

Delayed Childbearing: A Canadian Study of Fertility
Expectations, Childrearing Careers, and
Fertility Decision-Making Factors

by

Janine M. Gaudry

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presented to the University of Manitoba
in fulfillment of the
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Master of Science
in
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JANINE M. GAUDRY

A thesis submitted to the Faculty of Graduate Studies of
the University of Manitoba in partial fulfillment of the requirements
of the degree of

MASTER OF SCIENCE

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ABSTRACT

The purpose of this study was to examine fertility decision making. Differences were observed among delayed bearers, early bearers, and childless individuals on fertility expectations, childrearing careers, and the importance of certain factors on fertility decision making. Secondary analysis of the Winnipeg Area Study was conducted. A systematic random sample (N=528) was used. In-person interviews were conducted to collect the data.

Results revealed that delayers were the same as early bearers and childless individuals on most of the demographic characteristics. Delayers were found to have more education and the childless individuals were older than other respondents. Results demonstrated that delayed bearers had lower fertility expectations than early bearers but were the same in their childrearing careers; highly religious individuals had higher fertility expectations and individuals with more modern gender-role attitudes had lower fertility expectations.

In terms of childrearing career, results indicated that religious strength was not related to time taken or expected to be taken out of the labour force; and more modern gender-role attitudes were associated with lower fertility expectations. Delayed and early bearers were found to be similar in terms of the importance of time/stress/energy and relationship with partner factors in their decision making; however, the childless group considered a personal reward factor as less important

than the other two groups. It was concluded that delayed bearers were not a distinct group as was suggested in the literature, but instead that they were similar to early bearers except for achieved education levels and fertility expectations. Delayed bearers had lower fertility expectations than early bearers and had taken or expected to take as much time out of the labour force as early bearers in order to rear children. Implications for lower fertility rates point to government-based changes such as incentive programs. Public and private sectors need to help women taking time out of the labour force to have children and to implement policies beneficial to all concerned.

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CHAPTER I

Introduction

Demographers are calling the trend toward delayed childbearing the "fertility phenomenon of the 1980's" (Langer, 1985, 29). However, delayed childbearing is neither a new nor an exclusive phenomenon of the eighties. Bloom (1984a) has proposed that the recent research interest in delayed childbearing occurred because of the suspicion that the period of delay is increasing. Throughout history both Canadian and American women have gone through periods during which they delayed childbearing for one reason or another. Delayed childbearing was much more common in early decades and less common during the baby boom period (Hofferth, 1984). Canada's first experience with lower fertility rates occurred between the two world wars and reached its lowest point during the Great Depression of the 1930's. The second low fertility cycle began at the turn of the 1960's, commonly known as the "baby bust", and has continued in the 1980's (Romanuic, 1984).

Between 1971 and 1986, the age specific fertility rate (number of births per 1000 women of a given age) declined for all Canadian women, except those in the 30-34 age group. The decline in fertility rates were over 41% for teenage women, 37% for women age 20-24 years, and over 12% for women 25-29 years. According to Canadian statistics, the proportion of first births for women in the 30-34 age group between 1970 and 1982 rose from 14% to 26%, from 9% to 19% in the 35-39 age group,

and from 7% to 16% in the 40-44 age bracket (Romaniuc, 1984). Similarly, for American women, there was a doubling in the rate of first births for the 30-34 age group from 7.3 in 1970 to 14.6 in 1982 (Baldwin & Nord, 1984). The birthrate for the 35-39 and the 40-44 age groups also increased from 1970 to 1982 but not as dramatically as for the 30-34 age group (Soloway & Smith, 1987). As a result, a growing proportion of first births in Canada (now at 20%) (Schlesinger, 1987) and the U.S. have been to women 30 or older. Demographers have attributed these increases to the trend of delaying childbirth.

Although this emergent group of delayed bearers has not been extensively studied, evidence accumulated thus far indicates that they are different from early bearers (Roosa, 1988). Researchers have found female delayers to have: a) more education, higher incomes, and higher occupational status (Baldwin & Nord, 1984; Bloom & Trussell, 1984; Hofferth, 1984; Rindfuss, Bumpass, & St. John, 1980; Wilkie, 1981); b) more career commitments (Baber & Dreyer, 1986; Bloom, 1984a; Gerson, 1986; Wilkie, 1981); c) more sharing of the household tasks with their spouses (Daniels & Weingarten, 1982); and d) more geographic mobility (Bloom, 1984b; Fabe & Wikler, 1979) than early bearers. Little is known about the characteristics of males who have delayed childbearing because few studies have included males in their samples. Largely, the delayed childbearing phenomenon remains unexplored for both men and women (Bloom, 1984a; Roosa, 1988), especially in the fertility decision-making area. The question emerges: How do these couples decide when and how many children to have?

Socially, delayed childbearing has been identified as affecting parental roles because of the large age difference between parents and children (Wilkie, 1981) and the likelihood that these parents are highly committed to careers (Baber & Dreyer, 1986), and are therefore spending more time in the labour force than in raising children. Researchers have examined "older mothers" and "later fathers" on the following: a) advantages and disadvantages of having delayed parenthood (Daniels & Weingarten, 1982; Frankel & Wise, 1982; Kern, 1982), b) transition to parenthood (Roosa, 1988), and c) attitudes and feelings towards delayed parenthood (Fabe & Wikler, 1979; Gerson, 1985; Heuvel, 1988). A sexist bias exists in the literature illustrated by frequent references to older mothers but none to older fathers.

Economically, delayed childbearing creates implications for family finances. Early bearers often face more financial pressures with the addition of children than delayed bearers (Baldwin & Nord, 1984; Hofferth, 1984; Wilkie, 1981). Wilkie stated that delayers were more likely: a) to be settled in job/ careers, b) to own their own home, and c) to have savings before having children. Delayed bearers also have the economic advantage of both partners contributing financially towards the achievement of these goals. Delayers may face the complications such as potential mid-career interruptions, postponement of retirement, and/or children attending university during retirement years. These may all have serious implications on future financial status.

According to researchers and demographers, delays in childbearing can ultimately reduce fertility levels by shortening childbearing periods thus resulting in fewer children or by increasing the number of

childless couples. Others have argued that these factors are not solely responsible for the reduction in fertility levels because of other mitigating factors such as: a) fewer and later marriages (since early 1970's, average age at first marriage for men and women increased 3 years to 28 years and 26 years, respectively) (Adams & Nagnur, 1989), b) increase in number of divorces (down in the early 1980's but rose again) (Adams & Nagnur, 1989), c) availability of highly effective contraceptives and increased willingness to use therapeutic abortion, d) the preference of smaller families, e) changes in economic factors, f) changes in the value of children in society, and g) changes in the sex roles and status of women (Romanuic, 1984).

Researchers have identified the following factors as having an influence on fertility expectations: a) employment, b) education, c) women's personal income, d) religious strength, and e) gender-role attitudes. Because fertility has been recognized as women's responsibility, fewer studies have focused on the factors influencing the fertility expectations of men.

The following factors have been identified as influential in fertility decision-making: a) effect of children on career; b) financial costs of rearing children; c) issue of who will care for children; d) time, energy, stress, and potential loss of freedom; e) effect on relationship with partner; f) partner's desire (i.e. whether or not partner wants child); and g) personal reward of having children (i.e. have someone to love and to give meaning to life).

Research Questions and Methods

The purpose of the present study was to examine the factors that early bearers, delayed bearers, and childless individuals consider important in their fertility decision-making. Previous research in fertility expectations and decision-making have focused primarily on women, thus limiting research on the fertility expectations and fertility decision-making of men. Comparisons of influential factors were conducted for both men and women. The following research questions were addressed:

1. How many men and women have delayed or expect to delay childbearing and what are the fertility expectations of these delayers?
2. Are there differences between delayed and early bearers on the total number of years they have taken or expect to take out of the labour force in order to rear children?
3. Do delayed and early bearers differ in terms of attitude toward how long a mother should take out of the labour force to rear children (gender-role attitude), and how does this affect fertility expectations and childrearing careers?
4. What are the differences in the fertility decision-making factors that influence delayed bearers, early bearers, and childless couples?
5. Do differences exist in the importance of the factors that influence fertility decisions for the men and women who are a) delayed bearer, b) early bearer, or c) childless individuals?

6. Do differences exist between dual-income and single-income delayed bearers or dual-income and single-income early bearers on fertility expectations, time taken out of the labour force, or importance of the fertility decision-making factors in having children?

These research questions were examined in the context of exchange theory, which was used in the formation of the hypotheses. .

This study involved analyses of data collected by the principal investigator Raymond Currie, of the Sociology Department at the University of Manitoba for the 1988 Winnipeg Area Study (WAS). The 1988 survey was sixth in a series, and its theme was "The Moral Economy of Family Life". The WAS contained questions on a number of topics including: a) spousal and familial relationships, b) management of family finances, c) family fertility expectations, and d) childrearing careers (total number of years one has taken or expects to take out of the labour force to care for children). As well, each respondent was asked a number of demographic and quality of life questions. The total number of respondents was 528, consisting of 245 males and 283 females subjects. Respondents were Winnipeg men and women 18 years of age and older who were interviewed in their homes.

Definition of Terms

Bloom (1984a) pointed out that the difficulty in studying delayed childbearing was the lack of a single definition of the concept. Roosa (1988) stated that the peak years for bearing of the first child in the U.S. was between the ages of 19-27. As a result, the term delayed bearer has been applied to men and women who have their first child after these peak or normative years. For example, Roosa (1988) used 28 years of age as a cut off point in identifying delayed bearers. However, the peak for Canadian women occurs at a slightly later age. In a comparison of Canadian and American family careers, Rodgers and Witney (1981) found that Canadian women were, on average, 0.7 to 2.4 years older when their first child was born than their American counterparts. According to 1987 statistics, the median age of Canadian mothers giving birth to their first child was almost 26 years old (Statistics Canada, 1990). Hence, for the purpose of this study, 30 years of age was considered an appropriate point for the division of early and delayed bearers.

In this study, delayed bearers were defined as individuals who had or expected to have their first child at age 30 or later. Delayed bearers were those who had not conformed to the childbearing norms of society for one reason or another. Early bearers were defined as individuals who had or expected to have their first child before the age of 30, thereby conforming to the childbearing norms of society. Childless couples were defined as those individuals who had or intended to have no children in their lifetimes.

Fertility expectation was defined as the total number of children that an individual had or intended to have in his/her lifetime. Childrearing career was defined as the total number of years of employment interruption women took or expected to take for childrearing purposes. Ideal childrearing career was used as a measure of modern or traditional gender-role attitudes.

When researchers classify occupations, it is generally accepted that professional positions are considered careers whereas jobs are those of blue collar, skilled and unskilled labourers. Couples in which both partners were in full-time professional level positions were considered dual-career. Couples in which both partners were in full-time or part-time non-professional positions were defined as dual-earner. Couples in which one person was in a professional position and the other person was in a non-professional one were considered dual-mixed. Couples in which one person was in a professional position and the other person was unemployed were defined as single-career. Couples in which one person was in a non-professional job and the other person was unemployed were defined as single-earner.

CHAPTER II

Literature Review

Factors Influencing Delayed Childbearing

There has been much speculation as to the causes of the most recent trend to delay childbearing. Several factors have been identified as contributing to the increases in delayed childbirth. Researchers have pointed out that the increased availability and knowledge of effective contraception and the legalization of abortion have given women a greater measure of control over fertility than they have ever had (Baldwin & Nord, 1984; Bloom, 1984a; Frankel & Wise, 1982; Hofferth, 1984; Lord, 1978; Wilkie, 1981; Young, 1977). Medical advances have alleviated fear and have made it safer for women to consider conceiving at later ages (Cohen, 1985; Daniels & Weingarten, 1982; Norment, 1981; Schultz, 1979). Social pressures for young couples to marry at an early age and start families have been reduced (Lord, 1978), whereas pressures to put off parenthood have increased (Soloway & Smith, 1987).

Other influential factors have been the changes in women's attitudes and expectations resulting from their expanded educational and employment opportunities (Bloom, 1984b; Langer, 1985). Increased availability of jobs and an increasing acceptance of women working outside the home (Pebley, 1981) have made work outside the home a way of life. Increasing numbers of dual-career and dual-earner couples have

increased the number of men and women who are facing the competing demands of work and family. Because women are still responsible for the majority of the familial and household tasks (Levitan & Belous, 1981), they must find ways to reconcile both the pursuits of work and family. "For some the choice is between working and delaying or even foregoing children altogether" (Romaniuc, 1984, 8).

Demographic Consequences of Delayed Childbearing

Low fertility rates have recently become a cause for concern in Canada as the current fertility rate is at an historical low of 1.7, with the province of Quebec's fertility rate standing at a lower 1.4 (Lachapelle, 1988). According to Statistics Canada (1986), the general fertility rate (number of births per 1000 women ages 14-49 years) has declined on the average by 1.3 per cent per year from 67.7 to 54.7 between 1971-1986. As a result the Canadian birth rate has been below the replacement level of 2.1 births per woman (in her lifetime) since 1971 ("Canada in the 21st Century," 1986).

This concern with low fertility is not confined to Canada and the North American continent, however, but has been identified as typical of most developed countries (Romaniuc, 1984). Resulting from this shared concern has been an increasing amount of national and international attention given to the influence of delayed childbearing on declining fertility rates ("Canada in the 21th Century," 1986; Hofferth, 1984; Romaniuc, 1984; Sullivan, 1988). Because early childbearing increases population growth rates, delayed childbearing has been suspected of decreasing population growth rates. Bloom (1984a) stated that the

timing of first births holds important implications for subsequent fertility, the length of time between generations, and hence for population growth. As a result, many researchers have claimed that the increased number of women delaying childbearing and/or choosing to remain childless produces a continuing decline in fertility (Bloom, 1982,1984a). Because of the possible demographic consequences, it has become important to understand how couples come to the decision to delay childbearing.

It is difficult to establish whether or not delayed childbearing is a major contributor to the low fertility rates that Canada is experiencing. Researchers have been concerned with the shortened period of childbearing as a result of delaying it. In exploring the effects of age at first birth, Rindfuss and Bumpass (1976) found that having children at a later age resulted in women having fewer children. In their examination of the 1970 National Fertility Study, Rindfuss and Bumpass argue that the longer a couple postpone childbearing, the greater the likelihood that the couple will revise its fertility goals downward. These authors determined the basic proposition for age at first birth to be "later means fewer" (p.226). Although this proposition demands longitudinal data, Rindfuss and Bumpass were confined to cross sectional data resulting in questionable conclusions. Age at first marriage is another factor that must be taken into consideration when examining delayed childbearing.

Francke, Hager, and Whitman (1978) found that an increasing number of delayers were opting to have only one child. The American Census Bureau reported in 1977 that 61% of first time mothers between 30-34 planned to

have only one child. However, Baber and Monaghan (1988) found that although all women in their sample expected to have careers, few planned to be childfree or have only one child (5%) and that the average number of children desired was 2.9 (range 0-8).

Researchers have been concerned with the increasing number of childless couples. Delayed childbearing has been viewed by many as a contributing factor to couples remaining childless.

