

Familial Orientations and the Rationales for Childbearing Behaviour

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Abstract

Using a local qualitative sample from Ontario, we explore the rationales for childbearing behaviour across contrasting familial orientations. There are considerable similarities among respondents with traditional and modern familial orientations in terms of the reasons for having children and the costs and values of children. Nonetheless, persons with modern orientations are more likely to give individual related reasons for having children, and to see the value of children in terms of personal needs and desires. The largest difference relates to the ideal timing of childbearing, as persons with modern orientations are more likely to prefer childbearing in the late 20s or early 30s. While the rationales offered by respondents indicate a culture that is supportive of childbearing, and individuals with more modern orientations have views similar to those with traditional orientations on ideal family size and on the value and cost of children, they will probably have fewer children given their more individualistic orientation to childbearing and the conviction that later childbearing is better.

Key Words: Orientation to family, rationales for childbearing, value of childbearing, cost of childbearing, timing of parenthood, ideal number of children

Résumé

En nous servant d'un échantillonnage qualitatif local provenant de l'Ontario, nous explorons les raisons derrière les comportements procréatifs dans des foyers d'orientations familiales différentes. Il existe d'importantes similarités entre les répondants d'orientation familiale traditionnelle et ceux d'orientation familiale moderne quant aux raisons d'avoir des enfants et au sujet de la valeur accordée aux enfants et des frais qu'ils entraînent. Cependant, les personnes aux orientations modernes ont une plus forte tendance à citer des raisons personnelles pour avoir des enfants et la valeur qu'ils leur accordent est citée comme un besoin et un désir personnel. La plus grande différence se trouve au niveau du choix du moment idéal pour la procréation, avec une tendance parmi les personnes d'orientation familiale moderne de préférer avoir des enfants vers la fin de la vingtaine ou au début de la trentaine. Les raisons offertes par les deux classes de répondants indiquent l'existence d'une culture qui soutient la procréation mais les gens d'orientation familiale plus moderne auront probablement moins d'enfants que ceux d'orientation plus traditionnelle quand on considère leur attitude plus individuelle envers la procréation et leur conviction que d'avoir des enfants plus tard dans la vie est une meilleure chose, et malgré le fait qu'ils partagent des opinions similaires avec eux au sujet du nombre idéal d'enfants et des coûts et valeurs liés aux enfants.

Mots-clés: L'orientation des familles, les raisons de la procréation, les valeurs de la procréation, le choix du moment idéal pour devenir parent, le nombre idéal d'enfants

Introduction

As a family-related behaviour, childbearing is modified by change in the values and norms associated with families. Recent demographic research has documented a drastic change in the underlying values and norms associated with family behaviour, including union formation, union dissolution, and childbearing (Lesthaeghe and Meekers 1986; Lesthaeghe and Surkyn 1988; Lesthaeghe, 1995; Surkyn and Lesthaeghe, 2002; Lapierre-Adamcyk and Lussier, 2003). The substantial shift from traditional to modern familial values signifies a "reorientation of ideals" in recent decades (Lesthaeghe and Meekers 1986; Lesthaeghe and Surkyn 1988). Traditional familial values, which are reflected in familism, emphasize commitment to the family as a unit and consider the "heterosexual nuclear family" as the only legitimate form of union. In contrast, modern familial values, which are rooted in individualism, place less value on marriage and the family unit, and take a pluralist orientation to alternate forms of family behaviour (e.g., cohabitation, single parent family, same-sex unions, divorce).

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Several demographers and sociologists have explored the shifts in familial values that have been observed in Western developed societies, along with the links to childbearing. For instance, in their article on "Family diversity and change in Britain and Western Europe" Allan and his colleagues (2001: 820) speak of a change from "family cycle," where people "married, had and raised children, and then lived as a couple until one spouse died," to "family life" as an "age of diversity in family-related issues." The "heterosexual nuclear family" includes the ideas of marriage of one man and one woman, along with families that include parents and children, and the complementary roles of men and women in unions. In contrast, "family life" is based on the values of individualism, where various alternatives are legitimated in terms of the interests of self-fulfillment.

In effect, individualism can be seen as the base for pluralist views on alternate forms of family behaviour, as individuals give priority to their "well-being and self-expression" (Van de Kaa 1987, 2001: 294). Thornton (2001) proposes that individualism is the basis of family change in industrialized countries and around the world, as people choose their own partners, and partners choose their desired form of relationship. Similarly, Roussel (1989) speaks of a change from conformity to an institution, to a "projet de couple" where people define their own relationships. In her interpretation of gender change over the previous century, Folbre (2000) proposes that these changes have allowed women to make family and childbearing decisions based on their self-interests.

In his interpretation of change Kettle (1980) contrasts a "dutiful generation" and a "me generation". Dutiful generations put duty prior to pleasure, value the institution of marriage, sacrifice for others, and children in particular, and are oriented toward children. In contrast, Me generations are not as ready to sacrifice everything for their children. If there is a conflict of interest, the person from the dutiful generation would make self-sacrifice for the benefit of other family members, while the me generation would first think of their own interests.

Similarly, Giddens (1991, 1992) sees a "transformation of intimacy" into "pure relationships" which exist solely on the basis of the individuals wanting the relationships. Pure relationships are reflexive in the sense that there is continuous appraisal of the value of the relationship for the individual. In effect, Giddens (1992: 90-94) contrasts two forms of relationships: addictive and pure. In the "addictive" type, the relationship is secured through complementarity based on recognized roles and duties. In contrast, an individual enters a pure relationship solely for the purpose of this relationship, not for ulterior motives such as forming a family or having children. In addition, in a pure relationship the individual faces a pluralism of possible life styles, and selects through a

process of negotiation. In the case of childbearing, for example, one possibility is to have children, as a form of gratification. However, there are risks associated with having children and childbearing is often delayed as other gratifications are achieved.

The researchers who have examined the relationship between familial orientations and reproductive behaviour propose that modern familial orientations are linked with delayed childbearing and low fertility. For instance, Moors (1996) investigated the impacts of value orientations on the transition to parenthood, using longitudinal panel data. He found that women who identified with modern family values had a significant lower risk of having a first birth or getting pregnant than those women who valued traditional family values. Hall (2003) studied the relationship between pure relationship and fertility intentions. He found that couples who conformed to the values of pure relationships were more likely to have lower fertility intentions. Others have documented a stable association between demographic outcomes and values orientations (Lesthaeghe and Moors, 2000).

Our purpose is to further elaborate the links between these orientations to family and the rationales for childbearing. In particular, we expect to find differences in the rationales given for childbearing behaviour, depending on the orientation toward family. Individuals, who are oriented towards traditional familial values and norms, are expected to offer rationales for childbearing behaviour that are more child-centered, rather than union or self-centered. For instance, those who see the only possible type of family as involving one man and one woman, along with children, would be more likely to be pro-children and to consider subordinating their interests to those of children and family. In contrast, those who are more tolerant toward same-sex unions, lone parent families, cohabiting unions and children in cohabiting unions, would have a modern familial orientation, they would be less pro-children, and their personal interests would be given greater priority over children's interests. The rationales for childbearing behaviour include not only the reasons for having children but also the values and costs of having children, and the timing of the transition to parenthood. We consider the similarities and differences in these rationales offered for having children, between persons who are traditional and those who are modern in their familial orientations. While there are various other possible means of highlighting family diversity, and many dimensions of families, this paper pays particular attention to these modern vs. traditional familial orientations and their relationship to rationales for childbearing behaviour.

Data and Method

The data used here are taken from a 2000 survey of orientations to marriage, relationships and childbearing that was conducted in London, Ontario, and the surrounding region. This sample included all persons over 18 years of age in the selected households, based on census enumeration areas which had been stratified by income level as well as location (city, town, rural areas). The household response rate was 48.3 percent, and in these households 76.6 percent of eligible respondents completed the survey. The 1071 respondents included 124 who underwent a semi-directed interview. This study is based on this sub-sample which contains 74 women and 50 men aged 18 to 82 years. Given the response rate, we cannot claim to have a representative sample. However, our purpose is to explore the alternate rationales for childbearing behaviours and to relate these to familial orientations.

In the section on childbearing, interviews sought to determine the prevalent rationales for childbearing behaviour through asking about reasons, values, costs, and timing of having children as well as ideal number of children. We wanted to know what people use as the legitimate reasons in making decisions about having children. Thus, respondents were asked: "What do you see as the disadvantages of having children? What is the best age for women to have their first child? What do you think is the ideal number of children most people should have?" "Why do you think people usually decide to have children?" In effect, respondents were also treated as informants on the predominant culture. We assume that the answers to these questions, or the reasons given for their own behaviour, can help understand the rationales the respondents see as legitimate for justifying their reproductive behaviours.

Respondents were first divided into alternative familial orientations on the basis of four attitudinal items. These four items were selected from a series of items by varimax rotation. The selected items reflected the orientation toward having children in the context of cohabitation, single parent, same sex, and two parent unions: (1) When two people decide to have children they should first get married. (2) A single woman should never choose to have a child. (3) A same sex couple should have the right to have a child. (4) A child needs a home with both a father and a mother to grow up happily. Four choices were provided for each item in the format of the Likert scale -- strongly agree, agree, disagree, and strongly disagree. The items were coded in the same direction and summed over the four questions to develop a composite index of familial orientation. The index had an acceptable reliability ($\alpha = .74$) which was able to explain 56.3 per cent of variation in the concept of familial orientation (see Table 1). Those who had scores ranging from 4 to 9 were classified as respondents with a **modern** familial orientation (29%), and those with scores from 13 to 16 were

classified as **traditional** (31.8%). The rest of respondents (38.3%) were placed in a middle category labeled **intermediate**. We mostly contrast the rationales of traditional and modern respondents. While the focus is on the qualitative responses, Table 2 presents some descriptive statistics on the respondents, according to their familial orientation. People with traditional orientation are more likely to be in marital unions, older, higher socio-economic status, and to have more children. In contrast, modern respondents are younger, more likely to be single or in cohabiting unions, with lower socioeconomic status, and fewer children.

Rationales for Childbearing Behaviour

The rationales for childbearing behaviour are now differentiated according to these three familial orientations. The results are quantified in Table 3, with examples of the various attitudes quoted below according to the four dimensions under investigation: reasons for having children, values and costs of children, timing of parenthood, and ideal number of children.

1. Reasons for Having Children

In response to question on why people usually decide to have children, as we expected, most of **traditional** respondents (75%) gave family related reasons for having children:

I think in general the first idea is to complete a family. A husband and wife aren't a family, it's always a husband and wife and children [3130, man, age 35, married, 3 kids, SES high].

You want to have children, you feel that something is missing in your lives. [18160, man, age 47, married, 2 kids, SES high].

I think one reason is that you want to have children because the family is not complete without children. Why would you get married if you don't want to have children? Besides I think it is really nice if you have your own family. You can plan something for the future. [12661, woman, age 54, married, 3 kids, SES high].

Table 1
**Percentage Distribution of Respondents by the Indicators
of Familial Orientations, London and Surrounding Areas, 2000**

Indictor	Strongly Agree	Agree	Disagree	Strongly Disagree	Total
1. When two people decide to have children they should first get married	43.9	38.3	15	2.8	100
2. A single woman should never choose to have a child	13.1	19.6	45.8	21.5	100
3. A same sex couple should have the right to have a child	9.3	26.2	38.3	26.2	100
4. A child needs a home with both a father and a mother to grow up happily	16.8	39.3	34.6	9.3	100

N= 107

Descriptive Statistics of the index of familial orientation:

Minimum value: 4.0 Mean: 10.9 Mode: 10.0 Median: 11.0

Maximum Value: 16 SE: .26 SD: 2.66

Cronbach's Alpha = .74

Percent of explained variance by above four Indicators = 56.3

Table 2
Familial Orientations by Socio-demographic Variables
for London and Surrounding Areas, 2000

Variable	Modern	Intermediate	Traditional	Sample Size
Gender[†]				
Male	22.7	36.4	40.9	44
Female	34.9	39.7	25.4	63
Birth Cohort^{***}				
1940 and under	0	41.4	58.6	29
1941-1960	22.7	43.2	34.1	44
1961-1982	67.8	29	3.2	31
Highest Level of Education[†]				
Some high school/ High school graduation	24.2	37.9	37.9	29
Technical Training/ Some College/ College	27	32.4	40.6	37
Some University/ University Degree	48	32	20	25
Professional or Graduate Degree	20	70	10	10
Others	20	60	20	5
Marital Status^{***}				
Married	14.1	40.6	45.3	64
Single	70.6	23.5	5.9	17
Separated/Divorced/Widowed	37.5	43.8	18.7	16
Cohabited	50	40	10	10
Work Status[†]				
Full Time	26.7	42.2	31.1	45
Non Paid	28.6	35.7	35.7	28
Part Time	22.2	33.3	44.5	18
Student	61.5	38.5	0	13
Socioeconomic Status[*]				
High	14.7	41.2	44.1	34
Medium	26.2	47.6	26.2	42
Low	50	22.2	27.8	18
Type of Household^{***}				
Couple with children home	22.2	38.9	38.9	36
Couple with children away	4.2	41.7	54.2	24
Single	66.7	20	13.3	15
Couple with no children	30	40	30	10
Others ¹	47.6	42.9	9.5	21
Number of Children^{***}				
0	68	24	8	25
1	37.5	50	12.5	8
2	22.6	48.4	29	31
3	15.4	34.6	50	26
4+	6.2	37.5	56.3	16

*** P ≤ .001, * P ≤ .05, ‡P ≤ .10, †P ≤ .20 (Significant level of Chi-squared test)

¹ Composed of “Single Parent (6), Blended Family (3), Step Parent (2), and Others (10)“

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About half of respondents with **modern** orientation also gave family related reasons for having children, but they were also likely to give individual related reasons, as illustrated in the following quotes:

Just the joy of being around children. I think they keep people young. I think they are there when you're old. A lot of people think of it in that respect. I think a lot of people think you know, I don't want to be old and alone. I don't want to be 60 years old and not have children or grandchildren, so a lot of people do it for that reason. [6122, man, age 27, cohabited, no kid, SES low].

[...] They make you feel good to look at, to touch, to play with, to talk to. [...] They give you a sense of purpose and responsibility that seems to put other things in your life in perspective. Without them, you might take things a little more seriously, but with them you tend to realize that this problem isn't such a big problem. I'm just in more of a better, positive state of mind, the days are better, I have more energy, I feel better when I'm with kids. [11482, male, age 30, single, no kids, SES high].

2. Values of having children

When the respondents were asked about the advantages of having children, over half of respondents spoke about psychological values of having children. They believe that children bring “love, joy, happiness, and satisfaction” into life as well as the “companionship” which help parents to get rid of “loneliness” and a “boring life” thorough sharing their “loves, values, times, teachings, and entertainments” with children. These psychological values of having children were more often given by **modern** respondents.

I think it's just another person to love and to watch grow.[5131, woman, age 25, married, no kid, SES low].

I think they bring a lot of pleasure to your life, a lot of joy. [6583, woman, age 49, single, no kid, SES medium].

I think life is just so much better with kids, someone to share your life with, it's a part of you. Having a child is just such a

Table 3
Profile of Rationales for having Children by Familial Orientations
for London and Surrounding Areas: 2000

Rationales for Having Children	Modern	Inter- mediate	Traditional	Total
The reasons for childbearing*				
Individual-related reasons	51.9 (14)	47.2 (17)	25.0 (8)	41.0 (39)
Family-related reasons	48.1 (13)	52.8 (19)	75.0 (24)	59.0 (56)
Values of having children				
Psychological values	76.0 (19)	47.1 (16)	48.4 (15)	55.6 (50)
Socio-cultural values	24.0 (6)	52.9 (18)	51.6 (16)	44.4 (40)
Cost of having children				
No costs	25.9 (7)	27.3 (9)	44.8 (13)	32.6 (29)
Economic costs	25.9 (7)	24.2 (8)	13.8 (4)	21.3 (19)
Time consuming	22.2 (6)	27.3 (9)	27.6 (8)	25.8 (23)
Psychological costs (Being worry)	14.8 (4)	12.1 (4)	10.3 (3)	12.4 (11)
Costs come from parents	11.1 (3)	9.1 (3)	3.4 (1)	7.9 (7)
Timing of parenthood***				
Early-twenties (18-24)	4.0 (1)	16.0 (6)	22.6 (7)	15.0 (14)
Late-twenties (25-29)	32.0 (8)	43.3(16)	25.8 (8)	34.4 (32)
Early-thirties (30-35)	32.0 (8)	10.8 (4)	0.0 (0)	12.9 (12)
Conditional time ¹	24.0 (6)	16.0 (6)	51.6 (16)	30.1 (28)
Soon after marriage	4.0 (1)	2.7 (1)	0.0 (0)	2.2 (2)
A few years after marriage	4.0 (1)	16.0 (4)	0.0 (0)	5.4 (5)
Ideal number of children				
2	47.8 (11)	48.6 (18)	27.6 (8)	41.6 (37)
3	13.0 (3)	13.5 (5)	10.3 (3)	12.4 (11)
2 to 4 ²	17.4 (4)	13.5 (5)	34.5 (10)	21.3 (19)
Depend on parents' situations	21.7 (5)	24.3 (9)	27.6 (8)	24.7 (22)

***P ≤ .001, **P ≤ .01, * P ≤ .05 (Significant level of Chi-squared test).

¹Composed of "when financial, housing and education are set up; it varies couple to couple; when parents are mature, have stable relationship, and emotionally ready to accept the responsibility of child".

