HOUSEHOLD FORMATION IN CANADA AND THE UNITED STATES, 1900-1901 TO 1970-1971: TRENDS AND REGIONAL DIFFERENTIALS

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Abstract — This paper employs new measures of household headship in order to study trends and regional patterns of household composition in Canada and the United States, from 1900-01 to 1970-71. At the national level, household headship remained relatively stable until 1940-50, and then rose sharply thereafter. Provincial and state data provide evidence for substantial regional differences in household formation, with generally lower rates in the East and higher rates in the West for both nations. At the turn of the century, frontier areas of Canada and the United States exhibit extremely high headship rates, as does the American South. Rates generally converge over time, but some regional differentials persist.

Key Words— **household, family, living alone, historical demography**

Introduction

After the Second World War both Canada and the United States experienced tremendous social, economic and demographic change, one particular aspect of which was an alteration in living arrangements. While several studies have attempted to describe and explain the transformation in household formation behaviour since 1940 (see for example, Beresford and Rivlin, 1966; Harrison, 1981; Kobrin, 1973, 1976;

Michael *et al.*, 1980; Wargon, 1979), few have focussed upon patterns in the pre-1940 period. It has usually been assumed that until 1940 there was relatively little change in household structure.

More generally, there is a considerable body of opinion which argues that household and family structure have been relatively invariant over time and space (Goode, 1963; Laslett, 1972; Levy, 1965), or more concretely, that something approaching the modern nuclear family/household is a universal feature of human societies, and that the extension of past household and families has been greatly exaggerated. Documentation for this view remains spotty and unsystematic, however, due to the absence of long time-series or large international series of *comparable* measures of household and family structure. Average household size—widely available and frequently used for this purpose—has been shown to be unsuitable insofar as it reflects primarily the proportion of children in a population (in turn a function of past fertility levels) (Burch, 1967; 1970). Detailed measures of structure, which depends on census items giving the relationships among members of a household, are a fairly recent innovation and even today are unavailable for many societies. Comparable survey data on family relationships and kinship networks are virtually nonexistent. A partial remedy for this situation has been suggested by Burch (1980) and his associates (Burch *et al.*, forthcoming) in the form of indirectly standardized headship rates (inverse measures of household extension) that can be computed from routine census data.

This paper employs these new measures of household headship to study trends in household composition in Canada and the United States from 1900-01 to the present. Similarities and differences between the two countries in their regional patterns at certain points in time and in their national trends over time are discussed. In addition, regional variations within each country are described. The presentation is largely descriptive, but plausible explanations for major patterns are suggested.

Literature Review

Until recently, it was generally believed that "in the past the domestic group was universally and necessarily larger and more complex than it is today in industrial cultures" (Laslett, 1972:5). However, recent comparative and historical evidence (Burch, 1967; Laslett, 1972) indicates that extended family households are relatively rare even in preindustrial

societies and thus "any necessary connection between industrialisation . . . and the small, simple, nuclear family of the contemporary world" has been called into question (Laslett, 1972:9). In fact, broad generalizations regarding historical changes and cross-cultural differences in household and family structure need to be stated more precisely. It is necessary to specify (*a*) the unit of analysis — household, family, kinship network; (*b*) the dimension of interest—for example, size or composition; and (*c*) the amount of difference that is considered important. Pryor's (1972) analysis of change in Rhode Island's household and family structure between 1875 and 1960 is extremely useful for illustrating the differential trends in family and household structure over time.

Pryor (1972:588) found that between 1875 and 1960, the proportion of extended families, multigenerational families and families containing subfamilies declined only slightly. Although family structure in Rhode Island changed little between 1875 and 1960, household composition altered significantly. In 1875, almost one-quarter of all households contained a nonrelative of the head, whereas in 1960, only two per cent of households contained such persons (Pryor, 1972:586). Most of these were presumably servants, boarders or lodgers.

Some insight into the historical trends in household structure in Canada is provided by an early census monograph, *The Canadian Family* (Pelletier *et al.*, 1938). This monograph contains information on the number of households and average household size for the period 1661-1931. In 1861, the average number of persons per household in Canada stood at 6.29 (the highest ever) and registered a continuous though irregular decline until 1931 when it reached a level of 4.55. The overall fall in household size was attributed to a declining birth rate, the aging of the population, an increase in the proportion of the population married and increased urbanization. The irregularity of the decline was attributed to variations in the intensity and direction of population movements (Pelletier *et al.*, 1938:42-44).

More recent trends in household formation in Canada have been described by Wargon (1979). The trends indicate that there is "a growing emphasis on privacy in the living arrangements of families and individuals" in Canada (Wargon, 1979:23).