In 1981, 54% of ever-married Canadian women aged 20-24 were childless, compared with 42% in 1971 and 26% in 1961. Similarly, the proportion of childless ever-married women aged 25-29 increased from 14% in 1961 to 21% in 1971 and to 30% in 1981. Among those aged 30-34, the proportion of childless women increased from 9% in 1971 to 14% in 1981. (Burke, 1986, 7)

These statistics are difficult to interpret because they may indicate a tendency toward voluntary childlessness, an increase in delayed childbearing (Burke, 1986), or an increase in age at first marriage. Relatively high rates of childlessness are known to be associated with relatively late age of first marriage. However, Veevers (1979) stated that fluctuations in ages of first marriage contributed to but did not account for fluctuations in the incidence of childlessness. In examining delayed childbearing, the negative relationship between age at marriage and fertility cannot be ignored because it has been identified among the strongest and most pervasive relationship in the literature (Rindfuss & Bumpass, 1976).

The recent increases in fertility rates of women over the age of 30 indicates that in some cases, young couples who are currently childless may have children in the future (Burke, 1986). However, Veevers (1979) found that the majority of childless couples entered marriage intending to have children but remained childless after a series of delays or postponements. Pol (1983) found that one third of a childless sample who expected to have children later remained childless. Some of the reasons couples who intended to delay childbirth ultimately had no children were: a) infertility, b) termination of relationship, c) change of intentions to have children, or d) intentions were not acted upon before time ran out (Pol, 1983).

Fertility Expectations

Employment

Ramu and Tavuchis (1986) pointed out that concomitant with the decrease in fertility there has been a steady increase in women's employment. Beckman (1978) stated that one of the most consistent demographic factors related to lower fertility has been women's labour force participation. Baber and Dreyer (1986) pointed out that career women tend to be more committed to their work than other women. Because women continue to be primarily responsible for child care, their commitment to work is expected to be an important consideration in their fertility decision-making. Daniels and Weingarten (1979,1982) also suggested that this may be the case for women who delay childbearing because of their being career-oriented and highly committed to their work.

As a growing proportion of women have entered the labour force, the number of dual-income couples has increased (Moore, 1989). Hunt and Hunt (1982) have theorized that the dual-career lifestyle will make it difficult for couples to have both careers and a family, thereby decreasing fertility expectations. On the other hand, historical data have shown that during the Depression, fertility was low and women were not in the labour force. Thus, low fertility cannot be attributed solely to the increase in women's employment (Romanuic, 1984).

It has been demonstrated that women perceive employment and parenthood as competing roles and that the resulting role incompatibility leads to fewer children (Beckman, 1978; Tickamyer, 1979). Rindfuss, Morgan, and Swicegood (1988) suggested that given the time and energy demands of careers and parenthood and the assumption that individuals recognized these demands, parenthood will be timed so as to meet the demands of both.

Although the direction of causation was not clear, Baber and Dreyer (1986) found women's labour force participation to be related to delayed childbearing. A common speculation is that women who are committed to their work will be more likely to delay childbearing in order to pursue their careers (Rindfuss et al., 1988). In general, researchers have concluded that women's increasing labour force participation and inevitable role incompatibility between employment and childrearing will continue to be associated with lower fertility expectations.

Education

According to Khoo, Krishnamoorthy, and Trlin (1984), education was the most important factor affecting attitude toward having children. These authors found that men and women with post secondary education placed less importance on the role of children in the family. Although the inverse relationship between education and fertility for women is well known, less is known about the causal linkages between education and fertility. "Educational attainment has been found to be negatively related to fertility and positively related to labour force participation," which leads to lower fertility expectations (Tickamyer, 1979, 168). Tickamyer speculated that higher education indirectly affected fertility by delaying women's age at first marriage thereby delaying childbearing.

Rindfuss et al. (1980) explored a linkage between education and fertility and found the dominant effect to be from education to age at first birth with negligible effects in the other direction. These authors pointed out that once childbearing had begun, education no longer had any direct effect on the childbearing process. Because education was a major determinant of age at first birth, Rindfuss et al. (1980) concluded that "it is the postponing of motherhood that produced the oft-observed negative bivariate relationship between education and children ever born" (p.444), thereby suggesting that delayed childbearing accounted for the negative relationship between education and fertility. In addition, Bloom and Trussel (1984) suggested that education was becoming an increasingly important factor underlying the trend toward delayed childbearing.

It should be noted that these findings are based on American data, which may not apply to Canadians. Rodgers and Witney (1981) pointed out that significant differences on the relationship of demographic variables to fertility expectations exist between Canada and the United States. Kingsbury and Greenwood (1987) conducted a study with Canadian data and found that education and fertility were not related for women. According to Rodgers and Witney (1981), one of the differences between American and Canadian women is that throughout their relatively shorter history, Canadian women have consistently married at later ages and delayed birth longer than American women. Kingsbury and Greenwood (1987) speculated that the delay in the first birth was unlikely to have been related to longer education for Canadian women, but instead it was because of other factors related to cultural differences such as later marriages, Catholic predominance, and/or diverse backgrounds related to European influence.

Women's Personal Income

The amount of income women have and how it is generated is of growing importance. Canadian statistics show that women are receiving income in larger amounts than in the past. The resulting effect is that a larger share of total money income is received by women; consequently, women are making increasing contributions to their family's incomes (Statistics Canada, 1990). As a result, there are higher economic opportunity costs (Epenshade, 1977) and decreases in the total family income when women leave work for childrearing purposes (Bloom, 1984b) than was the case previously.

One of the controversies in the study of fertility has been the question of causal direction in determining "whether economic well-being determines fertility or fertility determines well-being" (Cramer, 1980, 167). It has long been hypothesized that a positive relationship exists between income and fertility. However, in a 15 year longitudinal study, Freedman and Thornton (1982) found that husband's income (or family income) was not positively related to fertility for most parity groups. Other studies have indicated similar findings; no positive relationship was found between family income and fertility expectations (Cramer, 1980; Thornton, 1979; Westoff & Ryder, 1977).

With the increased number of employment and educational opportunities, female delayers have been considered to be similar to voluntarily childless women, and different from early bearer women socially, psychologically, and economically (Baber & Dreyer, 1986; Frankel & Wise, 1982; White & Kim, 1987). Hofferth (1984) found that female delayers were likely to be well-established professionally and economically secure. Wilkie (1981) claimed that women delayed childbearing for financial considerations rather than career aspirations. Rindfuss et al. (1988) pointed out that the cultural values of society have changed with the pursuit of personal happiness being the paramount goal. Because economic success is seen as a necessary means to pursue the goal of individual happiness, these authors speculated that if this value becomes stronger and more pervasive it might encourage later and less frequent parenthood.

Religious Strength

American research has consistently found religious strength to be positively related to fertility expectations for men and women (Pol, 1983; Veevers, 1979). Balakrishnan, Kantner, and Allingham (1975) found religious strength as measured by church attendance to have a positive relationship to the fertility of both Catholics and non-Catholics. Regular churchgoers demonstrated higher fertility expectations and more children (Balakrishnan et al., 1975; McDaniel, 1987), but there was a greater impact for Catholics than non-Catholics (Veevers, 1979). Attending religious services has been viewed as a reinforcement mechanism for higher fertility. Oakley (1986) found that low fertility couples were likely to place less importance on religion.

Whereas most Canadians still report a religious affiliation, a much smaller proportion regularly attend religious observances. "According to the General Social Survey, in 1985, only 30% of Canadians with a stated religious preference attended a religious service or meeting on a weekly basis, while a further 17% did so at least once a month" (Mori, 1987, 15). Furthermore, 21% of those with a stated religion never attended a service or meeting. There has been a decline in the frequency of attendance at religious services for some groups between 1975 and 1985 (Mori, 1987).

Rindfuss et al. (1988) stated that religion was also likely to affect the time when women become mothers. Young (1977) found non-Catholic women more likely to delay the first birth than Catholic women. Little research has been conducted on delayed bearers in relation to religious

strength. Research has focused on religious affiliation, specifically on Catholics and how the doctrines of marriage for the purpose of procreation determines that the transition to parenthood will occur.

Gender-Role Attitude

Studies have shown that gender-role orientation and fertility are related and that causality is reciprocal. It has been well documented that a traditional gender-role orientation encourages childbearing (Beckman, 1979), whereas a more modern gender-role attitude increases the probability of the lowering of women's fertility intentions (Tickamyer, 1979). Scanzoni (1975) found support for the influence of sex-role norms on fertility intentions particularly among younger, employed, and educated women. Bram (1984) found that childless women were less traditional than delayed and early bearers in terms of behavior, attitudes, and self-image. Similarly, Baber and Dreyer (1986) reported that gender-role orientation differentiated delayed bearers from the childless individuals; many of the childless women had non-traditional views. Thus, it is important to examine gender-role attitude in relation to delayed childbearing.

Women and Work

Lott (1973) argued that the increase in delayed childbearing is closely related to the changing and more liberal attitudes towards women's rights. The most recent women's movement has led to women's increased education, employment, and use of contraception (Baldwin & Nord, 1984; Frankel & Wise, 1982; Norment, 1981; Wilkie, 1981). These

factors have created a social climate in which motherhood has become more of a choice and less of a mandate (Fabe & Wikler, 1979; Rexroat & Shehan, 1984; Russo, 1979). Fabe and Wikler stated that "the new choice of motherhood is liberating...but it has also created new dilemmas" (p.13) such as conflict between an overload of work and family responsibilities or the increasing risks of remaining childless. Levitan and Belous (1981) stated that "the wife's responsibilities outside the home have not filtered back into a major reallocation of responsibilities within the family" (p.27). These authors and others (Pleck, 1985) found that when the number of hours worked outside the home were added to the time spent on household chores, most working wives laboured more hours per week than their husbands. There has been a small increase in the hours of housework done by married men (Geerken & Gove, 1983). As a result, there still exists a significant gender division of labour that has been slow to change (Eichler, 1983; Levitan & Belous, 1981).

Motherhood has become a complicated choice and as a result, an increased number of women have had trouble deciding whether or not to have children. Cherlin (1980) found that future work plans played an important role in women's decisions about whether to marry, to have children, and to enter or remain in the labour force. According to Baber and Dreyer (1986), both women's increased commitment to work and their continuing responsibility for child care are important considerations in fertility decisions. Gerson (1986) postulated that it was not coincidence that, as more women are employed, they are having fewer children. Wilkie (1981) stated that the increasing number of

women remaining childless, although the number is relatively small, indicates the distress of women who are expected to handle both career and parenthood but feel they cannot. Delayed childbearing has therefore become a "temporary strategy in the face of a difficult decision" (Wilkie, 1981, 588).

Daniels and Weingarten (1982) found that most women expect to become parents "sooner or later"; timing was the issue. Women have reported deciding to delay childbearing for many reasons. Because society demands women to be successful mothers and successful in the outside work force, Lee (1983) speculated that delaying motherhood appeared to be a solution to society's contradictory demands. Many women have identified delayed childbearing as an advantageous solution given their current options (Frankel & Wise, 1982). Delayers may foresee having to deal with the a) pressure to be "Supermom", b) guilt (resulting from the attitudes and behaviors of husband, employers, and business associates) about the choice to stay at home or work full or part-time, c) ensuing self-doubt over the choice they make, and d) temporary career set-back as a result of the work interruption (Fabe & Wikler, 1979; Mincer & Ofek, 1982). Women recognize both the potential conflicts in juggling a career and a family and the opportunity costs of giving up parts of their careers to be mothers. Thus, women are now considering many factors in their fertility decisions. Although there is less literature that indicates influences on male fertility decision-making, it is likely that similar factors may be involved for both sexes.

Factors in Fertility Decision-Making

Effect on Career

Gerson (1985) stated that combining careers and childrearing upset the balance between professional careers and personal lives. For both delayed bearer and early bearer women, combining the roles of mother and work outside the home were found to be difficult and stressful (Walter, 1986). Delayer women were found to view children as costly and a burden to their careers (Baber & Dreyer, 1986; Fabe & Wikler, 1979; Gerson, 1985; Norment, 1981; Schultz, 1979). Frankel and Wise (1982) reported that early bearers or "on-time" mothers experienced greater conflict about work versus motherhood than delayed bearers because the careers of early bearers were in the demanding formative stages.

Delayed bearer women reported delaying childbearing to satisfy professional goals (Bloom, 1982; Daniels & Weingarten, 1979, 1982; Frankel & Wise, 1982; Lord, 1978) and to establish careers (Francke et al., 1978). Delayed bearers in Heuvel's (1988) study confirmed that the delay had given them more time to participate and advance in both educational and career roles. Delaying men or "late fathers" also expressed that postponing childbearing had enabled them to achieve their career goals (Daniels & Weingarten, 1979).

In the area of career development, Daniels and Weingarten (1982) identified the following as disadvantages of temporarily leaving the labour force for women: (a) loss of momentum and on-time advancement, (b) interruption of developmental continuity and sense of cumulative accomplishment, (c) forfeited income, (d) loss of benefits, and (e)

superiors losing track of them. Fabe and Wikler (1979) found women to be concerned with a) the question of how pregnancy and motherhood affected the evaluation of a woman's professional competence and b) peers looking down on them and questioning their commitment. Studies have shown that when women re-enter the labour force, it is usually at a lower salary than before and although women rebound quickly, they never quite catch up to the level of others who never left ("Making the Switch", 1981).

Although the men in Potts' (1980) study expressed concern that childbearing might jeopardize career goals, traditionally men have not interrupted their careers for childrearing reasons. Kingsbury and Greenwood (1987) found few men to have interrupted employment or planned to interrupt their employment for childrearing reasons (2.5%). Because women have remained the primary caretaker, the effect of having children on the careers of men are less influential than it is on women's careers.

Financial Considerations

The contention that financial considerations were the cause for couples to delay childbearing is evident in the literature (Cohen, 1985; Daniels & Weingarten, 1982; Potts, 1980; Soloway & Smith, 1987; Wilkie, 1981; Young, 1977). As previously mentioned, delayed bearers have higher incomes than early bearers. It is not so much that finances are limited that causes these men and women to delay childbearing, but that these couples want to accumulate some assets (or economic security) before starting to have children (Lord, 1978; Norment, 1981). Couples

interviewed by Potts (1980) expressed a concern about the financial strain of starting a family; having a child would limit their ability to purchase a home, travel, or do other things they had planned. Caution is advised in interpreting the undefined terms of "financial strain" and "economic security" in these studies.

Hofferth (1984) reported that during the early years, families with children appear to spend more and save less than childfree couples. Couples with children also expected to accumulate fewer assets. Kern (1982) stated that parents viewed children as a financial burden. "Children are no longer perceived as an investment in the future [but instead] they are seen as an extra expense" (Sullivan, 1988, 70). Financial security was reported necessary to provide proper child care because child care was considered expensive (Lord, 1978; Norment, 1981). Researchers have concluded that the economic pressures that created a need for two incomes can in turn be attributed to an increase in delayed childbearing (Frankel & Wise, 1982; Gerson, 1985).

Child Care

Because growing numbers of women return to work after the birth of their children, the issue of who will take care of these children has become a major concern (Baldwin & Nord, 1984; Cohen, 1985; Fabe & Wikler, 1979; Lee, 1983). "In 1986, 9 million [American] preschoolers spent their days in the hands of someone other than their mother" (Wallis, 1987, 46). Similarly, Statistics Canada's 1981 Survey of Child Care Arrangements found that 1.1 million children, more than half (52%) of all children under the age of six, were cared for by someone other

than their parents on a regular basis (Statistics Canada, 1982). When both preschoolers (under age 6) and school age children (aged 6-12) were combined, as many as 2.5 million Canadian children needed alternate child care arrangements ("Child Care," 1986). Child-care facilities have been identified as problematic by working parents in terms of (a) accessibility (because they are hard to find and have long waiting lists), (b) affordability, and (c) acceptability (dirty, overcrowded, lack of stimulation for child, unreliable staff) (Wallis, 1987).