² This includes five cases indicating four or more children as the ideal.

Note: Results were computed by using respondents' first answers to each question;
 most of respondents stated only one answer to each question; numbers in table are percentage (frequency).

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miracle. [10453, woman, age 30, separated, 2 kids, SES medium].

They fulfil your life. They fill out your life basically. [13151, woman, age 40, married, 2 kids, SES low].

They're such fun. Geez. They're a lot of fun. They make you look at yourself a lot. Often they relieve you of doing something you don't even want to do [21420, man, age 25, married, no kid, SES low].

In contrast, over half of **traditional** respondents gave social and cultural values for having children. They offer rationales that relate to the familial and societal functions of childbearing. They believe that children carry on the family line, provide support to aging parents, and contribute to the future of their society.

They can look after you when you are old [10192, man, age 55, single, no kid, SES low].

There will be at least one there to see what you need. Not to take care of you, but there is someone there that when you grow old you can call and say I need this or can you get this for me. [12661, woman, age 59, married, 3 kids, SES high].

Also it carries on the family, you are adding to the world. [...] Without children society would die. [23452, man, age 18, single, no kid, SES medium].

They're our future and the future of the world. [25333, woman, age 81, widowed, 1 kid, SES high].

Without them our society would die. That is a value in and of itself. If we decided not to have children anymore, eventually our society would be gone. [23450, man, age 55, married, 3 kids, SES medium].

3. Costs of Having Children

In response to question on what are the disadvantages of having children, a third of respondents said that there are no disadvantages (Table 3). Among **traditional** respondents, half said that there were no real disadvantages to having children:

For everything you lose you gain. And that's a fact. And the same thing with having kids. You lose your freedom in a sense but then you gain a lot of pleasure out of the kids too. [21160, man, age 60, married, 3 kids, SES low].

The rest of respondents listed a number of economic, time and psychological costs which did not vary extensively between traditional and modern respondents. However, those with a **modern** orientation were the most prone to see children as an economic burden. They believe that children are “great financial loss”, they are “money consuming”, and a “handicap” for women’s careers:

If you really want to have a career, having a child is pretty much a pox on that. It's the worst thing you could possibly do if you haven't planned really carefully. And financially it's extremely difficult. Especially if you do want to raise your child without day care or babysitters or having somebody else watch your child take their first steps. It's going to be pretty hard to manage that financially. [21421, woman, age 25, married, no kid, SES low].

Although respondents mentioned a long list of disadvantages of having children, when they were asked whether these reasons are strong enough not to have children, most said that the advantages outweighed the disadvantages. Only two respondents answered that there were more disadvantages. That is, while respondents were well aware of the costs of children, for the vast majority these did not outweigh the benefits of having children.

4. Timing of Parenthood

When the respondents were asked what age is the best for women to begin having children, a third said there was no one “ideal age”. Half of traditional respondents gave the answer that there was no ideal age, or that it depended on specific circumstances. The other respondents suggested an ideal age or a range in ages seen as best for women to start having children. As would be expected,

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the modern respondents were less likely to favour early timing, with two-thirds giving preference to ages 25-35. In effect, a third of modern respondents, compared to none of the traditional respondents, preferred ages over thirty for a women's first child. The reasons that **modern** respondents proposed a later age for childbearing were that they related childbearing to careers and finances as well as to their union and material stability:

I=d say probably 25 anyway. After school's done, after she=s gone to work for a while. I think under 21 is inadvisable at best. You don't have any money or experience, any emotional maturity at that age. They don't know what they want, often can=t look after themselves very well even when they don't have kids.[15322, man, age 36, single, no kid, SES low].

[...] I think you have to be a couple before you can bring somebody else into your life. You have to be stable with that relationship before you can add on. [2493, woman, age 34, single, no kid, SES medium].

I think maybe your mid-twenties, early thirties because by then you are hopefully done school and you've gotten a job or career and you're making money and you can support yourself. I suppose you'd be able to support another person. [8043, woman, age 20, single, no kid, SES low].

In contrast, **traditional** respondents suggested an earlier age for childbearing, in part because they believed that parents should be closer in age to their children:

I think the earlier the better. I think you should be able to grow up with your children. I think the older you get, the more you seem to be leaving them behind. If you have your first child at 40, that's. I think the children should come along early. [5260, man, age 70, married, 3 kids, SES high].

Some other traditional respondents believed that early childbearing would direct and shape the couple's relationship as a family with children:

Have kids while you're young, then work at making marriage fit around kids. You can cope with them when you're young. Kids need to be looked after and people start to hate kids when you get older. You don't always want to be around them. They're great, but not all the time. [12601, woman, age 57, 4 kids, married, SES low].

5. The ideal number of children

In response to the question on what you think is the ideal number of children, none of the respondents believed that less than two children was ideal. The ideal numbers that were expressed indicate that even the modern respondents would have above-replacement fertility. The ideal of two children was considerably more common for modern than traditional respondents. Part of the reasons that **modern** respondents expressed two as the ideal was that they related the ideal family size to the occupational status of parents and the limits of time and finances.

I would say two. I mean just two in that where you have both parents usually working, when you look at it time wise to devote time to two young people is doable. To spread yourself very thin and spread it over four or five is a little harder but it can be done. [16183, woman, age 58, separated, 2 kids, SES medium].

For me two would have been ideal. I think the ideal number is basically what you can afford without hardship. I think children should be treated equally, one shouldn't be involved in everything and the one isn't involved in anything. If you have four children, they have to be equally involved in whatever, and I don't think in this, unless you have a very good annual income, I don't think anybody can afford four children anymore. It was different when I was young, you didn't have that, but in this day an age. [6583, woman, age 49, single, no kid, SES medium].

In contrast, those who gave a range like two-to-four were more likely to be **traditional** rather than modern respondents. The reasons suggested for the range included those that rejected less than two and more than four children, along with rationales favoring two to four children. They think that an only child is not “desirable” because she or he has no companion of their own age with whom to play and grow up. In addition, the reasons for not having more than four children are often described in terms of time and finances that children take from parents:

No less than two children. Less than two is not desirable because the child lacks the benefits of growing-up with

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siblings. It is selfish for parents to have only one child. [5200, man, age 53, married, 4 kids, SES high].

Two to four is ideal. Well because I think one is a lonely kid. It grows up lonely. It's always by itself everyday. If you have two, you have a playmate and what not. And then if you like more kids, four is a good number. More than that, it's a hell of a lot of work. So two-to-four I think is fine. [4411, woman, separated, 4 kids, SES low].

Summary and Conclusion

Based on a local qualitative sample from Ontario in 2000, we sought to divide respondents between traditional and modern family orientations using questions regarding the necessity to be married to have children, the acceptability of children in same-sex unions, and the importance for children of having two parents. While there are clearly complex motivations associated with childbearing, the rationales given for childbearing behaviour did not differ extensively across the modern and traditional family orientations. These similarities especially applied to the reasons for having children and the costs and values of children. Nonetheless, persons with modern orientations are more likely to give individual related reasons for having children, and to see the value of children in terms of personal needs and desires. The largest difference relates to the ideal timing of childbearing, as persons with modern orientations are more likely to prefer childbearing in the late 20s or early 30s.

The similarity in the rationales associated with childbearing might be interpreted as a common culture of childbearing (Watkins, 2000). This culture, as expressed in London, Ontario, and the surrounding area, includes various legitimate bases not to have children, especially if there is lack of economic security and relationship security. In effect, not wanting to have children is a legitimate reason not to have children. Yet, most want to have children, and two children is the most common ideal. The justification for having children includes individual-related reasons and psychological values like love, joy, happiness and the satisfaction of being with children. There are also family-related reasons and socio-cultural values, like completing a family, continuing the society and having support in old age. Persons with more modern family orientations are more likely to propose individual-level reasons for having children, while those who are more traditional are more likely to suggest family-level reasons, but the differences are not large.

There are more differences in the ideal number of children, where persons with traditional orientations are more likely to suggest the range of “two-to-four” while those with modern and intermediate orientations are more likely to propose that two children is the ideal. The largest differences occur with regard to views on the best timing for having a first child, with ages over thirty being more common for persons with modern orientations, and persons with traditional orientations are more likely to say that it is circumstances other than age which are the most relevant. Another important difference is that persons with traditional orientations are more likely to say that there is no real cost to having children.

For two-thirds of respondents, children represent important costs, including economic, time, and psychological costs. Nonetheless, all but two respondents proposed that the advantages outweighed the disadvantages. While respondents offer several legitimate reasons not to have children, especially the lack of economic and relationship security, along with the desire not to have children, the majority view implies a culture that supports childbearing, and “two”, or sometimes “two-to-four” are seen as the ideal number of children.

In discussing the implications of these results, it is important to note that the persons with traditional orientations are more likely to be older, especially men, while those who are single or cohabiting are most likely to have a more modern orientation. It is also useful to note that, on most considerations, the persons with intermediate views are closer to those with modern orientations. That is, the future of childbearing largely depends on persons with modern views. These respondents largely have positive views on the value of children, and they see two children as ideal, but they want to delay childbearing. Traditional respondents see advantages to early timing in terms of benefits for children and for establishing stable marital unions with children, but modern respondents want to establish their work and life arrangements before having children. This delay will reduce the numbers who become parents, and it will reduce the family sizes of those who have children. For instance, according to the 2001 General Social Survey, women aged 45-54 who had their first child at age 30-34 had an average of 1.8 children compared to 2.3 for those who had their first child at 20-24 (Beaujot, 2005: 22).

In terms of the reasons for having children, and the advantages of having children, the modern respondents are more likely to provide rationales that relate to individual fulfillment, or personal interests and needs, rather than socio-cultural benefits like the continuance of the family or society. When the time comes, the individual fulfillment may be obtained in other avenues rather than through having children.

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Finally, persons with modern orientations toward family are much more accepting of family diversity, which can also undermine childbearing. Given the importance attached to relationship security before having children, some of the respondents who express positive views on the value of children, and offer rationales that are favourable to childbearing, may find themselves, when the time comes, in circumstances where they decide against having children. While the rationales offered by respondents indicate a culture that is supportive of childbearing, and individuals with more modern orientations have views similar to those with traditional orientations on ideal family size and on the value and cost of children, they will probably have fewer children given their more individualistic orientation to childbearing and the conviction that later childbearing is better.

End Notes:

1. An earlier version of this paper was presented at the annual meeting of the Canadian Population Society, June 2004, University of Manitoba, Winnipeg, Session on Families and childbearing in Canada

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A Probability Distribution for First Birth Interval

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Abstract

The paper attempts to develop a probability model for first birth interval incorporating incidence of foetal wastages prior to live birth and the phenomenon of physical separation which are still prevalent in many developing societies. The fact that fecundability varies considerably over a random group of females is also taken into account. Estimates of certain parameters of the model have been obtained by utilizing a real set of data on the time of first complete conception.

Key Words: First birth interval, stochastic model, fecundability, physical separation.

Résumé

Cet article tente de développer un modèle de probabilité pour l'intervalle de première naissance en incorporant les incidences de pertes fœtales volontaires avant une naissance vivante ainsi que le phénomène de séparation physique; conditions qui prévalent encore dans beaucoup de sociétés en voie de développement. Le fait que le niveau de fécondabilité varie considérablement parmi un groupe aléatoire de femmes est aussi pris en compte. Les estimations de certains paramètres du modèle ont été obtenus en utilisant un ensemble de données réel sur le moment de la première conception portée à terme.

Mots-clés: l'intervalle de première naissance, le modèle stochastique, la fécondabilité, la séparation physique

Introduction

For obvious reasons, in the study of human reproduction, measurement of fecundability has got an important place. Among the various types of fertility data which have been used for the purpose, data on first birth interval have an upper hand over all other types of birth interval due to certain reasons. First, being the earliest and first event of the married life of a female, it hardly suffers from recall lapse; second, it is free from the period of post-partum amenorrhea (p.p.a.) associated with a live birth. Other birth intervals are heavily affected by the erratic fluctuations of this period.

Attempts to analyze first birth interval for the estimation of natural conception rate (fecundability) dates back to Gini (1924). Since then several attempts have been made to investigate this interval and a number of demographers have formulated several stochastic models to describe this interval under various sets of assumptions for the related situations. For instance, frequent occurrence of foetal wastages prior to first live birth considerably increase the length of first birth interval consequently, Srinivasan (1966) and Chakraborty (1976) developed discrete and continuous time models respectively for first birth interval in presence of foetal wastages.

Apart from biological components of fertility, the first birth interval is often prolonged due to some social customs prevalent in certain societies. For instance, in rural parts of India, married females stay in their parents' home soon after marriage for a considerable period of time which ultimately delays the first birth. This period of physical separation of Indian females may be compared

with the situation of some western countries where females delay their first birth voluntarily by adopting cent percent effective contraceptives just after marriage. Singh and Singh (1983), Singh et al. (1985 b), Singh (1987) and others have propounded stochastic models for estimating fecundability through first birth interval in presence of physical separation in the Indian context.

This paper aims at devising a continuous time stochastic model for first birth interval under the assumption that (i) foetal wastages occur prior to first live birth (ii) the interval consists of a period of physical separation and (iii) the rate of conception is constant for a woman during her entire period of reproduction but varies over a random group of women. With a view to illustrate the use of proposed model for analyzing first birth interval and thereby to get reliable estimates of some parameters of the model, particularly of fecundability, The model has been applied to one set of empirical data taken from Singh et al. (1985b), assuming values of other parameters to be known from other results obtained over the same area.

Underlying Assumption and the Model

Let T denotes the time of first complete conception, that is, the waiting time of the first conception since the marriage which results into a live birth. Obviously, in the presence of physical separation and foetal wastages prior to first complete conception, T comprises of the following random components:

- (i) The period of physical separation just after marriage,
- (ii) Waiting time for conceptions occurring before first complete conception, and
- (iii) Periods of non-susceptibility (gestation plus p.p.a.) associated with conceptions resulting in foetal wastages prior to first complete conception.

Thus, given that n incomplete conception (foetal wastages) occur prior to first complete conception, we have

$$T = Z + nh + \sum_{k=1}^{n+1} X_k \quad (1)$$

where Z is the period of physical separation; h is the period of non-susceptibility associated with an incomplete conception and X_1, X_2, \dots, X_{n+1} are waiting times for (n+1) conceptions. As regards components of T, we make the following assumptions:

- (i) Z is random variable having p values z_1, z_2, \dots, z_p ($z_{i-1} < z_i$; $i = 2, 3, \dots, p$) with probabilities α_i ; $0 < \alpha_i < 1$, $\sum_{i=1}^p \alpha_i = 1$ respectively.

- (ii) The waiting time from marriage to first conception, X_1 , follows an exponential distribution, with parameter m, as

$$g_1(x) = me^{-mx}; \quad x > 0, \quad m > 0 \quad (2)$$

Where, X_r , the time elapsed between the $(r-1)^{\text{th}}$ incomplete conception to next conception ($r = 2, 3, \dots, n+1$) follows a displaced exponential distribution given by—

$$g_r(x) = me^{-m(x-h)}; \quad x > h, \quad m > 0 \quad (3)$$

In (2) and (3) above, m is the rate of occurring conception (conception rate) that is a measure of fecundability.

- (iii) m varies over a randomly selected group of women with type III distribution given by

$$g(m) = \frac{b^a e^{-bm} m^{a-1}}{a!}; \quad m > 0, \quad a, b > 0 \quad (4)$$

- (iv) the number of incomplete conceptions (N) prior to the first complete conception follows a geometric distribution with probability mass function

$$P[N = n] = \theta(1 - \theta)^n; \quad n = 0, 1, 2, \dots; \quad 0 < \theta < 1 \quad (5)$$

where θ stands for the probability of a conception resulting to complete conception.

- (v) Waiting times for conceptions are mutually independent.

Remark 1

It is remarkable here that while assumptions (i) and (iv) are based on empirical evidences, assumption (ii) and (iii) are of quite theoretical nature and need support from empirical data. Needless to say that validity of distribution $g_1(x)$, $g_r(x)$ and $g(m)$ has been tested in a number of previous works of similar kind, such as Singh (1964), Singh and Singh (1983), Singh et al. (1976), Singh et al. (1985b) and others.