In each of the four intercensal periods between 1931 and 1971, the increase in the number of households in Canada exceeded the increase in the total population. Between 1931 and 1961, the number of households in Canada grew at increasing rates with the highest growth rate (33.6 per

cent) during the 1951-61 decade. The rate declined slightly in the 1961-71 period (Wargon, 1979:323-37).

Both the absolute and the relative number of one-family households increased between 1951 and 1971, while the number of multiple-family households declined. Notable increases in one-person and multiple-person (especially two-person) non-family households have also occurred since 1956 and 1966 respectively (Wargon, 1979:20).

Increases in the formation of non-family households have been especially important in the maintenance of the high growth rate of households over the last two decades (Wargon, 1979:20-21). Young persons of both sexes and older females are responsible for the increases in non-family, particularly one-person, households. Wargon (1979:21-22) suggests that increases in living alone among these age-sex groups are due to such factors as "an improved economic situation; health, housing and financial benefits and initiatives provided by governments and other agencies; the availability of small housing units; not needing to contribute to the family household; the increase in separation and divorce among the young, and possibly the postponement of marriage or the beginnings of non-marriage (or both) by young women."

Wargon (1979:20) concludes that as a result of "the undoubling of families and individuals from families" there has been an "increasing identification of the nuclear family with the household." She also suggests, however, that "at the same time, the growth of non-family households reveals that household formation no longer depends upon family formation, to the degree that it did in times past."

Harrison (1981) has investigated the recent growth in the number of one-person households in Canada. Between 1951 and 1976, a fivefold increase in the number of people living alone occurred. While a part of this increase is attributable to changes in the size and the composition of the population, Harrison (1981:33) argues that these factors "were certainly not the precipitators of the growth in living alone." In an attempt to determine what has contributed to the rise in separate living, the cross-sectional relationships between living arrangements and income and fertility were examined through tabular analysis. Non-family persons who lived alone in 1971 had higher incomes than those in other living arrangements. In addition, income and the degree of privacy afforded by the living arrangement were found to be directly related. (Harrison 1981:54) suggests that the increase in incomes of unattached individuals between 1951 and 1976 may have allowed many of them to purchase privacy and live alone.

Among widows, those who had no children were more likely to live alone than those who had children, and an inverse relationship between the propensity to live alone and number of children was found. Harrison (1981:54) argues that older women in 1971 had fewer children ever born than women in 1951 so that opportunities for these women to live with kin would be more restricted than those of their predecessors, and, therefore, the tendency to live alone would be greater.

Aside from rising incomes and fertility declines, Harrison (1954:54) also regards the growth in housing supply, especially apartments, between 1951 and 1976 as facilitating the increase in one-person households.

Harrison's (1981) findings of the positive association between income and living alone and the negative relationship between fertility and separate living have been confirmed in Wister and Burch's (1983) study of the determinants of the household status of older Canadian women. An analysis of the combined effects of income and fertility indicated that women who had both low fertility and high income were most likely to live alone, those with high fertility, regardless of income level, were least likely to live alone, and those with low fertility and low income fell between these extremes of living arrangements (Wister and Burch, 1983:10).

One of the first studies to examine changes in living arrangements in the United States since 1940 was conducted by Beresford and Rivlin (1966). They found that between 1940 and 1960, household headship had increased substantially. In order to determine whether or not these changes were recent, a comparison of the household status of young people in Massachussetts in 1885, 1940 and 1960 was undertaken. This analysis indicated that most of the change in the living arrangements of the young occurred after 1940. Arguing that Massachussetts is typical of the country as a whole, Beresford and Rivlin conclude "that the increase in privacy which occurred in the country as a whole after World War II was a new phenomenon" (1966:250).

In attempting to explain this alteration in living arrangements, they note that during this period incomes also rose. However, incomes had increased substantially between 1885 and 1940, but the Massachussetts data indicated little change in household formation behaviour between these two dates. Their conclusion is that "to assert that separate living has been associated with higher incomes since 1940, one must also assert that a basic shift in tastes occurred at about that time after which people tended to use their rising incomes to purchase additional privacy" (Beresford and Rivlin, 1966:254).

Using data on primary individuals by age and sex for 1950 and 1974, Kobrin (1976) analyzed the effect of population aging on the recent increase in the number of primary individuals in the United States. The data suggest that population aging has had little effect on the rise in the number of male primary individuals, as increases favoured the young. Among females, however, increases came at the older ages, suggesting that population aging has played an important role in the increase in the number of female primary individuals (Kobrin, 1976:131). However, a demographic decomposition revealed that while population change did contribute to the increase in the number of older female primary individuals between 1950 and 1974, population change and marital status change together explain less than one-third of the increase.

