AN ABSTRACT OF THE THESIS OF

Shirley J. P. Hunt   for the degree of   Doctor of Philosophy

in Family Life   presented on   March 29, 1979

Title: A Comparative Analysis of Childless Women with Low

       Birth Expectations

Abstract approved: _{Redacted for Privacy}

       Arthur E. Gravatt

In response to the growing preference for the small family, this study was carried out to acquire information about women who expect zero, one, or two children. The purposes of the study were: to identify the cultural and socioeconomic characteristics of these women; and to determine which of these characteristics were predictors of their expected number of children. Using interview data from the 1973 National Survey of Family Growth, the sample was restricted to 401 childless white wives. The 401 wives were divided into three groups, 70 wives who expected zero children, 31 wives who expected one child, and 300 wives who expected two children.

Initially, frequency distributions were tabulated for each group across fifteen of the wives' characteristics. From one-way analyses of variance and chi-square tests, it was determined that the three groups were statistically different by current age, age at first marriage, length since first marriage, postmarital duration of employment,

and size of current residence.

In the second stage of the research, the characteristics were categorized into two models based on the utility framework. One model consisted of four cultural background variables, while the second model consisted of four individualism variables. In the latter model, age of the woman was a control variable. Multiple classification analyses were performed to determine the ability of each model to explain the variations in birth expectations. For two of the six analyses performed, the explanatory power of the model was significantly better than chance. These two analyses were the cultural background model comparison of wives expecting zero children and wives expecting two children, and the individualism model comparison of wives expecting one child and wives expecting two children.

Tests of significance for each variable separately revealed that, with few exceptions, no one variable contributed a significant amount of information to the explanatory power of the models. However, the two residence variables generally contributed more information than size of family of orientation and religiosity to the explanatory power of the cultural background model. The variables age at marriage/duration of marriage, and education/occupation were more important than family income/current labor force status and employment experience in contributing to the explanatory power of the individualism model.

The major conclusion from this study was that the two models developed to test the utility framework were moderately successful in explaining the variations in the wives' birth expectations. In the study, descriptive information was acquired concerning the

characteristics of wives expecting zero, one, or two children. This knowledge provides a foundation for understanding more about the child-bearing decision process for women with low birth expectations, as well as motivations toward parenthood or nonparenthood.

A Comparative Analysis of Childless Women
with Low Birth Expectations

by

Shirley Jeanne Persons Hunt

A THESIS

submitted to

Oregon State University

in partial fulfillment of
the requirements for the
degree of

Doctor of Philosophy

Completed March 29, 1979

Commencement June 1979

APPROVED:

Redacted for Privacy

Professor of Family Life

Redacted for Privacy

Acting Head of Department of Family Life

Redacted for Privacy

Dean of Graduate School

Date thesis is presented _____ March 29, 1979

Typed by Shirley Hunt for _____ Shirley Hunt

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF TABLES

A COMPARATIVE ANALYSIS OF CHILDLESS WOMEN
WITH LOW BIRTH EXPECTATIONS

I.   INTRODUCTION AND PURPOSE

Fertility surveys over the last decade report a growing preference among women for two children, coupled with a small but steady rise in the proportion expecting no children or only one child (Ryder & Westoff, 1971; U. S. Bureau of the Census, 1974, 1976, 1977). The purposes of this study were to answer two questions arising from this apparent trend: What are the social, cultural, and economic differences among childless wives expecting zero, one, or two children? And, which of the wives' characteristics are predictors of their expected number of children?

According to the survey findings, the majority of women under 30 expect to have two or fewer children. Although some demographers perceive this trend toward fewer children as a temporary phenomenon (Sklar & Berkov, 1975), there is more consensus for the view that low fertility is the fertility pattern of the future (Bumpass, 1973; Poston & Gotard, 1977; Westoff & Jones, 1977). Those who take the latter view cite changes occurring in societal values to support their argument (Gibson, 1976).

Little is known empirically about how women with such low birth expectations differ from one another. Past studies of fertility expectations most often examined fertility variations by the average number of lifetime births expected for particular groups of women

(see, for example, Davidson, 1971, and Ryder & Westoff, 1971). The main objective of this approach was to assess the differences among women expecting a large family compared to those expecting a small family. With lifetime birth expectations now centering around two children, average expected family size reveals little about the current variation in fertility expectations (Simon, 1975b).

A more useful approach to understanding modern fertility expectations is to compare women at a specific parity level by their expected total number of births. Accordingly, this study was designed to investigate married women who were childless and had low birth expectations. The specific research interest was to compare childless wives according to whether they expected zero, one, or two children. Conclusions drawn from the research were applicable to childless wives living in the United States as of 1973.

In the chapters that follow, the research study is described in detail. Chapter Two contains a review of past research findings relevant to the purposes and content of this study. Chapter Three provides a description of the research methodology. The results of the analyses are presented in Chapter Four, followed by a summary and discussion of the results in Chapter Five. Finally, in Chapter Six, the conclusions and implications of the research findings are explored.

II. REVIEW OF THE LITERATURE

Previous research on women with low birth expectations or inten-
tions can be divided into two categories: research on the average ex-
pected number of births, and research on the expectations of zero, one,
or two children. The first two sections of this review will summarize
the findings from each of these categories. In the third section,
theoretical explanations for the variations in birth expectations will
be discussed, with particular emphasis given to research supporting a
utility explanation.

Differentials by Average Expected Number of Births

Starting in 1955 (Freedman et al., 1959), fertility researchers
began to gather data about family size ideals and expectations to sup-
plement the existing information on actual fertility. The inclusion
of expectation questions in fertility research was in direct response
to the increase in planned families and the recognition that "pre-
ferences in family size [had] become an important component of fer-
tility behavior" (Davidson, 1971, p. 27). Results of this research
have revealed variations in the average number of births expected by
certain demographic and socioeconomic characteristics of families.

In the 1955 study of white married women, Freedman, Whelpton, and
Campbell (1959) found that variations in women's religion and length
of postmarital employment produced the greatest amount of change in
average expected family size. Protestant wives had lower average
expectations than Catholic wives, and the wives' length of employment
since marriage was inversely related to their expectations. Small but

fairly consistent negative relationships were found between average expectations and the following variables: the educational level of husbands and wives, the wife's age at marriage, the husband's occupational prestige, and the husband's income level. The highest average expectations occurred for families where both husband and wife had some farm experience and whose current place of residence was a farm.

Subsequent research throughout the 1960's confirmed most of the 1955 findings (Davidson, 1971; Freedman & Bumpass, 1966; Ryder & Westoff, 1971; Whelpton et al., 1966). Differences in religion and postmarital employment continued to account for the largest variations in average expectations. In focusing more specifically on the regularity of church attendance by religion, several researchers found that Catholics who attended communion irregularly had lower expectations (similar to the expectations of Protestants, in fact) than Catholics who attended communion on a regular basis (Freedman et al., 1963; Freedman & Coombs, 1968). Education and age at marriage differentials in average expectations increased slightly, while differentials by characteristics such as income, residence, and occupation showed a narrowing over this time period.

Race of the woman was an important variable added in this later research. In comparing average expectations by race, white wives were found to have lower average expectations than black wives (Whelpton et al., 1966). This difference was explained, in part, as a function of older cohorts of black women having already borne a greater number of children than white wives (Davidson, 1971). When examining average expectations by the sociodemographic characteristics

of black wives, both Davidson (Ibid.) and Whelpton, Campbell, and Patterson (1966) generally found similar patterns to those found for white wives.

Other variables examined included the region and size of residence, and size of family of orientation. Minimal differences were apparent in the average expectations by the region of the country a woman resided in and the size of her residence (Ryder & Westoff, 1971). Duncan and his colleagues (Duncan et al., 1965) found a small, positive relationship between the average size of the woman's family of orientation and her average expected family size. These researchers concluded that the size of the woman's family of orientation was a factor influencing birth expectations primarily at the beginning of the child-bearing period.

More recently, a change has been observed in the pattern of variations in fertility expectations. Surveys conducted by the U.S. Bureau of the Census since 1967 point to an increasing uniformity in the average number of children expected by younger women regardless of their demographic and socioeconomic characteristics (Moore & O'Connell, 1978). The most important reason for this change seems to be the growing acceptance of the two-child family, coinciding with the increased availability of the contraceptive methods needed to achieve such a goal (Westoff & Ryder, 1977). Furthermore, there have been changes in the variables correlated with expectations. For instance, women are now entering the labor force and pursuing more education in greater numbers than in the past (Glick & Norton, 1977).

In all, the research on average expected number of births found

differences among women by their religion and degree of religiosity, labor force participation, education, race, age at marriage, husband's occupation, husband's income, and size of family of orientation. With the exception of farm residence, region and size of residence did not affect the average expectations of the women. Since 1970, however, the variations by average expected number of births have almost completely disappeared. For that reason, research focusing on the specific number of births expected rather than the average number is currently receiving more attention.

Differentials by the Expectation of Zero, One, or Two Children

Descriptive information about women who expect a specific number of children is based on three types of studies. These studies include the annual fertility surveys conducted by the U.S. Bureau of the Census, a few studies that have examined the expectations of women who are childless, and the studies carried out with voluntarily childless women. A review of this research shows several interesting patterns not otherwise apparent when studying the average of lifetime birth expectations.

U.S. Bureau of the Census Fertility Surveys

As representative of the Census fertility surveys, the published report from the 1973 survey (U.S. Bureau of the Census, 1974) included information on the number of actual births expected by the residence, education, and length since first marriage of white wives, 14 to 39 years of age. In comparing the wives by farm and nonfarm residence (Table 8, p. 27), a larger percentage of the wives living in nonfarm

areas expected zero, one, or two children, than the wives living in

farm areas. A further comparison by metropolitan versus nonmetropoli-

tan residence (Ibid.) indicated that more of the wives living in metro-

politan areas expected zero or two children than those living in non-

metropolitan areas. Wives expecting one child, on the other hand,

comprised a greater percentage of the wives in nonmetropolitan areas

than wives in metropolitan areas.

The findings by education level (Table 10, p. 29) showed that as

education increased the percent of wives expecting zero or two chil-

dren also increased. The reverse was true for wives expecting one

child. The highest percentage of wives expecting one child was found

for wives not having a high school education, while the lowest per-

centage of this group was for wives with some college. Simon (1975b)

found a similar pattern when he examined how changes in educational

level affected the transition of women from one parity level to the

next higher level. In accounting for this variation, Simon suggested:

> ... that more highly educated families are strongly against a
> one-child family because they believe that a single child is
> disadvantaged psychologically, and hence they make a decision
> about zero children versus two (or more) children (rather
> than zero versus one). (p. 261)

He goes on to imply that for the lower educated family the economic

consequences of having one child rather than two may be the most rele-

vant factor; such families possibly view the one-child family as more

attractive because of the "belief that an only child is advantaged

materially" (p. 263).