Theorem 1

The distribution function, $F(t)$ of T under the assumptions (i) to (v) is

$$\begin{cases} 0 & t < z_1 \\ \sum_{s=1}^{i-1} \alpha_s \sum_{r=0}^{Q_s} \theta(1-\theta)^r [1 - I_{L_s(r,t)}(a, r+1)]; & z_{i-1} \leq t < z_i; \text{ for } i = 2, 3, \dots, p \\ \sum_{s=1}^i \alpha_s \sum_{r=0}^{Q_s} \theta(1-\theta)^r [1 - I_{L_s(r,t)}(a, r+1)]; & t \geq z_p \end{cases} \quad (6)$$

where $L_i(r,t) = b/(b+t-rh-z_i)$; $i = 1, 2, \dots, p$

$$I_y(p,q) = \int_0^y \frac{1}{B(p,q)} x^{p-1} (1-x)^{q-1} dx; \quad B(p,q) = \frac{\Gamma(p)\Gamma(q)}{\Gamma(p+q)}$$

and $Q_s = \left\lfloor \frac{t-z_s}{h} \right\rfloor$; $[u]$ stands for the greatest integer not exceeding u .

The derivation of $F(t)$ is presented in Appendix A.

Moments of the Distribution

Let us denote the Laplace transform corresponding to conditional probability density function (p.d.f.) of T, conditional on m, by $\Phi(s/m)$. Then, we have

$$\Phi(s/m) = \int_0^\infty e^{-st} f(t/m) dt \tag{7}$$

where, $f(t/m)$ is given by (A3) in appendix A.

It is easy to see that

$$\Phi(s/m) = \sum_{i=1}^p \alpha_i \theta m \frac{e^{-sz_i}}{m + s - (1-\theta)me^{-sh}} \tag{8}$$

Hence, the first two moments about origin of conditional p. d. f. of t, $f(t/m)$ are obtained as

$$E(T/m) = \bar{z} + \frac{\left(\frac{1}{m}\right) + h(1-\theta)}{\theta} \tag{9}$$

$$E(T^2/m) = \frac{\bar{z}^2 + 2\bar{z} \left(\frac{1}{m}\right) + h(1-\theta)}{\theta} + \frac{\left(\frac{2}{m^2}\right) + \left(\frac{4h}{m}\right)(1-\theta) + h^2(1-\theta)^2 + h^2(1-\theta)}{\theta^2} \tag{10}$$

where $\bar{z} = \sum_{i=1}^p \alpha_i z_i$; $\bar{z}^2 = \sum_{i=1}^p \alpha_i z_i^2$

Now considering the variation in fecundability among women according to the assumption (iii), the unconditional moments of T about origin are obtained as

$$E(T) = \int_0^{\infty} E(T/M)g(m)dm = \bar{z} + \frac{\frac{b}{a-1} + h(1-\theta)}{\theta} \quad (11)$$

$$E(T^2) = \int_0^{\infty} E(T^2/m)g(m)dm$$

$$= \bar{z}^2 + \frac{2\bar{z} \left\{ \frac{b}{a-1} + h(1-\theta) \right\}}{\theta} + \frac{\frac{2b^2}{(a-1)(a-2)} + \frac{4bh(1-\theta)}{a-1} + (1-\theta)^2 h^2 + (1-\theta)h^2}{\theta^2} \quad (12)$$

where variance of T is given by

$$V(T) = E(T^2) - \{E(T)\}^2$$

$$= \bar{z}^2 - \bar{z}^2 + \frac{\frac{b^2}{(a-1)^2(a-2)} + \frac{2b(1-\theta)h}{(a-1)} + (1-\theta)h^2}{\theta^2} \quad (13)$$

Application

The suggested model can be applied to a variety of situation due to its flexibility with a view to estimate the rate of conception and/or other parameters of the model. It is remarkable here that while applying a model to a practical situation, the estimation of all or a large number of parameters is not advisable, as, it involves generally higher order moments which give rise to serious calculation error. It is, therefore, advisable to estimate the parameters which are not directly observable and to assume the values of other parameters which can be approximated through past experiences or past studies.

As for as the present model is concerned, it consists of a large number of parameters - z_i ($i = 1, 2, \dots, p$), α_i ($i = 1, 2, \dots, p$), θ , a , b and h . In the absence of an appropriate estimation technique for estimating all the parameters, we have shown the application of the model considering only two values of z in order to reduce the complexity in the calculation. It is just an illustration to show how the model can be utilized to estimate the conception rate in a particular region where the cultural dimension of physical separation of spouses is still prevalent.

The data on first complete conception time as given in Singh et al. (1985b) has been taken into consideration. These data relates to "A Demographic Survey of Varanasi (Rural)" conducted by Demographic Research Centre, Banaras Hindu University, Varanasi in the year 1969-70. A sample of about 2200 households scattered in 52 villages of Varanasi Tehsil (an administrative subunit of a district) was selected and a complete record of birth history of all eligible couples in a household was taken with greater emphasis on the fertility performance in last seven years. Because of some prevailing social taboos in this rural part of India, the phenomenon of physical separation of spouses was found quite common. Earlier studies on the data on first birth interval collected through this survey in the region, like Chakrabarty (1976); Singh et al. (1985 a); Dwivedi (1985); Singh and Singh (1983) have shown that the physical separation of spouses heaps mainly at two points; $z_1=0$ month and $z_2=12$ months with approximate probabilities 0.65 and 0.35. Moreover, the length of non-susceptible period associated with an incomplete conception may safely be assumed to be 6 months. With these known values of parameters z , α , θ and h , it can be possible to estimate the parameters a and b with appropriate data.

Table 1 presents the observed distribution of the time of first complete conception for females whose marriage duration was more than 10 years on the reference date of the survey. The mean and variance of the distribution were obtained as 2.7565 years and 6.0515 years square respectively. Using the expression (11) and (13), the moment estimates of a and b are obtained as –

$$\hat{a} = 280.41966, \quad \hat{b} = 7094.5212$$

Thus, we get $E(m) = a / b = 0.0395$, which is an estimate of conception rate (m). This may be considered as an estimate of fecundability in the region. Dwivedi (1985), Singh and Singh (1983) and Singh et al. (1985a) have also obtained the estimate of fecundability in the region as 0.0391, 0.0390 and 0.0392 respectively. This shows the validity of the model for the purpose of estimating fecundability in such a population which observes physical separation of the spouses just after their marriage.

Table 1 depicts the expected frequencies as obtained through the present model and as reported in Singh et al. (1985 b). If increased proximity of expected frequencies with the observed ones in a measure of improvement of the model, the suggested model may be considered as an improvement over Singh et al. (1985 b) model.

Concluding Remarks

The salient feature of the suggested model is that it takes into account one of the important causes of delay in first complete conception, namely, physical separation that is generally a common phenomenon in some of the developing societies. Moreover, it also takes into account the variability of fecundability over a heterogeneous group of married women. Thus, the model has a wider application as regards to the problem of estimation of fecundability or other characteristics in a specific population of women. It is remarkable here that the model is developed with a probability mass function for the random variable 'physical separation', thus, giving scope to consider a series of probability distributions to the variable z , probably using simulation models. However, as far as the practical application of the model is concerned, it would be always better to keep in mind the previous results so as to select an appropriate distribution of z in order to make the model simple for application purpose.

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Table 1
Distribution of the Time for First Complete Conception

Time in Months	Observed Frequency	Expected Frequency under	
		Suggested Model	Singh et al. (1985b) model
0-15	108	115	119
15-27	97	91	88
27-39	63	60	59
39-51	44	40	39
51-63	26	26	26
63-75	16	17	17
75-87	11	11	11
87-99	7	8	9
99+	11	15	15
Total	383	383	383
X^2		2.62	4.41
Degrees of freedom		6	6

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Appendix

Under the assumptions (ii) and (iv) the p.d.f. of $\sum_{k=1}^{n+1} X_k$ for given value of n will be-

$$f_1(t/n) = \frac{m^{n+1} t^n e^{-mt}}{n!}; t > 0, m > 0 \quad (A1)$$

So that the unconditional p.d.f. of $\sum_{k=1}^{n+1} X_k$ under assumption (iv) is

$$f_2(t) = \sum_{n=0}^{\lfloor t/n \rfloor} \theta(1-\theta)^n f_1(t/n) \quad (A2)$$

Now combining the assumptions (i), (ii), (iv) and (v), the conditional distribution of T (for a particular woman among a group of women) for given m can be obtained as-

$$f(t/m) = \begin{cases} 0 & ; 0 \leq t \leq z_1 \\ \sum_{s=1}^{i-1} \alpha_s \sum_{r=0}^{Q_s} \frac{\theta(1-\theta)^r m^{r+1} (t-rh-z_i)^r e^{-m(t-rh-z_i)}}{r!} & ; z_{i-1} \leq t \leq z_i; \text{ for } i = 2, 3, \dots, p \\ \sum_{s=1}^i \alpha_s \sum_{r=0}^{Q_s} \frac{\theta(1-\theta)^r m^{r+1} (t-rh-z_i)^r e^{-m(t-rh-z_i)}}{r!} & ; t \geq z_p \end{cases} \quad (A3)$$

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If the variability in the conception rate, m among women as given under the assumption (iii) is considered, the unconditional distribution of T is given as

$$f(t) = \int_0^{\infty} f(t/m)g(m)dm \quad (A 4)$$

Using the form of $f(t/m)$ as obtained in (A3), the expression of $f(t)$ can be obtained as

$$f(t) = \begin{cases} 0 & ; & 0 \leq t \leq z_1 \\ \sum_{s=1}^{i-1} \alpha_s \sum_{r=0}^{Q_s} \theta (1-\theta)^r \frac{b^a (t-rh-z_i)^r}{B(a,r+1)(b+t-rh-z_i)^{a+r+1}}; & z_{i-1} \leq t \leq z_i; \text{ for } i = 2, 3, \dots, p \\ \sum_{s=1}^i \alpha_s \sum_{r=0}^{Q_s} \theta (1-\theta)^r \frac{b^a (t-rh-z_i)^r}{B(a,r+1)(b+t-rh-z_i)^{a+r+1}}; & t \geq z_p \end{cases} \quad (A 5)$$

Integrating $f(t)$ in the appropriate ranges of t , the distribution function $F(t)$ of T can be deduced from (A5). Hence the expression (6) follows.

**Marriage and Cohabitation:
Demographic and Socioeconomic Differences
in Quebec and Canada**

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Abstract

Cohabitation has become so prevalent in Canada that it is now the most common mode of entry into conjugality. Yet in drawing comparisons across Canadian provinces, cohabitation is far more prevalent in the province of Quebec than elsewhere. With this in mind, the purpose of the current paper is three fold. First, we set out to briefly situate the recent growth in the number of common-law unions in Canada and Quebec into a broader historical and international context. Secondly, we review available information from the 2001 Census and the 1998 General Social Survey on some of the key socioeconomic and demographic characteristics of persons who cohabit relative to those that marry. Thirdly, we consider how these changes are important to public policy, and of direct interest

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to legislators and the Canadian legal system. Major differences are documented in comparing Quebec with elsewhere in Canada in terms of the education, labor force participation, median income, income poverty and homeownership. The differences documented between persons who marry relative to cohabiters are found to be much less in Quebec than elsewhere, in a context whereby cohabitation has become far more widespread, an observation with direct implications for public policy.

Key Words: Common law unions, education, income, poverty, labour force participation

Résumé

La cohabitation est devenue tant prévalente au Canada qu'elle représente actuellement le mode d'entrée dans la vie conjugale le plus répandu. Cependant, quand on compare entre les provinces canadiennes, la cohabitation est beaucoup plus prévalente dans la province de Québec que dans le reste du pays. En tenant compte de ce fait, cet article a les trois buts suivant : Premièrement, nous donnons un bref aperçu de la récente hausse du nombre d'unions de fait dans son plus large contexte historique et international ; deuxièmement, nous révisons l'information recueillie par le Recensement de 2001 et l'Enquête sociale nationale de 1998 au sujet de certaines caractéristiques socioéconomiques et démographiques clés des personnes qui cohabitent vis à vis de celles qui se marient ; troisièmement, nous examinons le pourquoi et le comment de l'importance de ces changements pour les politiques publiques et leur intérêt direct pour les législateurs et le système juridique canadien. Les différences majeures qui existent entre le Québec et le reste du Canada sont documentées quant aux niveaux d'éducation, de participation à la population active, de revenu moyen, de pauvreté de revenu et de propriété foncière. Il a été trouvé que les différences documentées entre les personnes qui se marient vis à vis celles qui cohabitent sont beaucoup moins importantes au Québec qu'ailleurs au pays et ce dans un contexte où la cohabitation y est devenue beaucoup plus répandue; une observation qui comporte des implications directes pour les politiques publiques.

Mots-clés: Les unions de fait, l'éducation, le revenu, la pauvreté, la participation à la population active

Introduction

In compiling international statistics on cohabitation, Kiernan (2002) has pointed to some rather important differences across societies. At one extreme are the Nordic countries of Western Europe (Sweden, Norway and Denmark) that now have very low marriage rates and very high levels of cohabitation. Clearly more formal relationships are being widely replaced by less formal relationships, as cohabitation has come to serve as a basis for family life (including childbearing). In contrast, in drawing comparisons across several EU countries, the common-law relationship continues to be relatively rare in other parts of the continent – as for example, cohabitation rates are particularly low in both Italy and Spain. As an example, whereas almost one third of all couples in Sweden are cohabiting (30 percent in 2000), this applies to fewer than 1 to 2 percent of Italian and Spanish couples.

In Canada, the cohabitation rate falls somewhere in between these two extremes - at 16 percent in 2001 (Statistics Canada, 2003). Yet in drawing generalizations, it is important not to lose sight of the fact that there are some rather striking differences in the popularity of cohabitation across different regions of the country. For example, according to the 2001 Canadian Census, fully 29.8 percent of couples in Quebec were living common law (Statistics Canada, 2003), which is in fact now comparable to some of the Scandinavian countries of Northern Europe (Keirnan, 2002). Across all other provinces in Canada, the prevalence of cohabitation is much lower, at only about 12 percent in 2001. In reference to Ontario, only about 9.4 percent of couples were in common-law relationship, which is not far from the 8.2 percent documented in the 2000 U.S. Census.

Understanding the meaning and character of cohabitation is obviously related to how widespread and socially acceptable it has become. Early on, common-law unions are known as a lifestyle choice lived by a small minority, while most men and women continue to marry directly before establishing a common household (Kiernan, 2002). This might be said to describe the situation in Canada in the 1960s or early 1970s. Eventually the same society comes to view the common-law relationship as a reasonable prelude to marriage, particularly for young adults, with the rationalization that such probationary periods provide for the opportunity to test and strengthen relationships prior to longer term commitment. This situation might be said to characterize much of Canada today, with the notable exception of Quebec (LeBourdais and Lapierre-Adamcyk, 2004). As cohabitation eventually becomes more widespread, couples begin to view cohabitation as more long term, which in turn, leads to much higher levels

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of fertility and greater stability in common law unions. This is clearly much more so the pattern in Quebec today than it is elsewhere in Canada (Wu, 2000; Turcotte and Bélanger, 1997). As Kiernan (2002) suggests, cohabitation and marriage eventually come to be viewed as almost interchangeable and very difficult to differentiate.

With this in mind, the purpose of the current paper is three fold. First, we set out to briefly situate the recent growth in the number of common-law unions in Canada and Quebec into a broader historical and international context. Secondly, we will review available information from the 2001 Census and the 1998 General Social Survey on some of the key socioeconomic and demographic characteristics of persons who cohabit relative to those that marry. Thirdly, we consider how these changes are important to public policy, and of direct interest to legislators and the Canadian legal system. With Canadian data, we examine differences in terms of education, labor force participation, median income, income poverty, homeownership, as well as the organization and division of domestic tasks.

As a matter of introduction, we find that the situation outside of Quebec more closely fits the broader North American pattern, whereby persons with less education, lower earnings and more uncertain economic prospects are more likely to be in a cohabiting type of relationship and less likely to marry (Bumpass and Lu, 2000; Smock and Manning, 2004). On the other hand, in Quebec where cohabitation is now very widely accepted and viewed as almost one and the same as marriage, cohabitation does not appear to be nearly as selective on these socioeconomic characteristics. As the meaning of cohabitation has shifted, the differences between those that marry relative to those that cohabit appear to have lessened somewhat. This holds implications for those that debate the extent to which marriage and common law unions be treated as one and the same under the law and in terms of social policy.

Canada's Second Demographic Transition

In documenting family change in Canada, reference is often made to two rather broad transitions (Beaujot, 1999). The first transition, which began in the 19th century, was the rather pronounced decline in fertility and mortality that accompanied Canada's modernization. Whereas fertility declined through to the mid 20th century (prior to witnessing an unanticipated baby boom) mortality decline continued unabated through to the present. The second transition, which occurred more recently, has involved some rather dramatic changes in the flexibility and stability of marital relationships (Lesthaeghe, 1995).

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While the first transition brought with it smaller families, the second transition brought with it dramatic changes in the nature of marital relationships, manifested in terms of increased cohabitation, divorce and remarriage. The first transition occurred over an extended period although it was temporarily halted by the baby boom. The second demographic transition was much more rapid, from about 1960 through to the present, and only began in earnest toward the end of the baby boom era. The timing and stability of marital relationships began to shift during the 1960s and 1970s, as the total fertility rate in Canada returned to its longer term downward trend, and has since fallen to a near all time low of only 1.5 births per woman (Statistics Canada, 2004).

