HOUSING NEEDS IN FIRST NATIONS COMMUNITIES

Stewart Clatworthy is the owner and principal researcher of Four Directions Project Consultants. Mr. Clatworthy has been active in Aboriginal research, completing numerous studies on demography and migration, population projections, and socioeconomic conditions.

ABSTRACT / RÉSUMÉ

While the extent of housing deficiencies in First Nations communities are well documented, little by way of prior research has attempted to quantify the scale of housing needs in First Nations communities and the capital investment required to address these needs. This study uses 2001 Census data and program data from Indian and Northern Affairs Canada to provide estimates of new construction, renovations and stock modifications needed to bring Aboriginal housing conditions in First Nations communities in line with Canada's housing standards. Recent construction and renovation cost data provided by Canada Mortgage and Housing Corporation are then used to develop estimates of the level of capital investment required to achieve these standards.

L'étendue des carences en matière de logement dans les communautés des Premières nations est bien documentée, mais peu de recherche préalable a tenté de quantifier l'ampleur des besoins de logement dans les communautés autochtones et l'investissement de capitaux nécessaire pour répondre à ces besoins. Cette étude utilise les données du recensement de 2001 et celles de programmes d'Affaires indiennes et du Nord Canada pour produire des estimations des nouvelles constructions, des travaux de rénovation et des modifications du parc de logements nécessaires pour aligner les conditions de logement des Autochtones dans les communautés des Premières nations sur les normes canadiennes en matière de logement. Les données récentes sur les coûts des travaux de construction et de rénovation fournies par la Société canadienne d'hypothèques et de logement servent ensuite à élaborer des estimations du niveau d'investissement en capital nécessaire pour respecter ces normes.

INTRODUCTION

Housing conditions in First Nations communities have been the subject of numerous articles in the news media over the past decade. Comprehensive research has also documented specific aspects of the housing consumption problems experienced by Canada's Aboriginal peoples (Clatworthy and Stevens, 1987; Ark Research Associates, 1996; Spurr Research Associates, 2001; and Jankubec and Engeland, 2004). Among Aboriginal populations living in First Nations communities, many of these problems appear to be linked to housing stock shortages which result in high levels of over-crowding, family doubling and occupancy of dwellings which fail to meet accepted standards of quality.

While the nature and scale of the housing deficiencies experienced by residents of First Nations communities have been documented, estimates of the scale of resources required to alleviate these deficiencies are scarce. This study provides an overview of the housing needs of Aboriginal households living in First Nations communities in 2001 and presents estimates of the financial resources (i.e., capital investment) required to address these needs. Analyses are reported at the provincial/regional and national levels.

CONCEPTS, DEFINITIONS AND MAIN SOURCES OF DATA

The study's focus relates to the housing needs of Aboriginal households living in First Nations communities. First Nation communities are defined to include Indian reserves and other Indian settlements as identified by Indian

and Northern Affairs Canada (INAC). An Aboriginal household is defined as a "private" household containing one or more Aboriginal families or, in the case of non-family households, where 50 percent or more of the household's members reported Aboriginal identity, Indian registration status or membership in an Indian band on the 2001 Census of Canada.[1] An Aboriginal family is defined as a family in which at least one spouse or the single parent reported Aboriginal identity, Indian registration status or membership in an Indian band.

Throughout this study, estimates of prevalence of housing consumption deficiency are derived from analyses of unadjusted 2001 Census data. Estimates of housing needs, as well as of the new construction, renovations and other housing stock modifications needed to address these needs, are based on Census Aboriginal household and dwelling unit counts; these have been adjusted to address non-enumeration of reserves and survey under-coverage.[2]

Additional data contained on the Capital Assets Management System (CAMS) maintained by INAC have been used to identify the number of reserve dwelling units that have deteriorated to the point where they require replacement and as an additional source of information concerning the renovation requirements of the housing stock on-reserve.

Capital cost estimates associated with new construction requirements are based on analysis of construction cost data supplied by Canada Mortgage and Housing Corporation (CMHC) for 3,544 new housing units built on-reserve under Section 91 of the National Housing Act during the 2001-2006 time period. Capital costs associated with renovation requirements are based on analysis of CMHC data for 4,098 units repaired under the Residential Rehabilitation Assistance Program (RRAP) during the 2003-2006 time period.[3] Per unit capital costs for housing-related infrastructure (e.g., site preparation and servicing) are based on data reported recently for First Nations housing construction by the Auditor General of Canada (2003). All capital cost estimates have been indexed to reflect 2004 dollars.