Kobrin suggests that the growth in the number of older female primary individuals in the United States is related to the increase since 1930 in the number of older women relative to their daughter generation. In the past, the demographic conditions were such that even though older women lived with their families the proportion of families containing such relatives was small (Korbin, 1976:136). However, the fact that even today only a few families have such relatives living with them implies that a major change in family residence norms has occurred, "otherwise, a sharp rise in non-nuclear families would have to have occurred in order to absorb the increases in eligibles caused by the shift in population structure" (Kobrin, 1976:136). Kobrin (1976:136) concludes that "under pressure from demographic changes, then, residence norms have changed, resulting in a great increase in the proportion of older females who live alone."

Michael *et al.* (1980) use multiple regression to analyze the cross-state variation in the propensity to live alone among young singles and elderly widows in the United States in 1970. These estimated regression equations are then used to explain the increase in separate living in the United States between 1950 and 1976.

The results of the cross-sectional regressions suggest that income is the major determinant of the tendency to live alone. When the cross-sectional equations are used to explain change over time, they perform quite well in explaining the increase in living alone between 1950 and 1976. However, Michael *et al.* encounter the same problem as Beresford and Rivlin (1976): "income growth has characterized the American economy throughout its history and one cannot extrapolate backward in time from the regression slope coefficient on income to infer the percentages living alone decades ago"; to do so yields negative percentages

(Michael *et al.*, 1980:45). They reject the idea that "in recent decades a structural change occurred which renders extrapolation in the past inappropriate" (Michael *et al.*, 1980:45). Instead, they assume that the relationship between income and living alone over time is logistic. Although the logistic equations have coefficients very similar to the linear equations, they prefer the logistic form since it "is capable of dealing with nonlinearities which must have existed if the underlying structure did not change in the post-war era" (Michael *et al.*, 1980:45). Their interpretation of "the S-shaped relation between the propensity to live alone and income is that a threshold income was reached sometime in the 1940s after which further increases in income had a sizable impact on the decision to live alone" (Michael *et al.*, 1980:45).

Burch *et al.* (1983) test this hypothesis through cross-sectional linear regressions for 48 states of the United States for the years 1970, 1940, 1920 and 1900. They argue that if the income threshold hypothesis is valid, then the regression coefficients for income should rise from zero in 1900 to positive in 1970.

The results of the cross-sectional regressions of headship on income alone generally supported the income threshold hypothesis in that the income coefficient was non-positive before World War II and positive in 1970 (Burch *et al.*, 1983:25). However, when other variables were added, the results were not consistent with the income threshold hypothesis nor with the "idea that income is the dominant causal factor in mid-century changes in household status" (Burch *et al.*, 1983:32). In addition, the regression equations were different for each period suggesting that there was "a different underlying structure at each census date" (Burch *et al.*, 1983:32). They argue that many of their results "may be interpreted in terms of a cultural change model that was explicitly rejected by Michael *et al.*" (Burch *et al.*, 1983:39).

Arguing that previous research has been unable to provide adequate tests of the income explanation and the normative change explanation because of the use of cross-sectional and aggregate data, Pampel (1983) tested the two explanations by using individual-level data for three points in time: 1960, 1970 and 1976. Time was used as a measure of "the structural context in which individuals make decisions about living alone" (Pampel, 1983:436). The results of the analysis provided partial support for the income explanation in that income had positive significant effects on the tendency of unmarried adults to live alone. However, the analysis also suggested that the tendency to live alone would have increased even if income had remained constant (Pampel, 1983:445). Therefore, Pampel

concludes that "as suggested by theories of change in structural tastes, factors other than those related to consumer demand may be needed to explain trends in living alone". (1983:445)

Methodology

The indexes used in this study—I_H and I'_H—are in effect indirectly standardized measures of household headship. They are formally analogous to the more familiar standardized mortality ratio or to Coale's (1969) fertility indices, and represent the ratio between the actual number of households in a population and the number that would be expected on the basis of the actual population distribution and an assumed standard set of specific headship rates[1] (Burch, 1980; Burch *et al.*, forthcoming).

The basic formula for I_H is:

$$\frac{H}{\Sigma\, h_i^w\, w_i + \Sigma\, h_i^m\, m_i} = \frac{H}{\hat{H}}$$

where H = the actual number of households in the population, h_i^w and h_i^m the standard age-specific headship rates (proportion who are heads of household) for females and males respectively, and w_i and m_i the number of women and men in the *i-th* age group. I_H achieves indirect standardization for population age and sex composition. Further standardization for marital status is desirable for certain substantive purposes. This is easily achieved by a straightforward extension of the above, resulting in the index I'_H.

Both I_H and I'_H measure the tendency of adults in a population to form separate households rather than to share households with others, net of compositional influences. Thus, the higher the index, the greater the tendency towards separate living. I_H and I'_H may also be thought of as inverse measures of household extension—the higher the headship rate, the lower the number of adults per household. Thus, populations characterized as having an extended family/household system would tend to have low values of I_H and I'_H, and vice-versa.