Table 1 provides summary statistics on family change for Canada overall for the period 1941-2002, which fit reasonably well this *second demographic transition*. This *transition* is marked by greater flexibility in entry into and exit from conjugal relationships, as evidenced by the pronounced rise in cohabitation and divorce. Even though most Canadians marry or will marry, the common-law union is increasingly challenging marriage as the preeminent context in which to pursue conjugality and, for a growing number of Canadians, parenthood. While many marriages last until death do them part, divorce is ever more defying the definition of marriage as a permanent arrangement. These changes in births, marriage, cohabitation and divorce have brought fewer children, but also a higher level of diversity in the living arrangements and family life of Canadians.

These data in Table 1 confirm the uniqueness of the 1950s as the peak of the baby boom, a period of marriage rush, and high proportions of persons married at least once in their lives. As relationships are now less permanent and more flexible, childbearing is often delayed, there are fewer births overall, and many children are born outside of legal marriage. Whereas early on in this second demographic transition, cohabitation largely affected pre-marital relationships (and subsequently delayed marriage and childbearing), demographers now debate the extent to which cohabitation has come to replace marriage rather than merely serve as a prelude to legal marriage (Bélanger and Dumas, 1997). As conjugal relationships have been altered, the level of diversity in the family has risen. Family life in Canada may or may not involve parents who are legally married to one another, just as it may or may not involve children who are biologically related to both parents. Step and blended family living arrangements are becoming increasingly common, as is childlessness – among both cohabiting and legally married couples.

As cohabitation has become more widespread, it is increasingly influencing post-marital relationships (i.e. remarriage on the event of divorce). Many men and women on the event of a divorce are hesitant to marry for a second time, and subsequently, cohabitation serves as popular alternative. Many step and

Table 1. Summary Statistics on Family Change for Canada: 1941 - 2002

Variable	1941	1951	1961	1971	1976	1981	1986	1991	1996	2002
Total Fertility Rate ¹	2.8	3.5	3.8	2.1	1.8	1.7	1.6	1.7	1.6	1.5
Median Age at First Marriage										
Brides	23.0	22.0	21.1	21.3	21.6	22.5	23.9	25.1	26.3	27.0
Grooms	26.3	24.8	24.0	23.5	23.7	24.6	25.8	27.0	28.3	29.0
Divorces per 100,000 married couples	--	180	180	600	990	1180	1302	1235	1222	1050
Common-law couples as a percent of all couples	--	--	--	--	0.7	6.4	8.2	11.2	13.7	16.4
Births to non-married women as a percent of all births	4.0	3.8	4.5	9.0	--	16.7	18.8	28.6	36.3	36.6
Births to women aged 30+ as a percent of all births	35.6	36.2	34.1	21.6	19.6	23.6	29.2	36.0	43.7	25.0
Lone parent families as a percent of all families with children	9.8	9.8	11.4	13.2	14.0	16.6	18.8	20.0	22.3	25.0

Sources: Beaujot and Kerr, 2004: 212; Statistics Canada, cat. No. 82-553, 1992; Tables 10, 16, 3, Statistics Canada, cat. No. 82-552, 1992; Table 14, Statistics Canada, cat. No. 84-212, 1995; Statistics Canada, cat. No. 91-209, 1996; 19, Statistics Canada, cat. No. 84-204, 1971. Special tabulations, Statistics Canada, Gentleman and Park (1997:55); Adams and Nagnur (1988: 19), 1941 census, vol. V; Table 19, 1951 census, vol. III; Table 136, Statistics Canada, Marriages, Cat. No. 84F0212XPB, 2003; Statistics Canada, Births, Cat. No. 84F0210XPB, 2003. Statistics Canada, 2002, Annual Demographic Statistics.

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blended families with children from previous marriages now involve common-law unions. That is, cohabitation first influenced pre-marital relationships, but now it affects post-marital relationships, and marriage itself. Regardless of all these changes, there is consensus that the prevalence of cohabitation is now a key indicator of family change.

Cohabitation as the Modal Way to Enter Family Life

While one might argue that there is nothing inevitable to these transitions (i.e. it is not inevitable that North Americans will follow Northern Europeans in terms of abandoning legal marriage for cohabitation), most demographers would argue that it is highly probable (Westoff, 1986; Hirschman, 1994; Ryder, 1983). Similarly, Ontario and other provinces in Canada are expected to eventually follow Quebec in terms of cohabitation, although the more difficult forecast in this context likely relates to the timing and pace of this partnership transition (Wu, 2000). In examining available time series on cohabitation in Canada, especially striking is the particularly rapid pace at which cohabitation became a popular alternative to marriage in the province of Quebec. In 1986, about 12 percent of Quebec couples were living common law – which is comparable to the percentage currently observed in Canada outside of Quebec.

While these figures indicate the percentage of all couples currently living common law, more detailed data from the General Social Survey (GSS) has demonstrated the very high incidence of cohabitation among younger age groups. While cohabitation is often very short lived and quickly converted into legal marriage, over half (53 percent) of all young women aged 20-29 years in 2001 could expect to live common-law as their first union (Statistics Canada, 2002). In Quebec, the probability of cohabitation is even higher – as over 4 out of 5 women in this same cohort could expect to do so (Le Bourdais and Juby, 2002). Similarly, among women aged 30-39, it is estimated that about 70 percent in Quebec cohabit as a first union, while elsewhere in Canada, only about 34 percent do so. While we can appreciate that living common law implies a wide range of experiences, from little more than a dating type of arrangement through to a fully committed long term relationship (possibly with children), this option of cohabitation as a first union has become increasingly popular, and has actually become the modal way to begin family life in Quebec.

Childbearing in Cohabitation

While institutions other than the family have increasingly assumed many of the activities historically organized and performed in families, marriage has largely

retained one of its most basic functions, i.e. the provision of a context for childbearing and childrearing (Wu, 2000: 88). Since this is widely considered one of the key dimensions of marriage, the extent to which childbearing occurs in common-law unions has often been thought of as a key indicator of the degree to which marriages and common law unions have become indistinguishable (Smock, 2000). The increase in extramarital fertility over the last twenty years has largely been the by-product of births to cohabiting couples (and less so the result of births to single women), and as a result, children are increasingly found in cohabitations (Ram, 2002). However, marriage continues to be the more common conjugal context in which to undertake childbearing and/or childrearing – although this appears to be changing rapidly – and is no longer true in the province of Quebec.

Between the early 1980s and 2000, the proportion of extramarital births in Canada increased from about one in six births overall to about one in three, an increase that has been largely attributable to births occurring to cohabiting couples (Le Bourdais and Lapierre-Adamcyk, 2004). In the early 1970s there was not much of a regional difference in childbearing by marital status, but by the latter 1990s, the differences were quite pronounced. For example, the proportion of children born in 1971-1973 to cohabiting parents and single mothers were comparable across regions, at 2-3 percent for cohabiters and 6-7 percent for single mothers. By 1997-1998, almost half of all births in Quebec were to cohabiting parents, and 9 percent to single mothers. Elsewhere in Canada, marriage continues to be the modal conjugal status, with only 15 percent born to cohabiting parents and 10 percent to single mothers.

The relatively low level of childbearing to non-married women outside of Quebec is certainly consistent with the idea that extramarital fertility has yet to achieve a particularly high level of social acceptance. Most children continue to be born to married couples, albeit a significant proportion of these marriages were predated by cohabitation. The common law union continues to be viewed as a reasonable prelude to marriage, yet unlike in Quebec, not the appropriate context for childbearing and the raising of children. Childbearing outside of marriage may actually continue to be stigmatized to a certain extent in English Canada, whereas in Quebec, the need to sanction a relationship through marriage prior to the birth of a first child appears to be increasingly irrelevant to the life course of young adults (Le Bourdais and Lapierre-Adamcyk, 2004).

Le Bourdais and Lapierre-Adamcyk (2004) have noted that for cohabitation to truly be an alternative to marriage, it must be an acceptable conjugal context in which to bear children as well as an enduring arrangement in which to rear children. In this regard, it is noteworthy that cohabiters with children outside of Quebec are five times more likely to separate than those headed by couples who

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married directly, while among those in Quebec, cohabiters with children are only two and a half times more likely to do so. Children of cohabiting parents, then, face an elevated risk of family instability, but this is more so the case in Canada outside of Quebec. That families involving cohabiting couples are more stable in Quebec than in Canada outside of Quebec is therefore further evidence that it has become a more enduring conjugal arrangement that is increasingly viewed as a real alternative to the institution of marriage. This is consistent with Cherlin's (2004) argument that the quality and stability of cohabiting relationships seems to converge as cohabitation becomes more widespread and institutionalized.

Comparing Cohabitation and Marriage

As we have seen, international research has demonstrated how there are major differences in both marriage and cohabitation across societies and over time. In some societies, cohabitation continues to be largely viewed as merely a prelude to marriage, whereas in others, cohabitation has come to be viewed as almost indistinguishable from marriage (at least to the casual observer). In the Canadian context, Le Bourdais and Lapierre-Adamcyk (2004) have suggested that cohabitation in Quebec is closer to this latter situation (i.e. marriage and cohabitation becoming indistinguishable) whereas elsewhere in Canada the situation more closely fits the broader North American pattern (i.e. cohabitation as a childless prelude to formal marriage).

This inference is largely, yet not entirely, based on the widespread incidence of cohabitation in Quebec relative to other parts of the country. In this context, the current paper moves on to consider differences between cohabiters and married persons in terms of educational attainment, labour force participation, median income, income poverty, homeownership and the division of labour within the home. As different regions of Canada are distinct in terms of this "relationship transition", we look at these differences separately for Quebec and the rest of Canada.

Educational Attainment

While there has been considerable research on the socioeconomic characteristics of common law unions in the broader international literature, much less has been done on this topic in Canada. In reference to research in the United States, Seltzer (2004) has emphasized that cohabitation is in fact more common among those with less education, lower earnings and more uncertain economic prospects. In explanation, this has linked to the fact that marriage is often

defined by its longer term economic responsibilities – which would obviously be somewhat more difficult for less educated men and women. Smock and Manning (2004) have argued that men's education and economic prospects in particular are very important determinants of whether a cohabiting couple would marry.

There is a clear gradient in comparing the educational attainment of cohabiters with married persons, with married persons systematically reporting a higher level of formal education obtained.

While American research has documented an educational gradient in comparing cohabiters and married persons, Canadian research is not as clear on this issue. For example, Smock and Gupta (2002) have reported that no such educational gradient exists in Canada, which would depart from this broader North American pattern. Turcotte and Goldschieder (1998) have indicated that while such a gradient exists, it currently exists solely for women, and its strength and even direction has not remained constant over time. For example, among Canadian women, the impact of education appears to have reversed itself over the last 20 years or so - from a situation whereby a higher education increased the likelihood of cohabitation to one whereby a higher education increases the likelihood of marriage (as opposed to cohabitation). In other words, educated women become less rather than more likely to cohabit, and more rather than less likely to marry.

This latter observation is consistent with some of basic descriptive statistics on educational attainment as available in the 2001 Census (see Table 2) – as cohabiting women are found to have lesser of an education than married women, a generalization which is true across most of the subsamples identified in Table 2. More specifically, Table 2 provides information on educational attainment of men and women separately, at similar stages of their life cycle (as defined by marital status, age and the presence of children). These statistics are shown for cohabiting or married adults, who are classified as (i) aged 18-29 with no children (ii) aged 30-39 years with no children, (iii) aged 40-59, with no children, (iv) any age, with at least one child under 6 years, (v) any age, with a youngest child aged 6-14 years, and (vi) any age, with a youngest child aged 15-24.¹ Educational attainment is examined separately for Quebec and the rest of Canada (ROC). While this education gradient might not be quite as large in Canada as it is in the United States, Table 2 does suggest that it exists - particularly outside of Quebec.²

Very briefly, across nearly all categories in Table 2, persons who are in common-law unions have less of a formal education whereas persons who marry seem to be somewhat better educated. Across most categories, regardless of

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Table 2. Educational attainment by marital status, age and presence of children for Quebec and the Rest of Canada (ROC): 2001

	No children						With children					
	Aged 18-29		Aged 30-39		Aged 40-59		Youngest child aged 0-5 years		Youngest child aged 6-14 years		Youngest child aged 15-24 years	
	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting
Quebec men												
High school or less	23.2	25.8	23.4	26.7	50.1	42.5	27.4	36.4	37.8	44.5	47.2	47.1
Some post secondary	37.3	49.6	33.9	40.9	29.6	32.3	35.5	42.3	35.0	36.6	29.8	34.9
University graduate	39.5	24.6	42.7	32.4	20.3	25.1	37.1	21.3	27.2	18.9	23.1	18.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Quebec women												
High school or less	13.9	16.7	25.7	22.6	61.5	49.2	24.7	31.0	39.6	42.1	53.1	49.6
Some post secondary	38.1	47.0	31.1	37.5	23.0	27.3	37.0	43.1	36.4	36.5	28.3	30.1
University graduate	47.9	36.3	43.2	39.8	15.5	23.5	38.3	25.9	24.0	21.4	18.7	20.4
	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ROC men												
High school or less	25.1	32.5	23.1	29.5	40.1	39.4	27.8	50.1	31.6	48.3	35.6	43.5
Some post secondary	42.4	45.5	36.0	40.6	38.1	39.8	39.6	39.2	39.1	37.8	36.9	41.6
University graduate	32.5	22.0	40.8	29.9	21.8	20.8	32.6	10.7	29.3	13.9	27.5	14.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ROC women												
High school or less	19.7	24.8	19.6	24.3	47.7	43.2	25.8	47.6	33.9	41.3	41.4	45.6
Some post secondary	37.7	44.4	34.6	40.2	33.8	36.4	39.7	39.2	38.6	44.2	35.1	38.5
University graduate	42.7	30.8	45.8	35.5	18.5	20.4	34.5	13.3	27.5	14.5	23.5	15.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada, 2001 Census Public Use Files.

whether we focus on Quebec or elsewhere, those that marry have a better education, are more likely to report a university education and are less likely to have only a high school education - or less. For persons at certain stages of their life cycle, some of these differences are quite pronounced, as for example, among both cohabiting men and women outside of Quebec who are raising young children (aged 0-5 years). Among men with young children (aged 0-5) about 50.1 percent of cohabiting men have only a high school education, whereas among married men, 27.8 percent report an equivalent level of formal education. Similarly among women, fully 47.6 percent of cohabiters have high school or less, which compares with only 25.8 percent of married women.

In Quebec, a similar sort of situation seems to exist, although the differences are not nearly as pronounced. Among cohabiting men 36.4 percent are reported to have only a high school education, whereas among the married, 27.4 percent report this level of education. Similar differences are observed if we shift our attention to women with young children, as for example, 31.0 of cohabiters report high school or less, which compares with 24.7 percent of married women. To the extent that an educational gradient exists in Canada, it is certainly much stronger outside of Quebec than in this province.

Labour Force Participation

In a review of American research, it has been suggested that cohabiting couples are more likely to be non-traditional in terms of their gender-role attitudes (Seltzer, 2004). Consistent with this observation, one might expect the proportion of cohabiting women that are employed to be higher than among married women. In reviewing census data on the employment status of cohabiting women, there is clear evidence to suggest that this is true – regardless of region (Table 3). This generalization also seems to apply regardless of age group or whether or not there are children in the household.

This is consistent with the idea that if women can afford it - they are often more selective in seeking a suitable spouse. Similarly, this is consistent with the idea that women in cohabiting relationships adhere to more egalitarian attitudes in terms of the labour force participation of men and women. In examining Canadian data from the early 1990s, Turcotte and Bélanger (1997) find evidence to suggest that greater financial autonomy allow women a greater freedom to choose a preferred conjugal arrangement. That is, cohabitation is more likely to express an exchange between two people who are economically independent, whereas marriage frequently implies a higher level of economic interdependency between spouses – and frequently a higher level of “economic dependency” for women.