Studies have demonstrated that "older" (30 and over) working mothers of small children are less likely than "young" (under 25) working mothers to rely on fathers, grandparents, and other relatives for child care. Older working mothers were more likely to depend on day care centres or family day care (i.e. care by a non-relative in a private home other than the child's) (Baldwin & Nord, 1984). Frankel and Wise (1982) speculated that dependence on these facilities was possibly related to the fact that delayed bearers lived farther from relatives than early bearers and that grandparents were often too old and/or disabled to help with child care. However, it might be more accurate to speculate that the grandparents themselves were busy in the labour force. Early bearer or young mothers relied 16% frequently less on day care facilities than older mothers (Baldwin & Nord, 1984). Baldwin and Nord speculated that older mothers may have better paying jobs thus more funds to pay for non-familial care. Early bearer mothers were often at a financial disadvantage, could not afford the best, most consistent child care, and often felt they had to compromise (Frankel & Wise, 1982). A general lack of child-care facilities, financial constraints

(more so for early bearers), and the absence of extended family members or husbands to share parental responsibilities, make it difficult for both delayed bearer and early bearer mothers with young children to manage both career and family demands.

Time, Energy, Stress, and Potential Loss of Freedom

Delayed bearers have reported a desire for some time to meet their own needs before undertaking parenthood (Lord, 1978). Delayers in the Daniels and Weingarten (1979) study identified "psychological readiness for parenthood" as critical in the decision to become a parent. These men and women expressed the belief that " 'the 20's are a great time to be free', [and that it was] a time to explore and experiment--time that may bring some clarity about the place of parenthood in their life plans" (p.4). Time was needed for: a) travel (Kern, 1982; Norment, 1981; Potts, 1980; Schultz, 1979), b) work/career plans (Potts, 1980; Schultz, 1979), (c) gaining economic security (Frankel & Wise, 1982; Lord, 1978; Wilkie, 1981), and d) personal development (Cohen, 1985; Daniels & Weingarten, 1979,1982; Roosa, 1988).

According to Knaub, Eversoll, and Voss (1983), delayers were less ready than early bearers to relinquish their social lives. Delayers felt that it was important to enjoy one's social life first and have children later. In comparison, early bearer women reported experiencing "enormous sacrifices" such as isolation and restlessness (Frankel & Wise, 1982). These findings suggested that female delayers were more prepared socially and psychologically for the role of motherhood. Several researchers have attributed this to the resulting maturity and

competence gained during the period in which these women delayed childbirth (Frankel & Wise, 1982; Kern, 1982; Walter, 1986).

Lee (1983) pointed out that society demands that women be both successful mothers (selfless love and total devotion to their children) and successful in the work world. As a result, women have been given a set of standards that may be impossible to meet because having a child requires as large an investment of time, physical energy, psychological energy, and financial expenditure, as does establishing and maintaining a successful career (Lee, 1983). However, this does not explain why so many women are able to combine career with motherhood. Although, it is well documented that delayed bearer women have less energy and experience physical exhaustion more than early bearers, (Francke et al., 1978; Frankel & Wise, 1982; Heuvel, 1988; Kern, 1982; Norment, 1981) comparisons of this kind are questionable because researchers have not accounted for women of the same age having their second or third child. Furthermore, delayer women have reported feeling successful as career women, wives, and mothers (Daniels & Wiengarten, 1982).

A high commitment to career can result in anticipated conflict and stress of women combining marriage, childrearing, and a career. Fabe and Wikler (1979) documented the strains and tensions created by the conflicting demands of these roles. They found that women predicted that delayed chilbearing would reduce the conflict and stress of careers and children, especially during the formative stages of their careers.

Because both careers and childrearing are time consuming, the contributions made by delayer women's husbands have been found to be

significant in women's combining of career and family roles. Daniels and Weingarten (1982) reported that most delayed women felt "understood" because their husbands helped alleviate the workload, whereas the early bearer women reported feeling "overloaded" by having to handle the numerous responsibilities without the help of their spouses. Because delayed bearers have more egalitarian marital relationships (Daniels & Weingarten, 1982), spouses were more likely to share child care and household responsibilities. Both Daniels and Weingarten (1982) and Frankel and Wise (1982) have reported that delayed bearer men were more involved in child care and other parenting activities than early bearer men. However, not all delayers experienced equal sharing of tasks. Norment (1981) pointed out that some delayed bearer women felt frustrated if their spouses did not help them.

Actual practice of dividing the household labour has been slow to change and women have remained primarily responsible for the planning and decision making for both children and the household (Eichler, 1983; Pleck, 1985). Men usually reported "helping" their spouses rather than being an equal partner (Fabe & Wikler, 1979). As a result, women are faced with the time constraints and career and family contradictions, even when their husbands/partners share responsibilities. Advantages that delayed bearers have been regarded as having are the more flexible work hours and more funds available to them than early bearers in getting help with the children and/or household chores (Wilkie, 1981).

Relationship with Partner

Delaying couples have reported a delay in childbearing as necessary to know one's partner better and develop a solid intimate relationship/marriage (Cohen, 1985; Daniels & Weingarten, 1979, 1982; Norment, 1981; Schultz, 1979; Soloway & Smith, 1987). Waiting to have a child was seen as crucial during the early years of a relationship in order to establish a comfortable and solid relationship that could withstand the challenges of raising children. Many delayers expressed a concern for the possible strain on their marriage and the special relationship they had created as a result of combining career and childrearing (Fabe & Wikler, 1979; Lord, 1978).

Delayers did not believe in the popular misconception that having a baby would solidify things between them (Daniels & Weingarten, 1979). On the other hand, when Whelan (1980) interviewed married childless couples (most planning to have children) on their reasons for deciding to have children, the most common reason was "a strong desire to further enhance a good marriage" (p.64). After several years of marriage, these same couples found that their love had grown stronger and they wanted to add a "forever" factor to their relationship by having children. These couples believed having a child represented a statement of their love.

Partner's Desire for Children

Gerson (1985) found delayed bearer women to feel propelled by their partners toward motherhood. The prospect of losing a spouse or partner if one opposed the male desire to have children was often a decisive

factor in women opting for motherhood. In contrast, Beckman (1984) examined couples who were in conflict about short-term fertility and reported that wives had the equal or somewhat greater influence over actual fertility outcomes than did husbands. Beckman found that the wives had greater influence when they did not want children in the next two years. On the other hand, delayed bearers have reported needing a mate who would be "suitable", that is, a partner who had a similar intention to delay childbearing (Daniels & Weingarten, 1982; Schlesinger, 1987).

Marciano (1978) examined the negotiations and resolutions of disagreement over a childfree lifestyle of 40 American married couples. After controlling for age, income, education, and occupation the following pattern emerged: "If it was the husband's decision to remain childfree and not the wife's at first, she was likely to come into agreement with him. If it was the wife's decision to remain childfree, only very rarely would the husband consent. The more likely result, if she remained adamant, was divorce" (p.101). Marciano also found that men (given enough time) were more successful in bringing their wives into agreement to remain childfree than the wives were in convincing their husbands to remain childfree. In fact, the husbands expressed the hope that their wives would change their minds. These findings suggested that men had the capacity to resist role reshaping in the marriage, whereas the women had weaker bargaining power against their husbands (Marciano, 1978). The partner with the greater influence on fertility decisions remains debatable.

Personal Rewards of Having Children

Gerson (1985) pointed out that females were socialized to want and need to become mothers. However, in their examination of women's perception of parenthood, Knaub et al. (1983) found support for the contention that women no longer needed the motherhood role to feel fulfilled. One must consider that this sample consisted of a select group of undergraduate female students who expected to delay childbearing and that direct comparisons cannot be made to all undergraduate females or to the population in general. However, these findings supported the contention that women were experiencing an increasing number of opportunities and were developing other sources of fulfillment besides motherhood (Knaub et al., 1983). It should be pointed out that the social pressure these young women were experiencing may be less than the pressure they will experience later.

Kern (1982) interviewed 50 women who had borne children after the age of 35 (one third of the sample were delayers). These women cited having children as a rewarding experience. One woman commented that whereas "younger mothers feel it's their birthright to have children older mothers feel gifted" (p.54). Delayed bearers have reported seeing their children as a commitment to the future and a meaningful opportunity to recreate 'the family'. Children were also reported as being a reflection of one's developmental achievements (Frankel & Wise, 1982). Daniels and Weingarten (1982) found that almost all delayed bearers conveyed recognizing something new in themselves. They viewed "involvement with their children as renewal...because their experience and self-knowledge have given them the capacity to make sense of an

utterly new life event, to find joy in it and to be changed by it" (p.22).

According to Francke et al. (1978), delayer women reported that despite the risks and hassels, they found the experience of childbearing enriching. Gerson (1985) found that delayed bearer women focused on the fullness and purpose in life that a child gave them. Several researchers have reported difficulty in finding delayed bearers who believed they had made a mistake because the rewards of having children far surpassed the costs (Daniels & Weingarten, 1982; Francke et al., 1978; Norment, 1981).

Methodological Issues in Previous Research

Little of the empirical research on delayed childbearing has contributed to distinguishing between competing explanations of this phenomenon. Instead, empirical work has focused on a variety of issues related to the measurement of delayed childbearing. Research has focused on a) the extent of delayed childbearing, b) characteristics of delayers, c) causes of delayed childbearing, and d) speculation of the demographic, social, and economical consequences of delayed childbearing. Research has also been done on attitudes towards childbearing and career expectations of potential delayers (Baber & Monaghan, 1988; Bram, 1985; Knaub et al., 1983).

Methodological Definition of Delayed Childbearing

Bloom (1984a) argued that studies on delayed childbearing have lacked a precise definition of the phenomenon. There have been inconsistencies in the age at first birth of delayed bearers. Daniels and Weingarten (1979) have described "late-parents" as those men and women who start having children in their late 20's/early thirties. Soloway and Smith (1987) have used 28 years of age. Whereas the most common cut off age used by researchers is 30 years of age (Baber & Dreyer, 1986; Schlesinger, 1987; Schultz, 1979), others have used 33 or 35 and older (Frankel & Wise, 1982; Kern, 1982). Some research has no specific age at first birth but vague definitions for delayers such as "intended to have children at some indefinite time in the future" (Bram, 1985, 48). Issod (1987) used the number of years married before having children as the definition of a delayer.

Subjects

In general, subjects in the delayed childbearing studies reviewed were American (with the exception of one Canadian study), female, Caucasian, upper or middle class, highly educated, and professional. Although some researchers gave some views of husbands as reported by the wives (Fabe & Wikler, 1979), several of the studies focused on women and did not include men (Baber & Monaghan, 1988; Kern, 1982; Walter, 1986). Some studies have interviewed delaying couples, but results and discussion tended to focus on women subjects (Baber & Dreyer, 1986; Daniels & Weingarten, 1979, 1982; Frankel & Wise, 1982; Issod, 1987; Roosa, 1988; Soloway & Smith, 1987). For example, Daniels and Weingarten

(1982) did not report any case studies of men in their sample. As a result, information on male delayers is limited. One longitudinal study (Bram, 1985) and one Canadian study (Schlesinger, 1987) were found to report the findings of both male and female subjects.

Sampling Bias

Research conducted on delayed bearers is plagued with a sampling bias. Researchers have used the facts that delayed childbearers are more likely than early bearers to have a higher level of education, to be more career oriented, and to have planned delaying parenthood to restrict their samples to highly educated, career oriented, and/or professional women who deliberately delayed childbearing (Daniels & Weingarten, 1982; Kern, 1982) or expected to delay childbearing (Baber & Monaghan, 1988; Knaub et al., 1983). For example, in exploring women's attitudes towards timing of parenthood, Knaub et al. (1983) tested 213 undergraduate female students enrolled in women's studies courses. Similarly, in examining career and childbearing expectations, Baber and Monaghan (1988) questioned 250 female university students. Studies examining the delayed childbearing phenomenon have often used special samples with results that have limited potential for generalization.

Common techniques used to recruit subjects have been a) the snowballing method; b) advertisements in local newspapers, doctor's offices, and Lamaze (or other birth education) classes; c) announcements in university or college classes/day care centres; d) referrals by pediatricians, other professionals, and/or other subjects; e) by word of mouth; and f) a combination of some or all of the above techniques

(Baber & Dreyer, 1986; Baber & Monaghan, 1988; Frankel & Wise, 1982; Issod, 1987; Kern, 1982; Roosa, 1988; Schlesinger, 1987; Soloway & Smith, 1987; Walter, 1986). Several studies have been based on case histories (Kern, 1982; Lee, 1983; Schultz, 1979) or group discussions (Walter, 1986). As a result, most of these sample sizes have been small. For example, studies generally consisted of 10 to 46 couples (Baber & Dreyer, 1986; Frankel & Wise, 1982; Schlesinger, 1987; Soloway & Smith, 1987). Daniels and Weingarten (1982) interviewed 86 couples and Bram (1985) interviewed 135 men and women. Some sample sizes ranged from 3 to 80 women (Kern, 1982; Lee, 1983; Walter, 1986). Larger population samples were usually from secondary analysis studies (Heuvel, 1988; Hofferth, 1984) or from university samples (Baber & Monaghan, 1988; Knaub et al., 1983).

The lack of randomization of the samples limits the generalizability of previous studies on delayed childbearing. Kern (1982) argued that the non-random nature of the sampling techniques did not create a sampling bias but that the sample was reflective of the women who were electing to have children at or after age 35. However, Bloom (1984a) emphasized that richer data sets that provide fertility data for "all-women" (i.e. married; never-married; different education levels) were needed for proper empirical analysis.

Methods

Because delayed childbearing is a relatively new area of investigation, most studies have been descriptive. Researchers frequently used qualitative data from in-depth, unstructured, and semi-

structured interviews, and/or closed and open-ended questionnaires (Baber & Dreyer, 1986; Daniels & Weingarten, 1979, 1982; Frankel & Wise, 1982; Schlesinger, 1987; Soloway & Smith, 1987). Some previous studies on delayed childbearing have had sample problems and have failed to use comparison groups (Bram, 1985; Knaub et al., 1983; Schlesinger, 1987). However, in examining the studies that included comparison groups (early bearers or voluntarily childless), definitional problems created difficulties in comparing across studies (Baber & Dreyer, 1986; Baber & Monaghan, 1988; Daniels & Weingarten, 1979, 1982; Frankel & Wise, 1982; Issod, 1987; Roosa, 1988; Walter, 1986).

Summary

A precise definition of delayed childbearing needs to be developed and used consistently by researchers. Larger and more representative samples are needed and all studies need to include comparison groups. Also, more objective methods of examining the trend to delaying childbirth are needed. Because most of the literature has focused on who delays childbearing, little is known about why couples come to the decision to delay childbearing. This was one of the aims of the present study.

Theoretical Perspective

The predominant theoretical perspective used to explain fertility has been microeconomics, which assumes that childbearing is the result of decisions and that individuals/couples make these decisions after a rational cost/benefit assessment. Although some microeconomic theories

include symbolic costs and rewards, many of the concepts are economic with explanations in terms of utility, tastes, domestic capital, and material costs/rewards.