MEASURING HOUSING NEEDS IN CANADA

Housing needs in Canada are generally discussed and measured in relation to the following standards of housing consumption: affordability, adequacy (condition) and suitability. The presence of housing consumption deficiencies, however, should not necessarily be viewed as equating to a housing need: in some cases, a household which does not meet one of the consumption standards (e.g., suitability) may have the financial means to acquire appropriate housing without exceeding the affordability standard.

For purposes of measuring housing needs, CMHC has developed the concept of **core housing need.** A household is deemed to be experiencing core housing need if it fails to meet one or more of the consumption standards and its income is below that needed to obtain a dwelling unit that does meet all three standards in the local marketplace.

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Canada's housing standards and the notion of core housing need were developed within the conceptual framework of a *conventional* housing market, where housing consumption decisions are viewed to be made in relation to prices or rents and the household's needs, and ability and willingness to pay. The housing context in most First Nations communities differs greatly from a conventional market in that much of the housing stock is owned collectively (i.e., by the First Nation or by corporate entities owned or controlled by the First Nation) and allocated to households by the First Nation directly, rather than through a pricing or market mechanism.[4]

In such a context, the notions of housing affordability and the need for core housing are not applicable, as housing decisions can be constrained by both the availability of housing (e.g., appropriate housing units may not exist) and by the housing allocation process (e.g., appropriate housing units may not be accessible), even for those who are able and willing to pay for housing. As such, measures of housing affordability and core housing need are not constructed for populations residing in First Nations communities.

In light of the above, this study focuses on the remaining two dimensions of housing consumption: housing adequacy (condition) and suitability (overcrowding). In addition to these traditional measures of need, the study also examines the extent of "family doubling" or situations where more than one family share a single dwelling unit. This latter measure is also commonly viewed as a dimension of overcrowding, and represents a key component of the housing needs in First Nations communities.[5]

HOUSING CONSUMPTION DEFICIENCIES AMONG ABORIGINAL HOUSEHOLDS LIVING IN FIRST NATIONS COMMUNITIES

HOUSING ADEQUACY AND SUITABILITY DEFICIENCIES

Indicators of prevalence of housing adequacy and suitability deficiencies experienced by Aboriginal households living in First Nations communities are

summarized in Table 1 by province/region and at the national level. In 2001, roughly 27% of all Aboriginal households living in First Nations communities reported no housing deficiencies and resided in dwellings which required only regular maintenance and which also met the national occupancy standard. An additional 25% of households reported that their dwelling required minor repairs but met the occupancy standard. These two groups of households, which jointly formed about 52% of all Aboriginal households living in First Nations communities, were deemed to have acceptable housing situations. The remaining 48% of households, which numbered about 37,850, experienced deficiencies with either dwelling unit condition (36%), overcrowding (22%) or both (10%).

The table also reveals that although housing adequacy and suitability deficiencies were experienced by a significant proportion of Aboriginal households in all regions, deficiencies were most common among households in the Prairie Provinces. In these provinces, a majority (more than 56%) of all Aboriginal households living in First Nations communities reported at least one housing deficiency. Multiple housing deficiencies were also much more common in these provinces.

More detailed analyses were undertaken to explore relationships between the prevalence of housing consumption deficiencies and household type (non-family households, couples with children, couples without children, lone parent families and multiple family households), household size, occupancy (i.e., overcrowding) status, household income, and tenure (home-owners versus occupants of band-owned or rental housing). These analyses revealed that:

- the prevalence of condition deficiencies did not vary widely by household type;
- overcrowding was concentrated among three types of households: multiple family households (65% overcrowded), couples with children under 18 years of age (27% overcrowded) and lone parent families (25% overcrowded);
- the prevalence of condition deficiencies was positively associated with household size, that is larger households were much more likely to report major repair needs;
- condition deficiencies were about 1.4 times more common among overcrowded households than households which met the national occupancy standard;
- households reporting higher incomes were much less likely to live in dwellings requiring major repairs. However, the reverse was true for overcrowding, where higher income households were much more likely to experience overcrowding; and,
- although homeowners were more likely than those who lived in rented or band-owned housing to occupy acceptable housing, this resulted primarily from a lower prevalence of overcrowding and not from a lower prevalence of housing condition deficiencies.