Data on length since first marriage (U.S. Bureau of the Census,

1974, Table 5, p. 23) grouped fertility expectations according to the

woman's current parity level. For wives who were currently childless, the percentage who expected to remain childless dramatically increased with the length of marriage. Nearly half of the childless wives who had first married five to nine years previously, expected no children, while approximately 90 percent of all childless wives first married at least ten years ago expected no children. The percentage of child-less wives expecting one child increased with length since first mar-riage until ten years or more marital duration had passed, at which point the percentage decreased. A similar pattern was apparent for childless wives expecting two children, with the percentage of these wives increasing until five to nine years marital duration when the percentage began decreasing.

Postponement of childbearing is one explanation given for the variation in expected number of children over time. The premise of this explanation is that the longer a woman waits to have her first child, the fewer children she will expect to have (Rindfuss & Bumpass, 1976). On the basis of the postponement hypothesis, it would be ex-pected that the percentage of wives expecting to remain childless would increase over time; while the percentage of wives expecting to have one child or two children would be expected to decrease over time.

In looking at the Census data on length since first marriage, the postponement hypothesis was supported for wives expecting to re-main childless. However, for childless wives expecting one or two children, the hypothesis seemed to operate only after the number of years since first marriage made having a certain number of children an unrealistic goal. The Census data suggested that after four years

of remaining childless, the goal to have two children was seen as less realistic although having one child remained a realistic goal. After nine years of childless marriage, though, even the expectation of having one child may have seemed unrealistic.

Studies of the Birth Expectations of Childless Women

Like the Census data on length since first marriage, several research studies have focused on the birth expectations of women who were currently childless. Poston (1976), using the 1965 National Fertility Study, compared childless, white wives who were voluntarily expecting no children with those wives expecting to have some children later. The two groups differed by age, with the group expecting some children being considerably younger than the group expecting none. There was a corresponding difference by years married with wives expecting no children having been married longer on the average.

In studying the wives 30 to 54 years of age, Poston found the two groups to be quite similar by religious denomination and place of residence. Comparison on indicators of socioeconomic status revealed that, of the two groups, wives expecting children were generally higher in status. A larger proportion of the wives and husbands expecting children had some college than was true for women expecting no children. The same pattern was found when the groups were classified by the husbands' occupations. With respect to family income, wives expecting some children were concentrated more toward the center of the income levels, while wives expecting no children were found at either the lowest or highest income levels.

In contrast to Poston's findings, Silka and Kiesler (1977) found

few differences by age and years married among couples expecting no children and couples expecting children later. One important distinction between the two groups noted by the two researchers was that both husbands and wives in couples expecting no children were employed in more prestigious occupations than the couples expecting children. Silka and Kiesler (1977) concluded: "The degree to which couples were experiencing successful employment or career development appeared to be one situational variable that had influence on the decision to have no children" (p. 23).

The differences in the findings from the two studies just reviewed could be attributed to several factors. First of all, there were differences in the sampling procedures used. Poston's sample was a representative sample of the U.S.; whereas, Silka and Kiesler's sample was a nonrepresentative one from a particular area of the U.S. Also, almost all the wives in Silka and Kiesler's sample were in their early twenties, much younger than most of the wives Poston studied.

A more systematic comparison of the childless wives expecting children, whether voluntarily or involuntarily so, and wives expecting some children from the 1965 National Fertility Study was carried out by Namboodiri (1974). Using discriminant analysis, he found that the current age of the woman accounted for the most variation between these two groups, with age at marriage adding slightly to the variation explained. However, the wife's education, husband's education, husband's income, and wife's religion did not add anything more to the variance explained by the six-variable model. Critics of Namboodiri's study (Rosenweig & Seiver, 1975) suggested that since the relationship

between age and expectations was not very informative, the sample should have been stratified by age before analysis.

Studies of Voluntarily Childless Women

Since 1970, there have been numerous studies of women who are voluntarily childless, or women voluntarily expecting to have no children. Although the research has relied on purposive samples, the studies generally have agreed on the characteristics of the voluntarily childless woman and her husband. The findings from this research indicated that this woman was more likely to be at a higher educational level, to have a higher family income, to have married at a later age, and to live in urban areas than the general U.S. population. She also tended to have a high employment rate, to be employed in a prestigious occupation, and to be married to a husband with more education and a higher status occupation than average (Barnett & McDonald, 1976; Budd & Hey, 1977; Gustavus & Henley, 1971; Nason & Poloma, 1976; Silka & Kiesler, 1977; Veevers, 1973b).

Other characteristics of voluntarily childless women identified in a few studies pertain to the woman's size of family of orientation, her mother's employment status, her degree of independence, and her religion. Women who chose not to have a child had mothers who worked, were first born or only children, and tended to be high on the personality trait of independence (Nason & Poloma, 1976; Veevers, 1974). Some of the research also indicated that the voluntarily childless woman and her husband claimed to have no religion in a surprisingly higher proportion than found in the U.S. population (Barnett & McDonald, 1976; Budd & Hey, 1977; Gustavus & Henley, 1971;

Veevers, 1973b). However, several studies have not confirmed this re-

ligious differential for voluntarily childless couples (Nason & Poloma,

1976; Poston, 1976).

A major contribution of the voluntary childlessness research has

been the substantive information it has provided about the process in-

volved in the decision not to have children. While Veevers (1974)

found that approximately one-third of the wives she interviewed had

made their decision prior to marriage, the majority had arrived at

their decision after a series of postponements. Nason and Poloma

(1976) also found a similar "postponement process" among the couples

they interviewed.

An important facet of the postponement process seems to be the

consideration by the couples of the costs of parenthood and the bene-

fits of remaining childless. Veevers' research (1973a) suggested

that in the beginning stages of this process, the disadvantages or

costs of parenthood were the most important factors in the couple's

temporary postponement. In later stages, the benefits and rewards of

the childless lifestyle became the significant factors in their per-

manent postponement. At this latter stage, couples were usually able to

be more specific about their reasons for deciding not to have children.

Of the reasons mentioned, three were consistently reported by nearly

all the respondents: personal freedom, the importance of the wife's

career or job, and a better marital relationship without children

(Nason & Poloma, 1976; Silka & Kiesler, 1977; Veevers, 1974).

In elaborating on the benefit of personal freedom, the volun-

tarily childless couples cited many different freedoms such as the

freedom to quit work, to travel, or to pursue professional success. The importance of the wife's working was mentioned in terms of the financial freedom gained from having two incomes and no childcare expenses, and the satisfaction work provided for many of the wives. Finally, these couples viewed their current marital relationship as equalitarian and felt that having a child would change the relationship to a traditional one. Also, the wives in particular believed that a child would limit the amount of time and energy that could be given to the marital dyad relationship.

Summary

The research findings on women expecting zero, one, or two children have revealed some differences between them. According to Census data, there was a tendency for wives expecting zero or two children to be living in nonfarm and metropolitan areas, whereas wives expecting one child were more likely to be living in nonfarm and nonmetropolitan areas. As educational level increased, the percentages of wives expecting zero or two children also increased, and the percentages of wives expecting one child decreased.

From the data on length since first marriage, postponement of childbearing was tentatively supported as one explanation for the change over time in the percentages of wives expecting zero, one, or two children. The research on voluntarily childless couples provided additional support for postponement as the process by which these couples eventually decided not to have children. The basis of this postponement seemed to be the couples' awareness of alternative role options, especially that of the wife's employment, and their weighing

the costs of the parental state to the benefits of the childless state.

The findings of studies comparing childless wives expecting no children with childless wives expecting some children have not been in agreement. Several of the studies noted major differences among the two groups by age and age at first marriage, whereas another study did not find such differences. By socioeconomic status, one study found no differences among the two groups of wives, while a second study concluded that wives expecting some children were higher in socioeconomic status than wives expecting none. A third study, however, found the wives and husbands in the couples expecting no children to be higher in occupational prestige than the couples expecting some children. Finally, the research on voluntarily childless couples consistently has found these couples to be higher in socioeconomic status than the general U.S. population.

A major concern of many fertility researchers has been explaining the motivations and attitudes involved in fertility decisions. The last section of this literature review will consider several of the conceptual models developed to explain fertility.

Conceptual Models of Fertility

In seeking to understand the motivational forces behind fertility expectations and behavior, various disciplines have developed conceptual models of fertility. While the focus of the disciplines tends to differ, they all share in common the view that children are functional for parents or for the society. As Fawcett (1972) has stated:

> This functional perspective implies a weighing of alternatives
> or a decision-making approach to childbearing, but it does not
> require that such processes be either conscious, in a psycho-
> logical sense, or rational, in an economic sense. (p. 5)

The distinctiveness of each model arises from its emphasis on certain

functions rather than others.

One of the earliest conceptual models of fertility was Gary Beck-

er's application of the theory of household choice to childbearing de-

cisions (1960). As described by Becker, the primary assumption of

this model is the perception of children as consumer durables in com-

petition with other consumer durables. In deciding the size family

they desire, a couple takes into consideration their relative prefer-

ence for children among a field of other preferences (their "tastes"),

their income, and the cost of children compared with the rewards or

satisfactions they will receive in return.

Becker's model has generally been considered to be an economic

one, and consequently much of the research generated by it has concen-

trated on the economic costs of children. In particular, the rela-

tionships between income, and expected fertility and actual fertility

have been explored extensively (Simon, 1974). Unlike the hypothesized

positive relationship (Okun, 1960), the findings from the research

have most often found a negative relationship between income and fer-

tility (Turchi, 1975). However, several researchers have found the

expected positive relationship when using potential or relative in-

come rather than current income as the measure of income (Freedman,

1963; Freedman & Coombs, 1966).

The allocation of time, in addition to money, relative to child-

rearing is another cost variable studied recently. Referred to as

"opportunity costs", this variable is defined as the labor force wages lost if a woman remains at home caring for children (Espenshade, 1977). Cain and Weininger (1973), for instance, looked at fertility rates in certain geographic areas in the U.S. by the potential labor force wages available to women in those areas. Finding a negative relationship, they reasoned that if employment opportunities and wages for women should improve, fertility rates might possibly decrease further.

