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Paper, with an original title of *Timing and Trajectories of Canadian Men's Fertility: Is there a Bifurcation by Social Status*, presented in the session "Men's Reproductive Lives: A Developed Country Perspective", 2004 Annual Meeting of the Population Association of America, Boston, April 1-3.

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#### A. Introduction

In her PAA Presidential Address of 2000, Suzanne Bianchi expressed a concern that there may be a bifurcation of parents and children into two groups: children brought up by two parents who are able to devote time and money to parenting, and children raised by mothers, with fathers absent, who have inadequate resources (Bianchi, 2000). Parents of the first group are generally highly educated and tended to have delayed childbearing to older ages (Martin, 2000). Such a bifurcation has implications for children's welfare. In Canada, for example, Lochhead (2000, 2001) finds that parental education, family income, and parenting practices are all significantly related to children's outcome and proposes that this may be connected to an emerging bifurcation of fertility models. This bifurcation is thus closely tied to the social status of parents.

Although the bifurcation theory involves a number of hypotheses relating to various demographic processes such as fertility, divorce, and child outcome, in this study, we focus on the fertility-related hypothesis, in particular we examine the bifurcation by social status in the start of fatherhood.

#### **B.** Early Life Course Transitions

Bifurcation in fertility is linked to other early life course transitions that comprise the transition to adulthood of both men and women. Birth of first child could be considered as the definitive benchmark of having reached adulthood. In a normatively ordered life course, the start of parenthood may be taken as the culmination of the transition to adulthood that includes other important early life course events such as completion of schooling, start of regular work, and entry into marital union. Factors that influence the timing of parenthood may be similar to those affecting the other transitions and may be mediated through these earlier transitions.

Canadians born from the mid 1960s made the transition to adulthood at later ages than those born earlier, which seems to have happened in other Western countries as well (Ravanera, Rajulton, and Burch, 1998; Ravanera et al, 2002; Fussell, 2002). Young Canadians complete a higher level of education, enter the work force and stay in parental homes longer, and delay their family formation, either through cohabitation or marriage, and start of parenthood (Lapierre-Adamcyk, Le Bourdais, and Lehrhaupt, 1995; Boyd and Norris, 1999; Ravanera, Rajulton, and Burch, 1995, 1998; Ravanera et al. 2002). However, the transition to adulthood at later ages has varied within cohorts as this is influenced by factors such as individual and parental characteristics including socioeconomic status (Shanahan, 2000; Booth, Crouter, and Shanahan, 1999 and articles therein). Having already explored these differentials in our earlier papers (see for example, Ravanera, Rajulton, and Burch 1998; 2003), we turn our attention in this paper specifically to examine the differentials by social status.

That the timing and life course trajectories differ by social status, most often measured by level of education, is not a recent phenomenon. Studies in the United States show, for

example, that the order of transitions has varied by social class within cohorts (Hogan, 1981; Hogan and Astone, 1986; Marini, 1984a;). The normative sequence (completing schooling before marrying, for example) is more likely experienced by those in high social class. Consequently, they are also less likely to experience negative consequences in later life such as marital instability (Hogan, 1980; Hogan and Astone, 1986, but see Marini, 1984b).

The issue of bifurcation in fertility behaviour has been studied mainly in relation to women. But, as Goldscheider and Kaufman (1996) note, much can be gained by bringing men in. Understanding the factors that influence men's fertility could lead to greater support for men's involvement in the family to the benefit of men, women and children. Moreover, the well-acknowledged factors and their effects on fertility behaviour are not necessarily the same for men and women (Michael and Tuma, 1985). In addition, focusing on the social status rather than simply on level of education broadens the context in which to view the life courses of individuals. Acquiring education is just one of the many events within a person's trajectory.

We first discuss the factors that influence the timing of the start of fatherhood through the birth of first child and then describe the data and methodologies used in this study. The analysis presented in the subsequent sections consists of three parts. The first analyzes the gross differentials by social status and by cohort in the onset of fatherhood. The second examines the factors that influence the timing by including parental and individual characteristics in addition to social status, family values, and selected life course events. The third part presents the trajectories to fatherhood passing through early life course transitions such as graduation from post-secondary education, start of regular work, and marriage. The final section highlights the major findings and briefly discusses directions for further research.

#### C. Factors that Influence the Onset of Fatherhood

In an extensive analysis of men's fertility, Kaplan, Lancaster and Anderson (1998) used a theoretical framework that combines life-history theory from Biology, and human capital and fertility theory from Economics to explain industrial societies' low level and delayed onset of fertility. The theory draws on investment decision model that depicts trade-offs made by individuals between current survival and future reproduction, and between quantity and quality of children. To explain the dramatic decrease in fertility in European countries over the past 100 years, for example, the "theory proposes that payoffs to investment in education increased radically with the emergence of labor markets and technological growth spurred by the industrial revolution" (Kaplan, 1997: 201). To invest in highly skilled children, parents limited their number of children. The empirical analysis of men's fertility in Albuquerque, New Mexico shows negative impact of education on fertility with the effect increasing over time (Kaplan et al, 1998). The effect is also manifest in the start of fatherhood that is later for those with higher education.

The investment theory assumes economic rationality in fertility-decision making.

Fertility, however, is not just a product of rational economic calculation but is also influenced by cultural factors such as attitudes and values. These could be about children and their importance in one's life or about other related values such as those about work and gender roles (Beaujot, 2000). One's background, for example in religion, imparts shared values or attitudes regarding fertility and timing of parenthood through socialization (Rindfuss, Morgan, and Swicegood, 1988; Michael and Tuma, 1985).

While both economic and cultural factors are expressly stated in terms of their impact on fertility and its timing, their influence is most likely manifested early on in the life course. As Rindfuss, Morgan, and Swicegood (1988:163) note, background variables "help set the early life course trajectory and alter or constrain it at subsequent ages." Life course trajectories have their own momentum and carry with them opportunities and constrains that in turn influence the timing of first birth (Rindfuss, Morgan and Swicegood,1988; Gerson, 1985; Rindfuss, 1991).

In this study, our focus is on the impact of *social status* on fertility behaviour but we include also variables related to socioeconomic characteristics that are usually considered in many studies such as respondent's education and personal income to capture the economic rationale for fertility – or, more specifically the timing of first birth. The social status variable (whose measurement will be described below) is mainly used as a proxy for parental investment as such, while the variable respondent's education is used mainly to indicate both parental and individual investments to acquire human capital. In addition, we include *family structure* variable, as studies have shown that growing up in non-intact families have adverse effects on children's family life most likely due to reduced investment of financial and social capital (Le Bourdais and Marcil-Gratton, 1998; Ravanera, Rajulton, and Burch, 2003; Cherlin, Kiernan, and Chase-Lansdale, 1995; Kiernan and Cherlin, 1998; McLanahan and Bumpass, 1988). To explore cultural influences, we make use of information on religion and migration status, as well as the factor scores on *values* related to work and family (derived from the questions on attitudes toward work and family, see below for details). The economic and cultural diversity in Canada calls for the inclusion of the variable *region* representing the group of provinces in the Atlantic, central and in the west. Finally, we look at the impact of key life course events that precede entry into parenthood such as school completion, start of regular work and entry into a union. The data, methodology, and measurement of these variables are discussed next.

