance may be required in the future to upgrade units that fall into disrepair. Up-front assistance is also more expensive in the short term reducing the number of households that can be accommodated with a given budget. It also has been recognized that it is necessary to teach many clients the skills they require as they build their homes. This raises short term administrative costs.

CONCLUSION

Despite these problems, the many positive aspects, including the potential for long-term cost savings, suggest that self-help initiatives are a positive step forward and should be an integral part of the package of rural housing programs in the future. However, additional program changes may be necessary to improve program effectiveness in rural communities. Enhanced on-site training should be a component of any future program of assisted self-help. This will improve the quality of initial construction, and should also result in improved maintenance practices over the longer term.

Community based delivery, or the use of a community based group to sponsor, develop, administer and manage self-help projects, has also been suggested as a necessary component. The approach has proven to be very effective in Alberta's Rural Housing Assistance Program, and it offers a number of supportive advantages for self-help. Involving the community increases acceptance and awareness of the program. It should also result in better identification of needs and improved client follow-up and counselling than would be the case with an outside delivery agent who would not be as familiar with the local area. More community involvement would also ensure that self-help programs would be available to clients such as senior citizens or single parents, who find self-help too physically demanding or time consuming. Community involvement would also broaden the skill pool available to assist with self-building, ensuring better quality construction initially, and better maintenance practices over the longer term. Such an approach would not limit the self-help role of individual households, but it would broaden the concept to a community-wide initiative.

Incorporating community based housing into broader community economic development strategies has also been suggested, because housing is a vehicle that can be used to achieve broader social and economic goals. Clients acquiring skills in the self-building process can often use these skills to create other employment opportunities or respond to other community needs and support other community initiatives. However, addressing housing needs must remain the primary objective of housing programs, and this objective should not be compromised if housing is incorporated into an overall economic development strategy.

Public policy has taken some positive steps in support of self-help housing in rural areas. These efforts should be continued and enhanced. If rural housing needs are to be effectively addressed in the current period of fiscal restraint public policy should make every effort to enhance the role of individual households and the community in self-help initiatives. Establishing self-help housing, as part of a package of programs designed to address rural housing needs, is a step in the right direction.

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