According to Easterlin's (1978) theory of fertility, cohort size determines employment opportunities through its effect on the supply of labour. Thus, delayed childbearing occurs where there is of a large cohort size (baby boomer) and the subsequent poor employment opportunities and low incomes. Easterlin theorized that these couples delay childbearing in order to consume more of other goods and services. Bloom (1984a) pointed out that this theory does not take into account changes in societal norms, the labour market, or contraceptive technology.

Another microeconomic theory proposed by Butz and Ward (1979) has suggested that delayed childbearing is the result of structural changes in the economy. It is these changes in the economy that provide greater incentives for women to work than ever before. In other words, women time their childbearing to coincide with periods during which incentives or wages are low. According to these theorists, delayed childbearing will continue because as female labour force participation increases and wages continue to grow, age at first birth will remain high and perhaps even increase further.

Bloom (1984a) examined these and other theories in relation to delayed childbearing and found them to be narrow in scope. Bloom outlined the following key features necessary for a theoretical framework to explain delayed childbearing. First, viewing age at first

birth strictly as the outcome of individual choice is limiting. Age at first birth should instead be treated as the outcome of a more general process in which individual choice can play one part but chance factors may play another part. This is an important aspect to consider because infertility and unplanned pregnancy are two possibilities that are also of issue. Second, the focus of the framework should not be rigidly economic, sociological, or biological in nature but instead eclectic. Finally, Bloom posited that the framework should be dynamic in terms, thereby "allowing both the factors underlying the process and the nature of their interaction to change over time and in response to life's experiences" (p.115).

Exchange theory was chosen because of the way it fulfilled Bloom's criteria. Although the major emphasis of exchange theory is on the choices of individuals, it allows for circumstances to be re-evaluated when chance events occur. For example, in the case of unplanned pregnancy, individuals have the choices of continuing the pregnancy and keeping the child, putting the child up for adoption, or having a therapeutic abortion. The use of exchange theory also allows for flexibility in the approach taken towards the decision-making of individuals. For instance, exchange theory does not take a purely biological approach, but allows for this stance to be taken into consideration in regards to costs of the biological clock. Furthermore, exchange theory can be considered dynamic in nature in that it allows for factors to change over time by use of the comparison levels of alternatives. For example, individuals or couples may at one point believe that having children is too costly, but if and when

circumstances change, they will re-evaluate this decision by comparing alternatives and may decide that the time is right to have a child or decide to wait longer.

Exchange Theory

Social exchange theory originated in the late 50's with the works of Thibaut and Kelley (1959), Homans (1961), and Blau (1964). At first, response to the general theory was minimal but application of the theory expanded through the 1970's. The basic concepts of rewards, costs, outcomes, and alternatives have stemmed from what has been called exchange theory and have been applied in predicting and analysing family behavior and structure. The general principle of exchange theory is that individuals avoid costly social behavior and seek rewarding statuses, relationships, interactions, and feeling states in order to maximize their social profits (Nye, 1979). Based on their own perceptions of rewards and costs, individuals or couples choose the most suitable outcome; exchange theory is therefore one of choice because exchanges involve choices. One makes an infinite number of choices so as to reduce costs and maximize rewards for most profits or least losses. In relation to fertility, individuals will choose to have children if it is more rewarding than costly, or they may choose not to have children if having children is too costly. In the case of unplanned pregnancy, a decision with different costs, rewards, and alternatives will have to be made.

Rewards. Rewards include all things that are physical, social, and psychological such as statuses, relationships, interactions, feelings,

and other experiences that provide pleasure, satisfaction, and gratification that would be chosen in the absence of added costs (Nye, 1979; Thibaut & Kelley, 1959). In examining data from a Canadian city, Ramu and Tavuchis (1986), identified the following five positive values pertaining to having children: a) affective (source of happiness and pleasure), b) religious (religious duty to procreate), c) security in old age (someone to depend upon), d) continuing of family name, and e) continuing of society (it is through them that Canada survives). Epenshade (1977) identified in value of having children as: a) morality (sacrifice for the good of someone else); b) stimulation, novelty, and fun; c) creativity, accomplishment, and competence; and d) social comparison and competition. Other rewards that occur for both men and women are personal gratification found in commitment to educational and occupational pursuits and marital goals.

Costs. Costs may include things such as statuses, relationships, interactions, milieus, or feelings that are disliked by an individual (punishment) and that may deter activity (Nye, 1979; Thibaut & Kelley, 1959). Another cost results from rewards foregone because a competing alternative was chosen (Nye, 1979). Two of the most frequently reported disadvantages of having children are loss of freedom and financial costs (Ramu & Tavuchis, 1986). Epenshade (1977) distinguished between two economic costs, direct maintenance (expenses) and opportunity costs. Bram (1985) found that men and women reported a) overpopulation, b) loss of freedom, and c) interference with women's career as costs of having children. Researchers have reported that childless couples choose to remain childless because of their convictions that children are costly

in terms of personal and marital interests (Bram, 1985; Ramu & Tavuchis, 1986; Veevers, 1979).

General sources of costs and rewards. Exchange theorists have identified a number of general sources of costs and rewards, many of which are culture free and may be used anywhere in the world. The first of these concepts is social approval that includes gratitude, love, respect, prestige, and admiration. Disapproval, then, is a cost. Friends and relatives typically feel free to comment critically and publicly about (and to) persons who fail to adhere to the childbearing norms (Ramu & Tavuchis, 1986). Soloway and Smith (1987) reported that delayed bearers received explicit and implicit family messages to postpone childbearing but not to preclude it altogether. Delayed bearers reported that peer influence had operated to keep them from having children early but had also encouraged them to have children after age 30 (Soloway & Smith, 1987).

Second is the experience of autonomy that occurs when one is able to choose to be in situations high on rewards and low on costs. Highly effective contraceptives have provided the opportunity for autonomy in childbearing decisions. Hence, infertility or an unplanned pregnancy would be costly. Other concepts include: a) ambiguity (the fear and worry of unknown and need of a certain amount of predictability), b) security (intrinsic value of foreseen eventualities), c) money (a general reinforcer), d) equality (equals are more likely to supply rewards than incur costs) and e) values, opinions, and agreement (rewarding if others subscribe to these; costly if rejected) (Nye, 1979).

Profit. In exchange theory, profit is the goal of behaviors and it is provided by the "better reward-cost outcome"; that is, the most profitable outcome is the one that provides the best relationship between rewards and costs. The best possible outcome is sought whether it be maximizing rewards or minimizing costs. The assumption is that couples or individuals will make their childbearing decision based on their perception of whether having children or not will provide the highest profit or least losses. However, because the outcomes of these fertility decisions cannot be accurately predicted, which may be the case with infertility or unplanned pregnancy, the decision may not be as favorable as anticipated.

Comparison Level of Alternatives. According to Thibaut and Kelley (1959), the comparison level is a standard by which persons evaluate the rewards and costs of a given relationship in terms of what they feel they deserve. Outcomes of others in similar situations affect one's comparison level. Level of alternatives is defined as "the comparison of the outcomes in a given relationship, position, or milieu to those of the alternatives to the relationship, position, or milieu" (Nye, 1979, 3). According to exchange theory, fertility is the result of rational decisions reflecting the comparison level of alternatives. Fertility can also be the result of the balance of perceived costs and rewards of childbearing in comparison to alternative activities. However, these decisions do not necessarily work out as anticipated (unplanned fertility) and alternatives need to be sought.

Exchange theory predicts that whenever better alternatives are perceived by individuals, they will leave their present situation for

the alternative that offers the better reward-cost ratio. For example, a childless individual may suddenly perceive many costs attributed to this status, such as being considered selfish and viewed as a "deviant" by friends, family, and society. However, these individuals must be relatively sure that the outcomes of the alternative (having a child) are better or profitable, in order for them to accept the costs about the uncertainty of the change in alternatives. In other words, individuals must perceive having a child as more rewarding than the unknown and potential costs involved in making such a decision.

In sum, exchange theory predicts the following in relation to the childless or delaying status: a) if outcomes at or above the comparison level are satisfactory (childless or delaying), no alternatives are sought (remain childless or delaying); b) if outcomes are below comparison level (costly to remain childless or delaying), alternatives will be sought (have child or seek support for childless status); and c) if an alternative is perceived as more profitable than the present situation (to have child or not to have child), the person will choose the alternative (have child or remain childless). Nye (1979) pointed out that in making such a generalization, "it is necessary to assume that the new relationship [or situation] is enough better to more than compensate for all costs involved in moving out of the old and into the new relationship [or situation]" (p.3).

Statement of Hypotheses

Childbearing and labour force participation are not mutually exclusive roles for women. According to exchange theory, mothers will take employment (or at least seek it) when they see it providing more rewards, lower costs, or both, than remaining as a full-time housewife and caregiver for children (Nye, 1979). For women comparing choices, increased opportunities in education and employment have provided alternative rewards to childbearing such as income, prestige, and power. With increased employment and educational opportunities and higher incomes, opportunity costs for delayers are higher than early bearers who are likely to have less education and employment opportunities and lower incomes. According to exchange theory, the opportunity costs make it costly for delayers to have children but the state of permanent childlessness makes it costly to not have children. The most profitable alternative would then be in to limit the number of children born. Therefore it is hypothesized that:

1. Differences will exist between delayed bearers and early bearers on fertility expectation and childrearing career: Delayed bearers will have lower fertility expectation and lower childrearing career than early bearers.

The fertility intentions of childless couples have been attributed to: a) labour force participation, b) higher levels of education, c) higher income, and d) lower religious strength (Pol, 1983). Voluntarily childless couples have also been identified as having more modern gender-role attitudes (Veevers, 1979). Lower religious strength has

been associated with a more modern gender-role orientation, which in turn has been associated with lower fertility expectations. High religious strength has been associated with a more traditional gender-role attitude and higher fertility expectations.

According to exchange theory, individuals with higher ideal childrearing careers (traditional gender-role attitude) and high religious strength will find it rewarding to have children because they would be following religious doctrines to have children. These couples would also be fulfilling gender-role behaviors in which children are highly valued and the women expect to stay home to rear the children (Beckman, 1978). For individuals with modern gender-role attitudes and low religious strength, fulfilling religious and familial duties would not be as rewarding as for traditional couples. Rewards from increased education and employment opportunities would be alternative rewards thereby reducing the time that women take out of the labour force to rear children. As a result, the opportunity costs increase and childbearing becomes less profitable. Therefore it is hypothesized that:

2. Delayed and early bearers with lower religious strength and shorter ideal childrearing careers are likely to have lower fertility expectations and shorter childrearing careers than delayed bearers with higher religious strength and longer ideal childrearing careers.

Empirically, women's labour force participation has been shown to be negatively associated with childbearing (White & Kim, 1987). This negative relationship may occur because working provides economically and psychologically rewarding alternatives to women. It may also be

that working increases the costs of having children by increasing the opportunity costs of women's time (Epenshade, 1977) or income in a high paying job. According to exchange theory, women would find a high income rewarding and time out of the labour force as costly. Hence, less time out of the labour force for childbearing would be most profitable. A shorter childrearing career is possible by having the financial means to provide child care. With a lower income child care may not be possible and these women may have not other alternative but to stay home. With lower income, opportunity costs may not be as high. In accordance with exchange theory, it will be more profitable to have children with a lower income because opportunity and financial costs for child care will be lower; therefore:

3. Dual-income delayed bearers and early bearers with higher income wives will have lower fertility expectations and shorter childrearing career than dual-income delayed bearers and early bearers with lower income wives.

Evidence accumulated thus far has indicated that delayed bearers are different from early bearers on the following characteristics: a) level of education, b) occupational status, c) income earned, d) career commitment, and e) relationship with partner (Roosa, 1988). As a result of the increased employment, educational, and financial opportunities, delayers have been considered similar to voluntarily childless couples (Baber & Dreyer, 1986; White & Kim, 1987). According to exchange theory, these interests outside the home offer rewards in competition with the rewards of childbearing; therefore:

4. Importance placed on decision factors will differ among early bearers, delayed bearers, and childless individuals; childless individuals will place lesser importance on the personal reward factor than delayed or early bearers.
5. Differences will exist between delayed bearers and early bearers on the importance of the factors they consider important in their fertility decision making; delayed bearers will place higher importance on each of the fertility decision-making factors than early bearers.

It has been well documented that women remain the primary caretakers. In accordance with exchange theory, because men and women perceive rewards, costs, and alternatives differently, the most profitable situations will vary between genders; therefore:

6. Male delayed and early bearers and female delayed and early bearers will differ on the importance of the fertility decision-making factors; females will place higher importance on each of the fertility decision-making factors than males.

As previously stated, individuals with long ideal childrearing careers have more traditional attitudes towards women staying at home with children and are more likely to value children than individuals who have a more modern attitude towards mothers participating in the labour force and who have low religious strength. According to exchange theory, rewards can be provided by caring for the young child and by providing them with stimulation and amusement. Children can be pleasurable for parents and can create the sense that something new and different is

happening (Epenshade, 1977). Norms provide disapproval for the mother who leaves young children in the care of others and there may be internalized guilt for not providing care for the child themselves (Nye, 1979). These two factors make it costly for a woman to return to the labour force while there are still young children at home. In accordance with exchange theory, individuals with modern gender-role attitudes and with low religious strength will not place as much emphasis on the rewards of taking care of children because they are likely to be receiving rewards from other outside interests. Therefore:

7. Delayed bearers and early bearers with longer ideal childrearing careers and greater religious strength will consider personal reward as more important than delayed bearers and early bearers with shorter ideal childrearing careers and lesser religious strength.

Dual-career, dual-mixed, and dual-earner couples with high incomes will have finances to provide child care thereby relieving time, stress, and energy issues of combining work and childrearing. They will also have more funds available for recreation/leisure and provision of a babysitter. Child care is not an issue with single-career or single-earner couples because one partner or spouse is home with the child(ren). Duties can be shared and time off provided by the working spouse if non-employed spouse needs it. According to the exchange theory, monetary rewards help alleviate some of the costs in childrearing but not all. If both spouses are employed then the demands of combining career and family can be stressful as well as time and energy consuming; therefore:

8. Delayed and early bearers who are part of a dual-career, dual-mixed, or dual-earner couples with lower incomes will consider the following factors as more important in fertility decision making than delayed and early bearers part of dual-career, dual-mixed, or dual-earner couples with higher incomes; delayed and early bearers as part of a single-career or single-earner couples:

- a) time/stress/energy,
- b) child care, and
- c) finances.

Strengths and Limitations of the Present Study

The Winnipeg Area Study of 1988 is the primary study on which the present research was based. The data on demographics, fertility expectations, childrearing careers, and factors on fertility decision-making were therefore recent. Compared to most other studies of delayed childbearing, the present study was based on a larger sample and, unlike most, one that was randomly selected. Few studies have examined delaying men; therefore, it was a strength of this study that both men and women were examined. This study was different from the other studies reviewed because it used a Canadian sample, whereas all but one of the studies reviewed on delayed childbearing was American. Furthermore, the sample included childless individuals and early bearers as comparison groups. Another strength of the present study was that the data were collected in the form of structured interviews in order to ensure comparability of responses across groups.

The present study was limited by constraints common in secondary analysis. Gender-role attitude is also an important variable in the examination of fertility. A gender-role attitudinal scale was not included in the questionnaire for the Winnipeg Area Study; however, the Ideal Childrearing Career variable is a gender-role attitude item developed by Booth and Duvall (1981). Thus this study was limited to using this one item as a gender-role attitude measure.