#### D. Data and Methodology

The study uses the 2001 General Social Survey on Family History, a country-wide survey conducted by Statistics Canada with a representative sample of those aged 15 and older, excluding residents of Yukon, Northwest Territories, and Nunavut and full-time residents of institutions (Statistics Canada, 2003). The survey has 24310 respondents; however, we limit our study to men born from 1922 to 1980, or 9500 respondents. Information gathered by the survey includes various aspects of the family including parents, children, union histories through both common-law and marriage, fertility, and socioeconomic

variables. The survey also collected education and work histories. In this study, we make use of retrospective information on age at birth of first child and age at experience of other early life course events.

The timings of various life course events are obtained from questions on dates when the events occurred in conjunction with the date of birth of the respondent, yielding the ages at experience of these events.

As for the categorical explanatory variables, the measurements are straight-forward as seen in the percentage distribution of respondents in the various categories (see Appendix Table 1) and need no detailed explanation except for the following. The *social status* variable was derived from two parental variables, mother's education and father's occupation when the respondent was aged 15. This assumes that parental education and occupation are the most relevant for measuring the social status, which in turn is relevant to the respondents' early life transitions, when the respondents themselves are in the process of establishing their own social status. The mother's education and father's occupation were ranked into low, middle, and high and then combined to obtain the social status variable<sup>1</sup>. Where mother's education is missing, the measurement of social status is based only on father's occupation, which could shift a small percentage of respondents to a category lower than what would have been assigned had information on mother's education been available.

The *family structure* variable is based on the type of family (intact or non-intact) the respondent grew in *until age 15*.

And, factor scores are used for two *values* variables, which were obtained from factor analysis of questions relating to importance of family and work to happiness: happiness requires lasting relationship, being married, having at least one child, and having a paying job. The analysis shows that the first three items neatly capture the value attached to the family and the last item mainly stands alone denoting the value attached to work (see Appendix Table 2, Panels A and B). The scores of these two factors are used as explanatory variables in the models described below. (Appendix Table 2, Panel C presents how these factor scores relate to the social status categories.)

We analyzed the data using the following methodologies for event-history analysis.

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<sup>&</sup>lt;sup>1</sup> Mother's education was ranked as low (some high school or lower), middle (high school graduate or some post-secondary) or high (post-secondary graduate or higher). And, based on the prestige scores established by Goyder, Thompson, and Dixon (2003) and applied to the Standard Occupational Classification provided in the survey, father's occupations was ranked as follows: *Low* (Sales and Services Occupations, Occupations Unique to Processing and Manufacturing, Occupations Unique to Primary Industry), *Middle* (Trades, Transport, and Equipment, Business, Finance, and Administrative Occupation, Artistic, Culture, Recreational, Sport, and Occupations in Social Sciences, Education) and *High* (Management Occupations, Natural and Applied Sciences, and Health Occupations). The two rankings were added and the final social status rank was assigned as follows: low (1,2), middle (3,4), high (5,6). A score of one is possible when information on mother's education is missing.

- 1. To explore the differentials in the onset of fatherhood by social status (SS), we constructed single-decrement life tables of age at first birth using SPSS. As in the subsequent analyses, life tables were built separately for birth cohorts 1922-40<sup>2</sup> (with 1742 respondents), 1941-60 (3736), and 1961-80 (4019), as cohorts go through different historical events that impact on their life courses (Ryder, 1965; Elder, 1978). It would be ideal to study narrower birth cohorts, for example 5 or 10-year birth cohorts, but the necessity of working with adequate sample sizes does not allow this. In the discussion of the results from these life tables, we use mainly the median ages at birth of first child. [And, as a preliminary step to doing the trajectory analysis, we did life table analysis also for other early life course events home-leaving, graduation from post-secondary education, start of regular work, first union, and first marriage.]
- 2. Having established that the start of fatherhood does differ by social status, we then used the proportional hazards models to detect the effects of social status together with other explanatory variables on the timing of first birth. For this purpose, we used the LIFEHIST program (Rajulton, 2001) to build three separate models<sup>3</sup>. In addition to social status variable, the first model includes economic variables (family structure, respondent's education, and personal income) and cultural/geographic background variables (religion, migration status, and region). The second model adds the factor scores on values of family and work. The last model adds two more variables to capture the influence of early life transitions age at start of regular work, and marital status.
- 3. As a final step, the trajectories through four life course events education, work, marriage, and first birth (also referred to as "states") are traced for men of different social status. For this procedure, again, we used the LIFEHIST program that computes the conditional probabilities of making specific trajectories to parenthood on the assumption that past history is important (that is, a non-Markovian assumption). (Rajulton, 2001). Essentially, the procedure is a multiple-decrement life table technique that estimates the conditional probabilities of transition to each state and the mean duration of stay in each state. For our purpose, we focus on two specific results: (a) the probabilities of experiencing selected pathways or trajectories; and (b) the age at which the specific trajectory is completed.

Statistics Canada uses complex sampling procedures for its surveys (Statistics Canada, 2003) and it is very important that the sampling weights be used in all analyses. All statistical procedures in this study make use of individual sampling (fractional) weights.

<sup>3</sup> While the SPSS could be used to do hazards analysis using Cox regression procedure, it does not admit the use of fractional weights.

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<sup>&</sup>lt;sup>2</sup> This is a 19-year birth cohort. We would have preferred to consistently use a 20-year birth cohort, that is 1921-40, but the GSS2001 Public Use Micro-data file collapsed those 80 years old and over into one category (born in 1921 and earlier).

#### E. Results and Interpretation

#### 1. Gross Social Status (SS) Effects: Men with High SS Start Parenthood Later

As far as men's age at birth of first child is concerned, the bifurcation by social status is not a recent phenomenon (see Chart 1). The high SS men belonging to the 1922–1940 birth cohort became fathers on the average at 29 years, a year later than the middle or low SS men in the same cohort. A dramatic change in age at fatherhood occurred among those born in 1941-60, with the high SS men having their first child at 32 years. This is an increase of 3 years over the previous cohort's group and 3.5 years higher than the median age of men with low SS in the same cohort.

Among men born in the period 1961-80, another dramatic change in age at the onset of fatherhood occurred, this time among men in the low and middle SS, increasing by about 2 years over those of the same SS in the previous cohort (1941-60) -- that is, for the low SS group, 30.8 against 28.5, and among the middle class, 31.8 against 29.6. In contrast, the increase among high SS men is only about half a year (32.6 versus 32.0). Thus, while the difference in median ages between the high and low SS groups is still appreciable at about 2 years, the gap in timing has narrowed in the youngest cohort, which seems to be a trickle down effect. Given that about 50% of men in the youngest cohort are censored, and therefore will become fathers later, these changes over cohorts point to the possibility that the social status differential with respect to timing of parenthood would diminish even more in the future. However, one has to examine these differentials in the presence of other discriminating factors as done below.

#### 2. Net Effects from the Hazard Models

#### a. Contrasting Effects of Respondent's Education and Personal Income

In a hazard model of timing, a positive coefficient for a specific category indicates that, in comparison to the reference category, those belonging to the specific category become fathers earlier. A negative coefficient indicates a later onset to fatherhood. For example, the model that includes only the social status variable with three categories Low, Middle and High shows the following coefficients, their p-values and their significance levels. (In Table 1, only the significance levels based on the p-values are presented. Those with missing information on social status are treated as a separate category in order not to exclude them from the analysis.)

