



FINAL MEETING ON FAMILY LIFE  
CYCLE METHODOLOGY

INDEXED

Wiesbaden, 6-10 July 1981

OPERATIONALIZING THE FAMILY LIFE-CYCLE CONCEPT  
WITHIN THE CONTEXT OF UNITED NATIONS RECOMMENDATIONS  
FOR THE 1980 CENSUSES

by

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### 1. Requirements for Family Typology

In recent years there has been an increasing interest in the study of the Nuclear Family as a decision-making unit which has significant impact upon many social and economic aspects of modern life.<sup>(1)</sup> The Nuclear Family is now seen as not only a unit of reproduction, but also a unit of consumption for many goods and services such as housing, food, health care, welfare and leisure programs, etc. The underlying assumption is, of course, that in terms of human groups like the community, the household, the Extended Family, or the Nuclear Family, the most fundamental decisions are made at the Nuclear Family level.

In keeping with this interest, the following recommendation has been made for the 1980 Censuses of Population and Housing:

For census purposes, the family should be defined in the narrow sense of a family nucleus, that is, the persons within a . . . household who are related as husband and wife or as parent and never-married child by blood or adoption.<sup>(2)</sup>

In addition, however, a call has been made to provide more useful and meaningful typologies of families reflecting both size and structural characteristics. Item 103 of the UN recommendations calls for the classification of family nuclei showing married couples without children, married couples with children, father (only) with children and mother (only) with children. Going a step further, the World Health Organization has made the following statement:

Information is badly needed on the distribution of families, not only by size and structural characteristics (already available for a number of countries), but also on the number of families, at a given point in time, in each phase of the life cycle. Related to this question is the observation of the families moving from one phase to another, i.e., the longitudinal follow-up of families as they move from formation to extinction. In other words, stock and flow data on families are required. It is also necessary to obtain data on how many families actually adhere to the normative life cycle . . . . Which stages of the life cycle are common to all, or at least to the majority of families? Which deviations from this ideal course are the most frequent and in which stages of the life cycle can numerically significant departures from the norm be observed?

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(1) Santini, Antonio, "The Family Life Cycle as a Context for the Measurement of Nuptiality and Fertility", Contributed paper to the General Conference of IUSSP, August 8-13, 1977, Mexico City.

(2) Recommendations for the 1980 Censuses of Population and Housing in the ECE Region, United Nations, New York, 1978, Item 95.

Only too often the glaring gaps in information are due to non-availability of pertinent data; occasionally, however, they are the consequence of a lack of ingenuity and of a failure to reassemble and rearrange potentially useful information in a systematic coherent way to meet family research requirements. At least, in countries with a sophisticated level of statistical service development, the population censuses, sample household surveys and vital statistics offer a potential source of integrated information at relatively little extra effort and cost. (3)

In light of these recommendations, the balance of this paper examines current models of the family life-cycle concept, reveals the results of experimentation with operationalizing the concept of an existing data base and comments on the potential of the concept for the 1980 Censuses.

## 2. Life-cycle Models

Roy H. Rodgers has identified three periods in the development of the family life cycle as pre-1948, 1948-1964, and post-1964. He identifies the first as the "primitive period" and the second as a period of development and conceptualization which provided a springboard for the most recent period which has seen a much greater interest in the concept and consequently increased activity on the part of students of the family. (4) The model developed by a World Health Organization Study Group represents what might be termed the current state of the art. (5) This basic model identifies six stages as shown in Figure I. The stages shown are not significantly different from those identified by Glick (6) as first marriage, birth of last child, marriage of last child, and death of one spouse. While either model is quite valid in its description of what Rodgers calls a family career, both are lacking in two respects. Firstly, neither deals with deviant life-cycle patterns and neither can easily be operationalized using one major data base such as either a census or vital statistics.

There are many factors affecting the entry and exit of families to and from the various stages of the life cycle as shown in Figure II, some of which are merely reflected in a progression through the normative model, but some of which would force the family into a deviant pattern. Certainly, any Lone-parent Family would be considered deviant as would any Husband-wife Family that remains childless after the wife has passed beyond the normal childbearing age. A close examination of Figure II reveals that, given current definitions

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(3) World Health Organization, World Health Statistics Report, Vol. 29, No. 4, Geneva, 1976, pp. 225-227.