FAMILY DOUBLING

In addition to quality and suitability deficiencies, family doubling was also identified to be quite common among Aboriginal households living in First Nations communities. In 2001, nearly 12% of all Aboriginal family households living in First Nations communities contained more than one family. Rates of family doubling were identified to be higher among Aboriginal households living

TABLE 1: Incidence of Housing Consumption Deficiencies among Aboriginal Households Residing in First Nations Communities by Province/Region, Canada, 2001

PROVINCE/ REGION	HOUSEHOLDS	PERCENT OF HOUSEHOLDS									
		MINOR REPAIR ONLY	MAJOR REPAIR ONLY	NOS[i] ONLY	MINOR REPAIR AND NOS	MAJOR REPAIR AND NOS	TOTAL MINOR REPAIR	TOTAL MAJOR REPAIR	TOTAL NOS	NO DEFICIENCIES	ACCEPTABLE HOUSING[ii]
Atlantic	4,850	26.7	31.2	3.0	3.7	5.9	30.4	37.1	12.6	29.6	56.3
Quebec	8,485	22.0	18.1	7.5	6.0	6.7	28.0	24.7	20.1	39.7	61.8
Ontario	10,890	24.4	27.0	5.2	5.0	8.5	29.3	35.5	18.7	29.9	54.3
Manitoba	12,620	24.2	27.6	5.6	9.3	14.3	33.5	41.9	29.1	19.0	43.2
Saskatchewan	11,125	23.7	25.0	7.1	9.5	14.6	33.2	39.6	31.2	20.2	43.9
Alberta	9,190	23.3	32.9	4.7	7.8	14.9	31.1	47.8	27.4	16.5	39.8
British Columbia	14,960	27.8	26.6	3.8	4.3	5.4	32.1	32.1	13.5	32.0	59.8
Yukon	850	28.2	24.1	5.9	6.5	4.7	34.7	28.8	17.1	31.8	60.0
NWT	4,105	25.9	18.1	8.9	6.5	6.5	32.4	24.6	21.8	34.2	60.2
All Regions	**78,835**	**24.7**	**26.1**	**5.5**	**6.6**	**9.9**	**31.3**	**36.0**	**22.1**	**27.1**	**51.9**

Notes:

[i] National Occupancy Standard

[ii] Acceptable housing is defined to include dwellings which do not require major repair and where the household meets the national occupancy standard.

Source: Custom tabulations from the 2001 Census of Canada (unadjusted).

in rented or band-owned housing and much higher among Aboriginal family households living in First Nations communities in Quebec and the Prairie provinces.

SUMMARY OF HOUSING DEFICIENCIES

Collectively, the study's results suggest that larger household sizes, overcrowding, and low household incomes - but not tenure - are the main factors contributing to the housing quality problems experienced by Aboriginal households living in First Nations communities. These factors appear to greatly affect housing quality among both homeowners and those who rent or occupy band-owned housing. By contrast, in terms of the suitability standard, homeowners are more likely than those who rent or occupy band-owned housing to live in dwellings large enough to meet their space needs; ownership is also associated with lower levels of family doubling.

HOUSING NEEDS OF ABORIGINAL HOUSEHOLDS IN FIRST NATIONS COMMUNITIES

The study's estimates of existing housing needs in First Nations communities combines the results of the analyses presented above with Census-based Aboriginal household and family estimates which have been adjusted to address non-enumeration of reserves and survey under-coverage.

The housing needs component of the research focuses on four specific requirements associated with resolving the observed housing deficiencies in First Nations communities. These requirements relate to:

- providing sufficient and appropriate new housing stock to eliminate family doubling;
- constructing sufficient and appropriate new units to replace units that have deteriorated to the point where they cannot be renovated;
- modifying the size of the existing stock (through additions) to eliminate overcrowding; and
- renovating units that require major repairs.

Two sets of estimates of renovation requirements were developed for the study: one based on analysis of the state of dwelling unit repair data collected by the 2001 Census and a second developed from dwelling condition assessment data contained in INAC's CAMS database.[6]

The housing needs of Aboriginal households and families living in First Nations communities are summarized in Table 2. In 2001, these needs were estimated to include:

- 10,844 new units to provide housing to doubled families;
- 4,940 new units to replace units which have deteriorated to the point where they cannot be renovated;[7]
- the addition of 23,646 bedrooms to the existing stock of dwellings to address the space requirements of overcrowded households; and,
- the renovation of between 15,092 (if based on the CAMS renovation estimates) and 26,326 (if based on the Census renovation estimates) existing dwellings which require major repairs.