	19	61-80	19	41-60	19	22-40
Social Status	Coeff	p-val. sig.	Coeff	p-val. sig.	Coeff	p-val. sig.
Low (R)						
Middle	-0.072	0.120	-0.025	0.276	0.117	0.036 **
High	-0.318	0.000 ***	-0.298	0.000 ***	-0.173	0.100 *
Missing	-0.102	0.105	-0.203	0.001 ***	-0.097	0.111

Levels of Significance: \*\*\* 1%, \*\* 5%, \* 10%

As in the survival analysis of gross effects seen above, these results show that in all three cohorts, men belonging to high SS category enter parenthood later in comparison to men belonging to low SS. The timing of men belonging to the middle SS is not significantly different from that of men in the low SS except in the oldest cohort for whom fatherhood occurred earlier.

Table 1 presents the three hazard models that progressively include sets of explanatory variables as described in the last section. Model 1, which includes other socioeconomic variables besides the social status, shows that even after the introduction of background economic and cultural/geographic variables, the negative coefficients associated with the high SS category, though diminished, are still highly significant. This indicates that the later onset of fatherhood of high SS men is only partly explained by personal economic and other background variables.

As expected, the negative coefficients associated with the education categories confirm that the higher the respondent's education, the later is the entry to parenthood (note especially the steady increase in the absolute values of these coefficients even in Models 2 and 3). However, this is true only for the two younger cohorts. This is consistent with the investment theory's proposition that the effect of education on fertility would be greater in recent times than in the past mainly because of education's increasing returns on investment.

As for personal income, after controlling for the other variables in the model, the effect is opposite to that of education; that is, the higher the personal income, the earlier the onset of parenthood. However, in Model 3, which includes age at start of regular work and marital status, personal income no longer has a significant effect in the youngest cohort, and its effect is greatly diminished in the mid-cohort. While personal income was not measured at the time when the birth of first child occurred but as of the time of survey, it may still be reasonable to take this result as an indication that personal income does not affect the timing of first birth directly; rather it operates through family formation<sup>4</sup>. A cross-tabulation of personal income and marital status (not shown here) reveals that married men have higher personal income than those who are not. And, married men are more likely to become fathers earlier than the non-married (in particular, those in common-law union and those who have never been in a union).

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<sup>&</sup>lt;sup>4</sup> Personal income was measured as of the time of the survey, which is still proximate to the timing of the start of parenthood among the youngest cohort. As for the older cohorts, they would have become fathers for the first time long before the survey. An argument for the inclusion of the income variable in the model is that it could be an indicator of relative abilities to earn, which would have been manifest at about the time of entry into parenthood.

The story told by these findings on education and income is that the on-set of parenthood is postponed as men (and their parents) invest their resources (time and financial capital) on accumulating human capital. But, having acquired a certain level of human capital (that is, having reached a certain level of education), men with more resources get to marry earlier, which then translates to earlier age at start of fatherhood.

Those who have lived with both parents until age 15 enter parenthood at later ages as indicated by the family structure variable that has the expected negative coefficients (in Table 1). However, the family structure coefficient is significant only for the oldest cohort, among whom the reason for living in non-intact families is most likely not through parental divorce.

#### b. Family Values Do Affect Timing of Parenthood

That values associated with religion and culture influence the timing of first birth is seen from the highly significant coefficients of the religion and migration status variables. Compared to those who profess no religion, Catholics and Protestants are more likely to become fathers at earlier ages in all the three cohorts (Model 1). The magnitudes of these coefficients however are greatly reduced, with most coefficients becoming non-significant, upon inclusion of variables on very specific values related to family and work (Model 2).

As seen in the results of factor analysis (see Appendix Table 2), the first factor score (representing family values) has high loadings on the items that specify the importance of having at least one child, lasting relationship, and being married; and, the second factor has the highest loading on the importance of a paying job (which was the only item related to work values asked of everyone in the survey). Adherence to family values leads to early parenthood (indicated by highly significant positive coefficients of factor scores on the importance of family in Model 2), while importance accorded to paying jobs leads to later parenthood (indicated by the negative coefficients in Model 2).

From the changes in direction, magnitude and significance of the coefficients from Model 1 to Model 3, we also get an insight into the possible relationship that exists between family values and the category "Other Religion" under the religion variable. Those belonging to the "Other Religion" tend to experience earlier parenthood but the inclusion of variable on values changes the direction of the coefficients (Model 2). This indicates that the score on family values among those belonging to this category is so high<sup>5</sup> such that had their family values been the same as those in the reference category, they would have become fathers later (than those who profess no religion).

Migration status is the other variable included to reflect cultural values related to childbearing. In the two younger cohorts, immigrants become parents earlier than the

<sup>5</sup> This is revealed by the results of the comparison by religion categories of the mean factor scores of family values (not shown here).

Canadian-born but immigrants in the oldest cohort became fathers later (in all the three models). This partly reflects the norms on timing of parenthood in the countries of origin of immigrants, which are mostly European among the oldest cohorts and increasingly from other parts of the World (Asia, Africa, and Latin America) for the younger cohorts.

As for the region variable, controlling for other variables in the model, the coefficients show that men in the two largest provinces Ontario and Quebec enter fatherhood earlier than men in British Columbia. And, men belonging to the two younger cohorts and living in the Prairies do not differ from those in British Columbia. Men in the Atlantic provinces, however, seem to significantly delay their entry into parenthood, which comes as a surprise given our expectation that, since the Atlantic Provinces usually manifest higher levels of family and traditional values than the rest of Canada, men in those provinces would enter parenthood earlier. There could be other factors generating these differentials. Atlantic Canada is an out -migration area with young people leaving the provinces for places with better opportunities for employment such as Ontario and Alberta. It is likely that employment prospects in the area where one resides influence the timing of entry into fatherhood as well.

An interesting finding from the three models presented in Table 1 is the stand-alone impact of the social status variable from impact of the variables related to family and work values. There is virtually no change in the social status coefficients from Model 1 to Model 2. The early entry into parenthood among men in the low SS group may give an impression that family is more important to them than to those in higher SS. However, as seen in Panel C of Appendix Table 2, the value scores are not linearly distributed among social status categories. The mean scores on family and paying job are highest among men belonging to the middle class, particularly for the two younger cohorts.

However, it should be noted that the coefficients of the factor score on family values are greatly reduced (at least by 50%) for all the three cohorts with the introduction of life course variables, in particular, marital status<sup>6</sup> in Model 3. This is an indication that part of the influence of family values on the timing of parenthood is through marital status; that is, those with positive (or higher score) family values tend to marry (and to marry at younger ages) rather than cohabit - and possibly less likely to divorce as well - and thus tend to be parents at younger ages.

The inclusion of age at start of regular work and marital status also greatly reduces the coefficient of the high SS category. In an interim model that adds in only the age at start of regular work (not included in Table 1), the coefficient of high SS is reduced as well particularly for the youngest cohort but not by as much magnitude as when the marital status variable is introduced. What this signifies is that much of the influence of SS on timing of fatherhood starts early on in the life course, in particular through work and family formation. It is to this topic that we now turn our attention to further explore the relationships between the onset of fatherhood and other early life course events.

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<sup>&</sup>lt;sup>6</sup> Another model (not presented here) that adds only the age at start of regular work did not change the coefficients of both *values* variables.