(4) Rodgers, Roy H., "The Family Life-cycle Concept: Past, Present, and Future" in Jean Cuisenier (ed.), The Family Life Cycle in European Societies, Mouton, The Hague, 1977.

(5) World Health Organization, Statistical Indices of Family Health. Report of a WHO Study Group, Technical Series 587, Geneva, 1976.

(6) Glick, Paul, C., "Updating the Life Cycle of the Family", Journal of Marriage and the Family, February 1977.

of a Nuclear Family, families may, in fact, pass to and from normal and deviant status. For example, a husband and wife may marry and have a child following the normative stages of formation and extension. The death of the husband would place the widow and child in the deviant status of a Lone-parent Family. The re-marriage of the lone parent, however, would return the family to a normative status in the extension stage.

It is evident, therefore, that longitudinal studies of families passing through life-cycle stages might well uncover families passing through stages not identified in the model. Unfortunately, data bases allowing longitudinal studies of families are not easily constructed, but this is not to say that less ambitious studies could not be undertaken using data bases that provide data "... on the number of families, at a given point in time, in each phase of the life cycle ...", both normative and deviant.

Operationalizing either the existing models, or models expanded to incorporate deviant life cycles is extremely difficult, if not impossible, given existing methodologies. Vital statistics in most countries can provide ample data on nuptiality, fertility, and mortality, perhaps even divorce, but seldom, if ever, provide data on the informal separation of husbands and wives or the age at which children leave home. Census and major household survey data may be even more restrictive as they generally include only those never-married children who are currently present in the same household as their parents. Nothing is known concerning children or spouses who may have been former members of the family but have now left. Nor does one know in the case of either the census or the vital statistics records if the youngest child is indeed the "last" child. Countries that have the facility to link records from various data bases may be in a better position to approximate model conditions, but it would seem that in most cases rather substantive assumptions or concessions would have to be made.

Figure I  
WHO Model of Nuclear Family Life Cycle

Stage	Description	Events characterizing	
		Beginning	End
I.	Formation	Marriage	Birth of first child
II.	Extension	Birth of first child	Birth of last child
III.	Completed extension	Birth of last child	First child leaves home of parents
IV.	Contraction	First child leaves home of parents	Last child leaves home of parents
V.	Completed contraction	Last child leaves home of parents	First spouse dies
VI.	Dissolution	First spouse dies	Death of survivor (extinction)

Figure II  
Factors Affecting Entrance To and Exit  
From Stage in the Family Life Cycle

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Formation

- marriage
- birth of child to lone parent

Extension

- birth of first child to husband and wife
- birth of second or subsequent children to lone parent
- addition of spouse to lone parent and child(ren)

Contraction

- death of spouse in Husband-wife Family with child(ren)
- death of child in Husband-wife Family with child(ren)
- death of child in Lone-parent Family with two or more children
- departure of spouse in Husband-wife Family with child(ren)
- departure of child in Husband-wife Family with child(ren)
- departure of child in Lone-parent Family with two or more children

Dissolution

- death of spouse in Husband-wife Family with no children
- death of parent in Lone-parent Family
- death of child in Lone-parent Family with one child
- departure of spouse in Husband-wife Family with no children
- departure of parent in Lone-parent Family
- departure of child in Lone-parent Family with one child

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Notes:

- Marriage may be defined as legal or consensual.
  - Birth may include adoption.
  - Departure may be due to divorce, separation, or leaving home.
  - Formation and extension may also take place through the return to the family by either a spouse or a never-married child.
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### 3. Results of Experimentation with a Data Base

Since most demographic variables are available on most census data bases, the challenge of "reassembling and rearranging" data can, perhaps, result in the development of a life-cycle typology if the delineation of stages is less ambitious; that is, if normative stages are considered simply as "New" (young Husband-wife Families with no children), "Active" (Husband-wife Families with children), and "Mature" (older Husband-wife Families with no children). As there is an obvious interest in deviancy, certainly "Lone-parent" Families should be identified and possibly "Barren" Families where older Husband-wife Families have no children and have never had any (see Appendix for complete definitions).