Sociologists, in contrast to economists, have stressed the social context in which the decision-making process takes place. From this viewpoint, the choices a couple has related to their childbearing decisions, rather than being unlimited as Becker's model implies, are limited by such factors as the couple's social class, religion, geographic region and so forth (Duesenberry, 1960). The sociologist's interest is centered on determining how sociological variables influence and help shape a couple's desire for children, along with the couple's perception of the functions children fulfill for them. Easterlin (1969) has summarized the variables of concern to sociologists. He states,

> ...one's preference system at any given time may be viewed as molded by heredity and past and current environment. The process starts with birth and continues through the life cycle. Religion, color, nativity, place of residence, and education enter into the shaping of tastes. So, too, does one's childhood and adolescent experience in one's own home with material affluence and family size. One reaches family-building age with preferences already molded by this heritage, but these preferences are subsequently modified by ongoing occupational, income, and family building experiences, among others. (p. 135)

Many of the research findings relating these sociological variables to birth expectations were discussed in the preceding sections of

this review.

To investigate the premise that family size preferences tend to conform to social norms, Blake (1967) studied family size desires from surveys spanning over a quarter of a century. The major finding was the consistency in the desired family size of two to four children, or family size desires that matched the American ideal. Within this range, the variability that occurred was related to noneconomic factors, not to economic ones.

One other finding Blake reported in her 1967 and 1974 studies was the aversion to the one-child and childless family as evidenced by the small numbers who desired those family sizes. Griffith (1973) and Polit (1978), in their research on perceptions of different family sizes, both found negative stereotypes surrounding families with no children or one child. In sociological terms, such negative stereotypes operate as social pressures causing most couples not to desire, or prefer, family sizes smaller than two children.

A third disicipline to develop a model of fertility is psychology. In this model, the focus has been on identifying the psychological determinants of individuals' desires for children, the rationale being that individuals, not cohorts, have babies (Smith, 1973, p. 4). To the psychologist studying family size preferences, the primary concern is the emotional cost and satisfaction couples expect to accrue from children compared to other alternatives. As part of assessing these emotional costs and satisfactions, the "significance of children for the validation of sex roles or adulthood roles, and the social status

connected with parenthood" must be taken into account (Fawcett, 1972, p. 6). A fairly complete summary of the motivations for parenthood and the psychological costs and satisfactions of children for parents has been compiled by Pohlman (1969).

The few studies attempting to measure the influence of psychological variables on fertility have been unsuccessful in that task, partly because of poor measurement techniques (Westoff et al., 1961). Recent work by Coombs (1974) has suggested that psychological variables may impact family size preferences, although quite likely at an unconscious level. She found that the underlying preference structures of women were often different from their initially stated number of preferred children, presumably because of conflict between that preferred ideal and other preferences. Coombs' use of paired comparisons and unfolding theory has been an important step toward solving the problems with previous measurement techniques.

Although each of these fertility models has its own distinct perspective, all three emphasize the decision-making process of weighing alternatives with respect to childbearing preferences. Recognition by fertility theorists that childbearing decisions are complex has lead to the development of a few multidisciplinary models. For instance, Easterlin (1969) has conceptualized a socioeconomic model of fertility in which he attempts to place the taste variables on an equal basis with economic variables. Also, the two works from the psychological perspective include writings on the economic and sociological costs and satisfactions of children (Fawcett, 1973; Pohlman, 1969).

Another multidisciplinary model, the "utility model," was first proposed by Hawthorn in 1970 (p. 65). As he outlined it, the basic premise of the utility model is that an individual will behave so as to maximize the rewards s/he will receive and minimize the costs the behavior incurs. In the model, children are viewed as resources in competition with other resources, all of which have certain rewards and costs attached to them. After weighing their alternatives, couples will choose the number of children preferred that provides them with the most "net profit," or maximum satisfaction (Scanzoni, 1975, p. 99). The essential difference between this model and the previous models is in its lack of focus on one or two sets of variables as the only important influence on the childbearing decision process. Instead, the utility model allows for considering all variables as potential factors of importance in the childbearing decision.

Scanzoni (Ibid.), in an extensive test of the utility model, investigated the relationships of sex role norms and various socioeconomic variables to fertility intentions (expectations) and behavior. He suggested, first of all, that the identification of a woman's sex role norms was significant to understanding her childbearing decision. Conceptualizing sex role norms as being on a continuum, at one end Scanzoni placed the woman with the traditional, familistic sex role norms. At the opposite end, he placed the woman with more modern, individualistic sex role norms. His major hypothesis was that the greater the degree of individualism, the fewer children a woman would intend to have.

In his research, Scanzoni was also interested in the factors that influence the learning of sex role norms, and indirectly, birth intentions. The major variables he identified as possible factors were age, sex, religion, race, and education. Because these factors tend to influence three other "behavioral" factors found to be related to fertility - age at marriage, premarital employment, and postmarital employment - he included these three variables in his model also.

The results of Scanzoni's research supported the hypothesized negative relationship between a woman's degree of individualism and her birth intentions. He found that women in comparison to men, and white women in comparison to black women, tended to be more modern in their sex role orientation. Also, women with some college education were more individualistic than women with a high school education. Minimal differences were apparent by religion. In addition, Scanzoni identified four characteristics as behavioral indicators of individualism. Women who were more individualistic were more likely to have pursued more schooling, to have married later, and to have worked full-time both before and after marriage.

Other researchers have independently found results identical to Scanzoni's regarding the relationships between the indicators of individualism, sex role norms, and expected number of children (Bumpass & Mburugu, 1977; Clifford, 1971; Cutright & Polonko, 1977; Kupinsky, 1971; Mason et al., 1976; Ridley, 1959; Waite & Stolzenberg, 1976). More contradictory results have been found in research on the relationship of other characteristics, namely family income, status of a woman's occupation, religion, degree of religiosity, region of residence, and

a woman's age, to sex role norms and birth expectations (Groat et al., 1976; Mason et al., 1976; Simon, 1975b)

This section of the literature review described the major fertility models, with primary emphasis on the utility model. The utility model conceptualizes the childbearing choice as the outcome of a decision-making process where couples weigh their alternatives and choose the family size that provides the most satisfaction for them. According to the research findings, women who are more individualistic in their sex role orientation seek fewer familistic rewards, and therefore prefer fewer children. The characteristics found to be most consistently associated with greater individualism and smaller expected families include higher education, a later age at marriage, and labor force participation both prior to and after marriage.

Summary

Findings from studies investigating fertility expectations have expanded our knowledge about motivations leading to differing family size expectations. Early research on average expected family size identified differences in the average expectations by various characteristics of families. Specifically, average expected family size was correlated with education of husband and wife, wife's length of postmarital employment, husband's income and occupation, wife's age at first marriage, woman's size of family of orientation, religion and religiosity, and a rural residence both before and after marriage.

Actual birth expectations rather than average expectations are currently of interest to researchers because of the narrowing of

differentials among women by average expectations. Few researchers,
however, have concentrated on women with low birth expectations, or
women expecting zero, one, or two children. The information that is
currently available on these women is based on Census data, several
studies comparing women expecting no children with women expecting
some children, and studies on voluntarily childless women. Findings
from this research suggest there are some differences among women ex-
pecting zero, one, or two children, although the findings are not in
agreement as to the nature of these differences. Differences noted
include age, age at first marriage, length since first marriage,
education, socioeconomic status, and geographic residence.

Going beyond the identification of characteristics associated
with variations in birth expectations, fertility researchers have de-
veloped conceptual models focused on economic, sociological, and,
later, psychological motivations. As awareness of the complexity of
fertility decisions has increased, fertility models have been expanded
to encompass socioeconomic motivations, and, in theory, psychological
motivations.

The utility model, as with other fertility models, emphasizes
that a woman's stated birth expectation is the outcome of a decision-
making process in which she weighs the costs and benefits of her alter-
natives, and chooses an alternative she perceives will provide her with
the most net profit. Research findings supporting the utility per-
spective reveal that a woman who is more individualistic in her sex
role orientation perceives the satisfactions derived from nonparental
roles as being equal to, or greater than, the satisfaction derived

from the mother role. When this occurs, this woman will likely

choose to have fewer children, or, at the extreme, to have no chil-

dren. Important indicators of a woman's degree of individualism, as

identified in the research, are educational level, age at marriage,

premarital employment, and postmarital employment.

To this researcher's knowledge, there has been no study pri-

marily focusing on comparing women who expect zero, one, or two chil-

dren. Therefore, this study was undertaken to acquire information on

the similarities and differences of such women, and to gain insight

into the decision-making process leading to their decision to have

zero, one, or two children. The literature review suggests that the

utility model is a relevant conceptual framework for accomplishing

the purposes of this study.

Chapter III provides a description of the sample of wives

studied, along with the methodological procedures employed to carry

out the research.

III. METHODOLOGY

Data Source and Sample

The source of data for this investigation was the National Survey of Family Growth, a nationally representative survey conducted by the National Center for Health Statistics in 1973. Respondents were drawn from a multi-stage area probability sample of households (U.S. Department of Health, Education, and Welfare, 1978). A total of 9797 ever-married women and single women with children, 15 to 44 years of age, were interviewed extensively concerning their fertility and marital histories.

A major goal of this research study was to acquire information about women with low birth expectations. Therefore, the population of interest was defined as women with lifetime birth expectations of zero, one, or two children. To ensure a degree of homogeneity in terms of race, marital status, and parity status, the sample of women studied was restricted to white women who were currently married, childless, not pregnant, and had not adopted a child by the time of the interviews. Of the 9797 women interviewed in the original study, there were 5247 white, currently married women. A total of 890 of these 5247 wives were childless, not pregnant, and had not adopted a child by the time of the interview.

At this point, wives who expected zero, one, or two children were separated out from the 890 wives. In doing this, the woman's ability to bear children was a factor taken into consideration. With one exception, the final sample was comprised of women classified as fecund

by the original researchers, as it is this group of women whose birth expectations might be best explained by the utility model. Based on her fertility history, a woman was classified as fecund if there was no evidence of any physical impairment in her ability to have a child. The exception was a small group of women expecting zero children who were not fecund because of contraceptive sterilization.

Out of the 890 wives, 414 wives matched the sample requirements: 77 of the wives were contraceptively sterile or were fecund but expected zero children; another 32 wives were fecund and stated they expected one child. A third group of wives, numbering 305, were fecund and expected two children. The remaining 476 wives who did not meet the sample requirements consisted of women who were subfecund, sterile for noncontraceptive reasons, or were fecund but unsure of their expected number of children.

After a preliminary examination of these 414 wives, the decision was made to remove women who had first married past age 29. In investigating norms regarding the appropriate time for childbearing, Rindfuss and Bumpass (1976) found that age 30 was the average age women believed to be ideal for having their last child. Corresponding to that norm, the U.S. Bureau of the Census (1976) reported that most women complete their childbearing by age 30. Consequently, the childbearing decisions of a woman who first marries at age 30 or later may be influenced by additional factors not relevant to that decision for a woman married at younger ages.