CHAPTER III

Methods

Subjects

The data used were from the Winnipeg Area Study (WAS) collected by the Sociology Department in 1988 at the University of Manitoba. The population universe was designated as all dwelling units that were listed in the 1987 tax assessment file for the city of Winnipeg, Manitoba, Canada. This list was up to date within one percent of the existing dwellings in the city. The target population for the WAS was comprised of respondents at least 18 years of age and who resided at the predesignated address. There were 245 males and 283 females (N=528) who responded to the WAS. A systematic random sample of 753 addresses, excluding nursing homes and temporary residences, was selected from a computerized tax assessment list. A second sample of 100 addresses was also randomly selected for later use as a source for replacements. The primary sampling unit was the household and the selection criteria used to choose the respondents were a) gender (randomly predesignated for each household), b) age (18 years or older), and c) residency (Currie, 1988).

Data Collection

All potential respondents were mailed a letter explaining the survey and asking their cooperation in advance of the first interview contact. Mailings were staggered so that attempts at contact could be made within one week. All interviews were conducted in person, either at the respondent's residence or at a more convenient location. Addresses were replaced in 87 cases; 21 were not replaced due to time constraints. The final sample was 732 (753 minus the 21 not replaced). Interviews were completed in 528 residences for a completion rate of 72% of eligible households or 70% of the original sample. A comparison with the 1986 census verified the representative nature of the sample.

Measures

It should be pointed out that of the following measures: age at first birth and age at last birth, ideal childrearing career, fertility expectation, childrearing career, and the factors were submitted by Nancy Kingsbury to specifically examine fertility issues. The remainder of the variables were the standard demographic information collected by the Winnipeg Area Study.

Dependent Variables

Fertility Expectation. In the first item respondents were asked the number of children they had as a natural parent, counting current pregnancies. In the second item, respondents were asked how many (more) children they expected to have as a natural parent (see Appendix A,

items #1 and #2). The total of these two responses determined the respondents' fertility expectation. Respondents who scored zero on the fertility expectation questions were categorized as childless.

Childrearing Career. Respondents were asked to indicate how long in total they had taken or expected to take out of the labour force in order to rear children. The same question was asked in relation to their spouse/partner (see Appendix A, items #3 and #4). Only females were used because too few men took or expected to take time out of the labour force to rear children. As a result, this variable consisted of a) female respondents' time out or expected time out of the labour force and b) male responses for the female partner's time out or expected time out of the labour force. The categories were coded: a) none (code=0), b) one to six weeks (code=1), c) seven weeks to less than a year (code=2), d) one to two years (code=3), e) three to five years (code=4), f) six to nine years (code=5), g) more than nine years (code=6), and never in the labour force (code=7). A high score indicated less time spent in the labour force and more time spent at home with the children. A low score indicated that less time was spent raising children and more time spent in the labour force.

Fertility Decision-Making Factors. Respondents were asked how important the following factors were for themselves on the decisions to have or not have children: a) effect on career, b) financial costs, c) time, energy, stress, and potential loss of freedom, d) relationship with partner, e) personal rewards, f) child care, g) partner's desires, and h) other (see Appendix A, item #5). The values were coded on a 7 point scale from not important at all (code=1) to very important

(code=7). A score of 6 or 7 was considered of high importance, a score of 3 to 5 was of moderate importance, and a score of 1 or 2 was considered not important.

Independent Variables

Childbearing Status. Respondents were asked to specify at what age they had or expected to have their first child (see Appendix B, item #1). Thirty years of age at first birth was chosen to distinguish between delayed bearers and early bearers. Those respondents who answered 30 years of age or older were termed delayed bearers (code=0). Those respondents who answered 29 years of age or younger were termed early bearers (code=1). Childless couples (code=2) were the responses who scored zero on the fertility expectation variable. Childbearing status was used as a dependent variable in Hypothesis IV.

Age and Gender. The demographic variables of age and gender were obtained from respondents at the beginning of the interviews. Age was coded in the number of years old the respondents were. In terms of gender, males were coded one and females were coded two.

Age at Last Birth. Respondents were asked to specify at what age they had or expected to have their last child (see Appendix B, item #2).

Marital Status. Respondents were asked about their current living arrangements and were categorized: a) married and living with spouse (code=1), b) in a common-law relationship or live-in partner (code=2), c) single and never married (code=3), d) divorced (code=4), e) separated (code=5), and f) widowed (code=6) (see Appendix B, item #3).

Education. Respondents were asked to indicate the highest level of education they had completed (see Appendix B, item #4). These responses were recoded into five categories. Those with no schooling to completed junior high were coded a one. Completed high school was coded a two. Non-university education (completed or not) and incomplete university education was coded a three, a bachelor's degree a four, and completion of a graduate program (medical degree, master's, or doctorate) was coded a five.

Employment Status. Respondents were asked what their work situation and that of their spouse/partner, was at the present time (see Appendix B, item #5). The employment status categories were: a) employed full time (code=2), b) employed part time (code=1), and c) not employed (code=0).

Ideal Childrearing Career. To measure gender-role attitude respondents were asked the following question: "Ideally, at what age of an only or last child should a mother feel that it is no longer necessary to stay home full-time?" (see Appendix B, item #6). The following categories were coded: a) four to six weeks (code=1), b) one year (code=2), c) two years (code=3), d) starting kindergarten (code=4), e) starting grade one (code=5), f) starting grade 3 (code=6), g) starting junior high (code=7), h) starting high school (code=8), i) finishing high school (code=9). A lower score indicated a more modern gender-role attitude whereas a higher score indicated a more traditional gender-role attitude.

Religious Strength. Respondents were asked whether they called themselves strong (code=2), somewhat strong (code=1), or not strong (code=0) on their stated religious denomination (see Appendix B, item #7). Respondents who answered that they were somewhat strong or not strong were considered to have lesser religious strength than the respondents who answered strongly religious in their denomination.

Family Income. The median family income (total gross annual income of all household members) was used to distinguish between higher and lower family income categories (see Appendix B, item #8). Income categories were coded as follows: a) no income or no response (code=0), b) under \$6,000 (code=1), c) \$6,000-7,999 (code=2), d) \$8,000-9,999 (code=3), e) \$10,000-11,999 (code=4), f) \$12,000-13,999 (code=5), g) \$14,000-15,999 (code=6), h) \$16,000-17,999 (code=7), i) \$18,000-19,999 (code=8), j) \$20,000-21,999 (code=9), k) \$22,000-23,999 (code=10), l) \$24,000-25,999 (code=11), m) \$26,000-27,999 (code=12), n) \$28,000-29,999 (code=13), o) \$30,000-31,999 (code=14), p) \$32,000-33,999 (code=15), q) \$34,000-35,999 (code=16), r) \$36,000-37,999 (code=17), s) \$38,000-39,999 (code=18), t) \$40,000-44,999 (code=19), u) \$45,000-49,999 (code=20), v) \$50,000-54,999 (code=21), w) \$55,000-59,999 (code=22), x) \$60,000-64,999 (code=23), y) \$65,000-69,999 (code=24), z) \$70,000-74,999 (code=25), aa) \$75,000-79,999 (code=26), bb) \$80,000 and over (code=27).

Couple Career Status. To establish career couple status respondents were asked what type of work they and their spouse/partner did (see Appendix B, item #9). Socioeconomic status was coded by Statistics Canada Standard Occupational Classification, 1980, and recoded according to the Pineo-Porter-McRoberts classification scheme (Pineo, 1985) which

includes income and educational levels of the individual and their spouses. Scores on this scheme can range from 0-16, with higher scores indicating more professional statuses. The categories were dual-career (code=5), dual-mixed (code=4), dual-earner (code=3), single-career (code=2), and single-earner (code=1).

Data Analysis

Because age and sex were different across groups, it was necessary to include them as covariates when testing for differences in other variables. Testing for multicollinearity between religious strength and ideal childrearing career indicated no significant relationship between the two variables. Therefore it was not necessary to control for this effect in any of the analyses. Normality testing was conducted to determine the appropriate statistical procedures. Because the sample consisted of more early bearers than delayed bearers and childless individuals, the data was unbalanced resulting in the use of non-parametric procedures. As a result, the General Linear Model (GLM) was used to perform the one-way analysis of variance tests.

To examine the differences that exist for delayed bearers and early bearers on fertility expectations and childrearing career in Hypothesis I, a Kruskal-Wallis one-way analysis of variance test was used. In Hypothesis II, to investigate religious strength and ideal childrearing career on the fertility expectations and childrearing career of delayed bearers, a one-way analysis of variance was used. A one-way analysis of variance was used for Hypothesis III to examine the income of delayed bearer women and their fertility expectation and childrearing career.

In Hypothesis IV, a discriminant analysis procedure was used to investigate the discriminating powers of the fertility decision-making factors among the three groups. A Kruskal-Wallis test was used to examine the differences between delayed bearers and early bearers on the factors they perceive as important in fertility decision making in Hypothesis V. To test for sex differences in Hypothesis VI, a one-way analysis of variance measure was used. Kendall's Tau correlation procedure was used in Hypothesis VII to examine the importance of the personal reward factor. A one-way analysis of variance was used to investigate couple career status and family incomes on the importance of the fertility decision-making factors in Hypothesis VIII.

CHAPTER IV

Results

Description of the Sample

Demographic Characteristics

The number of respondents was 528, 46.4% (n=245) males and 53.6% (n=283) females (see Table 1). The age range was 18 years to 97 years ($M = 42.5$ years, $SD = 17$ years). The majority of the respondents were married and currently living with their spouse. In terms of the highest level of education achieved, more than half the sample (54%, n=283) had some non-university education or had started but not completed their university education. The majority of the respondents were employed full time (53.8%, n=208), whereas 14% (n=54) were employed part time and 32.3% (n=125) were not employed. The median family income was \$32,000-\$33,999.

Of the 315 respondents classified in terms of couple career status, 86.3% (n=283) of them were involved in dual-income couples. Twenty percent (n=61) were dual-career, 34.6% (n=108) were part of a dual-mixed couple, 31.7% (n=99) were dual-earners, 16.1% (n=19) were involved in a single-career couple, and 8% (n=25) were single-earner couples. Of the 447 respondents who responded, 42% (n=191) classified themselves as strongly religious, 13.9% (n=62) somewhat strongly religious, and 43.4% (n=194) as not religious at all.

In terms of childbearing status, the majority of the sample were early bearers (63.4%, n=335), 21.2% (n=112) were delayed bearers, and 15.3% (n=81) were childless individuals (see Table 2). The average age at first birth for the entire sample was 26.3 (SD=5.4) years. The average age at first birth for delayers was 9.1 years older (\bar{M} =32.9, SD=3.3) than for early bearers (\bar{M} =23.8, SD=1.4). The average age at last birth was six years later for delayers (\bar{M} =36 years) than for early bearers (\bar{M} =30 years). The average age at first birth for males was 27.5 (SD=5.3) years and for females was 25.4 (SD=5.3) years.

Chi square tests were used to compare childbearing groups on marital status and education variables. Results indicated that delayed bearers, early bearers, and childless individuals differed significantly in terms of marital status. Most delayers and early bearers were married whereas childless individuals were more often single and had never been married. Results indicated that education level differed among the three groups with more delayed bearers having achieved higher levels of education. Delayers, early bearers, and childless individuals were similar on the variables of employment, family income, couple career status, religious strength, and ideal childrearing career.

Table 1

Demographic Characteristics by Gender

	Male		Female		Total	
	n	%	n	%	n	%
MARITAL STATUS						
Married	137	56.3	151	53.4	288	54.8
Common-law	17	7.0	9	3.2	26	4.9
Single	61	25.1	62	21.9	123	23.4
Divorced	7	2.9	19	6.7	26	4.9
Separated	17	7.0	14	4.9	31	6.0
Widowed	4	1.7	28	9.9	32	6.0
EDUCATION						
Junior high	12	4.9	24	8.5	36	6.9
Highschool	53	21.9	41	14.6	94	17.9
Non-University	120	49.6	163	57.8	283	54.0
Bachelor's	12	5.0	13	4.6	25	4.8
Graduate Program	45	18.6	41	14.5	86	16.4
EMPLOYMENT						
Full time	112	59.9	96	48.0	208	53.8
Part time	21	11.2	33	16.5	54	13.9
Not employed	54	28.9	71	35.5	125	32.3
INCOME						
High (>\$34,000)	147	60.0	152	53.7	299	56.6
Low (<\$33,999)	98	40.0	131	46.3	229	43.4
COUPLE CAREER STATUS						
Dual-career	29	18.8	32	20.2	61	19.6
Dual-mixed	55	35.7	53	33.5	108	34.6
Dual-earner	49	31.8	50	31.7	99	31.7
Single-career	8	5.2	11	7.0	19	6.1
Single-earner	13	8.5	12	7.6	25	8.0
RELIGIOUS STRENGTH						
Strong	87	44.0	108	41.7	191	42.7
Somewhat Strong	28	14.1	34	13.7	62	13.9
Not Strong	83	41.9	111	44.6	194	43.4

Table 2

Demographic Characteristics by Childbearing Status

	Delayed Bearer		Early Bearer		Childless	
	n	%	n	%	n	%
MARITAL STATUS						
Married	64	57.1	200	60.1	24	29.6
Common-law	5	4.5	16	4.8	5	6.2
Single	35	31.2	50	15.0	38	46.9
Divorced	1	0.9	20	6.0	5	6.2
Separated	5	4.5	24	7.2	2	2.5
Widowed	2	1.8	23	6.9	7	8.6
EDUCATION						
Junior High	3	2.7	23	6.9	10	12.3
Highschool	14	12.6	64	19.3	16	19.8
Non-University	58	52.3	188	56.6	37	45.7
Bachelor's	5	4.5	17	5.1	3	3.7
Graduate Program	31	27.9	40	12.1	15	18.5
EMPLOYMENT						
Full time	59	62.7	117	47.9	32	65.3
Part time	9	9.6	40	16.4	5	10.2
Not employed	26	27.7	87	35.7	12	24.5
INCOME						
High (>\$34,000)	56	50.0	202	60.3	41	50.6
Low (<\$33,999)	56	50.0	133	39.7	40	49.4
COUPLE CAREER STATUS						
Dual-career	11	15.9	44	20.6	6	20.7
Dual-mixed	25	36.2	71	33.2	12	41.4
Dual-earner	26	37.7	66	30.8	7	24.1
Single-career	1	1.5	16	7.5	2	6.9
Single-earner	6	8.7	17	7.9	2	6.9
RELIGIOUS STRENGTH						
Strong	31	32.0	133	46.8	27	40.9
Somewhat strong	20	20.6	34	12.0	8	12.1
Not strong	46	47.4	117	41.2	31	47.0
Mean (SD)	1.85	(0.88)	2.05	(0.94)	1.94	(0.94)
IDEAL CHILDREARING CAREER						
Mean (SD)	4.11	(2.02)	4.36	(2.11)	4.42	(2.01)
(Range= 1-7)						

Fertility Expectations by Childbearing Status

The modal number of children subjects had or expected to have was two. Most delayed and early bearers reported having or wanting to have two children. Twenty percent (n=22) of delayed bearers had or expected to have only one child, whereas 10.5% (n=35) of early bearers had or expected to have one child. Early bearers reported having or wanting to have from one to eight children whereas delayers reported having or wanting to have from one to six children. Thirty-seven percent (n=124) of the early bearers had or wanted to have three and four children, whereas 23% (n=26) of delayed bearers reported having or wanting to have three and four children (see Table 3).