In the 1971 Census of Canada, all individuals in a household were assigned a family status on the basis of age, sex, marital status, and relationship. Thus, husbands, wives, lone parents, and children could be identified, and tabulations could be produced either for individuals according to their family status or according to actual family groupings as each individual was also assigned to specific families. That is, everyone was coded as a non-family person, or a member of family "one" in the household, or family "two" in the household, etc., depending upon the various relationships that existed. In addition, a fertility

question asked of all women aged 15 years and over who were ever married<sup>(7)</sup> determined how many live births these persons had had. It is possible, therefore, to group family persons not only into Husband-wife Families and Lone-parent Families (as recommended by the UN), but also by using age and fertility data, into what might be considered both normative and deviant life-cycle stages. Consider the following typology:

All Nuclear Families

Husband-wife Families

- New Families
- Active Families
- Mature Families
- Barren Families

Lone-parent Families

- Female Lone-parent Families
- Male Lone-parent Families

This typology can be constructed as noted by using age and fertility data. Glick's work on median ages of mothers at selected stages of the family life cycle<sup>(8)</sup> has led to the identification of age-of-wife categories of less than 35, 35 to 54, and greater than 54 as being significant in life-cycle constructs. Glick determined that the median age at birth of last child for women has ranged from 32.9 for women married in the 1900s to 29.6 in the 1970s. The 80-year average is 31.3. Therefore, age 35 was selected as being a reasonable point beyond which childbearing would be unlikely. In the same study, Glick found that the 80-year average age of women at marriage of the last child is 53.5. This age also ranged from a high of 55.4 in the 1900s to a low of 52.3 in the 1970s. Age of wife at 55, then, is considered to be the point beyond which most Husband-wife Families may be expected to have entered the contraction or empty-nest stage.

We might now define New Families as those Husband-wife Families in which there are no children present and the wife is aged less than 35. Active Families are those Husband-wife Families in which children are present. Mature Families<sup>(9)</sup> are those Husband-wife Families in which there are no children present and the wife is aged 35 or over but has borne children. These Husband-wife Families may be considered to represent three stages in the normative life cycle.

In addition, we can identify as Barren Families those Husband-wife Families in which no children are present and the wife is aged 35 or over but has never borne children. These families as well as Female and Male Lone-parent Families may be considered to represent stages deviant to the normative life cycle. Figure III depicts both the relationship and the progress between the various stages.

<sup>(7)</sup> It should be noted that in the future, it would be preferable that this question be asked of all women aged 15 and over regardless of marital status.

<sup>(8)</sup> Ibid.

<sup>(9)</sup> It must be noted that this typology fails to deal adequately with those Husband-wife Families where the wife has not borne children but has raised adopted children. In such cases, these families will be correctly identified at the "Active" stage but will be misclassified as "Barren" rather than "Mature" after the children have left home.



Tabulations from the 1971 Canadian census have produced the data shown in Table 1, which reflects a variation on the above-noted typology which provides a more detailed breakdown by age of wife. As a footnote to this table, it might be noted that 14.4% of all Nuclear Families are to be found in a deviant status (that is, the sum of Barren and Lone-parent Families). These comprise a significant population which are not adequately covered in previous models and are, as will be seen, populations which display unique characteristics.

It may also be seen that a full 27.0% of all families have no children present ( $\Sigma$ New Families + Mature Families + Barren Families) and in 13.2% of all families the wife has had no live births ( $\Sigma$ New Families + Barren Families).

In the popular literature, the typical family is often presented as a husband-wife-children group, but here it is shown that only 63.7% of all Canadian families fit this description. If, on the other hand, one thinks of child-rearing, then 73.0% of all Canadian families are involved ( $\Sigma$  Active Families + Lone-parent Families). This presentation of the data has interesting implications upon analysis of data pertaining to family size as shown in Table 2.

In most census publications, average family size is usually shown for all Nuclear Families (and in some cases for Husband-wife and Lone-parent Families). The figures published for the 1971 Census of Canada reflected an average number of persons of 3.7, 3.8, and 3.1, for all Nuclear Families, Husband-wife Families, and Lone-parent Families, respectively. Thinking in terms of the popular concept of a family, however, a much different statistic emerges. Here it is seen that Husband-wife Families actively engaged in child-rearing contain an average of 4.54 persons per family. An even higher 4.93 persons per family is seen where the age of the wife is 35 to 54. Thus, the presentation of data based on the life-cycle concept provides, through the separate tabulation of childless families, a much more realistic picture of family size and composition.