#### 3. Birth of First Child Embedded Within the Life Course

Life course effect is easier to discern through the study of trajectories leading to fatherhood. As a preliminary step, we did a single-decrement life table analysis of graduation from post-secondary education, home-leaving, start of regular work, first union and first marriage. As Table 2 shows, for all three cohorts, the median ages of these early life course events differ by social status, especially for start of regular work, first union, first marriage, and as already seen, birth of first child. These median ages are plotted in Charts 2A to Charts 2C, excluding home-leaving as its median ages do not vary greatly by SS and graduation from post-secondary education as the risk set differs from the other events in that only those who graduated are included<sup>7</sup>.

As Table 2 and Charts 2A to 2C show, the gap in the timing of experience of events start early in the life course. Men of high SS tend to experience all of the events at later ages than those of lower SS. The only exception is age at marriage among the youngest cohort, which is similar for the low and high SS men and could be an indication of the changing meaning and function of marriage. For many in the youngest cohort, common-law union rather than marriage may be the relevant precursor to first birth. This is seen as well from the conspicuous age difference of about 4 years between first union and first marriage in all the SS groups of the youngest cohort, indicating the widespread practice of cohabitation. There is virtually no gap between the median age at first union and first marriage in the 1922-40 cohort and only about a year or less in all the SS groups in the 1941-60 cohort.

Results from this life table analysis seem to provide evidence to the hypothesis that life course trajectories do have their own momentum. We can refine this analysis by examining the trajectories toward fatherhood for different levels of social status.

A trajectory analysis follows members of a cohort through the various events that they experience (or "states" that they occupy). These states need to be judiciously chosen since a large number of states would invariably lead to unmanageable number of trajectories and would require a large number of cases for a proper analysis. This need is particularly difficult to meet when members of each cohort are categorized further, here, by social status. From what was seen above in the preliminary analysis, we select only three other life course events in addition to first birth: (a) graduation from first post-secondary education, (b) start of regular work, and (c) first marriage. We excluded first union in favour of first marriage because if a trajectory does not pass through the marriage state, it can be inferred that the birth occurred within a cohabiting union (except when the marriage dates are missing). For a similar reason, we included graduation from first post-secondary education as its absence in a trajectory implies the non-completion of

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<sup>&</sup>lt;sup>7</sup> The ideal information on education would be the age at completion of schooling regardless of whether or not the respondent graduated. However, the survey did not ask the dates of school leaving among those who did not graduate. Including all respondents in the risk set is not useful as the proportion of censored cases (those who did not graduate) is so high that median ages cannot be estimated for the low SS groups in the three cohorts.

tertiary education.

Tables 3A, 3B and 3C show the conditional probabilities of transitions from one state to another, the standard errors of these probabilities, and mean duration of stay in each state. These conditional probabilities have been corrected for censoring and thus provide the best possible estimates of true probabilities (unless there is a very heavy censoring). Multiplication of these conditional probabilities in a specific trajectory provides an estimate of the trajectory's final probability of transition to fatherhood. And, summing up the mean durations of stay in each state provides a good estimate of the mean age at parenthood (since the means are computed from the conditional probabilities that have been corrected for censoring). Tables 3A, 3B and 3C show only the first six most common trajectories to fatherhood.

The trajectory to fatherhood is largely determined by the first transition made. When the first transition is to graduation, the next most likely transition is to regular work; whereas if the first transition is to regular work, the next most likely transition, particularly for those in low and middle class, is to marriage. Among the youngest cohort, for example, those with low SS who graduated from college or university have 0.86 probability of making the next transition to regular work (see Table 3A, row A1 (ii)), which is not much different from the probabilities of those in middle and high SS. However, if the first transition is to regular work, marriage has the highest probability of occurring next in sequence (0.44 among those in the low class and 0.41 among those in the middle class, with the probability of men in the high SS not too far behind at 0.36 (Table 3, B2 (ii)). The probabilities from regular work to graduation increases with social status (0.16 for low, 0.24 for middle, and 0.38 for high in Table 3A, B1 (ii)), a trend clearly indicating that the opportunities and constraints to completion of education do vary with by social status.

The most common trajectory, that is, the trajectory with the highest probability of occurrence differs by social status too. Men with low SS are more likely to go through the  $work \rightarrow marriage \rightarrow fatherhood$  trajectory (see B2 in Tables 3A - 3C). Men with high SS follow the normatively preferred trajectory, namely  $graduation \rightarrow work \rightarrow marriage \rightarrow fatherhood$  (A1 in Tables 3A - 3C). Men in the middle class of the youngest cohort, however, have two most common trajectories (both with a probability of 0.18): some follow that portrayed by men with low SS and some others follow that portrayed by men with high SS. The trend and changes over cohorts is exemplified by the trajectories of those belonging to the middle class. The most common trajectory of middle class men in the oldest cohort is the  $work \rightarrow marriage \rightarrow fatherhood$  trajectory with a probability of 0.41. This probability decreased to 0.28 in the 1941-60 cohort and to 0.18 in the youngest cohort. In contrast, the probability of the  $graduation \rightarrow work \rightarrow marriage \rightarrow fatherhood$  trajectory has increased over cohorts (0.13, 0.16, and 0.18 for the 1922-40, 1941-60 and 1961-80 respectively).

This trend also holds for the low SS men whose most common trajectory (with a probability of 0.23) is still the  $work \rightarrow marriage \rightarrow fatherhood$  even among the youngest cohort. However, this probability has declined conspicuously from 0.36 in the

1941-60 cohort and from 0.53 in the 1922-40 cohort. This decline is matched mainly by increases over cohorts in two other trajectories: one that passes through completion of post-secondary education (that is,  $graduation \rightarrow work \rightarrow marriage \rightarrow fatherhood$ ) and the other that bypasses marriage (that is,  $work \rightarrow fatherhood$  (see B3 in Tables 3A to 3C), which in effect goes through cohabitation (that is, the  $work \rightarrow cohabitation \rightarrow fatherhood$ ). The trajectory that goes through graduation increased from 0.05 in the oldest cohort to 0.14 in the youngest; whereas the one that bypasses marriage increased from 0.08 in the oldest to 0.14 in the youngest cohort.

The mean ages at arriving at parenthood through various trajectories are given in the tables as well. The first transition to graduation takes place at about 21 years of age, whereas the first transition to regular work takes place at about 17 to 19 years of age (Tables 3A – 3C, First Transitions A and B). Consequently, those who have gone for tertiary education make the subsequent transitions to fatherhood later than those who go directly for regular work. The differences range from 2 to 4 years in all three cohorts of all levels of social status (compare B2 (iv) with A1 (v) in Tables 3A to 3C), which is most likely the time spent in acquiring higher education.

In general, the less the number of transitions, the earlier is the age at start of parenting. Thus, those who have their first child without going through marriage do so at younger ages than those who marry (B3 in Tables 3A to 3C). The same could be said for the few who became fathers before graduating or doing regular work (C1), and most especially for those whose first transition is to fatherhood.