The data used to compute these indexes were obtained from the population censuses of Canada and the United States for the various years. The indexes are presented for the total populations of Canada[2] and the United States for the period 1900-01 to 1970-71. For states, pro-

vinces and regions[3] of Canada and the United States, I'_H is presented for the years 1900-01, 1920-21, 1940-41 and 1970-71.

Results

Figure 1 presents the trends in I_H (headship index standardized for age and sex) and I'_H (headship index standardized for age, sex and marital status) for the national populations of the two countries from 1900-01 to 1970-71. Household headship net of age and sex (I_H) has always been higher in the U.S.A. than in Canada. Until 1920-21, the trends in the two nations are parallel, and then begin to diverge slightly. Although the gap seems to narrow somewhat after 1960-61, it is still much larger than it was during the earlier decades of the century. The differential in I'_H between the two countries appears in the post 1930-31 period, being largest in 1950-51. The gap between I'_H values of the two

TABLE 1. I_H AND I'_H FOR U.S.A. AND CANADA
1900-01 TO PRESENT

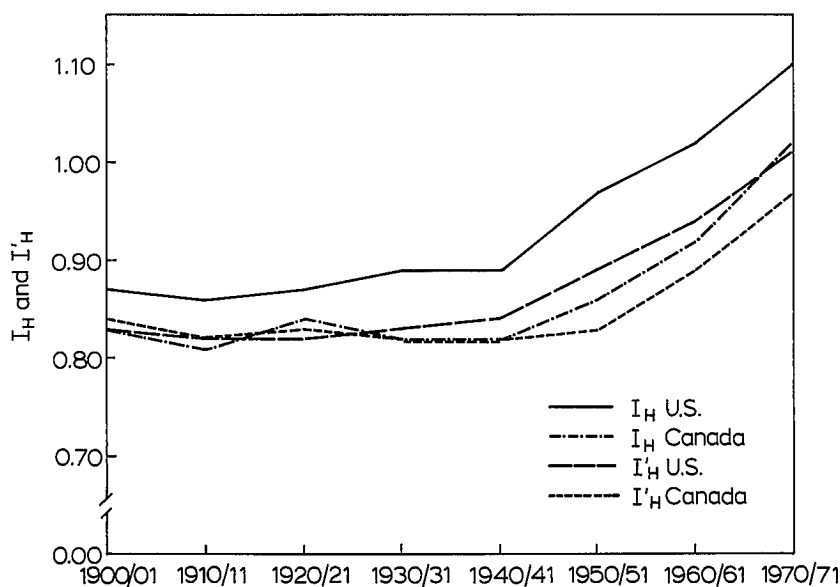|	1900/01 to Present			
	U.S.		Canada	
	I_H	I'_H	I_H	I'_H
1900/01	.87	.83	.83	.84
1910/11	.86	.82	.81	.82
1920/21	.87	.82	.84	.83
1930/31	.89	.83	.82	.82
1940/41	.89	.84	.82	.82
1950/51	.97	.89	.86	.83
1960/61	1.02	.94	.92	.89
1970/71	1.10	1.01	1.02	.97

FIGURE 1. I_H AND I'_H FOR U.S.A. AND CANADA
1900-01 TO PRESENT

countries is in general much smaller than that between I_H values, suggesting that much of the difference in overall headship between Canada and the U.S.A. is attributable to differences in the marital status composition of the two populations.

The most interesting feature of the trends depicted in Figure 1 is the similarity in the time trends of the two nations. I_H in both countries and I'_H in the United States are relatively constant until 1940-41, and rise sharply thereafter. In Canada, I'_H is constant until 1950-51 and then exhibits the same pattern of rapid increase. These trends confirm the findings of other studies that the tendency toward separate living accelerated after the 1940s, and the implicit assumption that there was little change in household formation behaviour before that date.

Figure 2 depicts the regional variations in I'_H in Canada for the years 1901, 1921, 1941 and 1971. Headship in Ontario and the Maritimes remains constant between 1901 and 1941, whereas in Quebec it decreases

slightly. In all three of these areas, I'_H increases sharply between 1941 and 1971. In general, these areas display a pattern similar to that observed for Canada as a whole, relative constancy in I'_H up to the 1940-50 decade and sharp increase thereafter.

The Western regions of Canada exhibit distinct patterns of headship. In the Prairie provinces, headship is very high in 1901, indeed I'_H in the Prairies in 1901 is higher than in the Maritimes in 1971, and at the same level as Quebec in 1971! It gradually declines until 1941 and then increases between 1941 and 1971. Over time, the disparity between the Prairies and the rest of Canada diminishes greatly. In contrast to the Prairie region, British Columbia displays extremely low headship at the beginning of the century. It rises gradually up to 1941, and then increases substantially between 1941 and 1971. Over time, the Prairies and B.C. converge, from very different starting points, and then move together, above the national figure.