TABLE 1. Nuclear Families by Stage in Life Cycle  
for Canada, 1971

Stage	Number	% of total
All Nuclear Families	5,076,090	100.0
Husband-wife Families	4,605,490	90.7
New Families	411,610	8.1
Active Families	3,235,710	63.7
Wife aged <35	1,310,385	25.8
Wife aged 35-54	1,656,950	32.7
Wife aged >54	266,375	5.2
Mature Families	699,460	13.8
Wife aged 35-54	180,850	3.6
Wife aged >54	518,610	10.2
Barren Families	258,710	5.1
Wife aged 35-54	124,385	2.5
Wife aged >54	134,325	2.6
Lone-parent Families	470,600	9.3
Male Parent	99,780	2.0
Aged <35	21,335	0.4
Aged 35-54	44,380	0.9
Aged >54	34,065	0.7
Female Parent	370,820	7.3
Aged <35	89,895	1.8
Aged 35-54	160,495	3.2
Aged >54	120,440	2.4

TABLE 2. Average Size of Nuclear Families by Stage in the Life Cycle for Canada, 1971

Stage	Average number of persons per family
All Nuclear Families	3.72
Husband-wife Families	3.78
New Families	2.00*
Active Families	4.54
Wife aged <35	4.23
Wife aged 35-54	4.93
Wife aged >54	3.64
Mature Families	2.00*
Wife aged 35-54	2.00*
Wife aged >54	2.00*
Barren Families	2.00*
Wife aged 35-54	2.00*
Wife aged >54	2.00*
Lone-parent Families	3.07
Male Parent	3.11
Female Parent	3.06

\* By definition, some families will have only two persons.

In terms of policy issues, further potentials of the life-cycle concept may be seen in Table 3 and Figure IV where data are presented for average family income.

Evident in this presentation is the reduction in family income when families move from the "New" stage to the "Active" stage with the wife aged less than 35; this is no doubt due to wives dropping out of the labour force with the arrival of children. This loss of family income is even more pronounced when one considers that average family size has increased from 2.00 to 4.23. In effect, for families where the head was in the labour force, per capita average family income dropped from \$4,979 to \$2,152 ( $\$9,952 \div 2$  and  $\$9,102 \div 4.23$ ). Following this approach, it may be seen that per capita income rises as Active Families pass through the stages, that is, from \$2,152, where the wife is aged less than 35, to \$2,450, where the wife is aged 35 to 54, and to \$3,485, where the wife is aged greater than 54.

Of particular interest is the fact that, on the basis of per capita family income, Barren Families fared better financially than did Mature Families, which, in turn, were better off than Active Families. Per capita family income for Active Families with wives aged 35 to 54 was \$2,450, while it was \$4,876 for Mature Families with wives in the same age group. Barren Families with wives of a similar age experienced per capita incomes of \$5,499. The difference between the incomes of Barren Families and Mature Families is probably due to the lack of career interruptions due to childbearing for wives in Barren Families. Further, it seems reasonable to assume that, while wives in Barren Families have probably remained in the labour force, many wives in Mature Families may not have returned to the labour force, while those that have may command lower salaries due to a lack of seniority or recent training.

TABLE 3. Average Family Income and Per Capita Family Income for  
Nuclear Families With Head in the Labour Force  
by Stage in the Life Cycle for Canada, 1971