The size of the final study sample was 401 wives: 70 who expected zero children (LBE 0); 31 who expected one child (LBE 1); and

300 who expected two children (LBE 2). Although the initial sample of 9797 women interviewed was representative of the U.S., there was a concern that this subsample of 401 wives was no longer a representative one since different criteria were used in the two selection processes. Each of the 9797 women in the survey had been assigned a weight factor based on the product of three adjustment factors: (1) the reciprocal of the probabilities of selection at each of the five selection stages; (2) the nonresponse adjustment; and (3) the adjustment by age and race after stratification (U.S. Department of Health, Education, and Welfare, 1978). A comparison of the range and average of weights for all white women in the original sample to those of the 401 wives in this study served as one check on the representativeness of the study sample.

For white women in the total sample, the range of weights was 526 to 14,996 with a mean of 4600. In looking at the three sub-groups of the 401 wives, the range and average for each group were as follows: LBE 0 - 3688 to 9262, 4687; LBE 1 - 3912 to 9172, 4628; LBE 2 - 3688 to 10,500, 4567. The similarity of the subsample means to the overall mean provided some assurance that the 401 wives were generally similar to all white women in the complete sample.

Analysis of the Data

The two purposes of this study were to determine differences among childless wives expecting zero, one, or two children, and to identify which characteristics of the wives were predictors of their expected number of children. With these purposes in mind, the analyses were divided into two stages, each stage dealing with one of the purposes.

Stage I: Descriptive Analyses

The objectives of this first stage were to identify the cultural,

social, and economic characteristics of the three groups of wives, and

to ascertain the differences and similarities of the groups. Due to

the limitations of the National Survey of Family Growth data, no in-

formation was available on the psychological characteristics of the

wives.

Initially, frequency distributions of each group across fifteen

of the wives' characteristics were tabulated. These fifteen charac-

teristics were size of family of orientation, religion and reli-

giosity, primary residence between 6 and 16, size of current resi-

dence, region of current residence, age, age at first marriage, years

since first marriage, education level at marriage, current education

level, premarital duration of employment, postmarital duration of em-

ployment, current labor force status, occupation level, and family

income.

One hypothesis was explored with these data:

Hypothesis 1:   There are no differences by birth expectations of
                childless wives on any of the fifteen characteris-
                tics.

Since all the wives had relatively low birth expectations, it was ex-

pected that few differences would be found among the three groups

of wives. In general, if differences exist, the literature review

suggested these differences would be by age, age at first marriage,

duration since marriage, employment experience, and education.

For testing hypothesis 1, two different tests were performed de-

pending on the level of the variables. A series of one-way analyses

of variance were carried out on birth expectations by each of the seven

characteristics that were continuous variables. These included age,

age at first marriage, years since first marriage, premarital dura-

tion of employment, postmarital duration of employment, education

level at marriage, and size of woman's family of orientation. The

other variables were categorical, and consequently chi-square tests

of independence were performed. These variables were religion and

religiosity, geographic residence as a child, size of current resi-

dence, region of current residence, current education level, current

labor force status, occupational level, and family income. When hy-

pothesis 1 was rejected at the $p < .01$ level, further examination of

the differences was accomplished using t-tests or chi-square tests

on two-group comparisons.

Stage II: Predictive Analyses

In the second stage, the primary objective was to systematically

determine what characteristics were more important in predicting the

wives' birth expectations. According to the utility framework, it was

postulated that the greater the degree of individualism, the fewer

number of children a woman will expect to have. In this study, then,

wives expecting zero children should be the most individualistic, or

modern, in their sex role orientation, while wives expecting two chil-

dren should be the least individualistic, or more traditional, in

their sex role orientation. Since degree of individualism was not

measured directly in the National Survey of Family Growth study, the

characteristics of the wives were used as indirect measures, or "proxy

measures," of the degree of individualism (Easterlin, 1969, p.143).

The characteristics of the wives were classified into two groups. One group, referred to as the "Cultural Background" model, consisted of characteristics representative of the cultural context in which the wives' sex role learning had occurred, or the cultural influence on that learning. There were four independent variables included in this model: woman's past and present residence, region of current residence, size of woman's family of orientation, and degree of religiosity.

The second model, called the "Individualism" model, consisted of the variables Scanzoni (1975) had identified as behavioral indicators of the degree of individualism and an economic variable. The four independent variables in this model were: age at first marriage/duration of marriage, current education/occupational level, current family income/wife's current labor force status, and premarital duration of employment/postmarital duration of employment. For this model, the effects of age were controlled in the analyses as age was not a variable of major interest in this study.

The statistical method chosen to analyze the relationships between the independent variables and the dependent variable of lifetime birth expectations (LBE) was multiple classification analysis (MCA), an extension of multiple regression analysis (Andrews et al., 1973). Certain characteristics of MCA made it a particularly appropriate method for the variables analyzed in this study. First, MCA can handle independent variables that are at nominal level or above, or that are correlated with one another. Also, with MCA no assumptions need to be made about the shape of the relationship of the independent variables

to the dependent variable. Finally, the dependent variable in the MCA
analysis may be a dichotomy.

Results of multiple classification analysis provide important in-
formation about several different aspects of the relationships being
analyzed (Andrews et al., 1973; Mueller, 1969). It shows, for instance,
how well all the independent variables explain the variation in the
dependent variable. In addition, it reveals how each one of the in-
dependent variables relates to the dependent variable, both before and
after adjusting for the effects of the other independent variables.
A more specific explanation of the MCA results will be included later.

As the dependent variable, lifetime birth expectations was treated
as a dichotomy. For each of the two models, three separate analyses
were carried out, one comparing wives expecting zero children and
wives expecting one child (LBE 0/LBE 1); a second comparing wives ex-
pecting one child and wives expecting two children (LBE 1/LBE 2); and
the third comparing wives expecting zero children and wives expecting
two children (LBE 0/LBE 2).

There were two reasons for dividing the analyses in the manner
just described. First, treatment of LBE as a dichotomy meant
that no assumptions needed to be made about the relationship of LBE 0,
LBE 1, and LBE 2 to one another. Second, use of a dichotomous depen-
dent variable rather than a continuous variable provided more informa-
tion about the relationships of the independent variables to specific
birth expectations.

The Cultural Background and Individualism models were tested by
two hypotheses. The specific hypotheses tested were:

Hypothesis 2: The independent variables together do not explain a significant amount of the variance in the birth expectations being analyzed.

Hypothesis 3: This independent variable by itself does not explain a significant amount of the variance in the birth expectations being analyzed.

Analyses of variance were carried out to test these hypotheses. From the literature review, it was expected that the individualism model would account for more of the variance in birth expectations than the cultural background model. Therefore, the variables in the individualism model should be the better predictors of birth expectations. Other relationships expected based on previous research findings included a negative relationship between each of the following characteristics and birth expectations: age at first marriage, length since first marriage, education, length of employment before and after marriage, and family income; and a positive relationship between each of the following characteristics and birth expectations: size of family of orientation, degree of religiosity, and rural experience in past and present residence.

The major results from the analyses outlined here are described in detail in Chapter IV.

IV. RESULTS

Descriptive Analyses

The frequency distributions for fifteen characteristics of the
wives by their birth expectations are presented in Table 1. Where the
information is available, the mean of each sub-group on a particular
characteristic is given. For several of the characteristics, 1973
data on ever-married women in the U.S., 15 to 44 years of age, are also
provided for comparison.

Insert Table 1 about here

Size of woman's family of orientation.   There was little dif-
ference between the wives' average size of family of orientation, rang-
ing from an average of 3.5 for LBE 0 to 3.9 for LBE 1. In looking at
the frequency distributions, one interesting difference was the propor-
tion of LBE 1 wives having been an only child. While the only child
family of orientation was not a very large percentage in any of the
three groups, the percentage of LBE 1 wives having been an only child
was nearly twice that of LBE 0 and LBE 2 wives in that category.

Religion and religiosity.   In general, there were few differ-
ences among the wives in religious preference, with the majority in all
three groups being non-Catholic. However, ten percent of LBE 0 and LBE
1 wives preferred no religious denomination in comparison with five per-
cent of LBE 2 wives.

Further separation of the wives by level of religiosity showed
that, for non-Catholics, the percentage of wives in each group attending
church once a month or more increased as the expected number of children

TABLE 1

FREQUENCY DISTRIBUTIONS FOR CHARACTERISTICS OF CHILDLESS
WHITE WIVES BY LIFETIME BIRTH EXPECTATIONS

| Characteristic | Lifetime Birth Expectations | | | |
	0 (n=70)	1 (n=31)	2 (n=300)	U.S.*
SIZE OF WOMAN'S FAMILY OF ORIENTATION				
Only child	6%	13%	7%	
Two children	31	23	23	
Three to four children	43	38	39	
Five or more children	20	26	31	
Mean Family Size	(3.5)	(3.9)	(3.8)	
RELIGION AND RELIGIOSITY				
Non-Catholic	67	87	69	
Attend church once a month or more	(34)	(44)	(51)	
Attend church several times a year or less	(66)	(56)	(49)	
Catholic	23	3	26	
Receive communion once a month plus	(32)	-	(33)	
Receive communion several times a year or less	(69)	(100)	(68)	
None	10	10	5	
GEOGRAPHIC RESIDENCE				
Woman's Primary Place of Residence Between 6 and 16				
Farm	20	16	15	
Nonfarm	80	84	85	
Size of Current Residence				
Nonmetropolitan	40	45	24	32%
Metropolitan	60	55	76	68
Region of Current Residence				
Northeast	23	6	22	22
North Central	26	13	21	28
South	30	55	38	31
West	21	26	19	19
AGE OF WOMAN				
15 to 19	2	16	14	
20 to 24	28	45	53	
25 to 29	39	32	27	
30 to 34	15	7	4	
35 to 39	6	-	2	
40 to 44	10	-	-	
Mean Age	(28.6)	(23.6)	(23.2)	

Table 1 continued

	Lifetime Birth Expectations			
	0	1	2	
Characteristic	(n=70)	(n=31)	(n=300)	U.S.*