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Table 3. Employment status by marital status, age and presence of children for Quebec and the Rest of Canada (ROC): 2001

	No children						With children					
	Aged 18-29		Aged 30-39		Aged 40-59		Youngest child aged 0-5 years		Youngest child aged 6-14 years		Youngest child aged 15-24 years	
	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting	married	cohabiting
Quebec men												
Employment status												
Full time	79.7	86.3	84.7	89.6	76.2	82.3	89.8	90.3	92.2	89.8	88.8	87.7
Part time	8.6	9.3	5.6	5.2	5.6	5.8	3.8	4.3	2.7	3.6	3.9	4.0
No employment	11.7	4.4	9.6	5.2	18.2	11.9	6.4	5.4	5.1	6.6	7.2	8.3
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Quebec women												
Employment status												
Full time	67.2	69.2	72.8	79.4	43.1	66.4	53.0	59.5	58.5	65.1	58.4	72.3
Part time	16.4	24.3	12.6	11.5	16.3	12.8	18.0	17.0	20.4	17.9	17.4	13.5
No employment	16.4	6.5	14.4	9.1	40.5	20.8	29.1	23.5	21.0	17.0	24.2	14.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ROC men												
Employment status												
Full time	89.0	85.5	89.7	89.3	80.1	81.1	92.5	83.8	91.4	84.4	88.9	86.8
Part time	5.4	9.6	4.8	5.9	6.7	6.8	3.2	7.1	3.6	6.4	4.0	5.5
No employment	5.6	4.8	5.6	4.8	13.1	12.0	4.3	9.0	5.0	9.2	7.1	7.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
ROC women												
Employment status												
Full time	74.2	74.3	78.1	80.2	52.9	65.9	49.2	48.2	56.9	64.9	62.4	75.0
Part time	14.5	20.2	11.8	12.0	18.6	15.6	26.2	24.1	26.0	18.9	19.6	13.9
No employment	11.2	5.5	10.1	7.8	28.4	18.5	24.7	27.7	17.1	16.2	18.1	11.1
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada, 2001 Census Public Use Files.

In reviewing Table 3, the differences as observed in the likelihood of employment by marital status are consistent with this idea, and are often quite large, depending upon life cycle stage and region of the country. For instance, among childless women in Quebec aged 18-29, about 16 percent of married women were not employed in 2001 which compares with only 6.5 percent of cohabiting women. Among older women aged 40-59, the difference is even more pronounced, as about 40 percent of married women are not employed relative to about 20 percent of cohabiting women. Across age and life cycle stages, married women tend to be less likely to be employed - implying a higher level of economic interdependency and a more traditional division of labour. In addition, a closer inspection of Table 3 also demonstrates how if employed, cohabiting women are more likely to be doing so on a full time rather than part time basis relative to married women.

When shifting our attention to men, the pattern again seems to be quite different, depending upon region. For example, in Quebec cohabiting men are in fact *more* likely than married men to be employed full time (with the exception of men who have older children). In direct contrast, outside of Quebec, cohabiting men are typically *less* likely to be employed full time. Again, consistent with the broader North American pattern, cohabiting men outside of Quebec are less likely to be employed full time and seem to have lower employment prospects overall. Why this is not true for men in Quebec is not altogether clear – as again, we see that socioeconomic differences are least where cohabitation has become most widespread.

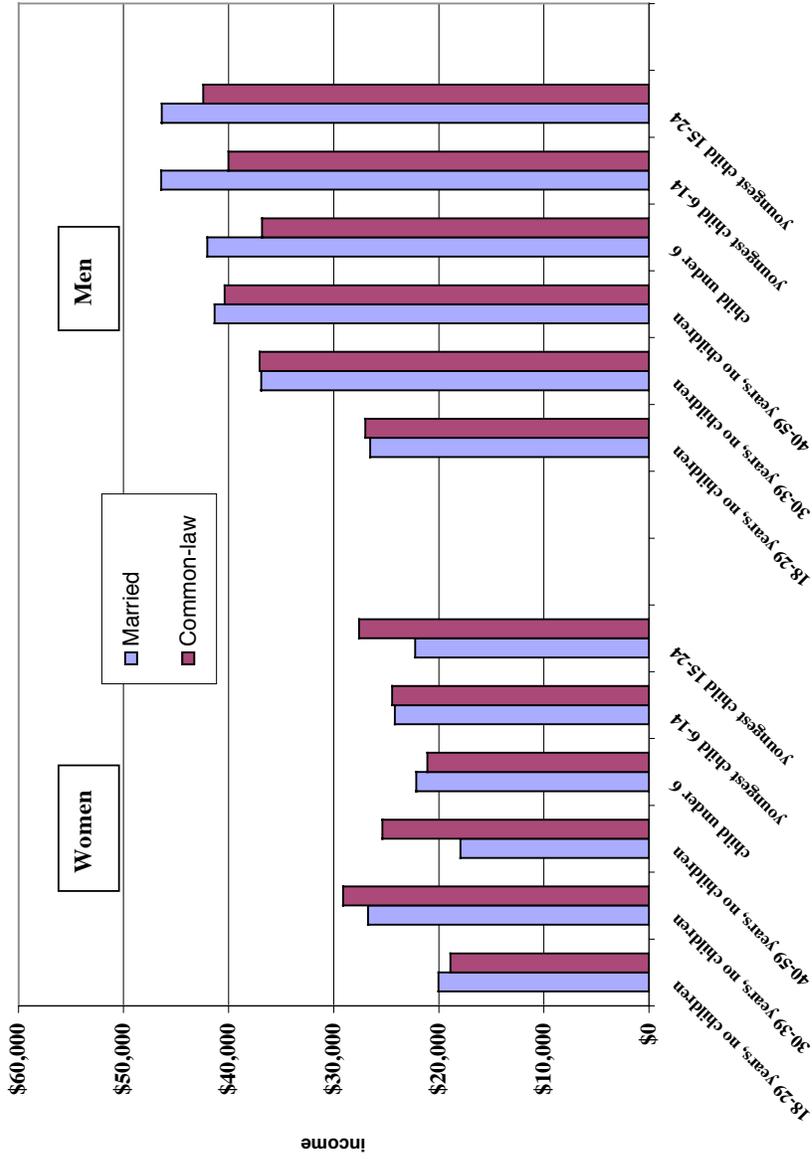
Median Income

In supplementing this information on labour force participation, Figure 1a and 1b provides similar breakdowns with median income. Working with this same categorization, by gender, age, marital status and the presence of children, this provides us with additional information on the economic well-being of Canadians – and how this varies by marital status. Again the situation appears to differ somewhat depending upon what part of the country we are focusing on. While median income tends to be slightly lower overall in Quebec than elsewhere, Figure 1a demonstrates how cohabiters in this province appear to be doing “relatively well”.

If anything, Figure 1a demonstrates how in Quebec, women in cohabiting unions tend to report slightly higher median incomes than do married women. Among women outside of Quebec (Figure 1b), the situation seems to be quite similar, with relatively small differences between married women and cohabiters. Among men in Quebec, those who are married have a slightly higher

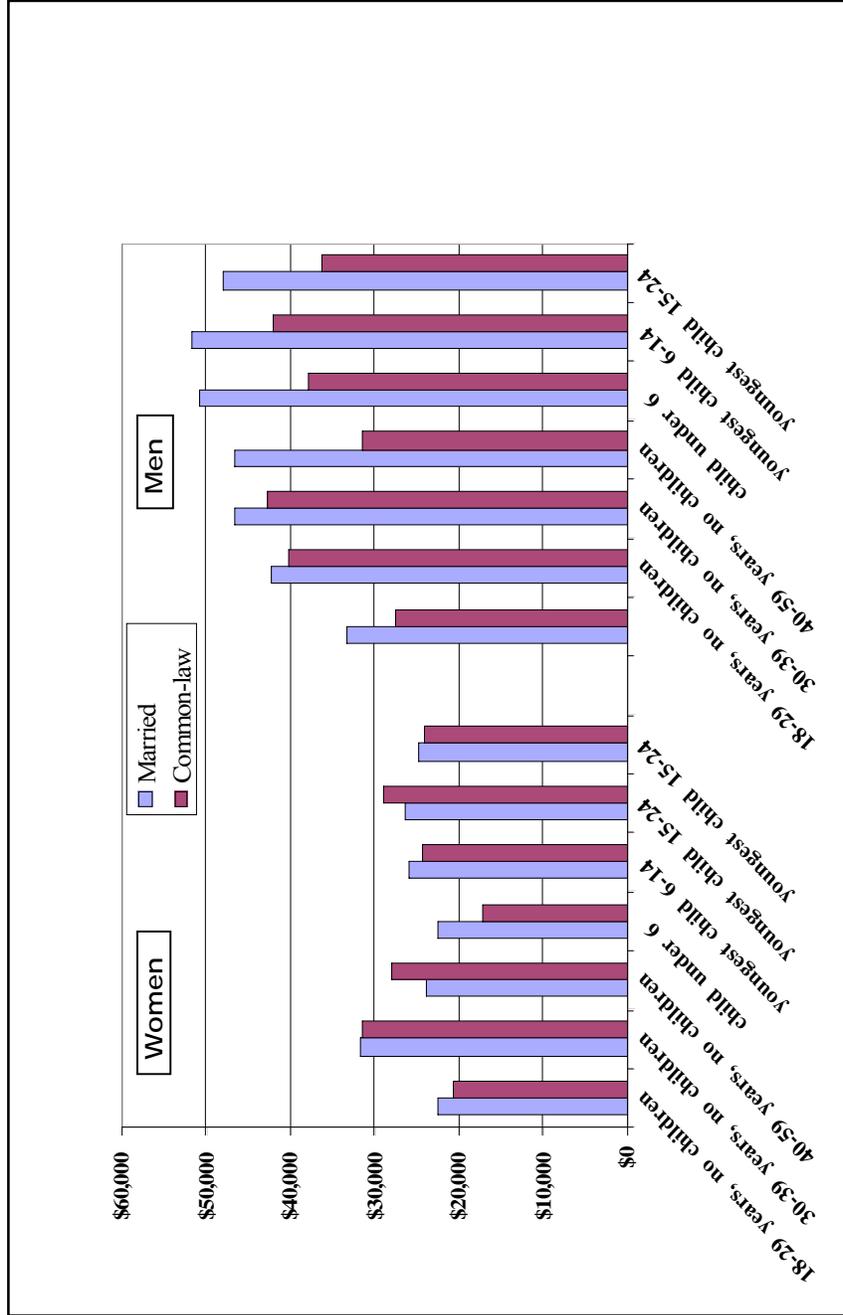
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Figure 1a. Median income in Quebec by gender, marital status, age and sex.



Source: 2001 Census, Public Use Individuals Files

Figure 1b. Median Income by Gender, Marital Status, Age and Sex for Rest of Canada (ROC): 2001



Source: Statistics Canada, 2001 Census Individual Public Use Files.

Marriage and Cohabitation: Demographic and Socioeconomic Differences in Quebec and Canada

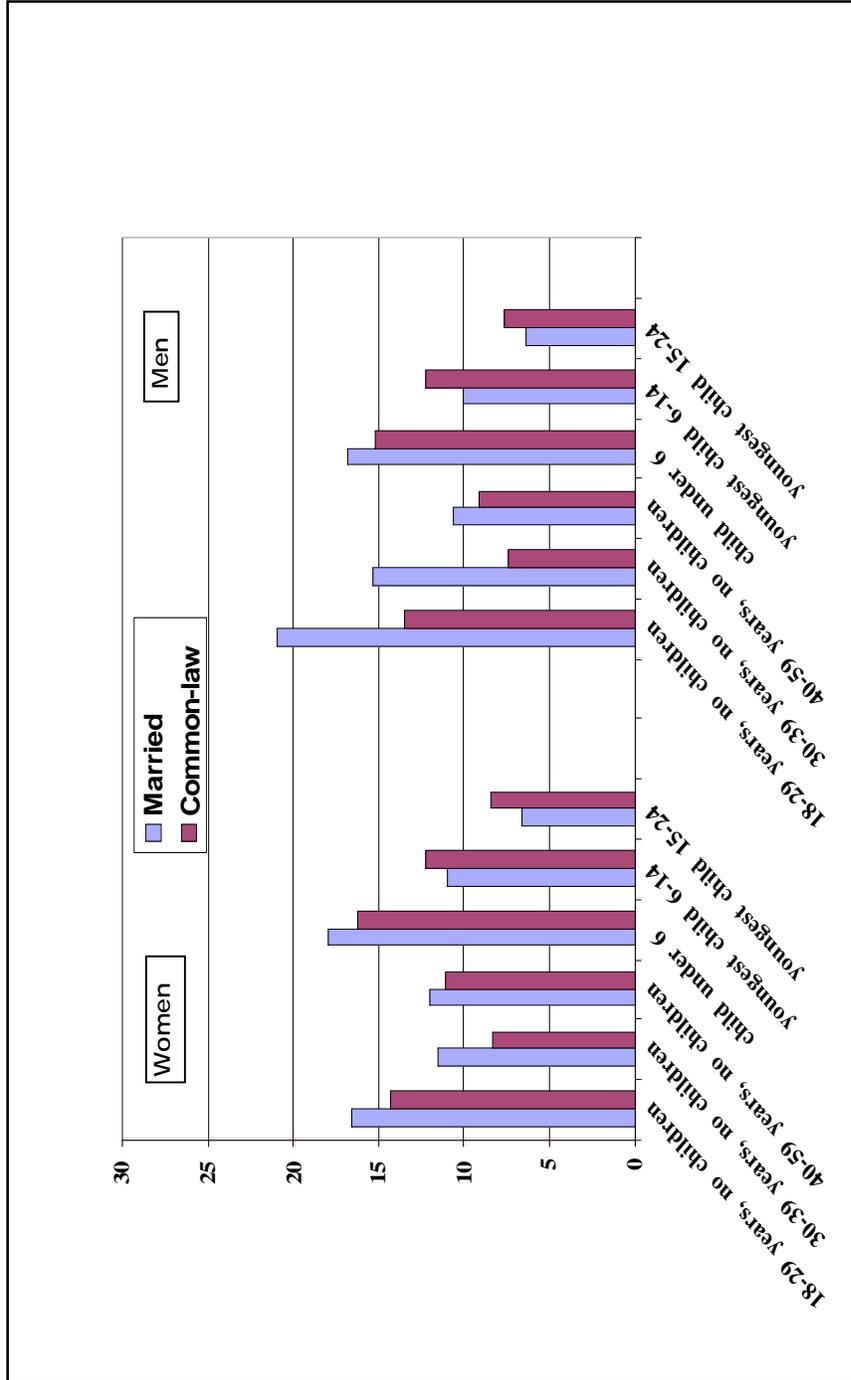
median income, although this again varies by life cycle stage -- with virtually no differences observed for those without children. While the median income is higher in Quebec among married men, the differences by marital status are again not particularly large. Yet elsewhere in Canada, married men not only have a higher median income than cohabiters, but the differences as documented are much more pronounced. As merely an example, among men with at least one child aged 0-5 years, the median income for married men (\$50,985) was found to be about 34% higher than for cohabiting men (\$37,908). In making this same comparison for Quebec, the difference as observed was not nearly as large (at about 14 percent) with medians of \$42,029 and \$36,814 respectively.

These differences are consistent with the idea that the impact of a man's economic prospects play out in a different manner than those of a woman's. In particular, the difficulty of integrating into the labour force and obtaining a reasonable salary may make marriage more difficult for men, while possibly having a lesser impact on women. To the extent that the decision to marry might be influenced by traditional gender roles, a lower income and weaker job prospects might have a greater impact on the ability of men to establish longer term relationships than it would have on the ability of women to do so. In addition, some of the greatest differences, particularly for men outside of Quebec, were documented for those with children, which suggest a potential interaction with marital status in influencing the decision to marry. With children, it is possible that women may be even less likely to formalize a relationship via marriage if their partner earns a relatively low wage.