#### F. Conclusion

To the question "is there a bifurcation in timing of and trajectories to fatherhood by social status", the answer is definitely "yes". The results from the single decrement life tables show that men who belong to high social status became fathers at older ages than those from lower classes. The hazard models show that this persists even after controlling for background variables. Moreover, the effect of education is as expected – the higher the level, the later the start of parenthood. In contrast, personal income has the opposite effect; that is, the higher the income level, the earlier the onset of fatherhood. Finally, the life course analysis of trajectories shows that those with high social status are more likely to go through the normatively preferred  $graduation \rightarrow work \rightarrow marriage \rightarrow fatherhood$  trajectory, with later age at start of parenting. Those belonging to low social class tend to follow the  $work \rightarrow marriage \rightarrow fatherhood$  trajectory associated with earlier entry into fatherhood. The difference in age is mainly accounted for by the time spent for higher education.

While our results provide support for the bifurcation hypothesis, the results from different models also show that this difference in timing and trajectories by social status is not a

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<sup>&</sup>lt;sup>8</sup> It is possible that the somewhat high probability (.08) in the oldest cohort that did not go through marriage may be due to some older respondents' inability to recall their marriage dates.

recent phenomenon. There has been a bifurcation by social status for all cohorts included in our analysis, the biggest gap having occurred in the 1941-60 birth cohort. Members of this cohort, mostly composed of the baby-boom generation, made their transitions to adulthood around the 1960s and 1970s when opportunities for tertiary education in Canada greatly expanded. It seems that these opportunities mainly benefited those of high social status. However, those with low and middle social status have somewhat caught up as evidenced by the narrowing of the gap in the 1961-80 birth cohort.

The bifurcation of fertility needs to be viewed in terms of social mobility as well. As seen in the percentage distribution by social status (App. Table 1), there has been a shift towards higher status over cohorts in the population. For example, the proportion of men with low social status in the 1922-40 birth cohort is 48% while it is 18% in the 1961-80 birth cohort. The middle class expanded from 29% in the oldest to 47% in the youngest cohort.

The resurgence of concern over bifurcation of fertility is possibly triggered, for a number of reasons, by the increasing conspicuousness of those who become parents early. The general affluence of the population and the greater social mobility through education make noticeable those who are "left behind". With high rates of divorce and separation, the negative consequences of early entry into family formation, specifically marital instability and lone parenthood, have become more widespread. And, the weakening of age norms and the increase in age at experience of family events (including the start of marital union and parenthood) have made the timing of transitions more variable (Settersten and Hagestad, 1996; Ravanera, Rajulton, and Burch, 2004) and thus made those who make the transition to parenthood at a young age more visible.

Another point for consideration is that men's age at birth of their first child has been increasing over cohorts for all levels of social status such that in the youngest cohort, the median age is 31.7 years old. While this may be beneficial for individuals, this may not necessarily be a good thing for the population that already has a lower than replacement level of fertility.

However, while placing the bifurcation of fertility in perspective, our study does indicate the groups for whom concern is warranted. For instance, the probability of going through the *work* → *fatherhood* trajectory, which bypasses both graduation from post-secondary education and marriage, is highest among men in the low social status. This probability is 0.14 in the youngest cohort, with an associated mean age at first birth of 26 years old. The concern is based on previous findings that cohabiting unions are more fragile than marriage (Le Bourdais and Marcil-Gratton, 1998; Marcil-Gratton, Le Bourdais, and Lapierre-Adamcyk, 2000).

An analysis of timing and trajectory of women's fertility by social status would, most likely, reveal similar results but would still be worth investigating. We also suspect that there are differences in men and women's fertility attitude and behaviour that need looking into. Moreover, we have only examined the fertility aspect of the bifurcation model. An analysis of the timing and trajectory to family dissolution might prove useful.

Such an analysis might, for example, reveal trajectories to divorce through common-law union, marriage, and first birth that differ by social status.

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Chart 1: Median Age at Birth of First Child by Social Status and Birth Cohort, Men, 2001 General Social Survey

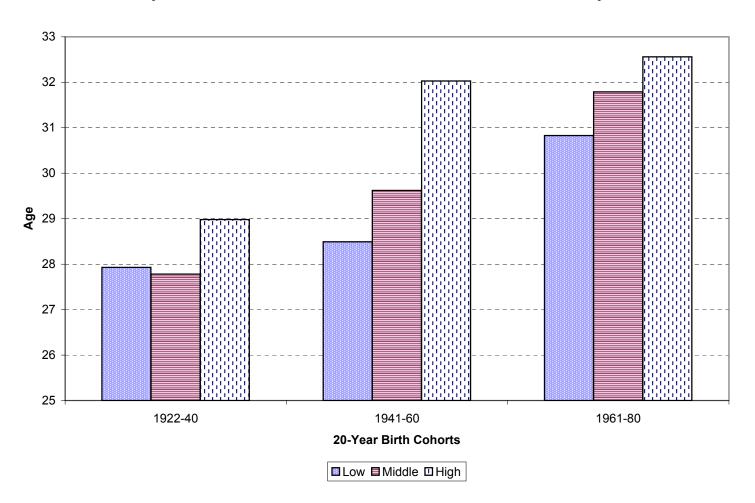


Table 1: Results of Hazards Analysis of Timing of First Birth by Birth Cohort Men, 2001 General Social Survey of Family History

	Birtl	n Cohorts 196	1 - 1980	Birt	h Cohorts 194	1-1960	Birt	h Cohorts 192	2-1940
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff
A. Social Status									
Low ®									
Middle	0.016	-0.021	0.014	-0.009	-0.028	-0.048	0.008	0.005	-0.021
High	-0.192 ***	-0.199 ***	-0.024	-0.281 ***	-0.261 ***	-0.227 ***	-0.278 **	-0.211 *	-0.045
Missing	-0.095	-0.042	0.047	-0.177 ***	-0.158 ***	-0.131 **	-0.175 **	-0.155 **	-0.135 *
B. Family Structure and									
Individual Characteristics									
Family Structure									
Did not Live with Both ®									
Lived with Both Parents	-0.030	-0.078	-0.019	-0.034	-0.023	0.013	-0.147 *	-0.108	-0.154 **
Respondent's Education									
Some High School ®									
High School Graduate	-0.244 ***	-0.228 ***	-0.206 ***	-0.105 **	-0.066	-0.031	0.221 ***	0.304 ***	0.245 ***
Some College	-0.446 ***	-0.388 ***	-0.204 **	-0.147 **	-0.100 *	-0.105 *	-0.143	-0.044	-0.094
College/University Grad	-0.593 ***	-0.582 ***	-0.389 ***	-0.197 ***	-0.156 ***	-0.101 **	0.120 **	0.100 *	0.081
Personal Income									
Less than \$20,000 ®									
\$20,000 - \$49,999	0.428 ***	0.413 ***	-0.009	0.435 ***	0.324 ***	0.045	0.357 ***	0.250 ***	0.203 ***
\$50,000 or higher	0.637 ***	0.547 ***	-0.011	0.659 ***	0.486 ***	0.176 ***	0.291 ***	0.216 **	0.143 *
Missing	0.488 ***	0.503 ***	-0.001	0.350 ***	0.258 ***	-0.055	0.176 **	0.081	-0.025

Table 1 (Cont'd): Results of Hazards Analysis of Timing of First Birth by Birth Cohort Men, 2001 General Social Survey of Family History