MARITAL STATUS				
Age at First Marriage				
Under 18 years	2%	13%	6%	
18 to 19 years	16	13	34	
20 to 21 years	29	45	28	
22 to 24 years	34	26	25	
25 to 29 years	19	3	7	
Mean Age at First Marriage	(21.9)	(20.5)	(20.7)	
Years Since First Marriage				
Less than 5 years	49	81	88	
5 to 9 years	27	13	10	
10 to 14 years	14	6	1	
15 or more years	10	-	1	
Mean Years Since First Marriage	(6.7)	(3.1)	(2.5)	
EDUCATION				
Level at First Marriage				
11 years or less	7	13	10	
12 years	39	32	49	
1 to 3 years of college	24	33	22	
4 years of college or more	30	22	19	
Mean Years at First Marriage	(13.6)	(13.5)	(12.9)	
Current Level				
11 years or less	7	13	8	25%
12 years	37	32	48	50
1 to 3 years of college	23	26	21	14
4 years of college or more	33	29	23	11
EMPLOYMENT				
Premarital Duration of Employment				
Less than 1 year or not at all	20	29	33	
1 to 2 years	29	29	30	
3 to 4 years	24	19	21	
5 or more years	27	23	16	
Mean Years Duration	(3.0)	(2.6)	(2.3)	
Postmarital Duration of Employment				
Less than 1 year or not at all	23	32	36	
1 to 2 years	17	32	37	
3 to 4 years	16	16	18	
5 to 9 years	23	16	8	
10 or more years	21	4	1	
Mean Years Duration	(5.2)	(2.5)	(1.8)	
Current Labor Force Status				
In labor force	77	71	71	48
Not in labor force	23	29	29	52

Table 1 continued

| Characteristic | Lifetime Birth Expectations | | | U.S.* |
	0 (n=70)	1 (n=31)	2 (n=300)	
OCCUPATION				
Professional and administrative	35%	32%	27%	
Sales and clerical	47	36	50	
Blue and pink collar	14	32	20	
Never worked	4	-	3	
FAMILY INCOME (Yearly)				
0 to $4,999	7	6	9	
5 to $7,999	3	23	11	
8 to $11,999	20	23	28	
12 to $14,999	20	10	13	
$15,000 or more	50	38	39	

* Percentages based on ever-married women, 15 to 44 years of age, in the U.S. as of 1973. Source of data: U.S. Bureau of the Census, 1974, Table 17, p. 37.

increased from zero to two. For Catholics, excluding LBE 1 wives, the percentages of wives in the two communion categories were nearly identical for both LBE 0 and LBE 2 wives.

Geographic residence characteristics. Frequency distributions on three different characteristics of the wives' geographic residence revealed some differences among the three groups. Four-fifths or more of all the wives lived on a nonfarm residence between 6 and 16, with wives expecting zero children having the largest percentage (20%) who had lived on a farm. While the current residence pattern indicated more of the wives lived in metropolitan areas than nonmetropolitan areas, the range was from slightly over half of the LBE 1 wives to a little more than three-fourths of the LBE 2 wives.

A major difference between wives expecting one child and wives expecting zero or two children was apparent by region of current residence. Of the LBE 1 wives, 55 percent were currently living in the South, a considerably higher percentage than for either of the other two groups or for ever-married women in the U.S. The high proportion of LBE 1 wives living in the South was primarily offset by the very small proportion living in the Northeast (6%). The distributions of the other two groups, LBE 0 and LBE 2, across the four regions were similar to that of the ever-married women in the U.S.

Age of woman. In examining the distributions between six categories of wife's current age by LBE, the results indicated that LBE 1 and LBE 2 wives were quite similar in age. Both, however, were on the average five years younger than LBE 0 wives. Although at least 67 percent of the wives in all three groups were 20 to 29 years of age, the

groups differed most for the age category 15 to 19, and the categories

after age 29. Whereas approximately one-sixth of the wives in LBE 1

and LBE 2 were under 20, only two percent of LBE 0 wives were in that

age category. Thirty-one percent of the LBE 0 group were 30 or older

compared to less than ten percent of the LBE 1 and LBE 2 groups.

The relatively high concentration of LBE 0 wives in the age span,

20 to 29 years, was somewhat surprising when compared with Poston's

findings (1976) from the 1965 National Fertility Study. Of 69 wives,

15 to 44 years of age, whom he categorized as voluntarily childless, he

found only 28 percent to be under the age of 30, or less than half

the percent of LBE 0 women under 30 according to these data. The eight-

year time difference in the dates of the studies could be one explana-

tion for this difference, as it is possible that by 1973 more wives ex-

pecting no children stated that expectation at an earlier age than

did wives in 1965. Further confirmation of an historical decline in

the age when a woman makes the decision not to have children was pro-

vided by Poston and Gotard (1977).

Marital status characteristics. By average age at first mar-

riage, wives expecting no children were about a year older when they

first married than either the LBE 1 or LBE 2 wives. In looking at the

categories in each group where the wives were most highly concentrated,

it can be seen that 40 percent of the LBE 2 wives were under 20 when

they first married, 45 percent of LBE 1 wives were 20 to 21, and 53

percent of LBE 0 wives were 22 years or older. However, it should also

be noted that the largest percentage of wives married under 18, 13 per-

cent, occurred in the LBE 1 group.

As expected, based on the age differences already discussed, the average years since first marriage was greatest for LBE 0 wives, being 6.7 years. For LBE 1 and LBE 2 wives, on the other hand, the average years since first marriage were 3.1 and 2.5 respectively. In fact, more than 80 percent of these latter two groups were married less than 5 years previously, whereas 24 percent of the LBE 0 wives had first married ten or more years previously.

Education characteristics. The three groups of wives showed some differences with respect to educational attainment. At the time of marriage, LBE 0 and LBE 1 wives had achieved slightly higher average educational levels than LBE 2 wives. Nearly one-third of the LBE 0 wives had attained 4 years or more of college before they first married, whereas over one-half of the LBE 2 wives had a high school education or less. Of interest also was the percentage of LBE 1 wives with 11 years or less (13%) and with 1 to 3 years of college (33%), both "incomplete" levels of education. In both of these categories, LBE 1 wives had the highest percentages of any of the three groups.

When contrasting the current education levels to the levels at marriage, a few changes were noticeable. Most of the changes occurred in the proportion of wives in all three groups who advanced from 1 to 3 years college to 4 or more years college. This change was especially noticeable for the LBE 1 wives where the proportion of wives at 1 to 3 years of college decreased by 7 percentage points with a corresponding increase in the proportion at 4 years or more college.

All the wives in this study were more highly educated than the general U.S. population of ever-married women. While only a little

more than one-fifth of the women in the U.S. had greater than a high

school education, between two-fifths to one-half of the women in this

study had at least some college. One possible explanation for this dif-

ference might be an education bias in the National Survey of Family

Growth sampling procedure. However, this finding is more likely a

result of the general inverse relationship of education and

birth expectations as noted in the literature review; that is, a woman

expecting two children is still expecting a relatively small family,

and small families tend to be associated with somewhat higher levels of

education.

Employment characteristics. Both before marriage and since mar-

riage, there was an inverse relationship between duration of employ-

ment and birth expectations. Before marriage, though, the range of

average years worked was quite small, from a little over two years for

LBE 2 wives to three years for LBE 0 wives. After marriage, most like-

ly because of the age differences, the range was much greater with LBE

0 wives having worked two to three times longer than LBE 1 and LBE 2

wives.

Over 70 percent of the wives in the three groups were currently in

the labor force, 25 to 30 percentage points greater than for ever-mar-

ried women in the U.S. at that time. A probable explanation for the

high level of labor force participation for the wives in this sample

may be their childless status. As Ritchey and Stokes have suggested

(1974), it is often unacceptable for a woman without children to re-

main in the home on a full-time basis.

Occupation. In studying the occupational categories, the

highest percentage of wives in the professional and administrative cate-
gory, 35 percent, was for LBE 0 wives, while the lowest percentage was
27 percent for LBE 2 wives. Although nearly one-third of the LBE 1
wives were also in the professional category, an equal number were in
the blue- and pink-collar category. In contrast, one-fifth or less of
the wives in the other groups were in this latter category. A very
small proportion of LBE 0 wives and LBE 2 wives had never been employed
at any time up to 1973.

Family income.   When compared on family income, LBE 0 wives had
the greatest proportion of wives with family incomes at $12,000 and
over (70%). The percentages of wives for each group in the 0 to
$4,999 category were quite similar; in the next category, $5 to $7,999,
though, the percentage of LBE 1 wives was noticeably higher than for
LBE 0 and LBE 2 wives. Twenty-three percent of the LBE 1 wives had
family incomes between $5,000 and $7,999.

In Table 2, the results of the one-way analyses of variance test-
ing hypothesis 1 are summarized. As can be seen, there were highly
significant differences between the three groups of wives by age, age
at first marriage, length since first marriage, and length of employ-
ment since marriage. A significant difference was also found by edu-
cation level at marriage.

Insert Table 2 about here

In further examining the t-test results, shown in Table 3, for
the characteristics in Table 2 where highly significant differences
were found, it was evident that the differences could be attributed
to the LBE 0 group. LBE 0 wives were significantly older, had married

TABLE 2

RESULTS OF ONE-WAY ANALYSES OF VARIANCE
Lifetime Birth Expectations of Childless White Wives by Age, Age at
First Marriage, Years Since First Marriage, Postmarital Duration of Em-
ployment, Education Level at Marriage, Premarital Duration of Employ-
ment, Size of Woman's Family of Orientation

Independent Variable	Source	D.F.	Mean Squares	F Ratio
Age of Woman	Between Groups	2	825.16	44.52**
	Within Groups	398	18.54	
Age at First Marriage	Between Groups	2	43.38	6.33**
	Within Groups	398	6.86	
Years Since First Marriage	Between Groups	2	495.26	42.02**
	Within Groups	398	11.79	
Postmarital Duration of Employment	Between Groups	2	323.15	34.56**
	Within Groups	398	9.35	
Education Level at Marriage	Between Groups	2	14.46	2.99*
	Within Groups	398	4.84	
Premarital Duration of Employment	Between Groups	2	13.43	2.07
	Within Groups	398	6.49	
Size of Woman's Family of Orientation	Between Groups	2	.93	1.55
	Within Groups	398	.60	

* $p < .05$

** $p < .01$

at a significantly older age, were married significantly longer, and had worked significantly longer since marriage than either of the other two groups of wives. In turn, no significant differences were observed between LBE 1 and LBE 2 wives on any of the four characteristics.

Insert Table 3 about here

The chi-square tests of independence are given in Table 4. The results revealed that the wives' lifetime birth expectations were not independent of the characteristics, size of woman's current residence (p < .01). When individual group comparisons were carried out, two of the three chi-squares were significant. Specifically, in those comparisons including the LBE 2 group, birth expectations were not independent of size of current residence.