Incidence of Low Income

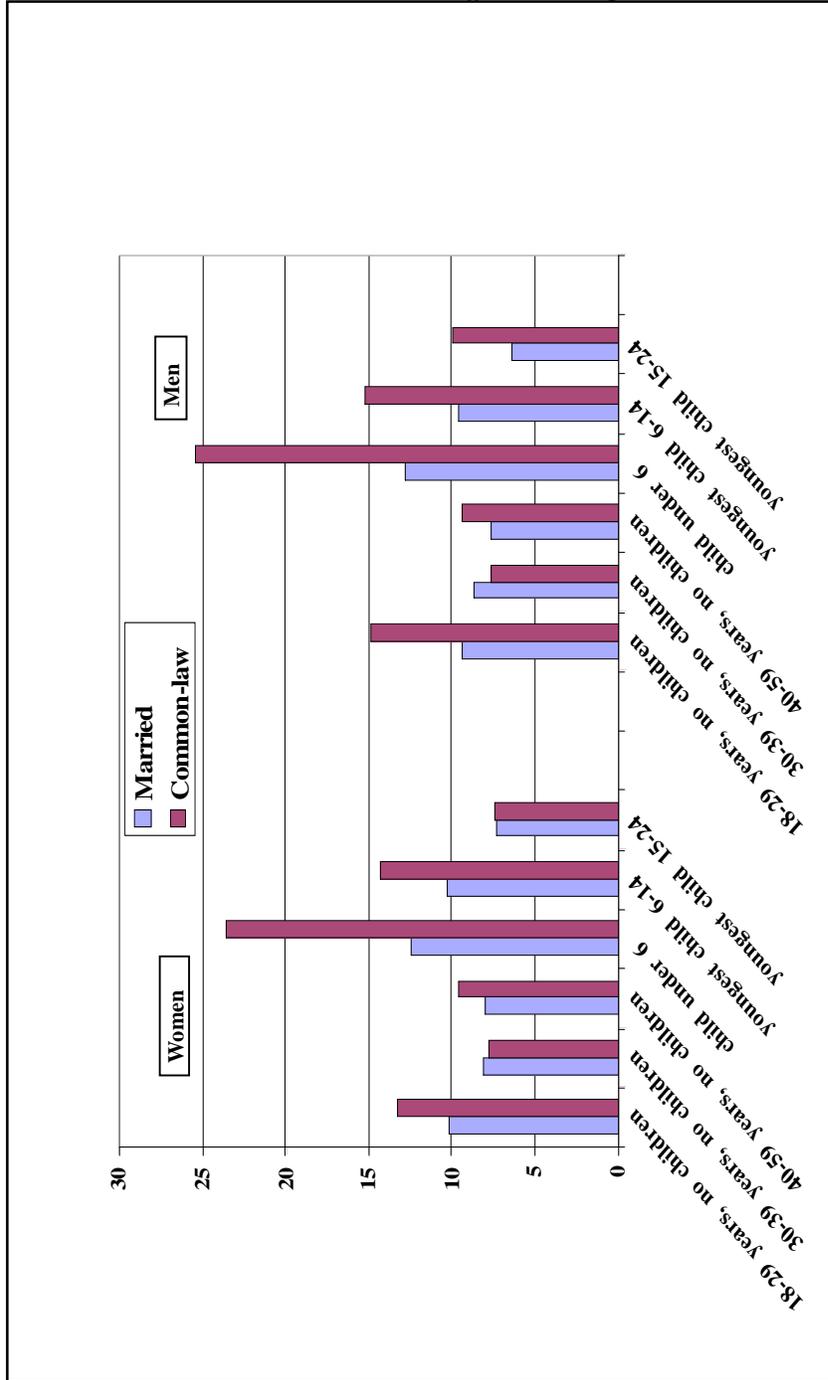
Figures 2a and 2b provides information on the percentage of persons classified as 'low income' in 2001 (using Statistics Canada's 1992 base LICOs – before tax). More specifically, this figure demonstrates how the likelihood of low income varies by marital status, just as it varies across the above demarcated life cycle stages. For example, parents with particularly young children (aged 0-5 years) are more likely than most to experience low income (in both Quebec and elsewhere), although this might be said to be particularly true among cohabiting parents outside of Quebec. Low income rates among these cohabiting men and women outside of Quebec approach 25 percent - whereas in the province of Quebec, these rates are at about 15 to 16 percent. Some of these differences as observed outside of Quebec are rather striking – and are completely consistent with the idea that cohabitation is associated with more uncertain economic prospects.

Figure 2a. Incidence of Low Income by Gender, Marital Status, Age and Sex for Quebec: 2001



Source: Statistics Canada, 2001 Census Individual Public Use Files, 1992 based L.COSs - before tax.

Figure 2b. Incidence of Low Income by Gender, Marital Status, Age and Sex for Rest of Canada: 2001



Source: 2001 Census, Public Use Individuals Files, 1992 based LICOs – before tax.

In comparing the situation in Quebec with what is observed elsewhere, not only are there important differences by life cycle stage, but more generally, the overall pattern of low income by marital status actually appears to reverse itself. While cohabiting adults are more likely to experience income poverty throughout most of Canada, cohabiting unions in Quebec actually have slightly lower levels overall. An exception to this general rule relates to the parents of older children, where low income rates are slightly higher among cohabiters, regardless of region. Where cohabitation is most widespread, common law unions do not appear to be particularly disadvantaged – at least in terms of low income rates documented via the census. While persons living common law appear to be slightly less likely to experience income poverty in Quebec, the situation outside of Quebec seems to fall in line with the broader North American pattern – with higher poverty rates associated with cohabitation.

Homeownership

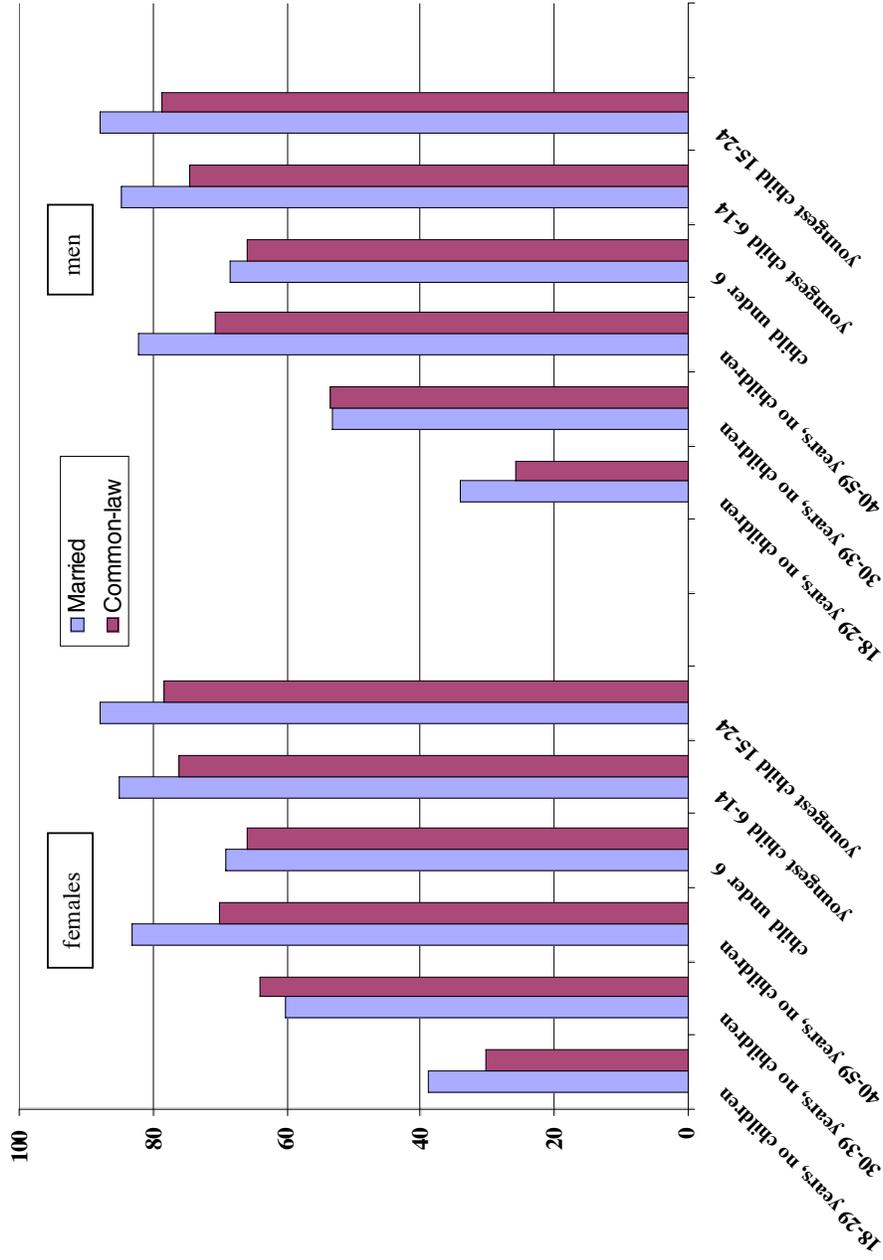
Homeownership is distinguished from renting by the considerable long-term financial responsibility that it entails. The purchase of a residence involves a sizable portion of an average household's wealth and, therefore, typically requires financing in the form of a mortgage (Dietz & Haurin, 2003). It also involves relatively high transaction costs associated with which tends to deter geographic mobility (Feijten, 2003). Entry into homeownership, then, is governed by both the present and the prospective socioeconomic resources of those involved (Feijten et al., 2003).

Besides socioeconomic resources, homeownership reflects the stability of the household, including the relationship stability of the co-residential, conjugal couple. In light of such responsibilities, it is logical that individuals are more hesitant to purchase an owner-occupied residence when they perceive that the future of their relationship is uncertain. Given that socioeconomic resources and relationship stability govern entry into homeownership, it is logical that the prevalence of homeownership according to marital status reflects differences their socioeconomic resources and relationship stability.

Returning to our data from the 2001 census, we find that, in general, women and men in Quebec (Figure 3a) and the rest of Canada (Figure 3b) are more likely to be homeowners if they are married rather than in a common-law union. Yet in considering regional differences in homeownership by marital status, the disparity in homeownership is clearly much less in Quebec than in the rest of Canada. The popularity of common-law unions in Quebec likely contributes to this lesser disparity, as does the aforementioned evidence that socioeconomic differences between common law unions and marriages are less than elsewhere.

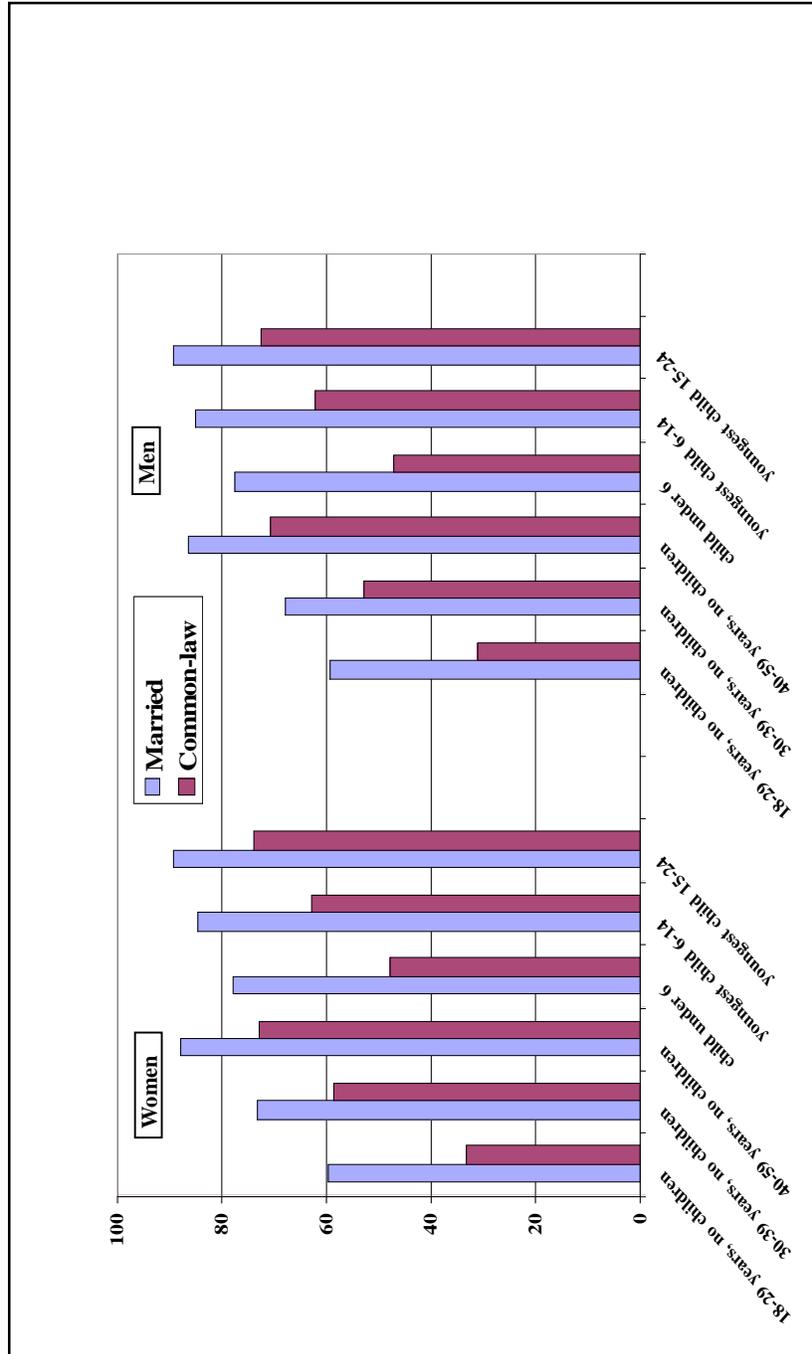
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Figure 3a. Home Ownership in Quebec, by gender, marital status, age and sex.



Source: 2001 Census, Public Use Individuals Files

Figure 3b. Home Ownership by Gender, Marital Status, Age and Sex for Rest of Canada: 2001



Source: Statistics Canada, 2001. Census Individual Public Use Files.

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In addition, to the extent that common law unions are slightly more stable in Quebec whereas the divorce rate is slightly higher, one might expect that these disparities in homeownership by marital status decline.

The Organization of Daily Life

Both common-law unions and marriages share a common function: i.e. they both involve the sharing and maintenance of a household between intimate partners. This maintenance of a household obviously necessitates that (i) domestic tasks be accomplished, and (ii) that an adequate income be obtained in order to maintain a reasonable standard of living. In so doing, the division of labour in conjugal unions depends on social norms about the appropriate work for men and women. Historically, the division of labour was highly gendered in Canada, although this is obviously much less so the case today than it was a few decades ago (Beaujot, 2000; Beaujot and Ravanera, 2005).

In this context, it is interesting to ask whether common law unions are more egalitarian than marriages, in the sharing of work both within and outside of the home. Insofar as cohabitation is an incomplete institution, the organization of daily life around the division of labour is likely less governed by social norms, which might lead to greater room to negotiate a division of labour that is less traditional and gendered.

While common-law unions differ from married couples in terms of their division of paid labour, past research has not documented big differences in terms of their unpaid labour, or the amount of time they spent on housework. For example, Shelton and John (1993) find that marital status among American couples affected the amount of time spent on domestic activities by women, but not by men. In turning our attention to time use data coming out of the Canadian General Social Survey (1998), Table 4 demonstrates a relatively high level of consistency across marital statuses in the amount of time women and men spend on domestic labour, i.e. those in common law unions spend virtually the same amount of time on domestic labour as do their married counterparts – true of both couples with and without children. Canadian women spend nearly double the amount of time that men do on housework, regardless of whether they are cohabiting or married. The division of domestic labour between partners, then, is gendered in both common-law unions and marriages, to the extent that women continue to take on a larger share of unpaid work and men continue to take on a larger share of paid work.

Table 4
Time Use (Average Hours per Day) of Population Aged 49 years and Less
by Marital and Parental Status, for Canada, Quebec and Rest of Canada: 1998

	Common-Law no children		Married no children		Common-law Parents		Married Parents	
	Men	Women	Men	Women	Men	Women	Men	Women
Canada								
Paid Work and/or Education	6.8	5.2	6.8	5.3	6.2	3.4	6.7	3.8
Domestic Labour	1.3	2.2	1.4	2.3	2.7	4.8	2.5	4.8
Personal Care	0.9	10.7	9.9	10.5	9.7	10.1	9.7	10.1
Shopping	0.8	0.9	0.7	0.8	0.4	1.1	0.6	1.0
Leisure/Free Time	5.4	5.0	5.2	5.0	4.9	4.5	4.4	4.3
Total	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Quebec								
Paid Work and/or Education	7.2	4.5	5.8	4.2	5.7	2.9	6.4	4.2
Domestic Labour	1.3	2.5	1.9	2.8	3.1	4.8	2.6	4.4
Personal Care	10.2	10.9	10.2	10.7	10.1	10.7	10.1	10.4
Shopping	0.4	0.9	0.6	1.0	0.4	1.1	0.6	0.9
Leisure/Free Time	4.8	5.3	5.5	5.6	4.6	4.5	4.3	4.1
Total	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
Rest of Canada								
Paid Work and/or Education	6.6	5.6	7.1	5.5	7.0	4.0	6.8	3.8
Domestic Labour	1.3	2.0	1.2	2.3	2.2	4.9	2.6	4.9
Personal Care	9.6	10.6	9.9	10.5	9.0	9.6	9.6	10.0
Shopping	0.8	0.9	0.7	0.8	0.4	1.0	0.7	1.0
Leisure/Free Time	5.7	4.9	5.1	4.9	5.4	4.6	4.4	4.4
Total	24	24	24	24	24	24	24	24

Source : 1998 General Social Survey, Public Use Files.

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With regard to regional differences, Table 4 suggests that the gender differences in the amount of time spent on domestic labour per day may actually be slightly less in Quebec than elsewhere in Canada. Yet these differences are not particularly pronounced and this largely applies to couples with children. More importantly, it is the presence of children that seems to be far more important in predicting the degree to which couples share domestic responsibilities. Gender differences in the time devoted to unpaid work are greater for couples with children than for childless couples, regardless of marital status and region. To the extent that the performance of housework implies conformity to traditional gender roles and contributes to the definition of traditional gender identities - the division of domestic labour between couples in both marriages and common-law unions continue to be “very much gendered” in this regard.