The index for the Maritimes is consistently below the national level. Thus by 1971, it is evident that this region lags behind the rest of Canada in separate living. A clear East-West gradient emerges by 1971, with household headship being lowest in the Maritimes, highest in the Western regions and intermediate in Central Canada. It is interesting to note that the differences in household structure between Ontario and Quebec are relatively small at all dates, a result that might not have been

TABLE 2. I'_H FOR MAJOR CANADIAN REGIONS,
1901, 1921, 1941 AND 1971

1901, 1921, 1941, 1971

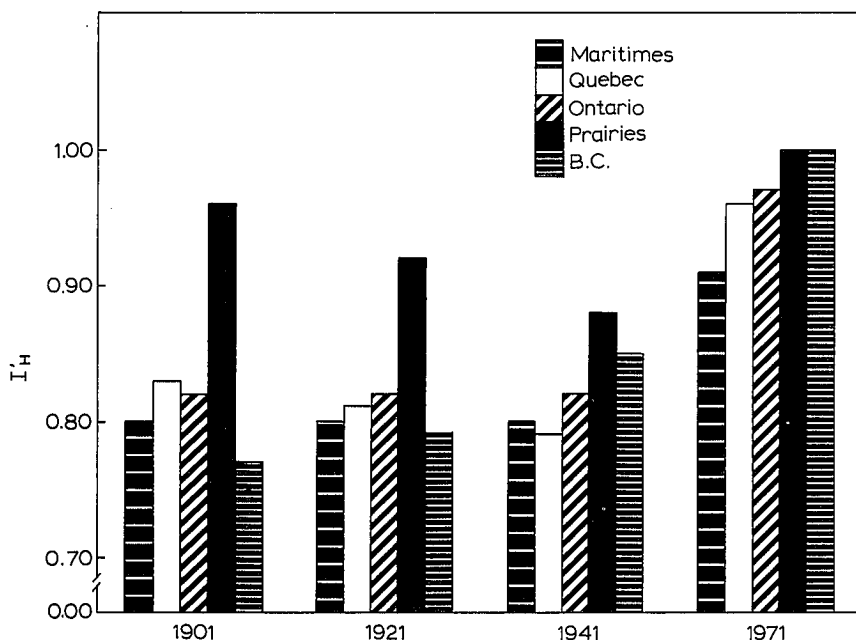|	1901	1921	1941	1971
Maritimes	.80	.80	.80	.91
Quebec	.83	.81	.79	.96
Ontario	.82	.82	.82	.97
Prairies	.96	.92	.88	1.00
British Columbia	.77	.79	.85	1.00

FIGURE 2. I'_H FOR MAJOR CANADIAN REGIONS,
1901, 1921, 1941 AND 1971

predicted from a knowledge of fertility and nuptiality differentials early in the century.

Figure 3 shows the regional variations in I'_H for the United States for the years 1900, 1920, 1940 and 1970. Household headship in the Northeast is the lowest of any region through 1940. It rises slightly between 1900 and 1940 and then more sharply between 1940 and 1970. The Southern and Mountain regions (and to a lesser degree North Central) display relatively high household headship at the beginning of the century. While there is relatively little fluctuation in I'_H in the North Central and Mountain regions between 1900 and 1940, the South exhibits a pattern of slight decline between these dates. In all three regions, household headship increases between 1940 and 1970. In the Pacific area, headship is relatively low until 1920; it increases between 1920 and 1940 and again

sharply between 1940 and 1970. Generally, in 1970 separate living is the most prevalent in the West. However, there does appear to be a definite convergence in household headship across the U.S.A.

A comparison of Figures 2 and 3 reveals interesting similarities and differences in the regional patterns of household formation in Canada and the United States. For most regions in both countries, the magnitude of the change between 1940-41 and 1970-71 is much greater than that between 1900-01 and 1940-41. While a clear East-West gradient in household headship appears in Canada by 1970-71, differentiation in household formation on the basis of region is not as evident in the United States for this most recent period, although the Western areas do display higher headship than the other areas of the United States. Regional convergence of household structure appears to have occurred to a much greater degree in the United States than in Canada.