	Birtl	h Cohorts 196	1 - 1980	Birt	h Cohorts 194	1-1960	Birt	h Cohorts 192	2-1940
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff	B Coeff
C. Culture and Geography									
Religion									
No Religion ®									
Roman Catholic	0.239 ***	0.068	0.070	0.226 ***	0.044	0.037	0.377 ***	0.055	0.073
Protestant	0.295 ***	0.095 *	0.096	0.198 ***	0.001	-0.002	0.319 ***	-0.042	-0.023
Other Religion	0.041	-0.185 **	-0.122	0.144 **	-0.127 **	-0.035	0.150	-0.200 *	-0.137
Migration Status									
Born in Canada ®									
Immigrant	0.319 ***	0.187 ***	0.235 ***	0.299 ***	0.152 ***	0.108 ***	-0.049	-0.093 *	-0.160 ***
Region									
British Columbia ®									
Atlantic	-0.651 ***	-0.694 ***	-0.814 ***	-0.212 ***	-0.328 ***	-0.362 ***	-0.569 ***	-0.496 ***	-0.472 ***
Quebec	0.209 ***	0.441 ***	0.438 ***	0.380 ***	0.467 ***	0.477 ***	0.134	0.215 **	0.304 ***
Ontario	0.208 ***	0.150 **	0.118 *	0.447 ***	0.360 ***	0.391 ***	0.352 ***	0.357 ***	0.432 ***
Prairies	-0.042	-0.071	-0.161 **	0.125 **	0.032	0.048	-0.237 ***	-0.266 ***	-0.173 **
D. Intervening Variables									
Values									
Importance of Family		0.568 ***	0.250 ***		0.626 ***	0.362 ***		0.726 ***	0.478 ***
Importance of Paying Job		-0.071 **	0.018		-0.030	0.022		-0.087 ***	-0.036
Life Course Variables									
Age at Work Start			-0.067 ***			-0.018 ***			-0.014 **
Marital Status									
Married ®									
Common-Law			-0.454 ***			-0.185 ***			0.065
Sep/Div/Wid.			-0.613 ***			-0.495 ***			-0.582 ***
Single			-2.559 ***			-2.772 ***			-3.671 ***
N	4066	4066	4066	3650	3650	3650	1573	1573	1573
Percent Censored	56.2	56.2	56.2	20.9	20.9	20.9	18.3	18.3	18.3
-2 Log Likelihood	26617.3	26251.3	25288.9	44024.6	43319.8	42521.6	17482.3	17179.8	16906.7

Levels of Significance: \*\*\* 1%, \*\* 5%, \* 10%

Table 2: Median Ages at Experience of Life Course Events by Social Status By Birth Cohort, Men, 2001 General Social Survey

	1961-80				1941-60				1922-40			
	Low	Middle	High	All	Low	Middle	High	All	Low	Middle	High	All
Home-Leaving	22.2	22.8	22.9	22.6	21.5	21.8	22.1	21.7	21.7	22.0	22.6	21.8
Graduation from Post-Sec. Ed.	23.6	23.3	23.4	23.5	24.2	23.6	23.4	23.7	27.8	24.4	23.2	25.0
Start of Regular Work	22.8	23.3	25.4	23.9	19.0	20.3	22.5	19.9	17.7	18.5	23.2	18.1
First Union	25.4	25.9	26.8	26.2	24.2	24.9	26.0	24.9	25.3	25.0	27.2	25.4
First Marriage	30.8	30.0	30.8	30.6	24.8	25.9	26.8	25.8	25.4	25.2	27.2	25.5
Start of Fatherhood	30.8	31.8	32.6	31.7	28.5	29.6	32.0	29.6	27.9	27.8	29.0	28.1

Chart2A: Median Age at Transition by Social Status Status Men, 1961-80 Birth Cohort

Chart2B: Median Age at Transition by Social Status Men, 1941-60 Birth Cohort

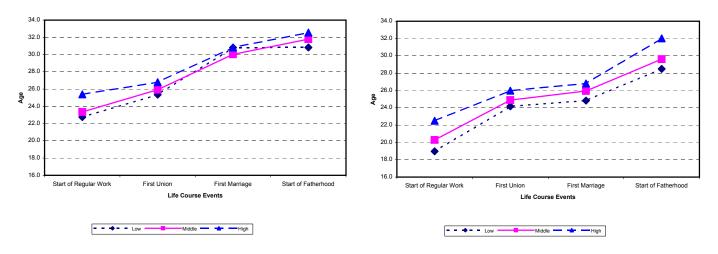


Chart2C: Median Age at Transition by Social Status Men, 1922-40 Birth Cohort

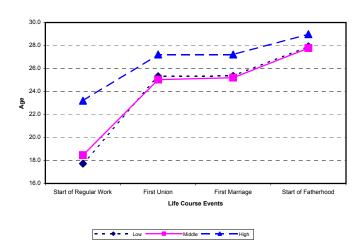


Table 3A: Probabilities and Mean Duration of Trajectories to First Birth By Social Status, 1961-80 Birth Cohort, Men, 2001 General Social Survey

			Low				Middle				High	
	N	Prob.	Pr. SE	Dur.	N	Prob.	Pr. SE	Dur.	N	Prob.	Pr. SE	Dur.
First Transitions												
A. Origin (O) to Post-Sec Graduation (Grad)	193	0.27	0.12	21.0	642	0.35	0.13	21.3	370	0.49	0.15	21.6
B. Origin to Work Start (Work)	477	0.64	0.11	17.9	1098	0.58	0.07	18.3	338	0.43	0.12	19.0
C. Origin to First Marriage (Marr)	27	0.04	0.11	24.3	63	0.04	0.08	23.5	22	0.03	0.08	22.7
D. Origin to First Birth (Birth)	14	0.02	0.04	20.1	28	0.02	0.04	21.0	10	0.01	0.01	20.2
Final Transtions to First Birth												
A1. O - Grad - Work- Marr - Birth												
(I) Origin to Post-Secondary Graduation	193	0.27	0.12	21.0	642	0.35	0.13	21.3	370	0.49	0.15	21.6
(ii) PS Graduation to Work Start	157	0.86	0.39	1.3	533	0.90	0.54	1.4	290	0.87	0.34	1.7
(iii) Work Start to Marriage	70	0.62		5.8	226	0.63	0.18	5.0	139	0.67	0.21	4.5
(iv) Marriage to Birth	48	0.95	0.00	3.1	156	0.92	0.58	3.0	94	0.85	0.35	2.3
(v) Probabily/ Age at Final Transition		0.14		31.2		0.18		30.8		0.24		30.0
A2. O - Grad - Work - Birth												
(I) Origin to Post-Secondary Graduation	193	0.27	0.12	21.0	642	0.35	0.13	21.3	370	0.49	0.15	21.6
(ii) PS Graduation to Work Start	157	0.86		1.3	533	0.90	0.54	1.4	290	0.87	0.34	1.7
(iii) Work Start to Birth	9	0.16		12.9	41	0.14	0.16	7.2	13	0.06	0.04	4.3
(iv) Probabily/ Age at Final Transition		0.04		35.2		0.04		30.0		0.03		27.6
B1. O - Work - Grad - Marr - Birth												
(I) Origin to Work Start	477	0.64	0.11	17.9	1098	0.58	0.07	18.3	338	0.43	0.12	19.0
(ii) Work Start to Post-Secondary Graduation	68	0.16	0.07	5.3	231	0.24	0.05	4.1	97	0.38	0.24	5.′
(iii) Post-Secondary Graduation to Marriage	31	0.67	0.62	5.4	103	0.63	0.23	4.7	35	0.69	0.57	6.6
(iv) Marriage to Birth	20	0.85		3.5	62	0.78	0.25	2.5	23	0.88		2.7
(v) Probabily/ Age at Final Transition		0.06		32.2		0.07		29.7		0.10		33.4
B2. <b>O - Work - Marr - Birth</b>												
(I) Origin to Work Start	477	0.64	0.11	17.9	1098	0.58	0.07	18.3	338	0.43	0.12	19.0
(ii) Work Start to Marriage	180	0.44	0.14	6.6	352	0.41	0.11	7.2	83	0.36	0.46	6.5
(iii) Marriage to Birth	128	0.80	0.57	2.4	235	0.76	0.24	2.0	46	0.70	0.51	2.3
(iv) Probabily/ Age at Final Transition		0.23		26.9		0.18		27.5		0.11		27.8
B3. O - Work - Birth												
(i) Origin to Work Start	477	0.64	0.11	17.9	1098	0.58	0.07	18.3	338	0.43	0.12	19.0
(ii) Work Start to Birth	82	0.21	0.17	7.7	150	0.18	0.09	7.1	24	0.09	0.04	3.7
(iii) Probabily/ Age at Final Transition		0.14		25.6		0.10		25.4		0.04		22.6
C1. O - Marr - Birth												
(i) Origin to Marriage	27	0.04	0.11	24.3	63	0.04	0.08	23.5	22	0.03	0.08	22.7
(ii) Marriage to Birth	11	0.45	0.57	1.4	20	0.33	0.23	1.3	9	0.42	0.00	2.1
(iii) Probabily/ Age at Final Transition		0.02		25.7		0.01		24.7		0.01		24.8
Total of Final Probabilities of Transition to First Birth		0.63				0.61				0.54		