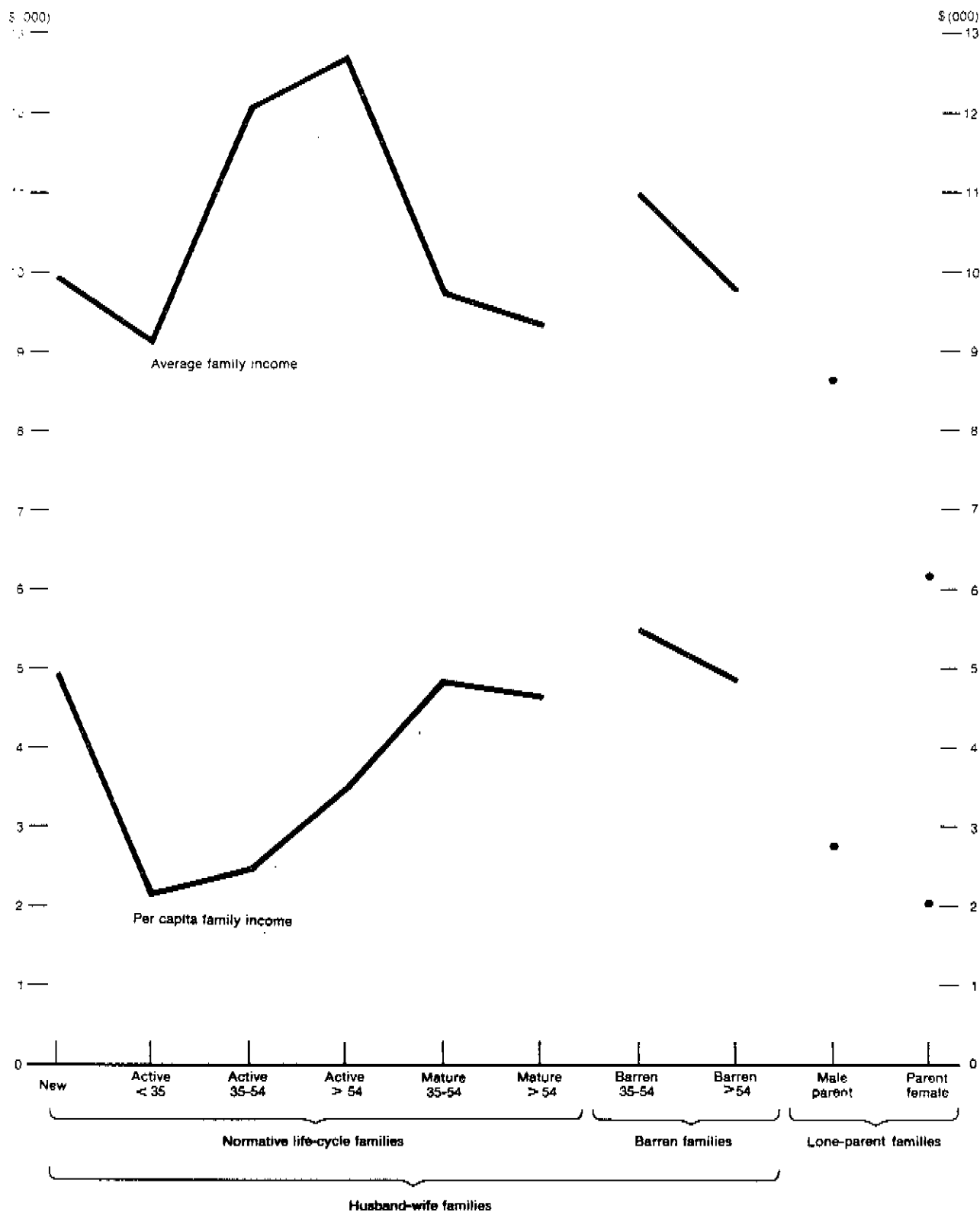
Stage	Average family income \$	Per capita family income* \$
All Families	10,411	2,799
Husband-wife Families	9,398	2,486
New Families	9,958	4,979
Active Families	10,867	2,393
Wife aged <35	9,102	2,152
Wife aged 35-54	12,079	2,450
Wife aged >54	12,686	3,485
Mature Families	9,481	4,740
Wife aged 35-54	9,752	4,876
Wife aged >54	9,302	4,651
Barren Families	10,531	5,266
Wife aged 35-54	10,998	5,499
Wife aged >54	9,746	4,873
Lone-parent Families	6,933	2,258
Male Parent	8,642	2,778
Female Parent	6,148	2,009

\* Family income : average persons per family.

Note: While income is tabulated for the year 1970, Labour Force Status is determined for the period preceding Census Day 1971.

Figure IV

**Average Family Income and Per Capita Family Income for Nuclear Families with Head in the Labour Force by Stage in the Life Cycle for Canada, 1971**



The financial plight of Lone-parent Families is also quite evident in that it is noted that average family income for families with the head in the labour force is \$8,642 for male-headed Lone-parent Families and \$6,148 for female-headed Lone-parent Families. On a per capita basis, however, the situation does not appear quite so desperate. Male-headed Lone-parent Families have a per capita family income of \$2,778, which is higher than either the Active Family with the wife aged less than 35 (\$2,152) or the Active Family with the wife aged 35 to 54 (\$2,450). Female-headed Lone-parent Families did not fare as well with a per capita family income of \$2,009.