Insert Tables 4 and 5 about here

Based on the analyses from this stage, hypothesis 1 was rejected at the p< .01 level for the characteristics of age, age at first marriage, length since first marriage, length of employment since marriage, and size of current residence. It was rejected at the p< .05 level for the characteristics of education level at marriage. No differences of significance were found for the remaining nine characteristics: size of woman's family of orientation, length of employment before marriage, religion and religiosity, woman's place of residence between 6 and 16, region of current residence, current educational level, current labor force status, occupational level, and family income.

TABLE 3

RESULTS OF t-TESTS

Lifetime Birth Expectations of Childless White Wives and Age, Age at First Marriage, Years Since First Marriage, Postmarital Duration of Employment

Independent Variable	N	Mean	S.D.	t-Value
LBE 0/LBE 1				
Age of Woman				
LBE 0	70	28.6	6.22	4.61**
LBE 1	31	23.6	4.44	
Age at First Marriage				
LBE 0	70	21.9	2.72	2.49*
LBE 1	31	20.5	2.39	
Years Since First Marriage				
LBE 0	70	6.7	5.81	4.00**
LBE 1	31	3.1	3.23	
Postmarital Duration of Employment				
LBE 0	70	5.2	5.25	3.20**
LBE 1	31	2.5	2.99	
- - - - - - - - - -				
LBE 1/LBE 2				
Age of Woman				
LBE 1	31	23.6	4.44	.49
LBE 2	300	23.2	3.71	
Age at First Marriage				
LBE 1	31	20.5	2.39	- .43
LBE 2	300	20.7	2.62	
Years Since First Marriage				
LBE 1	31	3.1	3.23	1.10
LBE 2	300	2.5	2.62	
Postmarital Duration of Employment				
LBE 1	31	2.5	2.99	1.33
LBE 2	300	1.8	2.28	
- - - - - - - - - -				

Table 3 continued

Independent Variable	N	Mean	S.D.	t-Value
LBE 0/LBE 2				
Age of Woman				
LBE 0	70	28.6	6.22	6.95**
LBE 2	300	23.2	3.71	
Age at First Marriage				
LBE 0	70	21.9	2.72	3.42**
LBE 2	300	20.7	2.62	
Years Since First Marriage				
LBE 0	70	6.7	5.81	5.87**
LBE 2	300	2.5	2.62	
Postmarital Duration of Employment				
LBE 0	70	5.2	5.25	5.26**
LBE 2	300	1.8	2.28	

* $p < .05$

** $p < .01$

TABLE 4

RESULTS OF CHI-SQUARE TESTS OF INDEPENDENCE
Lifetime Birth Expectations of Childless White Wives with Religion
and Religiosity, Primary Place of Residence as Child, Size of Cur-
rent Residence, Region of Current Residence, Current Educational
Level, Current Labor Force Status, Occupational Level, Family Income

Independent Variable	D.F.	χ^2
Religion and Religiosity	8	15.15
Woman's Primary Place of Residence Between 6 and 16	2	.91
Size of Current Residence	2	12.27**
Region of Current Residence	6	9.10
Current Educational Level	6	6.05
Current Labor Force Status	2	1.08
Occupational Level	4	5.03
Family Income	8	14.19

** $p < .01$

TABLE 5

RESULTS OF CHI-SQUARE TESTS OF INDEPENDENCE
Lifetime Birth Expectations of Childless White Wives with Size of
Current Residence

Group Comparison	D.F.	χ^2
LBE 0/LBE 1 Comparison	1	.07
LBE 1/LBE 2 Comparison	1	5.72*
LBE 0/LBE 2 Comparison	1	6.92**

* $p < .05$

** $p < .01$

Predictive Analyses

The predictive analyses were designed to test hypotheses 2 and
3. Although a general description of multiple classification analyses
was provided earlier, a more detailed explanation will be given here.

In each MCA analysis (Andrews et al., 1973; Mueller et al., 1969),
the mean value for the total sample under consideration is calculated
and referred to as the "grand mean". With the dependent variable being
a dichotomy, the grand mean represents the proportion of women intend-
ing the larger number of children. For example, in the comparison of
LBE 0 and LBE 1, 30.7 is the grand mean (see Table 7); that is, 30.7
percent of the 101 women in this sample expect one child, while the
remaining 69.3 percent expect zero children.

The MCA program computes two deviations from this grand mean for
every subclass of every independent variable. An "unadjusted devia-
tion" is the first deviation computed, and is the amount by which the
mean of the dependent variable for that subclass deviates from the
grand mean. This deviation indicates whether a particular subclass is
above or below average with respect to the dependent variable. The
second deviation is called the adjusted deviation. It is the deviation
of each subclass mean from the grand mean, after controlling for the
effects of all other variables ih the analysis. This adjusted devia-
tion reveals whether a subclass is still above or below average after
accounting for the influence of other variables. In the review of the
results that follows, the adjusted percentages will be the basis for
discussion unless otherwise noted.

Other information provided in the MCA include statistics that reveal how each independent variable relates to the dependent variable both before and after adjustment, and how much of the variance in the dependent variable is explained by all the variables together. The eta coefficient is the statistic that indicates the proportion of variance explained by an independent variable before adjustment, and the beta coefficient is the equivalent statistic after adjustment. Finally, the multiple R^2 statistic is an index of the percent of variance explained by the total model.

Cultural Background Model

Table 6 contains a list of the characteristics which were the independent variables in the cultural background model. The symbols denoted in the Table for the variables will be used throughout the presentation of the results. Each variable was subdivided into mutually exclusive categories for the analysis, and the reference names and definitions of these categories are also included in Table 6. A summary of the MCA results will be given separately for each of the three comparisons.

Insert Table 6 about here

Analysis of LBE 0 and LBE 1.   The results of the LBE 0 and LBE 1 analysis are shown in Table 7. Of the 101 wives in this analysis, 30.7 percent were expecting one child and 69.3 percent were expecting zero children. The variables RCR and WPPGR showed the strongest relation of the four variables to birth expectations, particularly after adjustment, with beta coefficients of .37 and .24 respectively. The percentages of LBE 1 wives were considerably above average in the

TABLE 6

INDEPENDENT VARIABLES IN CULTURAL BACKGROUND MODEL

Variable Name	Variable Symbol	Categories for Analysis
Region of Current Residence	RCR	Northeast: Maine, New Hampshire, Vermont, Massachussetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania; North Central: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas; South: Delaware, Maryland, Washington, D.C., Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee; Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas; West: Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, Hawaii.
Woman's Past and Present Geographic Residence	WPPGR	Farm/Nonmetrop.: Lived on a farm between 6 and 16, and currently lives outside a Standard Metropolitan Statistical Area; Farm/Metrop.: Lived on a farm between 6 and 16, and currently lives inside a Standard Metropolitan Statistical Area; Nonfarm/Nonmetrop.: Did not live on a farm between 6 and 16, and currently lives outside a Standard Metropolitan Statistical Area; Nonfarm/Metrop.: Did not live on a farm between 6 and 16, and currently lives inside a Standard Metropolitan Statistical Area.
Size of Woman's Family of Orientation	SWFO	Small: 2 children or less Medium: 3 to 4 children Large: 5 or more children
Religiosity	RELIG	High: Attends church or receives communion once a month or more; Low: Attends church or receives communion several times a year or less.

Southern and Western regions of the U.S.; and, in turn, the percentages
of LBE 0 wives were above average for the Northeast and North Central
regions.

<u>Insert Table 7 about here</u>

In studying past and present size of residence, LBE 1 wives were
found in more than average frequency in the nonfarm/metropolitan cate-
gory. However, in all other WPPGR categories, especially the two con-
sisting of past residence as farm, the frequency of LBE 0 wives was
much higher. For the WPPGR variable, adjustment for the other variab-
les caused several of the category deviations to change direction.
Presumably the change in direction resulted from the adjustment for
the high concentrations of LBE 0 and LBE 1 wives in diverse regions of
the U.S. (RCR variable), although a test for interaction between these
two variables did not indicate they were highly correlated.

While the effects of SWFO and RELIG on birth expectations were not
very great, there were several trends observed in the deviations. The
probability of a wife expecting one child was above average if she
came from a large family of orientation and if her level of religiosity
was high. In contrast, the probability of a wife expecting zero chil-
dren was greatest if she had a medium size family of orientation and
if her religiosity was low.

Analysis of LBE 1 and LBE 2. As shown in Table 8, 90.6 percent
of the 331 wives in this comparison expected two children. In the
analysis, only the RCR and WPPGR variables were found to have even a
moderate influence on LBE. The incidence of LBE 1 wives was slightly
greater than average in the Southern and Western regions again, and

TABLE 7

MULTIPLE CLASSIFICATION ANALYSIS OF CULTURAL BACKGROUND MODEL
Comparison of Childless White Wives Expecting Zero Children and One Child

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 0	Unadjusted %LBE 1	Adjusted Deviation*	BETA	Adjusted %LBE 0	Adjusted %LBE 1
Grand Mean 30.7%	101			69.3%	30.7%			69.3%	30.7%
RCR									
Northeast	18	-19.58%		88.9	11.1	-25.67%		95.0	5.0
North Central	22	-12.51		81.8	18.2	-17.11		86.4	13.6
South	38	14.04		55.3	44.7	15.15		54.2	45.8
West	23	4.09		65.2	34.8	11.43		57.9	42.1
			.29				.37		
WPPGR									
Farm/Nonmetrop.	11	5.67		63.6	36.4	-10.84		80.1	19.9
Farm/Metrop.	8	-18.19		87.5	12.5	-30.14		99.4	.6
Nonfarm/Nonmetrop.	31	1.56		67.7	32.3	- 2.33		71.6	28.4
Nonfarm/Metrop.	51	.68		68.6	31.4	8.48		60.8	39.2
			.12				.24		
SWFO									
Small	37	- .96		70.3	29.7	.85		68.5	31.5
Medium	42	- 2.12		71.4	28.6	- 5.46		74.8	25.2
Large	22	5.67		63.6	36.4	9.00		60.3	39.7
			.07				.12		
RELIG									
High	33	5.67		63.6	36.4	7.01		62.3	37.7
Low	68	- 2.75		72.0	28.0	- 3.40		72.7	27.3
			.09				.11		

Multiple R^2 = .141

* Adjusted for other independent variables

also for both the WPPGR categories where the current residence was a
metropolitan one. Alternately, LBE 2 wives were more often living in
the Northeast and the North Central regions, and in metropolitan areas.

Insert Table 8 about here

A small positive relationship existed between the variable SWFO
and LBE. In other words, the highest percentage of LBE 2 wives oc-
curred in the category "large". Also, by religiosity, there was a
very slight above average tendency for LBE 1 wives to have a low level
of religiosity, and LBE 2 wives to have a high level.