Table 3

Means and Standard Deviations for Fertility Expectations
by Childbearing Status and Gender

Fertility Expectations	M	SD	Range	
Early bearer	2.81	1.37	1-8	
Delayed bearer	2.19	0.94	1-6	
Number of Children	Delayed Bearer		Early Bearer	
	n	%	n	%
One	22	19.6	35	10.5
Two	61	54.5	138	41.6
Three	19	16.9	77	23.2
Four	7	6.3	47	14.2
Five	2	1.8	16	4.8
Six	1	0.9	12	3.6
Seven	-	---	4	1.2
Eight	-	---	3	0.9

Childrearing Career by Childbearing Status

Approximately 40% (n=145) of both females delayed bearers and females early bearers reported having taken or expecting to take less than two years out of the labour force to have children. Eighteen percent (n=65) of female delayed and early bearers have taken or expect to take 3 to 5 years out of the labour force to rear children. One third of the women (n=111) have taken or expect to take more than nine years out of the labour force in order to rear children (see Table 4).

Table 4

Means and Frequencies for Childrearing Career by Childbearing Status

Time out of Labour Force	Delayed Bearer		Early Bearer	
	n	%	n	%
0. None	8	9.88	37	13.31
1. 1-6 weeks	1	1.23	5	1.80
2. >6 weeks and < 1 year	13	16.05	35	12.59
3. 1-2 years	12	14.81	34	12.23
4. 3-5 years	14	17.28	51	18.35
5. 6-9 years	13	16.05	25	8.99
6. > 9 years	17	20.99	74	26.62
7. Never Labour Force	3	3.70	17	6.12
Mean	3.79		3.85	
SD	1.95		2.15	

Importance of Factors by Childbearing Status

The means for the personal reward factor was the highest for early bearers, followed by delayed bearers, and then childless individuals. On the other hand, the mean for the time/stress/energy factor was highest for childless individuals, followed by delayed bearers and then early bearers. For early bearers, delayers, and childless individuals, the personal reward factor had the highest mean importance score whereas the effect on career factor had the lowest mean importance score of all three groups (see Table 5).

Table 5

Means and Standard Deviations for the Entire Sample of the Fertility Decision-Making Factors

Factors (Range= 1-7)*	Delayed Bearer		Early Bearer		Childless	
	M	SD	M	SD	M	SD
Effect on career	3.09	2.23	2.94	2.14	2.84	2.03
Financial costs	4.34	2.19	3.93	2.16	3.90	2.45
Time/stress/energy	3.41	1.98	3.09	2.03	3.88	2.14
Relation w partner	4.11	2.07	3.59	2.30	3.53	2.10
Personal reward	6.27	1.26	6.54	0.97	5.51	1.90
Child care	5.15	2.17	4.90	2.43	4.57	2.43
Partner's desire	5.95	1.61	5.89	1.75	5.91	1.67

* A score of 1 was considered not at all important and a score of 7 was considered very important.

Correlations Among Variables

A correlation matrix of all variables is presented in Table 6. The significant correlations will be highlighted below. To counteract the risks of Type I error, the Bonferroni approach was used. The significance level for the correlations was set at <0.0001 . Although the correlations are significant, it should be noted that the relationships are weak.

Fertility was found to have a positive correlation with childrearing career ($r = .29$); the higher the number of children individuals had or expected to have, the longer women expected or had taken out of the labour force to take care of the children. Fertility was found to have a significantly positive correlation with the personal reward factor ($r = .18$).

There was a positive correlation between childrearing career and ideal childrearing career ($r = .24$). This relationship indicated that the time an individual (respondent or spouse) believed women should take out of the labour force to rear children was related to the time women expected or had taken out of the labour force. There was a significantly negative correlation between ideal childrearing career and the effect on career factor ($r = -.17$). This result illustrated that respondents with the more modern attitude of the mother taking little time out of the labour force to rear children considered the impact of having children on one's career to be more important than individuals with more traditional views.

Age had a positive correlation with ideal childrearing career ($r = .21$). Older individuals were more traditional in their attitude toward how much time a mother should take time out of the labour force to raise children. A significant negative relationship was found between age and the effect on career factor ($r = -.18$). This indicated that younger individuals reported the effect of having children on their careers to be more important than older individuals. Age was also significantly related to relationship with partner ($r = .15$). Older individuals were more likely than younger people to consider their relationships with their partners as an important factor in the decision to have or not to have children. Age was negatively correlated with child care ($r = -.16$), indicating that older individuals did not consider child care options as important a consideration in having children as younger individuals. Age and education were negatively related ($r = -.21$). There was a significant negative correlation between religion and employment ($r = -.23$).

Table 6

Kendall's Tau Correlation Coefficients

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. AGE																
2. MARITAL STATUS	-0.05701															
3. EDUCATION	-0.21404*	-0.09545														
4. EMPLOYMENT	-0.14409	0.00099	0.03417													
5. FAMILY INCOME	-0.05203	-0.31849*	0.28972*	0.04319												
6. COUPLE CAREER STATUS	-0.07560	-0.06615	0.30906*	-0.00594	0.27263											
7. RELIGIOUS STRENGTH	0.05971	-0.02220	0.02655	-0.23183*	-0.02640	0.02613										
8. IDEAL CHILDREARING CAREER	0.21002*	-0.04906	-0.12358	-0.12034	-0.02578	-0.04549	0.06871									
9. FERTILITY EXPECTATIONS	0.01091	-0.14890*	-0.04512	-0.08168	0.02406	0.00102	0.14087	0.05616								
10. CHILDREARING CAREER	0.04560	-0.09608	-0.04389	-0.06548	0.05261	-0.05456	0.08789	0.23919*	0.29348*							
11. EFFECT ON CAREER	-0.17905*	0.02382	-0.06264	0.09025	0.04035	-0.03263	-0.03944	-0.17199*	-0.01659	-0.12624						
12. FINANCIAL COSTS	-0.11364	0.04459	-0.07421	0.10261	-0.05890	-0.06197	-0.04695	-0.08401	-0.00871	0.00448	0.38627*					
13. TIME, STRESS, ENERGY	-0.11916	0.00558	0.06833	0.10628	0.04231	0.00570	-0.06408	-0.10017	-0.04878	-0.10678	0.39979*	0.37194				
14. RELATIONS W PARTNER	-0.14976*	0.00102	-0.00480	0.06508	0.00650	0.01453	-0.07535	-0.05700	0.00696	0.02623	0.30432*	0.28234*	0.42311*			
15. PERSONAL REWARD	0.06464	0.01028	-0.12317	-0.15168	-0.03499	-0.03169	0.02765	0.08530	0.17752*	0.12704	-0.01181	0.02338	-0.11742	0.02626		
16. CHILD CARE	-0.16139*	0.04094	-0.03002	0.04711	-0.04564	-0.02161	-0.13230	-0.07546	-0.02241	-0.02892	0.23027*	0.20245*	0.17866*	0.27827*	0.20410*	
17. PARTNER DESIRE	-0.04894	-0.03337	0.03736	-0.14537	0.03442	0.07528	0.03022	0.07527	-0.03339	0.06037	-0.03221	0.11415	0.03232	0.15726	0.16117*	0.21571*

*Acceptable at the <.0001 level using the Bonferroni approach.

Hypothesis Testing

Fertility Expectation and Childrearing Career

Hypothesis I. Differences were expected to exist between delayed bearers and early bearers on fertility expectation and childrearing career, with delayed bearers having lower fertility expectations and shorter childrearing careers than early bearers.

A Kruskal-Wallis one-way analysis of variance (see Table 7) indicated that there was a relationship between the childbearing group and an individual's fertility expectation (Kruskal-Wallis= 20.25, $p < .05$). There was no significant relationship between the group to which one belonged and one's childrearing career. The results indicated that delayers and early bearers were not the same in terms of fertility expectations and that delayers had or expected to have less children ($M = 2.19$) than early bearers ($M = 2.81$). The lack of difference found between childbearing group and one's childrearing career indicated that individuals from both childbearing statuses do not differ in terms of time taken out of the labour force to rear children. These results indicated that delayers were different in terms of having lower fertility expectations than early bearers but were not different in the length of time taken out of the labour force for childrearing purposes. Hypothesis I was partially supported.

Hypothesis II. Delayed bearers and early bearers with a lower religious strength and a shorter ideal childrearing career were expected

Table 7

Kruskal-Wallis Test on the Fertility Expectations and
Childrearing Career of Early and Delayed Bearers

	n	Mean Rank	K-W	p
FERTILITY EXPECTATION				
Early Bearer	332	2.81	20.25	0.001
Delayed Bearer	112	2.19		
CHILDREARING CAREER				
Early Bearer	278	3.85	0.21	0.644
Delayed Bearer	81	3.79		

to have lower fertility expectations and a shorter actual childrearing career than those with higher religious strength and longer ideal childrearing career.

A one-way analysis of variance was performed on fertility expectations and on childrearing career of delayed and early bearers by religious strength and ideal childrearing career (see Table 8). Results indicated that there was a relationship between religious strength and fertility expectation ($F = 3.37$, $p < .05$). Individuals with higher religious strength had significantly higher fertility expectations ($M = 2.95$) than individuals with lower religious strength ($M = 2.41$). In other words, both delayed and early bearers reporting high religious strength were likely to have or expect to have a greater number of children, whereas delayed or early bearers who were not strongly religious were likely to have or expect to have fewer children. No

difference was found between religious strength and childrearing career. Both strongly religious and not at all religious individuals were the same in terms of time taken (or intended) out of the labour force to rear children.

Table 8

Analysis of Variance of Religious Strength and Ideal Childrearing Career on Fertility Expectation and on Childrearing Career of Delayed and Early Bearers

	F	p
FERTILITY EXPECTATION		
Religious Strength	3.37	0.036*
Ideal Childrearing Career	3.15	0.002*
CHILDREARING CAREER		
Religious Strength	0.82	0.443
Ideal Childrearing Career	3.18	0.002*

*p<.05

Results indicated a relationship between ideal childrearing career and fertility expectation ($F = 3.15$, $p < .05$). Individuals with a more modern gender-role attitudes were found to have lower fertility expectations than more traditional individuals. There was also a difference in the groups on the relationship between ideal childrearing

career and childrearing career ($F = 3.18$, $p < .05$). Results indicated that traditional individuals had or expected to have longer childrearing careers than modern individuals. In other words, delayers and early bearers who believed mothers should stay at home with their children (traditional) were more likely to expect to take or have taken more time out of the labour force to rear children than delayers and early bearers with more modern attitudes.

These results indicated that individuals with lower religious strength had a lower fertility expectation than more highly religious individuals. Religious strength however had no bearing on the time that either delayers or early bearers took or expected to take out of the labour force to rear children. Individuals with more traditional ideal childrearing career attitudes had or expected to have more children than individuals with lower ideal childrearing career (modern). The relationship between gender-role attitude and childrearing career indicated that traditional delayers and early bearers have taken or plan to take more time out of the labour force for childrearing purposes than modern delayers and early bearers. Hypothesis II was partially supported.

Hypothesis III. Dual-income delayed bearers and early bearers with higher income wives were expected to have lower fertility expectations and shorter childrearing careers than dual-income delayed bearers and early bearers with lower income wives.

A one way analysis of variance performed on fertility expectation and on childrearing career of delayed and early bearers by couple career

status indicated no relationship between couple career status and fertility expectation or childrearing career (see Table 9). In other words, whether delayed and early bearers were involved in dual-income couples or single-income couples, they did not differ on the number of children they had or expected to have, nor did they differ on the time taken out of the labour force by the female partner for childbearing/rearing reasons. Caution is advised in the interpretation of these results in that only half of the sample could be classified into the couple career status variable. The way in which the data were collected and the variables coded made it impossible to determine women's personal income thereby prohibiting analysis on the effect of women's personal income on fertility and childrearing career.

Table 9

Analysis of Variance of Effect of Couple Career Status on
Fertility Expectations and Childrearing Career of Delayed and
Early Bearers

	M	F	p
FERTILITY EXPECTATIONS			
Couple Career Status	2.71	1.68	0.154
CHILDBEARING CAREER			
Couple Career Status	3.82	1.01	0.403

Support for Hypothesis III was not found. These results indicated that in terms of couple career status, delayers and early bearers did not differ in their fertility expectations and their childrearing careers.

Fertility Decision-Making Factors

Hypotheses IV. Importance placed on the fertility decision-making factors were expected to differ among early bearers, delayed bearers, and childless individuals; childless individuals were expected to place less importance on the personal reward factor than delayed or early bearers.

The fertility decision-making factors were entered into a discriminant analysis to determine whether distinctions could be made among individuals who had or expected to a) have children during the normative childbearing years, b) delay childbearing, or c) have no children when the fertility decision-making factors were entered into the model together. Discriminant analysis involves the formation of a linear combination of variables that are weighted to achieve the maximum distinction among groups on a categorical dependent measure, which in this case consisted of the three childbearing statuses. The results of the discriminant analysis (see Table 10) indicated that the model correctly identified 98% of the early bearers, 19.23% of the childless individuals and none of the delayers. Ninety-three percent of the delayers were classified as early bearers and 6% delayers were classified as childless.

All of the fertility decision-making factors were entered into the a step-wise discriminant analysis. Results indicated that the the percentage of group cases that could correctly be classified overall by the factors investigated was 10%. Personal reward, time/stress/ energy, and relationship with partner were the classifying factors that met the $<.05$ level of entry criteria and were entered into the stepwise selection. The factor with the largest number of correctly classified observations and percentage was personal reward, which accounted for 8% of the variance. The two factors, relationship with partner and time/stress/energy, accounted for about 1% each.

Results of the discriminant analysis indicated that the factors can not discriminate among the childbearing statuses. In other words, based on the importance of the factors alone, early and delayed bearers and childless individuals could not be classified with a high accuracy rate. One of the reasons why the discriminant analysis did not distinguish among the three groups with a high accuracy rate was the high number of early bearers in the model. As a result, the model was predisposed to choosing early bearers. The results of these analyses indicated that the personal reward factor was the best discriminator among the groups. However this discriminating power was too weak to be considered an appropriate discriminator among early bearer, delayed bearers, and childless. Hypothesis IV was partially supported.

Table 10

Results of Discriminant Analysis: Number of Observations and
Percents Classified into Childbearing Status

Group	Delayed Bearer	Early Bearer	Childless
Childless			
n	0	42	10
%	0.00	80.77	19.23
Delayed Bearer			
n	0	97	8
%	0.00	92.38	7.62
Early Bearer			
n	0	300	6
%	0.00	98.04	1.96
Total	0	439	24
Percent	0.00	94.82	5.18

Step-wise Discriminant Analysis

Factors Entered	Partial R	F	p
1. Personal Reward	0.076	18.83	0.001*
2. Time/Stress/Energy	0.014	3.19	0.042*
3. Relation w Partner	0.015	3.36	0.036*

*p<.05

Hypothesis V. Differences were expected to exist between delayed bearers and early bearers on the factors they consider important in their fertility decision-making. Delayed bearers were expected to place a higher importance on each of the factors than early bearers.

Kruskal-Wallis one-way analysis of variance performed on each of the factors by the two childbearing groups indicated that there were no differences between the two groups (see Table 11). Effect on career, financial costs, time/stress/energy, personal reward, child care, relationship with partner, and partner desire were not related to

childbearing status. The mean ranks presented in Table 11 indicate that respondents in both groups believed effect on career and time/stress/energy were of low importance; financial costs, child care, and relationship with partner were of moderate importance; and personal reward and partner desire were of high importance in the decision to have or not to have children. Hypothesis V was not supported.