It would appear from the above presentation that, in 1971, Canadian families experienced the lowest per capita income when and where it was most urgently needed; that is, in Active and Lone-parent Families, both of whom are engaged in child-rearing. This fact is evidenced more clearly in tabulations using this life-cycle concept than was witnessed in any previous scheduled publications.

In the Canadian experiment, further tabulations were run which indicated that the life-cycle typology was useful in analysing many aspects of family life. It was seen that the practice of "doubling-up" of families was related to life-cycle differences, as were demands for different types of accommodation and shifts in tenure from owned to rented or vice versa. Correlations were also seen between educational attainment of family heads and life-cycle status. Tabulations by ethnic group of family heads also revealed significant differences between cultures where it was seen, for example, that Canadian families headed by persons of Italian ethnic origin reflected a relatively low incidence of families in other than the Active classes - an indication that child-rearing starts earlier and lasts longer, and that the incidence of divorce and voluntary separation is relatively low. Italian families also had the lowest incidence of Barren Families at only 2.8% of all Italian families. If it were assumed that the barren state in Italian families is involuntary, based on religious beliefs, and assuming that sterility is not related to ethnic-related genetic factors, then it might be reasonable to assume that for the 5.1% of Canadian families that are barren, 2.8% (of all families) are involuntary and 2.3% are voluntary.

As there would appear to be cross-cultural or cross-ethnic differences in life-cycle patterns, so are there regional and urban-rural differences within Canada with indications that substantive differences in both the normative life cycle as well as deviant patterns are related to urban size groups, and rural farm, and rural non-farm configurations.

#### 4. Potential of the Concept in the 1980 Censuses

The results of the Canadian experimentation with the 1971 data base were first presented at the Canadian Population Society Annual Meeting at London, Ontario, (10) where the typology was accepted as "a valuable contribution to the rapidly growing area of family demography" with the potential of allowing us to "explain variation in basic social and demographic processes" which are so often overlooked in policy and planning development. Clearly, the typology provides a new tool for investigating the family, particularly in terms of policy decision-making in the fields of health, welfare, education, housing, and economic well-being. The typology builds upon a well-established concept, but simplifies it somewhat so it can be operationalized easily using only one data base. While it does not provide any longitudinal data on how families are formed, grow, and decline, it does meet the objective of showing, "at a given point in time", not only families at different stages of the life cycle, but also families that deviate from the norm. Finally, it allows for a presentation of family data into categories consistent with United Nations recommendations for the 1980 Censuses. Countries not collecting data on fertility would be unable to make the distinction between "Barren" and "Mature" Families, but otherwise, the challenge "to reassemble and rearrange potentially useful information in a systematic coherent way to meet family research requirements" can be met by any country collecting basic data on age, sex, marital status, and relationship.

(10) Priest, Gordon E., "The Development of a Census-based Family Typology Using the Life-cycle Concept", paper presented to the Canadian Population Society Annual Meeting; London, Ontario, 29 and 30 May 1978.

APPENDIX

1. Nuclear Family
  - may consist of a husband and wife (with or without children who have never married), or of a parent with one or more children who have never married. In either case, all persons who constitute a family must be living in the same dwelling.
2. Husband-wife Family
  - consists of a family in which both husband and wife are present with or without never-married children present.
3. New Family
  - consists of Husband-wife Families in which the wife is aged less than 35 and there are no children present in the family.
4. Active Family
  - consists of Husband-wife Families in which there are children present.
5. Mature Family
  - consists of Husband-wife Families in which there are no children present, but the wife has had live births.
6. Barren Family (Childless Family)
  - consists of families in which the wife is aged 35 or over; there are no children present in the family and the wife has had no live births.
7. Lone-parent Family
  - consists of families in which only one parent is present.
8. Normal Family (Conventional Family)
  - consists of Husband-wife Families who are at some stage in the "normative" life cycle.
9. Deviant Family (Unconventional Family)
  - consists of families who are not at some stage in the "normative" life cycle.

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