ESTIMATED FINANCIAL RESOURCES REQUIRED TO ADDRESS ABORIGINAL HOUSING NEEDS IN FIRST NATIONS COMMUNITIES

Estimates of the average construction cost of new housing units on-reserve by size of dwelling unit (developed from CMHC regional data for the 2001-2006 time period) were used to calculate the capital investment associated with new housing construction needed to eliminate family doubling and to replace deteriorated units. Capital investment associated with renovation requirements were calculated by applying the average per unit cost of reno-

TABLE 2: Estimates of New Construction and Renovation Needs of Aboriginal Households Living in First Nations Communities by Province/Region, Canada, 2001

PROVINCE/REGION	UNITS NEEDED TO ELIMINATE FAMILY DOUBLING	REPLACEMENT OF EXISTING UNITS	BEDROOMS NEEDED TO ELIMINATE OVERCROWDING	UNITS NEEDING MAJOR REPAIRS CENSUS ESTIMATES	UNITS NEEDING MAJOR REPAIRS CAMS ESTIMATES
Atlantic Region	319	206	751	1,687	743
Quebec	1,799	117	2,612	2,925	1,095
Ontario	1,314	1,059	3,570	5,189	3,003
Manitoba	1,983	1,346	4,736	4,094	2,370
Saskatchewan	1,883	324	4,664	4,164	1,238
Alberta	1,696	541	3,630	4,782	2,117
British Columbia	1,439	1,023	2,344	2,650	3,406
Yukon	28	60	221	176	178
Northwest Territories	382	263	1,118	659	942
All Regions	**10,844**	**4,940**	**23,646**	**26,326**	**15,092**

Note: Totals may not sum due to rounding error.

Source: Based on analysis of data contained on the 2001 Census of Canada and the 2004 Capital Assets Management System (INAC).

vations under CMHC's RRAP program (calculated from data for the 2003-2006 time period) to the estimated number of dwelling units requiring major repairs. Average construction costs per square foot were also developed from CMHC's new housing construction data and used to develop the capital investment required for stock modifications (i.e., bedroom additions) needed to eliminate overcrowding.[8]

Table 3 provides a summary of the capital resources (expressed in 2004 dollars) required to address the housing needs of all Aboriginal households living in First Nations communities in 2001. At the national level, the total capital requirements ranged from $2.75 billion (if based on the CAMS renovation estimates) to $2.99 billion (if based on the Census renovation estimates). Capital investment related to the construction of new dwelling units required to eliminate family doubling and to replace deteriorated units were estimated to total about $2.13 billion (including site preparation and servicing costs). Capital requirement associated with modifying the existing stock to eliminate overcrowding were estimated to total about $314 million. Renovation requirements were estimated to range between $308 million and $544 million, if based on the CAMS and Census housing condition data, respectively.

SUMMARY AND DISCUSSION

In 2001, about one-half of all Aboriginal households living in First Nations communities suffered from at least one form of housing deficiency, a rate roughly four times higher than that of the general Canadian population. More than one in every three Aboriginal households in First Nations communities occupied a dwelling requiring major repairs, more than one in every five households were overcrowded, and nearly one in every eight family households contained more than one family. In short, the Aboriginal populations of these communities continue to form some of the most poorly housed segments of Canadian society.

First Nations leaders have long argued that significant additional resources are required to address the housing needs of First Nations populations. Estimates prepared for this study suggest that a capital investment (conservatively estimated to be) in the range of $2.8 to $3.0 billion would be required to bring current Aboriginal housing conditions in First Nations communities in line with Canada's housing standards. The required level of investment to address current needs is four to six times higher than recent (2000-2004) annual capital allocations to First Nations to support housing renovation and construction initiatives. When viewed against the backdrop of increasing housing needs arising from future population growth and family formation, Canada First Nations communities clearly face a significant housing challenge, and one that is unlikely to be met within the constraints of current policies and fiscal arrangements related to the development and maintenance of First Nations housing.

NOTES

[1] The study excludes the population residing in various forms of institutional or collective (e.g. rooming houses or group homes) dwelling units.