N -- number of cases; Prob. -- Probability of Transition; Pr. SE -- Standard error of the probability; Dur. -- Mean years of stay in the state before transition

Table 3B: Probabilities and Mean Duration of Trajectories to First Birth By Social Status, 1941-60 Birth Cohort, Men, 2001 General Social Survey

			Low				N	/liddle				High	
	N	Prob.	Pr. SE	Dur.	l	V	Prob. F	r. SE	Dur.	N	Prob. F	Pr. SE	Dur.
First Transitions													
A. Origin (O) to Post-Sec Graduation (Grad)	197	0.16	0.11	20.9	2	82	0.30	0.17	21.4	161	0.45	0.26	21.1
B. Origin to Work Start (Work)	863	0.72	0.12	17.6	Ś	82	0.60	0.10	18.0	167	0.47	0.29	18.9
C. Origin to First Marriage (Marr)	104	0.09	0.14	23.2	1	17	0.07	0.13	22.6	24	0.07	0.26	24.0
D. Origin to First Birth (Birth)	27	0.02	0.11	24.1		37	0.02	0.07	20.2	2	0.00	0.01	19.9
Final Transtions to First Birth													
A1. O - Grad - Work- Marr - Birth													
(I) Origin to Post-Secondary Graduation	197	0.16	0.11	20.9	4	82	0.30	0.17	21.4	161	0.45	0.26	21.1
(ii) PS Graduation to Work Start	168	0.86	0.35	0.9	4	-06	0.84	0.26	1.0	136	0.85	0.18	1.4
(iii) Work Start to Marriage	139	0.84	0.29	4.2	3	804	0.76	0.14	4.7	99	0.75	0.27	4.7
(iv) Marriage to Birth	119	0.88	0.23	3.7	2	247	0.83	0.17	2.6	85	0.90	0.40	3.8
(v) Probabily/ Age at Final Transition		0.10		29.7			0.16		29.7		0.26		30.9
A2. O - Grad - Work - Birth													
(I) Origin to Post-Secondary Graduation	197	0.16	0.11	20.9	4	82	0.30	0.17	21.4	161	0.45	0.26	21.1
(ii) PS Graduation to Work Start	168	0.86	0.35	0.9	4	-06	0.84	0.26	1.0	136	0.36	0.18	3.2
(iii) Work Start to Birth	12	0.07	0.13	7.5		30	0.07	0.05	6.0	8	0.07	0.17	11.6
(iv) Probabily/ Age at Final Transition		0.01		29.3			0.02		28.3		0.01		35.8
B1. O - Work - Grad - Marr - Birth													
(I) Origin to Work Start	863	0.72	0.12	17.6	9	82	0.60	0.10	18.0	167	0.47	0.29	18.9
(ii) Work Start to Post-Secondary Graduation	115	0.14	0.05	4.9	1	99	0.20	0.05	4.4	41	0.25	0.18	5.0
(iii) Post-Secondary Graduation to Marriage	84	0.76	0.27	4.1	1	50	0.78	0.21	4.5	33	0.84	0.63	5.3
(iv) Marriage to Birth	65	0.78	0.25	2.5	1	23	0.83	0.22	2.8	27	0.88	0.66	3.9
(v) Probabily/ Age at Final Transition		0.06		29.1			0.08		29.6		0.09		33.2
B2. O - Work - Marr - Birth													
(I) Origin to Work Start	863	0.72	0.12	17.6	Ş	82	0.60	0.10	18.0	167	0.47	0.29	18.9
(ii) Work Start to Marriage	547	0.64	0.10	6.1	6	07	0.62	0.12	5.9	92	0.56	0.25	6.1
(iii) Marriage to Birth	429	0.79	0.12	2.2	4	56	0.76	0.13	2.5	62	0.68	0.27	3.1
(iv) Probabily/ Age at Final Transition		0.36		25.9			0.28		26.4		0.18		28.1
B3. O - Work - Birth													
(i) Origin to Work Start	863	0.72	0.12	17.6	ç	82	0.60	0.10	18.0	167	0.47	0.29	18.9
(ii) Work Start to Birth	111	0.13	0.06	7.5		91	0.09	0.06	6.9	13	0.08	0.11	9.2
(iii) Probabily/ Age at Final Transition		0.09		25.1			0.06		24.9		0.04		28.1
C1. O - Marr - Birth													
(i) Origin to Marriage	104	0.09	0.14	23.2	1	17	0.07	0.11	22.6	24	0.07	0.26	23.9
(ii) Marriage to Birth	49	0.48	0.40	1.6		47	0.40	0.19	1.0	3	0.14	0.39	3.0
(iii) Probabily/ Age at Final Transition		0.04		24.8			0.03		23.6		0.01		27.0
Total of Final Probabilities of Transition to First Birth		0.69					0.64				0.59		

N -- number of cases; Prob. -- Probability of Transition; Pr. SE -- Standard error of the probability; Dur. -- Mean years of stay in the state before transition

Table 3C: Probabilities and Mean Duration of Trajectories to First Birth By Social Status, 1922-40 Birth Cohort, Men, 2001 General Social Survey