Analysis of LBE 0 and LBE 2. In Table 9, the MCA results com-
paring LBE 0 and LBE 2 wives are presented. The percentage of the
370 wives in the comparison expecting two children was 81.1, with the
remaining 18.9 percent expecting zero children. The variable of most
importance, judging by the beta coefficient (.20), was WPPGR. Except
for one category, nonfarm/metropolitan, LBE 0 wives were represented
with above average frequency in the WPPGR categories.

Insert Table 9 about here

An examination of the other three variables indicated that LBE 0
wives were somewhat more likely than average to have a low level of
religiosity and to be living in the North Central and Northeast re-
gions of the U.S. By comparison, the LBE 2 wives were a little above
average in the "high" category of religiosity and in the Southern
region of the U.S. As in the previous comparison, a positive rela-
tionship was observed between SWFO and LBE.

Explanatory power of the cultural background models. In look-
ing at the multiple R^2's in the three analyses, one of the clearest

TABLE 8

MULTIPLE CLASSIFICATION ANALYSIS OF CULTURAL BACKGROUND MODEL
Comparison of Childless White Wives Expecting One Child and Two Children

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 1	%LBE 2	Adjusted Deviation*	BETA	Adjusted %LBE 1	%LBE 2
Grand Mean 90.6%	331			9.4%	90.6%			9.4%	90.6%
RCR									
Northeast	67	6.38%		3.0	97.0	6.05%		3.3	96.7
North Central	67	3.40		6.0	94.0	3.51		5.9	94.1
South	130	− 3.71		13.1	86.9	− 3.53		12.9	87.1
West	67	− 2.57		12.0	88.0	− 2.71		12.1	87.9
			.14				.14		
WPPGR									
Farm/Nonmetrop.	27	− 5.45		14.8	85.2	− 5.47		14.8	85.2
Farm/Metrop.	24	5.20		4.2	95.8	5.27		4.1	95.9
Nonfarm/Nonmetrop.	58	− 7.88		17.2	82.8	− 7.95		17.3	82.7
Nonfarm/Metrop.	222	2.16		7.2	92.8	2.17		7.2	92.8
			.15				.15		
SWFO									
Small	102	− 1.42		10.8	89.2	− 2.04		11.4	88.6
Medium	129	.06		9.3	90.7	− .39		9.8	90.2
Large	100	1.37		8.0	92.0	2.59		6.8	93.2
			.04				.06		
RELIG									
High	143	.97		8.4	91.6	1.71		7.7	92.3
Low	188	− .74		10.1	89.9	− 1.30		10.1	89.3
			.03				.05		

Multiple R^2 = .045

*Adjusted for other independent variables

TABLE 9

MULTIPLE CLASSIFICATION ANALYSIS OF CULTURAL BACKGROUND MODEL
Comparison of Childless White Wives Expecting Zero Children and Two Children

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 0	%LBE 2	Adjusted Deviation*	BETA	Adjusted %LBE 0	%LBE 2
Grand Mean 81.1%	370			18.9%	81.1%			18.9%	81.1%
RCR									
Northeast	81	− .83%		19.7	80.3	− 1.83%		20.7	79.3
North Central	81	− 3.30		22.2	77.8	− 4.05		23.0	77.0
South	134	3.25		15.7	84.3	3.95		15.0	85.0
West	74	− 1.35		20.3	79.7	− .71		19.6	80.4
			.07				.08		
WPPGR									
Farm/Nonmetrop.	30	− 4.41		23.3	76.7	− 8.72		27.6	72.4
Farm/Metrop.	30	− 4.41		23.3	76.7	− 6.36		25.3	74.7
Nonfarm/Nonmetrop.	69	−11.52		30.4	69.6	−12.62		31.5	68.5
Nonfarm/Metrop.	241	4.40		14.5	85.5	5.49		13.4	86.6
			.16				.20		
SWFO									
Small	117	− 3.30		22.2	77.8	− 3.67		22.6	77.4
Medium	147	− 1.49		20.4	79.6	− 2.02		20.9	79.1
Large	106	5.71		13.2	86.8	6.85		12.1	87.9
			.09				.11		
RELIG									
High	152	5.10		13.8	86.2	4.83		14.1	85.9
Low	218	− 3.56		22.5	77.5	− 3.36		22.3	77.7
			.11				.10		

Multiple R^2 = .058

* Adjusted for other independent variables

results was that the power of the cultural background variables to ex-
plain birth expectations was relatively limited. The largest R^2 was
for the LBE 0/LBE 1 comparison. In that analysis, 14 percent of the
variation in birth expectations was accounted for by the four cultural
background variables. The R^2's for the other two analyses were approx-
imately 5 percent.

One explanation for the low multiple R^2's obtained in these three
analyses, and in the following three as well, was outlined by Eva
Mueller:

> At the individual level an immense variety of influences affect
> people's experiences. Many of these such as health, personality,
> and psychological characteristics have constant distributions
> over time or in large groups. R^2's well below 20 percent in
> individual cross-sectional analysis are common between the
> very variables which show very high R^2's in time series
> analysis.... (1969, p. 100)

After studying the four variables included in this model as re-
presentative of the wives' cultural background, the two variables de-
signating residence characteristics of the wives (RCR and WPPGR) ap-
peared to be the more important of the four variables. The beta co-
efficients were higher for RCR and WPPGR than the beta coefficients
for SWFO and RELIG in all three analyses, except for the LBE 0/LBE
2 analysis. In that instance, the beta coefficient for the RCR vari-
able was the lowest.

As a more systematic test of the explanatory power of the cul-
tural background model, analyses of variance were carried out, and
these results are summarized in Table 10. The F value for the LBE 0/
LBE 2 comparison revealed that the cultural background model explained
a highly significant portion of the variance in the birth expectations

of zero or two. The one variable in this particular analysis which contributed significantly to the variation explained was the WPPGR variable $(p < .01)$.

Insert Table 10 about here

For the other two comparisons, the cultural background model did not explain a significant amount of the variance in the birth expectations analyzed. However, in the LBE 0/LBE 1 comparison, the RCR variable did add significantly to the variance that was explained in the birth expectations of zero and one.

In terms of the hypotheses tested for this model, hypothesis 2 was rejected for the LBE 0/LBE 2 comparison $(p < .01)$. Accordingly, it was concluded that, for this sample of childless wives, the ability to predict whether a wife expected no children or two children was significantly better than chance using the cultural background model. Hypothesis 3 was rejected for the RCR variable in the LBE 0/LBE 1 comparison $(p < .05)$, and again for the WPPGR variable in the LBE 0/LBE 2 comparison $(p < .01)$. This indicated that these two variables contributed a significant amount of information to the variance explained in their respective comparisons.

Individualism Model

The four variables in this model are identified in Table 11, along with the variable symbols and the specification of the categories for each variable. Each of the variables was created by combining categories of two variables that were thought to be correlated with one another.

Insert Table 11 about here

TABLE 10

ABILITY OF CULTURAL BACKGROUND MODELS TO PREDICT BIRTH EXPECTATIONS
Tests of Significance for Full Models and for Variables Separately

	D.F.	F Ratio
LBE 0/LBE 1 Comparison		
RCR	3, 91	3.96*
WPPGR	3, 91	1.60
SWFO	2, 91	.71
RELIG	1, 91	1.12
Full Model	9, 91	1.66
LBE 1/LBE 2 Comparison		
RCR	3, 321	2.10
WPPGR	3, 321	2.35
SWFO	2, 321	.63
RELIG	1, 321	.82
Full Model	9, 321	1.70
LBE 0/LBE 2 Comparison		
RCR	3, 360	.79
WPPGR	3, 360	4.58**
SWFO	2, 360	2.32
RELIG	1, 360	3.79
Full Model	9, 360	2.49**

* $p < .05$

** $p < .01$

TABLE 11

INDEPENDENT VARIABLES IN INDIVIDUALISM MODEL

Variable Name	Variable Symbol	Categories for Analysis
Age at First Marriage/Duration of Marriage	AOMDM	Young/Short: First married under 21 and married 3 years or less; Young/Long: First married under 21 and married more than 3 years; Older/Short: First married at age 21 plus and married 3 years or less; Older/Long: First married at age 21 plus and married more than 3 years.
Education/ Occupation	EDOCCUP	Low/High: High school or less education and professional or administrative occupation; Low/Middle: High school or less education and sales or clerical occupation; Low/Low: High school or less education and blue- or pink-collar occupation, or never worked; High/High: 1 to 3 years or more college and professional or administrative occupation; High/Middle: 1 to 3 years or more college and sales or clerical occupation; High/Low: 1 to 3 years or more college and blue- or pink-collar occupation, or never worked.
Yearly Family Income/Wife's Labor Force Status	INCWK	Low/Wife in L.F.: Yearly family income below $12,000 and wife is in labor force at present time; Low/Wife not in L.F.: Yearly family income below $12,000 and wife not in labor force at present time; High/Wife in L.F.: Yearly family income $12,000 or above and wife is in labor force at present time; High/Wife not in L.F.: Yearly family income $12,000 or above and wife not in labor force at present time.

Table 11 continued

Variable Name	Variable Symbol	Categories for Analysis
Employment Experience	EMPEXP	Less/Less: Worked 2 years or less before marriage and 2 years or less since marriage; Less/More: Worked 2 years or less before marriage and more than 2 years since marriage; More/Less: Worked more than 2 years before marriage and 2 years or less since marriage; More/More: Worked more than 2 years before marriage and more than 2 years since marriage.

Analysis of LBE 0 and LBE 1.   Table 12 contains the results of the LBE 0/LBE 1 comparison. As the beta coefficients indicate, the four variables remained relatively important in explaining birth expectations after adjustment, although adjustment reduced the importance of all of them. AOMDM and EDOCCUP were the more important determinants of birth expectations, having beta coefficients of .25 and .24 respectively.

<u>Insert Table 12 about here</u>

In looking at AOMDM, LBE 1 wives had higher probabilities than average for two categories. Their numbers were greater among those who had first married under age 21 and who had been married three years or less (young/short), and among those who had first married at 21 or older and who had been married over three years (older/long). LBE 0 wives were represented in above average frequency for the remaining two AOMDM categories, particularly among the wives married at 21 or older and married three years or less (older/short).