[2] The adjusted household and family counts for 2001 were developed by the author and are discussed in a report prepared for the Research and Analysis Directorate of Indian and Northern Affairs Canada entitled "Projections of Aboriginal Households and Families for Canada, Provinces and Regions, 2001-2026", September, 2006.

TABLE 3: Estimated Capital Cost (in Millions of 2004$) of Addressing Existing Housing Needs among Aboriginal Households Living in First Nations Communities by Province/Region, Canada, 2001

PROVINCE/ REGION	NEW CONSTRUCTION COSTS (2004$M)			COST OF ADDITIONS TO ELIMINATE OVERCROWDING (2004$M)	RENOVATION COSTS FOR MAJOR REPAIRS (2004$M)		TOTAL COSTS (2004$M)	
	ELIMINATION OF FAMILY DOUBLING	REPLACEMENT OF EXISTING UNITS	SITE PREPARATION AND INFRASTRUCTURE		CENSUS PARAMETERS	CAMS PARAMETERS	CENSUS PARAMETERS	CAMS PARAMETERS
Atlantic Region	33.5	21.0	10.5	9.9	22.5	9.9	97.4	84.8
Quebec	234.3	14.5	38.3	44.3	77.2	28.9	408.6	360.3
Ontario	152.5	120.1	47.5	49.4	96.2	55.7	465.6	425.1
Manitoba	212.5	139.8	66.6	54.1	99.0	57.3	572.0	530.3
Saskatchewan	167.9	28.3	44.1	49.3	56.4	16.8	346.1	306.5
Alberta	202.2	63.1	44.8	45.7	129.8	57.4	485.7	413.3
British Columbia	174.1	121.8	49.2	32.3	43.5	55.9	421.0	433.4
Yukon	4.6	9.6	3.4	4.7	4.1	4.1	26.4	26.4
Northwest Territories	64.7	43.7	14.7	23.9	15.2	21.7	162.2	168.7
All Regions	**1,246.4**	**562.0**	**319.1**	**313.6**	**543.8**	**307.7**	**2,985.0**	**2,748.9**

Source: Based on analysis of data contained on the 2001 Census of Canada; the Capital Assets Management System (INAC), 2001; CMHC Section 91 data (2000-2006); and RRAP program data (2000-2003).

[3] The renovation cost estimates prepared for this study should be viewed as conservative, as the RRAP program places an upper limit on level of financial assistance provided per unit. As such, some projects assisted under the RRAP program may have restricted the level of renovations undertaken to fit the program's guidelines for assistance.

[4] Several First Nations do allow and encourage alternative forms of housing tenure through certificates of possession and other forms of ***evidence of title.*** The Indian Act, however, places Clatworthy, S.J. and H. Stevens. (1987). "An Overview of the Housing Conditions of Registered Indians in Canada". Indian and Northern Affairs Canada. Ottawa. restrictions on the transfer of such properties which serve to limit the development and functioning of a reserve housing market. Currently, properties subject to evidence of title can only be transferred to another ***Registered Indian*** or ***member*** of the First Nation and transfers must be approved by the Minister. According to the 2001 Census, 30 percent of Aboriginal households residing on-reserve owned their dwelling unit, 55 percent lived in band-owned housing and 15 percent in rental housing (in many cases also owned or controlled by the band).

[5] Although family doubling can occur by choice, it is generally regarded to result from the inability of families to afford or acquire a separate dwelling unit. In on-reserve contexts, family doubling is believed to result primarily from housing stock shortages which require more than one family to share a dwelling. Clatworthy, S.J. (2007). "Aboriginal Housing Conditions and Needs on-reserve". Prepared for the Research and Analysis Directorate of Indian and Northern Affairs Canada. Ottawa,

[6] These two data sources differ in both respects to the extent of reserve dwellings covered and to the source of dwelling unit condition information. In the case of the Census, the information is based on the occupant's perception of the repair needs of their dwelling. State of repair data contained on the CAMS data base are provided by First Nations housing authorities and are likely to be subject to varying degrees of accuracy depending upon the method used by individual First Nations to collect the data and the frequency at which data are collected or updated. Both sources of data are based, to a large extent, on subjective assessments of repair needs and can be expected to provide only a rough indicator of the renovation needs of Aboriginal occupied dwellings in First Nations communities.

[7] The estimates of units needing replacement derive from analysis of data contained on INAC's CAMS database.

[8] The capital cost estimates for stock modifications needed to address overcrowding also assume an average requirement of 110 square feet per additional bedroom.

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