			Low		·		Middle				High	
	N	Prob. F	Pr. SE	Dur.	N	Prob.	Pr. SE	Dur.	N	Prob.	Pr. SE	Dur.
First Transitions	_						_		_		_	
A. Origin (O) to Post-Sec Graduation (Grad)	63	80.0	0.15	21.1	88	0.19	0.13	20.9	39	0.55	0.00	21.9
B. Origin to Work Start (Work)	603	0.79	0.13	16.6	305	0.67	0.14	16.9	26	0.36	0.185	19.0
C. Origin to First Marriage (Marr)	73	0.10	0.17	23.2	55	0.12	0.39	23.1	6	0.09	0.57	23.
D. Origin to First Birth (Birth)	14	0.02	0.12	21.1	7	0.02	0.25	25.1				
Final Transtions to First Birth												
A1. O - Grad - Work- Marr - Birth												
(I) Origin to Post-Secondary Graduation	63	0.08	0.15	21.1	88	0.19	0.13	20.9				
(ii) PS Graduation to Work Start	44	0.71	0.51	0.9	80	0.91	0.74	3.0				
(iii) Work Start to Marriage	41	0.93	0.85	7.7	72	0.90	0.47	4.7				
(iv) Marriage to Birth	38	0.92	0.51	1.5	58	0.81	0.25	1.5				
(v) Probabily/ Age at Final Transition		0.05		31.2		0.13		30.0				
A2. O - Grad - Work - Birth												
(I) Origin to Post-Secondary Graduation	63	0.08	0.15	21.1	88	0.19	0.13	20.9				
(ii) PS Graduation to Work Start	44	0.71	0.51	0.9	80	0.91	0.74	3.0				
(iii) Work Start to Birth	1	0.03	0.03	1.6	4	0.05	0.13	6.0				
(iv) Probabily/ Age at Final Transition		0.00		23.6		0.01		29.9				
B1. O - Work - Grad - Marr - Birth												
(I) Origin to Work Start	603	0.79	0.13	16.6	305	0.67	0.14	16.9				
(ii) Work Start to Post-Secondary Graduation	31	0.05	0.01	3.2	40	0.13	0.11	4.8				
(iii) Post-Secondary Graduation to Marriage	26	0.84	0.58	4.4	36	0.90	0.48	5.4				
(iv) Marriage to Birth	24	0.92	0.68	1.2	30	0.84	0.54	2.6				
(v) Probabily/ Age at Final Transition		0.03		25.3		0.06		29.7				
B2. O - Work - Marr - Birth												
(I) Origin to Work Start	603	0.79	0.13	16.6	305	0.67	0.14	16.9				
(ii) Work Start to Marriage	479	0.80	0.13	8.4	231	0.76	0.27	7.3				
(iii) Marriage to Birth	401	0.84	0.12	1.8	187	0.81	0.17	1.7				
(iv) Probabily/ Age at Final Transition		0.53		26.8		0.41		25.9				
B3. O - Work - Birth												
(i) Origin to Work Start	603	0.79	0.13	16.6	305	0.67	0.14	16.9				
(ii) Work Start to Birth	56	0.10	0.06	8.3	21	0.07	0.09	6.2				
(iii) Probabily/ Age at Final Transition		80.0		24.9		0.05		23.1				
C1. O - Marr - Birth												
(i) Origin to Marriage	73	0.10	0.17	23.2	55	0.12	0.39	23.1				
(ii) Marriage to Birth	42	0.58	0.35	2.7	31	0.57	0.23	0.9				
(iii) Probabily/ Age at Final Transition		0.06		25.9		0.07		24.0				
Total of Final Probabilities of Transition to First Birth		0.77				0.74						

N -- number of cases; Prob. -- Probability of Transition; Pr. SE -- Standard error of the probability; Dur. -- Mean years of stay in the state before transition

App. Table 1: Percentage Distribution of Explanatory Variables by Birth Cohort Men, 2001 General Social Survey

	1961-80	1941-60	1922-40	All
Social Status				
Low	18.4	32.8	48.5	29.2
Middle	47.2	44.7	29.1	43.2
High	19.7	9.8	4.5	13.2
Missing	14.6	12.7	17.9	14.4
N	4065	3650	1572	9287
Family Structure				
Lived with Both Parents	84.2	90.4	86.8	87.1
Did not Live with Both	15.8	9.6	13.2	12.9
N	3918	3557	1535	9010
Respondent's Education				
Some High School	12.1	19.2	47.9	20.8
High School Graduate	18.2	19.2	13.9	17.9
Some College	17.0	10.3	5.2	12.4
College/University Grad	52.7	51.2	33.0	48.8
N	4038	3611	1523	9172
Personal Income				
Less than \$20,000	16.6	9.1	19.9	14.2
\$20,000 - \$49,999	39.3	31.4	28.5	34.4
\$50,000 or higher	24.0	37.0	12.5	27.2
Missing	20.0	22.6	39.1	24.2
N	4065	3649	1572	9286
Religion				
No Religion	25.0	16.9	10.7	19.4
Roman Catholic	40.6	41.0	42.9	41.2
Protestant	23.7	31.8	35.9	28.9
Other Religion	10.7	10.3	10.5	10.5
N	4066	3650	1574	9290
Migration Status				
Born in Canada	80.8	77.4	73.7	78.3
Immigrant	19.2	22.6	26.3	21.7
N	4045	3621	1558	9224
Region				
British Columbia	12.9	13.9	13.9	13.5
Atlantic	7.5	7.9	7.9	7.7
Quebec	23.2	25.3	24.6	24.3
Ontario	39.2	36.7	38.4	38.1
Prairies	17.2	16.2	15.3	16.5
N	4066	3649	1574	9289
Life Course Variables				
Marital Status				
Married	42.1	71.2	76.7	59.4
Common-Law	15.6	10.2	2.7	11.3
Sep/Div/Wid.	3.7	10.0	15.7	8.2
Single	38.6	8.6	4.9	21.1
N	4063	3644	1570	9277

## App. Table 2: Results of Factor Analysis 2001 General Social Survey

**Panel A: Factor Extraction** 

Total Variance Explained

Total Valiance Expi	alli	<del>c</del> u										
Component		Initial Eiger	nvalues		Extraction Sums of Squared Loadin							
			% of	Cumulative	)	% of	Cumulative					
		Total	Variance	%	Total	Variance	%					
	1	1.944	48.599	48.599	1.944	48.599	48.599					
	2	1.002	25.054	73.653	1.002	25.054	73.653					
	3	0.652	16.301	89.954								
	4	0.402	10.046	100.000								

Extraction Method: Principal Component Analysis.

#### **Panel B: Factor Loadings**

Component Matrix

	Comp	onent
	1	2
Happiness requires lasting relationship	0.821	0.029
Happiness requires to be married	0.852	-0.119
Happiness requires to have at least one child	0.731	-0.023
Happiness requires to have a paying job	0.095	0.993
Extraction Method: Principal Component Analysis.		

Panel C: Mean Factor Scores by Social Status, Cohort, and Gender

	Impo	rtance of Fa	amily	Importa	ance of Pay	ing Job
	1961-80	1941-60	1922-40	1961-80	1941-60	1922-40
Men						
Low	-0.068	-0.060	0.157	0.370	0.281	0.018
Middle	0.037	-0.048	0.217	0.389	0.304	0.137
High	-0.042	-0.118	0.051	0.365	0.295	0.146
Missing	-0.145	-0.130	0.099	0.333	0.324	-0.042
Total	-0.024	-0.069	0.160	0.373	0.298	0.049
Women						
Low	0.121	0.011	0.077	-0.019	-0.244	-0.941
Middle	0.103	-0.063	0.156	0.049	-0.103	-0.830
High	0.092	-0.120	0.004	0.073	-0.019	-0.780
Missing	-0.048	-0.123	0.037	0.061	-0.177	-0.690
Total	0.079	-0.054	0.092	0.044	-0.149	-0.855