In both countries, the West Coast displays relatively low headship at the beginning of the century. This pattern is much more distinct in Canada. In contrast to the West Coast, which was already settled in the sense of there being large coastal cities, frontier areas such as the Prairies, the North Central and Mountain regions — which were just be-

TABLE 3. I'_H FOR MAJOR U.S.A. REGIONS*,
1900, 1920, 1940 AND 1970

	1900	1920	1940	1970
Northeast	.79	.78	.82	1.00
North Central	.85	.83	.85	1.01
South	.88	.85	.84	1.00
Mountain	.89	.88	.90	1.03
Pacific	.80	.81	.88	1.05

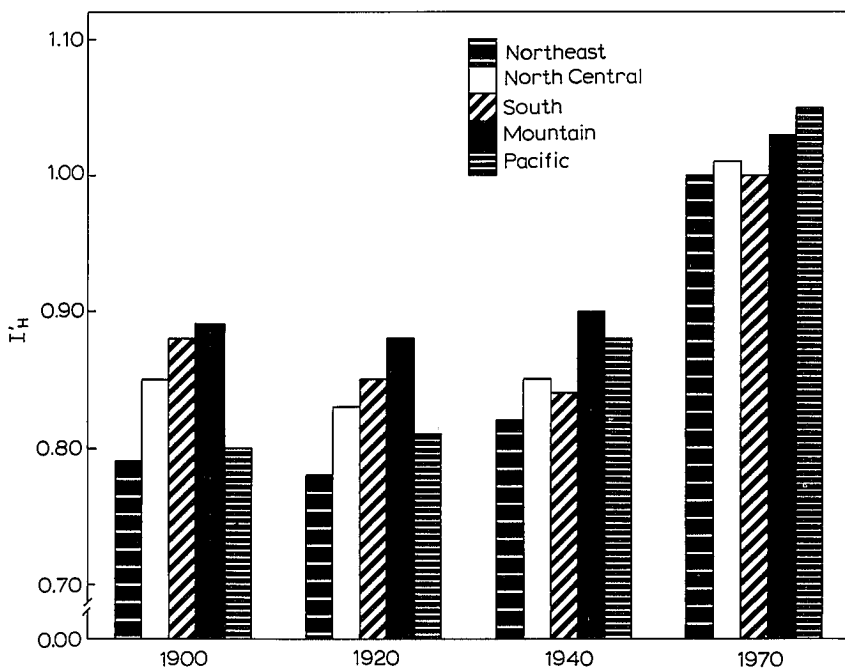*See appendix Table A for states comprising each region.

FIGURE 3. I'_H FOR MAJOR U.S.A. REGIONS,
1900, 1920, 1940 AND 1970

ing settled at the turn of the century — display high headship. Again, the pattern is much clearer in Canada. One reason that this and other patterns are not as clear in the United States is that the broad regions are fairly heterogeneous. From Table 4, which presents I'_H values for individual states in the West North Central and Mountain states in 1900, it is evident that many individual states in these newer areas do display I'_H values of 0.90 or greater. In 1970-71, household headship in the Canadian and the American West is higher than in other parts of each country.

TABLE 4. I'$_H$ FOR INDIVIDUAL STATES IN THE WEST NORTH
CENTRAL AND MOUNTAIN REGIONS IN 1900

West North Central	I'$_H$ in 1900
Iowa	.86
Kansas	.89
Minnesota	.84
Missouri	.84
Nebraska	.89
North Dakota	.93
South Dakota	.92
Mountain	
Arizona	.90
Colorado	.86
Idaho	.94
Montana	.85
Nevada	.86
New Mexico	.94
Utah	.93
Wyoming	.86

Discussion

The findings of this study indicate that there has been substantial change in household structure in North America in the twentieth century. Furthermore, as Beresford and Rivlin (1966) suggest, the alteration in living arrangements that has occurred at the national level in the postwar period is indeed a new phenomenon. Although the factors underlying this sudden transformation are still not clearly understood, the literature reviewed earlier does offer three possible explanations.

The first explanation attributes the increase in household headship after 1940 to rising incomes. It is argued that as incomes increased during the post-war era it became easier for people to live separately, either alone or with members of their nuclear family only. However, as noted earlier, the problem with this explanation is that incomes had been rising

for a long time without producing any change in headship. Beresford and Rivlin's (1966:254) solution to the problem is to hypothesize that a change in tastes ococurred after 1940 whereby people began to use their rising incomes to buy privacy and independence. By suggesting such an explanation, they attribute a causal role to alterations in the preference structure for separate living as well as to income.

Michael *et al.* avoid the assumption of a shift in tastes by arguing that the lack of a relationship prior to 1940 and the appearance of an association after that date is due to the fact that income had to first reach a certain threshold level "after which further increases in income had a sizable impact" on separate living (1980:45). Their conclusion is based on a logistic regression model which they prefer over a linear model because they choose to assume that the structure underlying living arrangements did not change in the post-war era (Michael *et al.*, 1980:45). Burch *et al.* (1983) suggest that such an assumption is arbitrary, and that the income explanation, as it stands, may not explain the rapid change in living arrangements that has occurred in North America since the Second World War.