Hypothesis VI. Male delayed and early bearers and female delayed and early bearers were expected to differ on the importance of the fertility decision-making factors. Females were expected to place higher importance on each of the fertility decision-making factors than males.

A one-way analysis of variance performed on each of the factors by gender indicated that there was no relationship between gender and any of the fertility decision-making factors (see Table 12). These results did not support Hypothesis VI.

Hypothesis VII. Delayed and early bearers with a longer ideal childrearing career and greater religious strength were expected to consider personal reward as more important than delayed and early bearers with shorter ideal childrearing career and lesser religious strength.

A Kendall's Tau was used to examine the relationship between the personal reward factor and both religious strength and ideal

Table 11

Kruskal-Wallis Test on the Importance of the Factors
between Early Bearers and Delayed Bearers

Factors	N	Mean Rank	K-W	p*
Effect on Career				
Early bearer	325	2.94	0.52	0.472
Delayed bearer	111	3.09		
Financial Costs				
Early bearer	322	3.93	3.33	0.068
Delayed bearer	111	4.34		
Time/Stress/Energy				
Early bearer	325	3.09	3.01	0.083
Delayed bearer	111	3.41		
Relation w Partner				
Early bearer	323	3.59	4.75	0.029
Delayed bearer	110	4.11		
Personal Reward				
Early bearer	327	6.54	5.94	0.015
Delayed bearer	110	6.27		
Child Care				
Early bearer	320	4.90	0.16	0.688
Delayed bearer	109	5.15		
Partner Desire				
Early bearer	316	5.89	0.16	0.692
Delayed bearer	109	5.95		

Note.

Bonferroni approach used to determine significance level.

*p<.007

childrearing career. No significant relationship was found between personal reward and ideal childrearing career (see Table 6). Attitude toward mother staying home with children was not related to the importance individuals placed on having children. No significant relationship was found between personal reward and religious strength.

Table 12

Male and Female Differences on the Importance of the Fertility
Decision-Making Factors of Delayed and Early Bearers

Factors	M	F	p*
Effect on Career			
Male	3.24	4.39	0.037
Female	2.78		
Financial Costs			
Male	4.13	0.32	0.573
Female	3.95		
Time/Stress/Energy			
Male	3.41	4.31	0.039
Female	2.96		
Relation w Partner			
Male	4.03	4.12	0.043
Female	3.51		
Personal Reward			
Male	6.51	0.33	0.568
Female	6.49		
Child Care			
Male	5.01	0.14	0.707
Female	4.89		
Partner's Desire			
Male	6.01	1.11	0.293
Female	5.82		

Note.

Bonferroni approach used to determine significance level.

*p<.002

Whether delayed or early bearers had high or low religious strength did not relate to the importance of the personal reward factor in fertility decision making. Hypothesis VII was not supported.

Hypothesis VIII. Delayed and early bearers who were part of dual-career, dual-mixed, or dual-earner couple with lower incomes were expected to consider the following fertility decision-making factors as more important than delayed and early bearers part of dual-career, dual-mixed, or dual-earner couples with higher incomes, and delayed and early bearers part of a single-career or single-earner couples: a) time/stress/energy, b) child care, and c) finances.

Subsets of high and low income delayed bearers and early bearers were used to perform a one-way analysis of variance on each of the fertility decision-making factors by couple career status (see Table 13). The subset of high income delayers and early bearers consisted of the respondents whose family income was above the median, and low income delayers and early bearers had income that was equal to or less than the median. No relationship was found for the importance of these factors and the couple career status in either subset. For both income subsets, delayed and early bearers in dual-income and single-income couples were the same in terms of these importance of the factors in fertility decision making. For the factors of child care, time/stress/energy, and finances, no relationship was found with couple career status for either income subset. High and low income delayers and early bearers were not different in their beliefs about of the importance of child care, time/stress/energy, and financial considerations on having children. Hypothesis VIII was not supported.

Table 13

Differences between High and Low Incomes of Delayed Bearers and Early Bearers on the Importance of the Fertility Decision-making Factors

Factors	Low Income		High Income	
	F	p	F	p
Effect on Career				
Childbearing status	0.69	0.407	0.01	0.903
Couple career status	0.41	0.800	1.82	0.129
Financial Costs				
Childbearing status	0.89	0.349	0.02	0.902
Couple career status	0.79	0.531	1.91	0.111
Time/Stress/Energy				
Childbearing status	1.32	0.253	0.67	0.413
Couple career status	0.47	0.761	1.64	0.168
Relation w Partner				
Childbearing status	0.17	0.684	3.56	0.051
Couple career status	0.49	0.742	0.28	0.892
Personal Reward				
Childbearing status	5.28	0.023	0.69	0.408
Couple career status	0.54	0.705	0.57	0.685
Child Care				
Childbearing status	0.00	0.968	1.32	0.253
Couple career status	0.31	0.869	1.35	0.256
Partner's Desire				
Childbearing status	0.05	0.823	0.13	0.722
Couple career status	0.58	0.676	0.52	0.721

Note.

Bonferroni approach used to determine significance level.

*p<.002

CHAPTER V

Discussion

The purpose of the present study was to examine the differences among delayed bearers, early bearers, and childless individuals on fertility expectations, childrearing careers, and the importance of certain factors on fertility decision making. Based on exchange theory and previous research findings, it was predicted that delayed bearers would have lower fertility expectations and shorter childrearing careers than early bearers. It was also predicted that individuals with lower ideal childrearing careers and lesser religious strength would have lower fertility expectations and shorter childrearing careers. The importance of certain factors on fertility decisions was predicted to be different for delayed and early bearers and childless individuals. Furthermore, the fertility decision-making factors were predicted to be discriminating among delayed bearers, early bearers, and childless individuals. The following discussion will intergrate the relevant findings of the analysis with the rewards, costs, and profit concepts of exchange theory and compare them to previous research in the delayed childbearing area.

Demographics

The stereotype of today's delayed childbearer is that of well-paid, professional women. Findings of this study have demonstrated that delayers do not all fit into this stereotype. Previous research has supported this image but has also revealed a diversity of women and men who defer childbearing. In this study, delayers were found to be similarly employed in comparison to the early bearers and childless individuals. Delayers were, however, more highly educated than early bearers and childless individuals which supported research by Issod (1987) and Wilkie (1981). Delayed bearers were not found to have higher incomes than early bearers or childless individuals, nor were there significant differences among the three groups on religious strength. Attitude towards how long a mother should stay home to rear children did not differ among the delayers, early bearers, or childless individuals.

Fertility Expectation

The result that delayed bearers had lower fertility expectations than the early bearers is consistent with research done by Rindfuss and Bumpass (1976), who found that having children at a later age resulted in women having fewer children. According to many researchers, delayed childbearing affects fertility expectations of couples because delayers have a shortened childbearing period. In this study, the childbearing period of delayed bearers was approximately 3 years shorter than that of early bearers. According to exchange theory, delayers would find it costly to have more children at a later age than the normative childbearing years. For example, some individuals may be concerned about

the medical risks or others about being parents in their forties, to toddlers.

Employment and education were two of the predominant factors related to lower fertility in the literature that were examined in this study. Employment has been identified as a factor influencing fertility expectation (Beckman, 1978; Tickamyer, 1979). In this study, however, early bearers and delayed bearers were not different in terms of employment. Similar to other research findings, delayers in this study were found to have significantly higher education than early bearers. But in contrast to the literature, the delayers in this study were also found to have higher levels of education than childless individuals. Researchers have found that men and women with high levels of education place less importance on the role of children in the family (Khoo et al., 1984). Rindfuss et al. (1980) suggested that delayed childbearing accounted for the negative relationship between education and fertility, because education was a major determinant of age at first birth.

The issue of age at first marriage needs to also be addressed. Rindfuss and Bumpass (1976) pointed out that the older women were: a) the more likely they were to be involved in non-familial activities, b) the more likely it was that their peers had completed their childbearing, and c) the less support and urging they were to receive from their peers and family to have more children. According to exchange theory, childbearing becomes a less attractive alternative as there is an increase in opportunity costs for women with higher education, for women who may have delayed marriage, and women who are faced with role incompatibility between employment and childrearing,

which then contributes to having fewer children. It may also be costly to have a high number of children if peers and family do not encourage women to do so. Other non-familial activities may also be found rewarding.

The finding that stronger religious strength was related to higher fertility expectation is consistent with findings by Pol (1983) and Veevers (1979). Strongly religious individuals tend to have more or expect to have more children, whereas individuals with lower religious strength have fewer children. Little research has been done on delayers and religious strength. The findings of this study indicated that delayers and early bearers were similar in religious strength. Furthermore, delayed and early bearers with stronger religious commitment had more children. According to exchange theory, these strongly religious individuals profit from the reward of fulfilling religious doctrines of procreating within marriage. Those individuals with lower religious strength do not find it as profitable to have a high number of children and may seek rewards elsewhere.

The present study's result that individuals with more traditional gender-role attitudes had higher fertility expectations than individuals with more modern gender-role attitudes is consistent with the findings of Beckman (1978) and Tickamyer (1979). Beckman found traditional gender-role attitudes to encouraged higher fertility expectations in women. Similarly, Tickamyer found that women with modern gender-role attitudes had lower fertility intentions. Scanzoni (1975) found support for the influence of gender-role attitude on fertility expectations to be particularly influential among younger, employed, and educated women.

Research has found that non-traditional men and women were likely to perceive fewer benefits from interactions with children and the parental role; and they may also rate the costs of children higher (White & Kim, 1987). According to exchange theory, more traditional individuals would find it rewarding to have a higher number of children because of the high value placed on children and would find it costly to remain childless. More modern delayers will have other rewards from their educational and employment opportunities to fulfill their lives, which may enable and encourage them to postpone having children for a longer time and to prefer smaller families.

The finding that couple career status was not related to fertility expectations was contradictory to the findings of Hunt and Hunt (1982). These authors theorized that the dual-career lifestyle would be incompatible with childbearing, thereby encouraging couples to remain childless. Because it was believed that delayed bearers would more likely be involved in a dual-career marriage, lower fertility expectations were predicted. However, findings in this study suggested otherwise. In accordance with exchange theory, the benefits and rewards of the dual-career lifestyle would not make up for the costs of foresaking having children for either delayed or early bearers.

Childrearing career

Religious strength was not related to the childrearing career of either delayed bearers or early bearers. This is contradictory to findings in the literature suggesting that high religious strength contributed to the more traditional views of these individuals,

therefore making it rewarding to stay at home with the children. However, in this study religious strength and ideal childrearing career were not found to be related. It may be speculated that religious strength does not influence childrearing career because it is not related to the traditional philosophy of the mother staying at home with the children. In accordance with exchange theory, some religious doctrines may be more liberal in their teachings and emphasize more the having of children and no longer the traditional attitude of staying at home to rear the children. Religious strength does not necessarily dictate that women will find it more rewarding to stay at home with the children but instead find it rewarding to continue in the labour force after the children are born.

The finding that more traditional individuals (lower gender-role attitude scores) had a longer childrearing career than modern individuals is consistent in terms of exchange theory. It is also consistent with the literature in that traditional individuals would find it rewarding to fulfill gender-role behaviors in which the women expect to stay home with children. For individuals with more modern gender-role attitudes, rewards from increased education and employment opportunities would make it profitable for these individuals to remain in the labour force. Contrary to expectations, delayed bearers were found to be similar to early bearers in terms of gender-role attitude. In other words, delayers were not likely to be more modern than early bearers and therefore also received rewards from childbearing and rearing. Traditional delayers were not likely to forego the parenthood experience as it would prove costly, but rather it was the more modern

of both the delayed and early bearers who took or expected to take less time out of the labour force for childbearing purposes.

The finding that one's couple career status was not related to childrearing career was contrary to most of the literature on the time women expect to take out of the labour force. It should be emphasized that only half of our sample could be categorized according to couple career status and that caution should be used in interpreting these results. Some researchers have noted that women who have established careers before having children often take time out of the labour force to stay home with the children because they no longer have to prove themselves in their fields and they are happy to have the opportunity to stay at home ("Making the Switch," 1981). The more well-established women are in their fields, the easier it will be for them to re-enter the labour force. In accordance with exchange theory, after having delayed childbearing and establishing one's position in the work force, it is less costly to take time out of the labour force. Furthermore, the reward of childbearing may then compensate for any of the incurred costs.

Fertility Decision-Making Factors

When the fertility decision-making factors were tested separately, results indicated no difference between early and delayed bearers on the importance of any of the factors. However, entering the factors together in the discriminant analysis helped to discriminate among the three groups. Although results indicated that the personal reward factor was the best discriminator among early bearers, delayed bearers,

and childless individuals, the discriminating power was weak. Caution is advised in interpreting these findings because of the low accuracy rate of the model. Early and delayed bearers both placed high importance on the personal reward of children. It can be speculated that the distinction among the three groups is a result of less importance placed on the personal reward factor by childless individuals. The research by Ramu and Tavuchis (1986) found childless couples to disvalue children (i.e. did not consider that there were any positive aspects in having children) and tended to focus on the drawbacks of having children. In accordance with exchange theory, childless individuals would find children more costly than rewarding and therefore place less importance on the personal reward factor.

The finding that both delayed and early bearers placed high importance on the personal reward factor in their fertility decision making is supported by the literature. Gerson (1985) reported that women have been socialized to need motherhood in order to feel fulfilled. On the other hand, researchers have found that women are now experiencing an increasing number of opportunities in which they are developing other sources of fulfillment (Knaub et al., 1983). There is an abundance of literature demonstrating how both men and women, early bearer or delayed bearer, claim the experience of parenthood is rewarding (Francke et al., 1978; Frankel & Wise, 1982; Kern, 1982). Clearly, having children is still considered highly rewarding even against other competing rewards.

Partner's desire to have children was also highly important. Literature on partner desire was contradictory in terms of which gender

had the most power in the decision to have or not to have children. It was demonstrated that consensus with the desire of one's partner was important to the continuation of the relationship (Marciano, 1978). In this study both men and women were found to place high importance on their partner's desire in having children. According to exchange theory, the dissolution of a relationship would have high costs but the alternative of remaining permanently childless would also be costly.

For both delayers and early bearers, effect on career and time/energy/stress were of low importance in the decision to have children. This was contrary to much of the literature, which suggested that these two factors would be important in the fertility decision making of delayed bearers. The effect of having children on one's career was found to be important for delayers because the combination of careers and childbearing was both difficult and stressful (Gerson, 1985; Walter, 1986). Several researchers found delaying women to consider children too costly and a burden to their careers (Baber & Dreyer, 1986; Fabe & Wikler, 1979; Gerson, 1985; Schultz, 1979; Wilkie, 1981). In accordance with the findings of this study and exchange theory, delayers and early bearers are not finding effect on career as important perhaps because the rewards of having the children outweigh the costs.

Previous studies have reported time/stress/energy and potential loss of freedom to be major factors in the decision for men and women to delay having children. Time was cited in the literature for reasons such as travel (Kern, 1982; Norment, 1981), economic security, and personal development (Cohen, 1985). However, the time/stress/energy factor was not found to be highly important for either delayed bearers or early

bearers. According to exchange theory, the reason for this may be that individuals believe that combining employment and childbearing will not be costly. For example, societal expectations may have changed in which it is more acceptable to have both children and a career. Perhaps the rewards of having children and fulfilling the role of a parent cancel these costs and make it profitable. It may also be that individuals believe that these goals (i.e. career, travel, growth) can be achieved simultaneously with parenthood resulting in a lowering of the costs of combining fulfillment of these goals and childrearing.