Discussion and Conclusion

In light of its importance to public policy, there has been a strong interest in understanding the extent to which marriage and cohabitation differ, and the extent they might be treated differently by legislators and the Canadian legal system. This is not an easy question to answer because the very meaning of cohabitation differs over time and space. The meaning of cohabitation can even differ over time for a given couple. Marriage itself is changing, rather than providing a stable point of reference. The family change of the second demographic transition has especially been measured by the greater flexibility in the forms of entry and exit from unions. The changes in these measurable aspects of marital unions are thought to be a reflection of changes in unions themselves, including the de-institutionalization and an individualization of relationships. Roussel (1989), a French sociologist of the family, has spoken of a change from marriages that need to conform to certain norms, to a “projet de couple” defined by the participants themselves.

While individualization and diversity are all well and good, Canadian public policy needs to treat given types of relationships in equivalent ways. This especially applies to relations that include children, since it is the most vulnerable who are in strongest need of protection. Even if there are no children, unions often include dependency, and a consequent need to protect persons who are dependent. Particularly in the context of specialization and complementarity in the division of the labour associated with earning a living and caring for each other, a strong marriage contract is needed to protect persons who are economically dependent because they have specialized in caring. We have evolved a welfare state where the family is often the first line of defence when individuals are not self-sufficient, due to disability, youth or age. This includes the contradiction that the family member who cares for others can devote

themselves less to earning a living and thus lose their own self-sufficiency. Consequently, many marital relationships include dependency, and a need to protect the persons who are dependent. A crucial question is to know whether marriage and cohabitation are similar in terms of these dynamics of dependency.

Given the aforementioned differences between Quebec and the rest of Canada, our comparisons on the socioeconomic characteristics of persons who marry and cohabit have also been made separately for these two parts of the country. In making socio-economic comparisons, we have also controlled for gender and the life cycle stage, differentiating by the age of the youngest child. For those without children, we have differentiated by age of respondent. These differences in socio-economic status are difficult to summarize. The differences are typically smaller in Quebec, where cohabiters are more likely to show stronger labour force participation, lower income poverty and higher incomes. Outside of Quebec, it is the married men that typically have higher participation and income than the cohabiting men.

In other words, cohabitation in Quebec appears to take on quite a different character than cohabitation elsewhere, making generalizations difficult. Throughout most of Canada, marriage appears to be somewhat selective of higher status, especially for men. Men with lower status would be less desirable as marriage partners. Under such circumstances, marriage may very well bring a greater division of labour, since the men with higher status take more responsibility for earning a living. On the other hand, cohabitation seems to be more of a “real choice” in Quebec, and may signal greater departure from a traditional division of labour, especially for women. Cohabitation would then imply less differentiation between women and men, or it would be selective of women with higher socio-economic status compared to married women. As a result, where cohabitation is most widespread, the characteristics of cohabiters do not differ dramatically from the characteristics of those that marry. Similarly in Quebec, cohabitation is more similar to marriage as it is much more likely to involve children than elsewhere in Canada, just as it is more likely to be stable and of longer duration.

Whether it be cohabiting or married couples, in Quebec or outside of Quebec, children bring a greater differentiation in the division on labour, with women doing more of the unpaid work. As both common law men and women are more likely to be employed in Quebec than are their married counterparts, this is further evidence to suggest that relationships in Quebec are more likely to depart from a traditional division of labour. Yet the evidence is not straightforward, as our data on the division of domestic tasks suggest relatively minor differences between cohabiting and married couples, regardless of region. While marriage is more likely to be linked with a traditional division of labour, our evidence on

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time use within Canadian households suggests that we should not overstate the relevance of marital status in predicting the division of domestic tasks. What is particularly relevant in this context is whether or not a couple has children.

If cohabitation involves less dependency, there is less need for legal protection. However, given especially the gender differences in incomes, many cohabiting couples include dependent relationships, and associated needs for legal protection. It can be argued that children's lives have especially been affected by the greater flexibility in the entry and exit from unions. Since the presence of children brings greater inequality in the division of work, legal protection is especially needed when there are children, regardless of the nature of the marital union, possibly especially in the case of cohabiting unions which are more likely to be of shorter duration.

As we opt for a society where there are fewer dependencies, and more equality between men and women, it is useful to take note of other legal provisions that remain based on a traditional breadwinner model. This may apply to widowhood benefits, pension splitting and tax deductions for a dependent spouse. While these provisions are a means of accommodating dependency in couples, they can also discourage rather than promote the economic independence of women and men. Similarly, poorly subsidized parental leave, and lack of benefits for part-time work, can reduce the likelihood that couples will share the leaves and part-time work associated with childbearing, as they seek to maximize the family income. Making joint custody the default condition, would also signal the continuing responsibility of both parents for the well-being of children. Joint custody would also signal that separations involve the link between adults, rather than the links between adults and children.

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End Notes:

1. In comparing persons with and without children (present in the home), these categories are not strictly comparable in terms of stage in the life cycle. In the case of persons without children, we consider exclusively birth cohorts, whereas among those with children we consider the age of the youngest child in classification rather than birth cohort.
2. The sample selected from the census for the public use file is extremely large, with fully 2.7% of all persons enumerated in the 2001 census selected (or over 800,000 individuals). For this reason, the level of precision in Tables 1-3 is very high, with even relatively small differences statistically significant.

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*"Quelle chance, quelle chance d'habiter la France/ Dommage que tant de gens fassent preuve d'incompétence/
Dans l'insouciance générale les fléaux s'installent-normal/Dans mon quartier la violence devient un acte trop banal/
Alors va faire un tour dans les banlieues? Regarde ta jeunesse dans les yeux toi qui commandes en haut lieu/
Mon appel est sérieux on ne prends pas ça comme un jeux/ Car les jeunes changent, voilà ce qui dérange."
(Kool Shen, Le Monde de demain, NTM, 1991)*

'... the test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function. One should, for example, be able to see that things are hopeless and yet be determined to make them otherwise.'
(F. Scott Fitzgerald, The crack-up)

The 'Urban Divide' – What Role for Demography?

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In January 2006 a lot of people gathered at the *Ecole des hautes études en sciences sociales* (EHESS) in Paris to discuss '*Penser la crise des banlieues: que peuvent les sciences sociales?*' [Thinking the crisis of the suburbs: what can the social sciences do?]. This event creates a feeling of 'What-took-you-so-long', but also one of 'Better-late-than-never'.

Riots or revolts soon stop to be the news of the day. But this does not mean that the 'urban divide' will simply vanish. It is our view that scientific disciplines, including urban demography, should make a contribution to fight the 'urban divide'.

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In this article, the urban divide is translated empirically into being vulnerable and deprived. A case study is presented to identify the role of demography. The practical example of a large-scale EU program serves as a test case for vulnerability, deprivation and demography. Finally, directions are given for future research related to: aggregation and disaggregation; (the art of) defining urban problems; the challenge of social innovation in urban revitalization; and – by way of conclusion – a plea for multidisciplinary.

This article deals primarily with the European experience although reference is made to other countries, notably in Latin America. The fact that the sound bite of urban divide (*la fracture urbaine*) has been borrowed from Jacques Chirac, however, does not imply that this is only a French problem. The urban divide cuts across the boundaries of EU 15 and EU 25 member states. This article is not about the Canadian or the Québec experience in particular as we have not been able to investigate whether Québec represents “an other America” or an other Europe in urban matters.

The ‘Urban Divide’ or being Vulnerable and Deprived

It is easy to coin a phrase such as urban divide. But it is far more complicated to unravel the meaning of it. Sound bites are poor guidelines for policies that try to fight urban problems: ‘only variety can destroy variety’ as Ashby (1970) has put it. The view held here is that the concepts of vulnerability and deprivation are crucial in understanding urban problems (Hulsbergen, 2005). Vulnerability indicates different forms of dependency (social, economic and physical) whereas deprivation points to a variety of shortages in the living environment.

Vulnerability, defined as a state of dependency, manifests itself in various ways: social contacts; networks and participation; how one provides for one’s household; the time spent on all kinds of activity (including leisure); aspirations and future expectancies; knowledge of societal developments; the use of social amenities and services; health and handicaps. A person is vulnerable when he or she is impacted in a negative way by changes in living conditions without being able to improve the situation. Being vulnerable means that the system that creates the changes cannot be used to improve one’s own situation.

Deprivation is about the form and uses of available space which create the material conditions for either facilitating or restricting one’s life. Deprivation concerns the shortages experienced in providing for one’s household, brought about spatial-physical constraints at home, in the neighborhood and district up to the urban and regional level. It covers the quality and quantity of housing, the

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Figure 1.
Short Overview of Research Projects, Data Bases and Main Variables

	Number of Respondents in the Data Base	Number of Initial Scores	Main Variables (number of variables in the multivariate analysis)
Living Conditions Survey (Hulsbergen & Drewe, 1984)	4693 secondary analyses of 1974 survey data, national sample	559 Testing the (one-or multi-) dimensionality of the data, and the multivariate data elaboration programmes	Deprivation (dwelling and district) (12) Living environment (larger scale) (3) Vulnerability (17) Socio-economic status (3) Phase in life cycle (5)
Urban Marginality (Drewe & Hulsbergen 1987)	568 analysis of survey data of selected districts in Managua	64 Testing the multivariate nature of marginality	Deprivation (2) Name of district, representing living environment (1) Vulnerability (4) Socio-economic status (3) Phase in life cycle (5) Origin (3)
Urban Unemployment (Feddem & Hulsbergen, 1991)	598 contribution to construction of questionnaire, analysis of survey data of sample of unemployed in Rotterdam	489 testing the multivariate nature of unemployment, and the existing (simplistic) unemployment categorisation	Dwelling (10) Neighbourhood/district (8) Unemployment position (8) Socio-economic position (10) Level of income (2) Phase in life cycle (6) Attitude towards work and change (11) Wishes, future expectancies (7) Vulnerability (16) Origin (5)
Cochabamba (Ledo, 2002)	1988: 10,250 in 2,313 households 1996: 2,374 in 532 households	1988: 124 questions 1996: 80 questions	Living conditions - deprivation (housing, drinking water, sewerage, electricity) (11) Socio-economic status (4) Socio-spatial status (3) Position in life cycle, household (6) Vulnerability (4)

Source: Hulsbergen, 2005, p. 51.

accessibility of all kinds of relevant activity, suitable employment, and access to information and communication technologies.

The definitions of the two key concepts are based on hypotheses tested by means of multivariate analyses of survey data: in the Netherlands (as a whole as well as in Rotterdam), in Nicaragua (Managua) and in Bolivia (Cochabamba). For the specific techniques applied see Box 1 (see Appendix). Illustration 1 informs about the research projects, data bases and main variables. At first sight, the variables relating to the phase or position in the life cycle come closest to demography. In order to shed more light on this, let us take a closer look at Cochabamba – just for the sake of illustration.

Vulnerability and Deprivation in Cochabamba: Where does Demography come in?

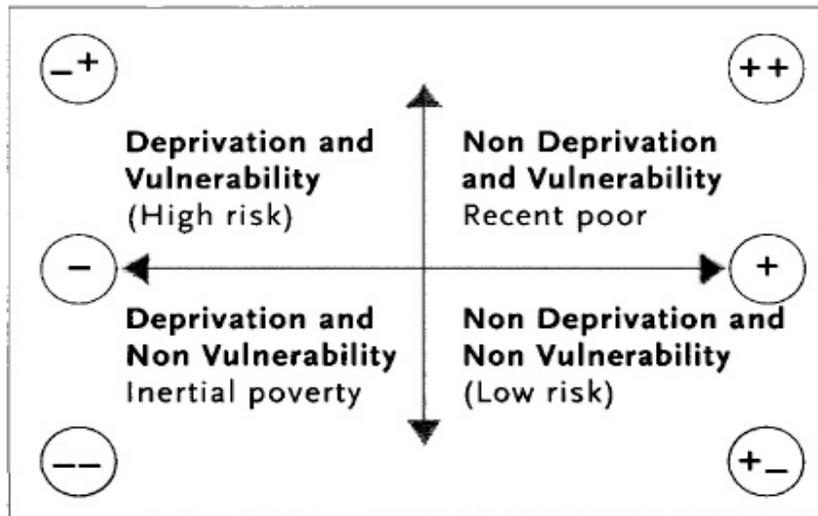
Unlike the preceding studies, the Cochabamba study allows for analyzing changes over time, to wit between 1988 and 1996 (Ledo Garcia, 2002). For both years, the data reveal comparable, two-dimensional structures. The first differentiates households in terms of high-to-low quality of the environment with respect to neighborhood location, sewage system, drinking water and housing quality. The second dimension classifies households in terms of high-to-low vulnerability as well as inequalities expressed by source of income, age, employment insecurity, social stratification and home ownership.

Though the structure of the two-dimensional model is the same for 1988 and 1996, the shifts in the dominant operational variables show that living conditions are worsening, in particular with regard to the availability of drinking water and unemployment.

Moreover, a typology has been constructed based on the two-dimensional model, quantifying four categories: households at low risk; the recent poor; inertial poverty and households at high risk (Illustration 2). Over the 8-year period the share of households at high risk has increased from 26.0 % to 30.5 % and inertial poverty from 23.8 % to 24.6 % (Illustration 3). This means that in 1996 more than half of the population has been ‘deprived’ (by the way, both the shares of the recent poor and of households at low risk have decreased).

Figure 2

The Multi-dimensional Face of Poverty, Vulnerability, Deprivation and Social Inequality in Cochabamba



When disaggregated by neighborhood and subsequently mapped, the most affected areas are displayed. Segregation between the relatively well-off North East of the city and the old town, on one hand, and the poor South on the other, has become more clearly marked.

What about the main variables and the demographic ones in particular?

The entire set of variables is shown in Illustration 4, including set 4 which consists of:

- household composition
- marital status
- household size
- age
- sex
- children under 12 years.

The vulnerability dimension in set 4 reflects the presence of young adults, single people and women over 65, widowed or divorced.

Figure 3
Deprivation and Vulnerability in Cochabamba: 1988 and 1996

Population Categories	1988		1996		
	Percent in Sample	Frequency generalized to total population	Percent in Sample	Frequency generalized to total population	Expected Frequency compared to 1988
No deprivation, no vulnerability ("low risk")	26.7	19.477	23.6	26.861	30.485
No deprivation, yes vulnerability ("recent poor")	23.5	17.118	21.3	24.271	26.792
Deprivation, no vulnerability ("inertial poverty")	23.8	17.316	24.6	28.102	27.102
Deprived and vulnerable ("high risk")	26.0	18.96	30.5	34.821	29.676
Total	100.0	72.871	100.0	114.055	114.055

Source: Ledo Garcia, 2002, p. 172.

What lessons can be drawn from the Cochabamba study?

Demographic variables pertaining to the position in the life cycle play an important part in defining and measuring the urban divide, but do not suffice to define urban problems. Four more sets of indicators (referring to socio-economic status; spatial status; living conditions and deprivation; vulnerability) were needed to complete the picture of the “multidimensional face of poverty, vulnerability, deprivation and social inequalities in Cochabamba” (Ledo Garcia, 2002: 172). Moreover, the other facets constitute targets for political intervention, if one intends to change the status quo of urban problems. This brings to a practical example of interventions and of urban demography in practice.

The URBAN Community Initiative as a Test Case

So-called Community Initiatives (within the EU Structural Funds) are launched by the European Commission in search of new approaches to urban problems, to improve the effectiveness of urban policy. The most important initiative is URBAN, in two editions:

URBAN I in the period 1994-1999 and URBAN II covering the years 2000-2006 (GHK, 2003). The first comprises 120 programs with € 900 million of funding and a total investment of € 1800 million. The programs target nearly 3 million inhabitants. For URBAN II another 70 programs have been selected to which the EU has contributed €700 million (the total investment amounts to € 1580 million). The URBAN II programs cover a population of some 2.2 million. The actuality of the URBAN Initiative increases with the fact that the French suburbs of Aulnay-sous-Bois, Clichy-sous-Bois / Montfermeil, among others, are part of the programs.

Urban problems are officially spelled out as follows: “*Poor living conditions aggravate individual problems and distress. In turn, social malaise and the lack of economic opportunity make the individual hostile to his/her environment. This vicious circle is today cause of conflicts and imbalances, particular evident in the areas where the problems are the most acute*”.¹ This explains the focus on neighborhoods or small pockets with extreme deprivation. The latter is considered as multi-faceted, i.e. as having a social, environmental and economic dimension, thus requiring an integrated approach. The vicious circle is to be broken “*by re-valorising the individual through his/her habitat and not in spite of it*”. Or to put it differently, deprivation is to be tackled by an area approach, by targeting a well-defined area of small size.