The second explanation views the alteration in living arrangements in the post-war period as being due to changes in the demographic composition of the population. Specifically, Korbin (1976) suggests that the increase in older female primary individuals in the United States in recent years is due to an increase in the number of older women relative to the number of women in their daughter generation. Thus the availability of potential co-residents for older women has declined. Therefore one would expect that the relationship between the tendency to form a separate household and the daughter-mother ratio would be negative in the post-war period. However, Burch *et al.* (1983) did not find a significant relationship between I'_H and the daughter-mother ratio in 1940 or 1970. Similarly Michael *et al.* (1980) found no significant association between the mother-daughter ratio and the propensity to live alone among widows in 1970. Given these findings, the utility of Kobrin's hypothesis in explaining the sudden shift in living arrangements in Canada and the United States after 1940 is questionable.

The third explanation that has been suggested is that the increase in separate living after 1940 is due to changes in norms and values which determine living arrangements. Although this explanation is suggested by Beresford and Rivlin (1966), they do not identify the source of this change.

Kobrin (1976) suggests that the change in residence norms occurred as a result of demographic pressures. Because of demographic changes, there has been an increase in the availability of elderly relatives for co-residence, exerting pressure on more and more families to include such relatives in their households. As a result, norms requiring co-residence with kin had to change.

Some empirical support for this normative change explanation is provided by the findings of Burch *et al.* (1983). For example, they find that the relationship between the child-woman ratio and headship is positive in 1900, non-significant in 1920 and 1940 and negative (although only approaching significance) in 1970. They view this finding as being "consistent with an assumption of a more or less homogeneous familistic culture operating . . . up to 1940 . . . subsequent to 1940, this culture began to break down leading to a situation in 1970 where states retaining the familistic culture were high on fertility and low on headship, and vice versa" (Burch *et al.*, 1983:39-40). In addition, they find a negative relationship between income and headship in 1920 and 1940. They argue that this finding "is consistent with the view that prior to 1970, the prevailing preference was for co-residence rather than for privacy and independence, and that populations with high income were more able to realize it, *ceteris paribus*" (Burch *et al.*, 1983:40). Although the normative change explanation has not yet been empirically rejected, a major problem with it arises from difficulties in operationalizing the concept of 'normative change'.

The findings at the regional level indicate that some areas, at certain dates, display patterns that are quite distinct from those observed at the national level. Therefore, possible explanations of these unique regional patterns cannot be obtained from studies that examine living arrangements at the national level, which is often the case. Rather, an examination of the social/historical context within which such patterns of household formation behaviour occur is necessary. As Medjuck (1979) discovered, social and economic conditions existing in a specific locality at a certain point in time can exert a strong influence upon household structure.

Both the United States and Canada at the beginning of this century, in areas that were just being settled, display household headship rates that are extremely high. Easterlin (1974) has suggested that the fertility differential between newly settled areas and older established areas in the United States in 1860 was related to the declining availability of land in the older areas, which created pressure for fertility reduction. An ex-

planation for the high household headship in these areas can be derived from this land availability hypothesis. Since land in these new frontiers would be abundant and inexpensive, nuclear families or individuals would find it relatively easy to set up households separate from others. In addition, most of the people living in these areas at that time were migrants, and would have had few kin with whom they could live. The simultaneous existence of both factors would result in unusually high headship.

Similarly an examination of the social/historical context of British Columbia in 1901 provides a useful basis for understanding the unusually low levels of headship. During the late nineteenth and early twentieth centuries, a large number of Asians immigrated to British Columbia. Most of these new immigrants were Chinese males who came in response to the Canadian labour needs during the Gold Rush of the 1850s and the building of the railway during the 1880s. After the completion of the railway, many of them were unemployed. In order to survive economically, many of them lived together in communal households (Somerset, 1980). Such a practice of communal living would certainly increase household complexity and reduce household headship rates.

The continued westward migration in both countries no doubt plays an important role in the explanation of the higher levels of household headship found in British Columbia and the Prairies in Canada and in the Pacific region of the United States in 1970-71. The in-migrants living in these areas would have few family and friends in these regions with whom they could share a residence. The higher divorce rates found on the West Coast of both nations can also be viewed as contributing to this phenomenon. Generally when a couple divorces, two households result, since once individuals have married and moved out of the parental home, they are unlikely to return to it even though their marital situations may have changed (Carliner, 1975).

An explanation for the low I'_H values found in the Maritime provinces in Canada in 1970-71 is suggested by Trovato and Halli (1983). They examined the factors associated with the substantially higher fertility of this region in comparison to the rest of Canada. A regression decomposition revealed that even after statisticalstandardization for various social and economic characteristics, a large proportion of the variance remained unexplained. However, region *per se* was quite important in explaining the fertility differential between the Maritimes and the rest of Canada. They argue that "this supports the regional-culture thesis, that the Atlantic locality has a unique culture that hasevolved over

many decades" (Trovato and Halli, 1983:287). They suggest that one aspect of this culture is "a particularized set of values compatible with strong familialistic orientations" (Trovato and Halli, 1983:274). The comparatively low household headship index of this region could be another manifestation of such a familistic regional subculture. A similar explanation may help explain the relatively low headship rates in New England, especially during the early part of the century.