Lack of research on the sex differences between delayed and early bearers prevents comparison with the finding that no sex differences were found between delayed and early bearers. Both male early and delayed bearers and female early and delayed bearers believed the personal reward factor to be highly important in the decision to have children. These same men and women placed less emphasis on effect on career and the time/stress/energy and potential loss of freedom factor. It appears that from these findings both men and women perceive similar rewards and cost factors related to fertility decision making.

Findings that gender-role attitude and religious strength were not related to higher importance of the personal reward factor did not support the literature. It was predicted that individuals with stronger religious strength and more traditional gender-role attitude valued children more than more modern and less religious individuals. These individuals would therefore consider personal reward of children as more important than individuals who were not strongly religious and who were more modern in their gender-role attitude. It may be that the value of

children is more a societal issue than a religious issue. If it is true that the valuing of children is a societal issue, then in accordance with exchange theory, valuing children highly would be expected of individual. One would also expect that individuals would want and have children because it would be costly to individuals if they did not conform. For delayers, it may not be costly to delay having children because family and friends may encourage doing so, as has been reported by Soloway and Smith (1987). However, it may be costly to forego childbearing altogether because of societal (rather than religious) pressure to procreate. This may explain why religious strength and gender-role attitude were not related to the highly important personal reward factor.

It was hypothesized that lower income individuals would consider child care, finances, and time/stress/energy as more important because they would lack the funds to help alleviate some of the time/stress/energy pressures. However, in this study, it was found that higher and lower income delayed and early bearer individuals did not differ in terms of couple career status nor on the importance of these factors. One reason for this may be the income level at which the cut off point was set. It is possible that changing the income level in the analysis may result in different findings. However for the purpose of this study, the median was used to distinguish between high and low income families. Previous research has demonstrated no correlation between family income and fertility expectation (Cramer, 1980; Freedman & Thornton, 1982). In accordance with exchange theory, a lower income did not make it more costly or less rewarding to find child care or meet

the demands of time/stress/energy and potential loss of freedom involved on childrearing. Unlike Wilkie's (1981) findings that financial considerations were a major factor in the decision to postpone having children, these findings suggest that both higher and lower income delayed and early bearers were the same in their considerations and that child care, finances, and time/stress/energy were moderately important factors in their fertility decision making.

It should be noted that a consequence of using exchange theory is the way in which it can be manipulated to explain findings. The key concepts of the theory are such that almost any variable can be examined and some explanation of the findings derived.

CHAPTER VI

Summary and Conclusions

Summary

Much of the research to date has been controversial as to whether delayed bearers are a new and unique group of individuals or resembled either early bearers or childless individuals. Many concerns have been related to the fertility expectations and labour force participation intentions of these individuals. In this study, delayers were not found to be different in comparison to early bearers, except for the level of education they had achieved. There were no differences among the early and delayed bearers or childless individuals on family income, employment, religious strength, and gender-role attitudes.

As was predicted, examination of delayed bearers revealed that they had lower fertility expectations than early bearers. Contrary to expectations, however, was the finding that delayers had not or did not intend to take less time out of the labour force to rear children than early bearers.

Delayed bearers were not stronger or less strong than early bearers in terms of religious strength. Both early bearers and delayers with stronger religious strength had higher fertility expectations. When religious strength was examined in relation to childrearing career,

there was no difference between delayed and early bearers, nor did religious strength have any bearing on the time women took or expected to take out of the labour force for childrearing reasons.

An unresolved issue in the literature was the gender-role attitude of delayed bearers. Delayers, in this study, were not found to be more modern in their attitudes towards the length of time a mother should take off work in order to rear children than early bearers. However, delayers and early bearers with more modern gender-role attitudes were found to have lower fertility expectations than more traditional delayed and early bearers. In terms of childrearing career, delayers and early bearers with more traditional gender-role attitudes had or expected to have longer stays at home to rear children, whereas more modern individuals took or expected to take less time out of the labour force for childrearing purposes.

Delayed and early bearers were similar in terms of the importance of the fertility decision-making factors. Both delayed and early bearers considered the personal reward factor to be highly important in the decision to have or not to have children. Another important factor was that of one's relationship with one's partner. Contrary to other research findings, delayed and early bearers, in this study, believed effect on career and time/stress/energy and potential loss of freedom to be of little importance in their fertility decision-making.

Conclusions

Based on results of the present study the author concluded that delayed bearers were not distinct as a group. Delayers in this sample were more educated than early bearers but were very similar to early bearers and childless individuals in terms of employment, family income, religious strength, and gender-role attitude. As predicted, delayed bearers were found to have lower fertility expectations than early bearers. However, most early and delayed bearers reported having or wanting to have two children. No evidence was found to suggest that childless individuals and delayers were similar in terms of a more modern gender-role attitudes and lesser religious strength than early bearers. Findings pointed to delayers, early bearers, and childless individuals being similar in terms of religious strength and gender-role attitude.

The results of this study demonstrated that delayers were not more likely to have shorter childrearing careers than early bearers. Most delayed bearers and early bearers were found to have taken or expect to take more than nine years out of the labour force in order to rear children. Important fertility decision-making factors were the personal reward of having children, partner's desire to have children and child care concerns. Effect on career, time/stress/energy and financial considerations were not as important as indicated by previous research in the decision for delayers to postpone having children.

Limitations, Future Research, and Implications

Limitations

Several limitations common to secondary analysis were encountered in analysing the data from the Winnipeg Area Study. One limitation was the Ideal Childrearing Career variable. The intention of this variable was to measure gender-role attitude. Although this measure has been used before, the reliability of the item is unknown. Access to a pretested gender-role attitudinal scale would have been preferable.

There were difficulties in recoding variables. Half of the observations in the data set were missing for the couple career status variable because of missing information on the respondents' income. Also, because of the way in which the data were collected and coded, it was impossible to create a variable for women's personal income.

The employment variable also presented difficulties. Cross tabulations showed that respondents did not only answer 'yes' to one employment category but often to more than one. For example, for a variable in which women's employment status was created, 25% of the women answered yes to both full-time employed and part-time employed.

Another issue was that of the childless individuals in the sample. There was no way of knowing if these individuals were childless by choice or for other reasons such as infertility. This limited the conclusions that one could make in comparing the childless individuals of this study to voluntary childlessness in other studies.

Another important question that was missing from this data set was the age at first marriage. Previous research has shown that delayers are more likely to delay age at first marriage. This is a necessary piece of information in determining an age cut off point in the definition of delayed childbearing and length of time married before having children should also be considered.

A further complication arose because information on several items of the questionnaire, for example employment and childrearing career, were asked about the respondent's spouse or partner. This second hand information resulted in dubious reliability of the variable. In other words, what the respondent thinks may be true for his or her partner may not be how the partner might respond. In fact, we have an individual's perception of what another individual would answer. This type of information is better than no information at all but caution is needed in the interpretation of these results.

Reliability of the religious strength variable was also questionable because of a possible interviewer bias. Respondents were asked if they would consider themselves strong or not very strong in their religious preference. However, there was the third category of 'somewhat strong' in the interview that was to be filled in if the respondent volunteered this information. Thus, it is possible that some interviewers may have led the respondents who were having a difficult time answering the question by providing a third alternative that may or may not have been provided for other respondents.

Another limitation was encountered in the childrearing career variable. Provincial statutes and the Canada Labour Code allow 17 or 18 weeks of maternity leave depending on the jurisdictions to which women belong (Moloney, 1989). The categories in the childrearing career variable used in this study did not take into account this legislation which more than likely has some effect on the reliability of the childrearing career variable.

Lack of information on the ranking of the fertility decision-making factors is another limitation. The study examined the importance that respondents placed on each factor but no information was available to indicate which fertility decision-making factors were most or least important in the decision to have children. This information may be valuable in examining male and female differences as there may be some of the family decision-making factors that are more important for men than for women or vice versa. This may account for the lack of gender differences on the fertility decision-making factors found in this study.

Future Research

Little research has been conducted on delayed childbearing in relation to religious strength. Although religious strength was examined in terms of fertility expectations and childrearing career in this study, religious practices and affiliation were not explored. Because of change in religious affiliations and practices in Canada, more research is needed in this area to further compare the delayed bearers to early bearers and childless individuals in terms of religiosity.

As a result of the recoding difficulties, women's personal income and women's employment variables were not examined. These areas remain unexplored in relation to delayed bearers and should be examined in the future. It should be noted that in examining women's income it would be important to examine money and opportunity costs in relation to the total family income. That is, women with high incomes may find it less costly to take time out of the labour force if the household does not depend on her income in comparison to high income women whose family depends heavily on her financial contribution. The fact that many women work from economic necessity is supported by Eichler (1983) who reported that 30-40% women would not work if they did not have to. Further research on delayed bearers women's employment and childrearing career should take into consideration maternity leaves and benefit entitlements when examining the length women take time out of the labour force for childrearing purposes.

Future research should also examine the fertility decision-making in terms of which factors are considered more or less important in the decision to have or not to have children. Open-ended questions may identify other fertility decision-making factors that are being considered by delayed bearers, early bearers, and childless individuals. For example, apart from the biological time clock and family messages (not examined in this study), Soloway and Smith (1987) have identified peer influence and eternity issues as influential in "late birthtiming" decisions.

One of the aims of this study was to find out more about why couples had come to the decision to delay childbearing. It was predicted that

delayers would place more importance on fertility decision-making factors than early bearers. However, this was not found to be the case. Delayers and early bearers were similar in the importance they placed on the factors in their fertility decision making. Thus, it was not possible to conclude why certain individuals would choose to delay childbearing while other individuals did not. More research focusing on why and how couples come to the decision to postpone having children is needed.

The limitations of this study notwithstanding, it has many advantages over previous studies. Through this study we have examined fertility expectations, childrearing careers, and the fertility decision-making factors of delayed and early bearers and childless individuals. Although the decision to delay, to have children, or to remain childless may be made early in life, the psychological meaning of the decision and its ramifications change over time, making more longitudinal work in this area a necessity for a better understanding of the complexity of the childbearing decision.

Implications

Delayed bearers were found to have or expected to have fewer children than the early bearers. One concern with the trend to delay childbearing is that if the trend persists over the next one or two decades, national population growth will slow. Some ways in which the government may want to meet declining population growth will be by reconsidering immigration policies or offering incentives to women to begin childbearing at earlier ages and to have more children. Another concern is the

fluctuations in the birth rate caused by generational changes in the timing of children and the resulting boom or bust cycles for some health and child care businesses.

Contrary to what was predicted, delayers and early bearers were found to have taken or expect to take similar amounts of time out of the labour force for childrearing purposes. The reason for this may be a direct result of time management issues. Although it appears that women's partners are helping with more housework and childrearing chores, evidence indicates that men are not really helping a great deal. Women are still responsible for the majority of the child and household care. This has many implications for employers in both the private and public sectors. Employment policies aimed at reducing the difficulties women face in trying to combine a career with childbearing are needed. Implementing such policies as flex-time work schedules, liberal maternity and paternity leaves, opportunities for sabbatical leaves, allowing parents to take sick leave when their children become ill, and on site child care facilities could benefit both employers and employees thereby increasing women's labour force participation after childbirth, and reducing turnover, lateness, and absenteeism.

Delayers considered personal reward of having children, partner's desire, and relationship with one's partner to be important factors in their fertility decision making. Particularly interesting is the fact that effect on career and time, stress, and energy demands were not reported as highly important factors in the fertility decision making of this sample. This information may provide some useful insight to counsellors when dealing and assisting couples with family planning.

It has been suggested that the lack of differences between delayed and early bearers in this study may have resulted because 30 years of age was too young for a delayed bearer. The rationale behind this statement lies with the possibility that age at marriage may have been a confounding variable. Because average age at first marriage has been increasing in Canada and the U.S., an appropriate definition of delayed childbearing should take into account the average age at marriage for the population being studied. Canadians, because they have throughout history delayed marriage for approximately two years later than Americans, should in the future, be studied with this in mind. It is necessary for researchers to come to a consensus to use age at marriage in their future research before we can truly identify a delayed bearer versus an early bearer.

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APPENDIX A

WAS Interview Questions for Dependent Variables

The following questions were asked to determine fertility expectation:

1. "How many children have you had, first as a natural parent, counting current pregnancies (if applicable)?" (#22)
2. "How many (more) children do you expect to have as a natural parent?" (#24)

The following questions were asked to determine childrearing career:

3. "How long in total have you taken, or do you expect to take, out of the labour force in order to raise children?" (#60)
4. "How long in total has your spouse/partner taken (or do you expect your spouse/partner to take) out of the labour force in order to raise children?" (#61)

To determine the factors the respondents consider important in fertility decision making the following instructions were given:

5. "I am going to read to you a number of reasons that some people consider important in a decision to have or not to have children. On a scale of 1 to 7 with the 1 being not at all important and 7 being very important, would you please tell me how important the following reasons are to you?" The following factors were asked:
 - a) "The effect of a child or children would have on my career.

- b) The financial costs of rearing children in light of our family income.
- c) The time, energy, stress, and potential loss of freedom involved with childrearing.
- d) The effect childrearing will have on my relationship with my partner.
- e) The personal reward of having children, such as someone to love and to give meaning to life.
- f) The issue of who will care for my child(ren) while I and/or my partner work.
- g) My partner's desires, whether or not my partner wants a child.
- h) Other _____?" (#28a-h)

APPENDIX B

WAS Interview Questions for Independent Variables

Age at first birth was determined by the following question:

1. "At what age did you have (or do you expect to have) your first child?" (#25)

Age at last birth was determined by the following question:

2. "At what age did you have (or do you expect to have) your last child?" (#26)

Marital status was determined by asking the respondent:

3. "What is your current living arrangement?" Categories were: "a) Now married and living with spouse, b) common-law relationship or live-in partner, c) single, never married, d) divorced, e) separated, and f) widowed." (#17)

Education level of couples was determined by asking:

4. "What is the highest level of education that you have completed?" Options given were: "a) no schooling, b) elementary, c) junior high, d) high school, e) non-university, and f) university." (#115a)

Employment status was determined by asking the following question to the respondent and about the spouse/partner:

5. "What is your work situation at the present time? Please tell me how many of the following apply to you." Options were: "a) employed full time, b) employed part time, c) unemployed, looking for work, d) unemployed, not looking for work, e) retired, f) in school, g) keeping house, h) in volunteer work, and i) other." (#49a/#56b)

To determine ideal childrearing career the following question was asked:

6. "Ideally, at what age of an only child or last child should a mother feel that it is no longer necessary to stay home full-time?" (#29)

Religious strength was determined by asking the respondent the following question in relation to their stated religious preference:

7. "Would you call yourself strong or not very strong?" Options were: "a) strong, b) not very strong, and c) somewhat strong (volunteered)." (#109b)

Family income was determined by providing the respondent with a page of income categories and asking:

8. "Would you tell me which number comes closest to the total income for this past year before tax and deductions of all the members living in this household?" (#66a)

To determine couple career status, respondents were asked the following question about themselves and about their spouses/partners:

9. "What kind of work (do/did) you normally do? That is, what is your job title?" (#50a/#57a)