Figure 4
Main Variables, Scaling Level and Categories

Set	Variable	Description	Categories	Scaling Level	Categories
		STRATIFICATION OF SOCIO-ECONOMIC GROUPS			
1	1	x11	4	Ordinal	1. Manual Worker 2. Informal Sector 3. Non-Manual Worker 4. Director, Professionals
1	2	x12	4	Ordinal	Income per capita in American dollars per day 1. <1\$ 2. 1-2\$ 3. 2-4\$ 4. 5\$+
		PRODUCTIVE STRUCTURE			
1	3	x13	4	Single-Nominal	1. Wholesale & Financial Services 2. Transport, Communication & Social Services 3. Retailer, Personal Services & Restaurants 4. Primary & Secondary Sector
1	4	x14	4	Ordinal	Formal Education Level (in years) 1. <3 2. 3-8 3. 9-12 4. 13+
2	5	x21	3	Single-Nominal	Area of Origin 1. Biggest City 2. Intermediate/City 3. Rural
2	6	x22	3	Single-Nominal	Neighbourhood Location 1. Good 2. Regular 3. Bad
2	7	x23	3	Single-Nominal	Migrant Condition 1. No Immigrant 2. Immigrant
3	8	x31	2	Ordinal	Housing Types 1. House or Flat 2. Room & Shack
3	9	x32	2	Ordinal	Ownership Types 1. Owner 2. Rent & Borrow
3	10	x33	2	Ordinal	Housing Crowding 1. High/Density 2. Normal
3	11	x34	2	Ordinal	Availability of private bathroom 1. YES 2. NO
3	12	x35	2	Ordinal	Readiness of room to cook 1. Yes-kitchen 2. No-kitchen
3	13	x36	3	Ordinal	Walls 1. Good-Walls 2. Regular-Walls 3. Bad-Walls
3	14	x37	2	Ordinal	Roofs 1. Good-Roofs 2. Regular-Roofs
3	15	x38	3	Ordinal	Floor 1. Good-Floor 2. Regular-Floor 3. Bad-Floor
3	16	x39	2	Ordinal	Drinking Water 1. Yes-Water 2. No-Water
3	17	x310	2	Ordinal	Sewer Network 1. YES-Sewer 2. NO-Sewer
3	18	x311	2	Ordinal	Electricity Service 1. Yes-Electricity 2. No-Electricity
4	19	x41	3	Single-Nominal	Household Composition 1. Single 2. Nuclear 3. Extended & Compound
4	20	x42	3	Single-Nominal	Marital Status 1. Divorce/Widowed 2. Married 3. Unmarried
4	21	x43	3	Ordinal	Household Size 1. 1-3 2. 4-5 3. 6+
4	22	x44	3	Ordinal	Age 1. Less 30 2. 30-64 3. 65+
4	23	x45	2	Single-Nominal	Sex 1. Male 2. Female
4	24	x46	2	Single-Nominal	Children under 12 years 1. Yes/Children 2. No/Children
5	25	x51	2	Single-Nominal	Employment Type 1. Permanent 2. Temporary
5	26	x52	2	Single-Nominal	Contract of Employment 1. Yes/Contract 2. No/Contract
5	27	x53	2	Single-Nominal	Type of Income 1. Yes/Salary 2. No/Salary
5	28	x56	2	Single-Nominal	Language 1. Spanish 2. Spanish-Native

Source: Ledo García, 2002, p. 159.

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Moreover, each target neighborhood should be integrated into the rest of the city. The individuals affected by severe deprivation are not to be treated as passive objects of interventions, however. URBAN envisages citizen participation in the development and implementation of programs. The problem of deprivation is supposed to be solved 'at grass root' level. Hence the keywords of the URBAN rationale are: multidimensional deprivation, integrated area approach, and citizen participation.

How does the URBAN Initiative relate to what has been said so far about vulnerability, deprivation and demography? Where do the respective indicators come in?

Three moments are crucial here:

- the selection of target or program areas: to ensure that the 'right' areas have been chosen
- citizen participation: to check on the mobilization of those for whom URBAN has been set up
- the ex-post evaluation of program impacts: to make sure that a positive outcome has accrued to the targeted groups.

Given the area-based focus, the kind of area selected is of vital importance as it decides on the degree of multiple deprivation tackled by the programs. URBAN I areas were required to have the following socio-economic characteristics: high level of unemployment, decayed urban fabric, bad housing conditions, and lack of social amenities. In an attempt to create 'more transparent' criteria for the selection of areas in URBAN II, learning from the first edition, nine criteria have been proposed (Commission of the European Communities, 2002:11)

- *High long-term unemployment*
- *Low rate of economic activity*
- *High level of poverty and exclusion*
- *The need for structural adjustment due to economic and social difficulties*
- *High proportion of immigrants, ethnic minorities and refugees*
- *Low level of education, major gaps in terms of qualification and high rate of pupil failure*
- *High level of criminality and delinquency*
- *Unstable demographic development*
- *Particularly poor environmental conditions.*

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The nine criteria represent a mix of vulnerability, deprivation and demographic indicators. It is an ad hoc mix of indicators. No empirical evidence is provided on the underlying dimensions, especially on the very multidimensional character of the problems addressed by the EU initiative on an area basis. Pragmatism and plausibility seem to compensate for the paucity of data and data analysis. As to URBAN I with its catchall criteria, the evaluators assure us that “in general, the EC’s criteria led to the selection of the most disadvantaged districts” (GHK, 2003: vi).²

Active participation of the local community in aspects of management and implementation of the URBAN program has been seen as an important success factor. Conversely, the lack of active participation - according to the evaluators - qualifies as an important hindering factor. But nowhere does one find any information on who is actively participating in URBAN and who is not. The citizen or the ‘grass root’ remains a black box although it could be ‘unblackboxed’ by using demographic or other indicators.

Do vulnerable people participate and, if yes, what does participation do to vulnerability?

The real ‘proof of the pudding’, of course, are the results or impacts of the initiative as revealed by the ex-post evaluation. The top-three impacts listed are: improvements in the physical environment, improvements in socio-economic conditions and social capital impacts (ICT does not figure among the impacts of URBAN I; see Box 2 in Appendix for the relation between the urban and the ‘digital divide’.) What strikes is that evaluators’ opinions, by and large, have replaced the measurement of tangible output to the target area and population.³

To answer the question whether deprivation has been alleviated thanks to URBAN, asks for tangible output measures such as the number of suitable jobs created. As far as vulnerability and demographic characteristics are concerned, the target population can hardly be considered as homogeneous, the crucial question being who has profited from the program and who has not. Take for example the French suburbs. We know from other sources that the young and unemployed were among the frustrated inhabitants, lacking the required education or, not lacking it, but having no access to decent jobs. This is also an example of the importance of demographic variables, in especial (once again) the position in the life cycle. Being unemployed, is far from being a simple indicator as our study on urban unemployment in Rotterdam has shown (Feddem & Hulsbergen, 1991). *The unemployed simply does not exist.* A proper typology requires the inclusion of deprivation, vulnerability and demography.

Summarizing one can say that the rationale or philosophy of the URBAN Community Initiative still holds: multidimensional deprivation, integrated area approach and citizen participation. Even if one accounts for pragmatism and plausibility, URBAN has been hampered by a paucity of data and data analysis. It lacks the discernment and understanding with which to penetrate the heart or essence of the urban divide. This problem is not solved by a major EU investment in urban statistics, to wit the so-called Urban Audit. It collects information on living conditions in large and medium-sized cities in the EU and the candidate countries from 1997 onward (<http://www.urbanaudit.org>). The collected information consists of aggregate indicators in the domains of demography, social aspects, economic aspects, training and education, and the environment. As to the nature of indicators not much progress has been made since the Council of Europe commissioned a study on the structure and composition of the population of urban areas back in 1963 (Council of Europe, 1983). Missing in the indicators debate is the relation between aggregation and disaggregation. The issue of aggregation versus disaggregation is one of the topics of future research.

Directions for Future Research

The directions for future research refer to four issues:

- aggregation and disaggregation
- (the art of) defining urban problems
- the challenge of social innovation in urban revitalization
- by way of conclusion: a plea for multidisciplinary.

Aggregation and Disaggregation

Information can be collected on the individual level or in an aggregated way at different scales, in urban studies, up to the city level. Dealing with the urban divide, the criteria for the selection of program areas in URBAN provide an example of aggregate data. So are the data in the Urban Audit (collected by Eurostat). Aggregate data in this context ask for a critical analysis which relates to the issue of defining urban problems. This includes benchmarks of what is seen as high or low and the potential fallacy of misplaced concreteness.

Examples of individual data have been given in Illustration 4 and, in greater detail, in section 2 analyzing vulnerability and deprivation (it should be noted that any categorization is a form of aggregation starting with households). Note also the need for disaggregate data with regard to citizen participation and the

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ex-post evaluation of program impacts – and the lack of this kind of data in URBAN.

Though there is a sharp distinction between aggregation and its opposite, disaggregation, they are essentially interdependent. Aggregate data cannot be constructed without individual data and, in order to get a broader picture, individual data need to be aggregated. Cochabamba, for example, is portrayed in a nutshell by the share of four types of deprivation and vulnerability (Illustration 2). Another example is URBAN and its pragmatic need to define the magnitude of urban problems.

Aggregation ought to be carried out consciously, as a stage in a process of generalization, or to connect different aspects in order to gain knowledge or take action. What is really important is the critical analysis of interdependencies of aggregation and disaggregation: in order to avoid fallacies of aggregation or disaggregation as well as meaningless or stigmatizing definitions of urban problems.

The Art of Defining Urban Problems

At the heart of the question is the importance of defining a problem well. What, actually, is the problem to be approached and possibly solved? How can we be certain that one definition is preferable to another? Which problem definition justifies leaving trusted, well-trodden paths? When is an urban area a problem area that must be dealt with? How can we ensure that we do not neglect those urban needs not explicitly mentioned in the problem definition? Even if an incorrect problem statement could lead to an adequate approach, a ‘good’ problem definition is preferable.

There is no simple answer to these questions. However, a few considerations should be borne in mind (Drewe and Hulsbergen, 1987; Hulsbergen, 1992):

- it must be possible to conduct research on a problem definition
- it must be possible to underpin the validity of the definition
- defining a problem is more of a process than a one-way affair
- the point of departure, and who takes this position, must be made explicit
- in defining the problem, care should be taken not to stigmatize a group of people or an area
- people’s characteristics must be separated from the characteristics of the areas in which they live, being especially alert to avoid fallacies of (dis) aggregation
- before using them, it is best to review potential approaches and also the routes taken to find solutions.

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Common policy and practice tackling the urban divide are usually based on information aggregating on an area basis mostly data from existing statistics. There is often little choice as e.g. household data are not available. It is important to establish whether the problem definition, based on the data available, can deal with the complexities of urban regeneration. Our observation is that the needs of the most vulnerable and deprived residents tend to disappear underground, so to speak, so that urban 'sores' continue to fester, both in the regenerated areas and elsewhere in the city or region.

Some definitions of urban problems are even 'dangerous' as they tend to incite stigmatization of population groups or areas. They are, more often than not, based only on demographic indicators such as a "high proportion of immigrants, ethnic groups and refugees" (URBAN II, already quoted in section 3). But there are no 'demographic problems' except for those related to the discipline of demography or existing in the head of demographers. Whether a high proportion of 'foreigners' constitutes an urban problem depends on their deprivation and vulnerability, but not on the sole fact of being concentrated in certain parts of the city.

The Challenge of Social Innovation in Urban Revitalization

Generally speaking, social innovations are neither technological nor commercial. They represent social benefits or collective goods. Even if cities are sometimes considered as competing with each other and hence as 'products' to be marketed (Drewe, 2005), their 'success' is also to be measured in terms of their social sustainability or social cohesion. To achieve this one must focus on issues of distributive justice: to "make the worst off group... as well as possible" (Radcliffe Richards, 1982:123). Social innovations are called for whenever the market fails in achieving distributive justice.

In Québec, the CRISES research center has taken up the challenge of social innovation, illustrated by the case of Montreal (Klein & Fontan, 2003). This case serves as a source of inspiration for our current research which includes selected case studies of urban social innovations around the world: in Europe, Latin America and the divided city of Jerusalem. By the way, one of the cases is the URBAN Initiative, an investigation into the role of the EU as potential social innovator (section 3 refers).

The link with the urban divide is obvious. But what about urban demography? Local actors play a crucial part in territorial social innovations. The case of Montréal and in particular the *Technopôle Angus* experience testify to this.

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Urban demography should become involved with citizen participation focusing on the mobilization of those for whom revitalization programs are set up.

By Way of Conclusion: A Plea for Multidisciplinarity

According to Webster's demography is: "*the statistical study of the characteristics of human populations esp. with regard to density, growth, distribution, migration, and vital statistics and the effect of all those on social and economic conditions*" [and vice versa].

This definition is incomplete. We have added 'and vice versa', which means: also attention to the effects of social and economic conditions on density and other population characteristics. This in order to avoid a demographic tunnel vision, in especial in the field of urban demography.

It has been established that the urban divide is multidimensional. To tackle it successfully, an integrated approach is called for. To analyze it properly, one must apply multivariate and multilevel analyses. Both fundamental and applied research into the urban divide cut across scientific disciplines (and national borders). The authors of this article, for example, have a background in respectively economics & sociology and social psychology. Both have been working in spatial planning for many years. The multivariate techniques used to study vulnerability and deprivation, have been developed by social psychologists. And, finally, the author of the Cochabamba study is a demographer.

There are still many open questions. But this just makes for interesting avenues of research, although –facing the urban divide – research should not be seen as an end in itself. Even if attempts at battling the urban divide may appear marginal within an overwhelming societal context (Smith, 2006).

End Notes:

1. Introduction to the URBAN I Community Initiative 1994-1999 (http://europa.eu.int/comm/regional_policy/urban2/urban/initiative/src/frame1.htm).
2. Because the “average unemployment rate in the programme areas was over 20%, and in some districts as high as 40%. The programme areas included high concentrations of immigrants and ethnic minority groups, representing up to 70% of the target population of programme areas” (GHK, 2003:vi).
3. The chosen approach differs from the state-of-the-art. See e.g. Moore and Spires, 2000.

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Appendix A

Steps in the Multivariate (Categorical) Data Elaboration

Step 1: Data Inspection

- Aim: Knowledge of the data base and getting a good idea about the usefulness of the existing response per (theoretical) variable.
- Action: Data inspection (on code mistakes and missing data), corrections where possible and justified, recoding of categories with little response.
- Means: Questionnaire, questions asked, observations, variable list (scores), marginal frequencies (frequency distribution).
- Programs: Cross tabulations.

Step 2: Recoding, New Variables and Composition Preliminary Data Sets

- Aim: As long as possible to keep the available response in the elaboration, that is as part of the operationalization of the theoretical variables. Composition of preliminary data sets linked to the hypotheses.
- Action: Selection of data that can be used as they are, or can be used when recoded. Elimination of redundancy. Construction of new variables based on two or more existing ones, to be able to use the information in the multivariate elaboration. Getting insight in bi-variate relations and in the discriminative power of variables in the (sub) sets.
- Means: Cross tabulations, computer programs for homogeneity analysis of categorical data (HOMALS), principle components analyses (PRINCALS), and scaling (PRIMALS).

Step 3: Composition Final Data Sets

- Aim: Composition of final data sets, based on the outcomes of the former elaborations. The variables are given their final meaning as operationalization of the theoretical variable (in the problem statement and hypotheses).
- Action: If necessary variables are taken together for the construction of new ones.
- Means: The same as in Step 2.

Step 4: Testing (or Exploration) of the Relations between Data Sets

- Aim: Determination of the relations between the data sets. Visibility of the structure in the data, and the main components that determine the structure, including the robustness.
- Action: Canonical analyses of data sets, pair wise. Control of outcomes with more simple techniques, among these the comparison with the concerning (multiple) score profiles of respondents.
- Means: Canonical analyses for categorical data (CANALS; OVERALS for the multivariate analyses of several data sets together).

Step 5: Quantification

- Aim: Insight in the quantitative aspects of the defined groups of respondents, and the determination of (relative) numbers per group (quantification).
- Action: Different approaches possible, quantification based on the selection of most discriminating variables, or based on the composition of a new variable constructed the most discriminating variables.

Appendix B

'Urban Divide' and 'Digital Divide'

Universal access to information and communication technologies, meaning that ICT is accessible to all people in all places, is considered as one of the myths about these new technologies. Low education and employment levels make that e.g., URBAN program areas suffer from a 'digital divide'. It is only in URBAN II (2000-2006) that "developing the potential created by information society technologies in the economic, social and environmental sectors" (Commission of the European Communities: 9) has become one of the priorities for action. However, overall, only 4% of the available funds have been allocated to ICT as against 26% in Bruxelles-Capitale or 30% in Milano. But, in addition, ICT has often been an essential component of raining programs.

How does the digital divide relate to the urban divide? In the early days of ICT it has been assumed that universal access would put an end to the urban divide. Today, we know that barriers to enter the realm of (professional) ICT - if they persist - tend to aggravate the urban divide. Deprivation remains multi-faceted, requires an integrated area approach and the citizens must play (Drewe, Fernandez-Maldonado and Hulsbergen, 2003).

Access to ICT, i.e., the lack of it, needs to be added to the list of deprivation indicators. Questions to be addressed are: What can ICT mean for vulnerability and, as to urban demography, who are the 'digital poor'?

Publications Received

McQuillan, Kevin and Zenaida R. Ravenera (Eds.). 2006. *Canada's Changing Families: Implications for Individuals and Society*. Toronto: University of Toronto Press. Cloth \$65.00; Paper \$29.95.

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