Summary and Conclusions

At the national level, the rapid transformation in the living arrangements of North Americans in the post-war era is unprecedented. The factors underlying this sudden transformation in living arrangements are still not clearly understood. Future research needs to focus on the determinants of this change, using better data and carefully formulated explanatory models. The regional patterns indicate that there are substantial differences in household structure between the various geographic regions of each country, and similarities in household complexity in similar areas of the Unitied States and Canada. For example:

1) In Canada, I'_H is low in the Maritimes in 1971 and in B.C. in 1901; I'_H is high in the Prairies in the early years and in the West in 1971.

2) In the U.S.A. I'_H is low in the Northeast in the earlier years, and in the Pacific area around the turn of the century; I'_H in the North Central, the Mountain and the Southern States is high in 1900; I'_H is relatively high in the West in 1970.

3) In both Canada and the U.S.A., the West displays low headship at the beginning of the century, and the Prairies and the North Central/Mountain states exhibit high headship during the earlier part of the period.

Explanations of national trends will require an understanding of the causes of these sub-national differences. As the case of British Columbia suggests, these may often be historically specific.

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Acknowledgments

Footnotes

1. The standard rates used in this paper are those of Sweden 1960; they differ from those used by Burch (1980).

2. Includes Yukon and Northwest Territories, 1956-71, and Newfoundland, 1951-71.

3. Indexes for states and provinces were weighted by the adult population before being collapsed into regions.

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APPENDIX TABLE A. I'$_H$ FOR INDIVIDUAL STATES,
1900, 1920, 1940 AND 1970

Region/State	I'$_H$			
	1900	1920	1940	1970
Northeast				
Maine	.79	.79	.82	.98
New Hampshire	.78	.78	.83	.99
Vermont	.79	.79	.82	1.00
Massachusetts	.77	.76	.80	1.00
Rhode Island	.78	.78	.83	.98
Connecticut	.78	.78	.82	.99
New York	.80	.79	.82	1.03
New Jersey	.80	.79	.81	.99
Pennsylvania	.80	.78	.82	.99
North Central				
Ohio	.84	.81	.84	1.00
Indiana	.85	.83	.86	1.00
Illinois	.83	.81	.83	1.01
Michigan	.85	.80	.84	1.01
Wisconsin	.85	.83	.85	1.01
Minnesota	.84	.83	.85	1.02
Iowa	.86	.85	.87	1.02
Missouri	.84	.82	.85	1.01
North Dakota	.93	.90	.87	1.00
South Dakota	.92	.89	.88	1.01
Nebraska	.89	.87	.88	1.03
Kansas	.89	.87	.88	1.02
South				
Delaware	.79	.78	.81	1.00
Maryland	.80	.77	.80	.99
D.C.	.68	.67	.74	1.11
Virginia	.85	.82	.81	.98
West Virginia	.85	.84	.84	.98
North Carolina	.89	.86	.83	.98
South Carolina	.93	.89	.87	.98
Georgia	.91	.86	.81	.99
Florida	.94	.86	.84	1.01
Kentucky	.85	.84	.84	.98
Tennessee	.85	.84	.83	.98
Alabama	.91	.87	.85	.98
Mississippi	.92	.90	.87	.98
Arkansas	.89	.87	.87	1.00
Louisiana	.89	.84	.86	1.00
Oklahoma	.92	.87	.87	1.02
Texas	.88	.84	.86	1.01

APPENDIX TABLE A. (continued)

Region/State	I'_H			
	1900	1920	1940	1970
Mountain				
Montana	.85	.91	.92	1.04
Idaho	.94	.88	.92	.99
Wyoming	.86	.88	.91	1.03
Colorado	.86	.84	.88	1.05
New Mexico	.94	.91	.91	1.03
Arizona	.90	.87	.90	1.03
Utah	.93	.88	.92	1.03
Nevada	.86	.86	.88	1.05
Pacific				
Washington	.83	.83	.91	1.05
Oregon	.82	.84	.90	1.04
California	.78	.79	.87	1.05

APPENDIX TABLE B. I'_H FOR INDIVIDUAL PROVINCES, 1901, 1921, 1941 AND 1971

Region/Province	1901	1921	1941	1971
Maritimes:				
Prince Edward Island	.79	.80	.79	.89
Nova Scotia	.80	.80	.80	.92
New Brunswick	.80	.80	.79	.91
Quebec	.83	.81	.79	.96
Ontario	.82	.82	.82	.97
Prairies				
Manitoba	.90	.86	.84	.99
Saskatchewan	1.06	.95	.90	.99
Alberta	1.05	.95	.90	1.01
British Columbia	.77	.79	.85	1.00