Several different patterns were apparent from the results for the EDOCCUP variable. Wives with a high school education or below showed an above average tendency to expect one child if their occupations were professional or administrative, or blue- and pink-collar (low/ high and low/low). For the wives with more than a high school education, only the wives in sales and clerical occupations showed this same tendency (high/middle). In comparison, LBE 0 wives were found in greater percentages than for the total sample in the following EDOCCUP categories: wives with low education and sales and clerical occupations (low/middle); wives with higher education and professional and

TABLE 12

MULTIPLE CLASSIFICATION ANALYSIS OF INDIVIDUALISM MODEL
Comparison of Childless White Wives Expecting Zero Children and One Child

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 0	%LBE 1	Adjusted Deviation*	BETA	Adjusted %LBE 0	%LBE 1
Grand Mean 30.7%	101			69.3%	30.7%			69.3%	30.7%
AOMDM									
Young/Short	17	28.13%		41.2	58.8	9.20%		60.1	39.9
Young/Long	20	- 5.69		76.0	24.0	- 5.27		74.6	25.4
Older/Short	19	-14.90		84.2	15.8	-21.39		90.7	9.3
Older/Long	45	- 1.80	.29	71.1	28.9	7.90	.25	61.4	38.6
EDOCCUP									
Low/High	6	35.97		33.3	66.7	31.93		37.4	62.6
Low/Middle	24	-18.19		87.5	12.5	-11.44		80.7	19.3
Low/Low	15	15.97		53.3	46.7	1.18		68.1	31.9
High/High	29	-10.00		79.3	20.7	- 3.97		73.3	26.7
High/Middle	20	9.31		60.0	40.0	11.02		58.3	41.7
High/Low	7	12.16	.34	57.1	42.9	- 5.72	.24	75.0	25.0
INCWK									
Low/Wife in L.F.	22	5.67		63.6	36.4	2.34		67.0	33.0
Low/Wife not in L.F.	15	22.64		46.7	53.3	15.93		53.4	46.6
High/Wife in L.F.	54	- 4.77		74.1	25.9	- 3.31		72.6	27.4
High/Wife not in L.F.	10	-20.69	.25	90.0	10.0	-11.19	.16	80.5	19.5
EMPEXP									
Less/Less	27	13.75		55.6	44.4	- 7.05		76.4	23.6
Less/More	25	- 6.69		76.0	24.0	- 3.11		72.4	27.6
More/Less	21	7.40		61.9	38.1	3.83		65.5	34.5
More/More	28	-12.84	.24	82.1	17.9	6.70	.12	62.6	37.4

Multiple R^2 = .295

*Adjusted for other independent variables and age of woman

administrative occupations (high/high), or blue- and pink-collar occupations (high/low).

Corresponding to the frequency distribution results, the findings on INCWK revealed that LBE 0 wives were more likely than average to have family incomes of $12,000 or above, even after controlling for the effects of age. This was particularly so when the wives were not currently in the labor force. Similarly, wives with family incomes below $12,000 expected one child in above average frequency, and again, this frequency was higher for the wives not in the labor force.

The most unexpected of the findings in this analysis were the EMPEXP results. After taking out the effects of age and the other three variables, it appeared that length of premarital employment was more influential than length of employment since marriage in determining birth expectations. In other words, for both categories where premarital employment was two years or less (less/less and less/more), the wives showed a greater tendency to expect no children; whereas, when the length of premarital employment was over two years, the wives were more likely to expect one child. This pattern may in part be attributed to the greater percentage of LBE 0 wives who pursued higher education before they married compared to LBE 1 wives (see Table 1). Thus, LBE 0 wives were not working but instead were in college for a longer time period than LBE 1 wives prior to marriage.

Analysis of LBE 1 and LBE 2.   Results for the LBE 1/LBE 2 analysis are displayed in Table 13. Adjustment for age and other variables did not affect the degree of influence of each variable on birth expectations as evidenced by the stability of the beta coefficients

relative to the eta coefficients.

<u>Insert Table 13 about here</u>

With a beta coefficient of .19, AOMDM was the variable of most importance in this analysis. A shorter marital duration when married at a younger age (young/short), and a longer marital duration when married at an older age (older/long), were more frequently associated with the expectation of one child than for the total sample. In turn, the expectation of two children was above average for wives married at a young age and having a longer duration of marriage (young/long), and for wives married at an older age and having a shorter duration of marriage (older/short).

A higher probability of expecting one child was characteristic of every subclass of EDOCCUP, except wives with low education and in sales and clerical occupations (low/middle). For this latter group, the expectation of two children was more frequent than average. Among wives with a higher educational level, the proportion expecting one child increased as the level of occupation went from high to low.

Neither INCWK or EMPEXP accounted for much of the variance in birth expectations. However, wives who were not working and had low family incomes, along with wives who were working and had high family incomes, had a slight tendency to expect one child rather than two. The opposite trend was found for wives who were not working with high family incomes. In looking at EMPEXP, the data showed that only the wives who had been employed for less than two years both before and after marriage expected two children slightly above what was expected on the average (less/less). For every other length of

TABLE 13

MULTIPLE CLASSIFICATION ANALYSIS OF INDIVIDUALISM MODEL
Comparison of Childless White Wives Expecting One Child and Two Children

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 1	Unadjusted %LBE 2	Adjusted Deviation*	BETA	Adjusted %LBE 1	Adjusted %LBE 2
Grand Mean 90.6%	331			9.4%	90.6%			9.4%	90.6%
AOMDM									
Young/Short	106	- .07%		9.4	90.6	- 1.23%		10.6	89.4
Young/Long	73	2.52		6.8	93.2	3.37		6.0	94.0
Older/Short	86	5.88		3.5	96.5	6.01		3.4	96.6
Older/Long	66	-10.33	.19	19.7	80.3	- 9.57	.19	18.9	81.1
EDOCCUP									
Low/High	20	-10.63		20.0	80.0	- 8.53		17.9	82.1
Low/Middle	100	6.37		3.0	97.0	7.13		2.2	97.8
Low/Low	62	- 1.92		11.3	88.7	- 2.94		12.3	87.7
High/High	71	.91		8.5	91.5	- 1.42		10.8	89.2
High/Middle	60	- 3.97		13.3	86.7	- 2.62		12.0	88.0
High/Low	18	- 7.30	.17	16.7	83.3	- 5.64	.17	15.0	85.0
INCWK									
Low/Wife in L.F.	95	.94		8.4	91.6	.07		9.3	90.7
Low/Wife not in L.F.	65	- 2.94		12.3	87.7	- 1.52		10.9	89.1
High/Wife in L.F.	140	- .63		10.0	90.0	- 1.03		10.4	89.6
High/Wife not in L.F.	31	6.14	.08	3.2	96.8	7.64	.09	1.7	98.3
EMPEXP									
Less/Less	153	1.52		7.8	92.2	2.03		7.3	92.7
Less/More	55	- 1.54		10.9	89.1	- 2.10		11.5	88.5
More/Less	87	.17		9.2	90.8	- 1.21		10.6	89.4
More/More	36	- 4.52	.07	13.9	86.1	- 2.50	.07	11.9	88.1

Multiple R^2 = .073

*Adjusted for other independent variables and age of woman

employment pattern, wives expecting one child appeared in greater pro-

portions than average.

Analysis of LBE 0 and LBE 2.   Table 14 contains the results

of the LBE 0/LBE 2 comparison. In this analysis, adjustment for the

other variables and, more importantly, age of woman, greatly reduced

the influence of all the variables in predicting birth expectations.

In fact, EMPEXP, which was the most influential variable prior to

adjustment (eta coefficient of .30), had almost no influence after ad-

justment (beta coefficient of .02).

Insert Table 14 about here

The variables AOMDM, EDOCCUP, and INCWK showed a moderate rela-

tion to birth expectations. The percentage of LBE 2 wives was above

average for wives first married at 21 or older and married three years

or less (older/short); for wives with a high school education or less,

regardless of occupation; and for wives with a family income below

$12,000 and wife currently not in the labor force. By comparison,

education past high school, family incomes of $12,000 or above, and

a younger age at first marriage were all associated with an above

average percentage of LBE 0 wives.

Explanatory power of the individualism models.   The explana-

tory power of the four individualism variables was quite high for two

of the three analyses, the LBE 0/LBE 1 comparison (R^2 of .295) and

the LBE 0/LBE 2 comparison (R^2 of .217). Upon examining the beta

coefficients for the variables, there was a consistent pattern with

respect to the importance of the variables in all three analyses.

AOMDM was the variable of most importance, followed by EDOCCUP, then

TABLE 14

MULTIPLE CLASSIFICATION ANALYSIS OF INDIVIDUALISM MODEL
Comparison of Childless White Wives Expecting Zero Children and Two Children

	n	Unadjusted Deviation	ETA	Unadjusted %LBE 0	Unadjusted %LBE 2	Adjusted Deviation*	BETA	Adjusted %LBE 0	Adjusted %LBE 2
Grand Mean 81.1%	370			19.9%	81.1%			19.9%	81.1%
AOMDM									
Young/Short	103	12.12%		6.8	93.2	- 2.30%		21.2	78.8
Young/Long	83	.85		18.1	81.9	- 3.49		22.4	77.6
Older/Short	99	2.76		16.2	83.8	6.09		12.8	87.2
Older/Long	85	-18.73	.28	37.6	62.4	- .90	.10	19.8	80.2
EDOCCUP									
Low/High	18	7.81		11.1	88.9	8.40		10.5	89.5
Low/Middle	118	1.12		17.8	82.2	.02		18.9	81.1
Low/Low	63	6.22		12.7	87.3	3.75		15.2	84.8
High/High	88	- 7.22		26.1	73.9	- 2.14		21.1	78.9
High/Middle	64	.17		18.7	81.3	.24		18.7	81.2
High/Low	19	- 2.13	.12	21.0	79.0	-11.40	.09	30.3	69.7
INCWK									
Low/Wife in L.F.	101	5.06		13.9	86.1	.23		18.7	81.3
Low/Wife not in L.F.	64	7.98		10.9	89.1	6.93		12.0	88.0
High/Wife in L.F.	166	- 5.18		24.1	75.9	- 2.18		21.1	78.9
High/Wife not in L.F.	39	- 4.16	.14	23.1	76.9	- 2.71	.09	21.6	78.4
EMPEXP									
Less/Less	156	9.30		9.6	90.4	.13		18.8	81.2
Less/More	68	- 9.02		27.9	72.1	.53		18.4	81.6
More/Less	92	4.79		14.1	85.9	.53		18.4	81.6
More/More	54	-23.67	.30	42.6	57.4	- 1.94	.02	20.9	79.1

Multiple R^2 = .217

*Adjusted for other independent variables and age of woman

INCWK. Of least importance in explaining birth expectations was EMPEXP.

Table 15 summarizes the findings from the analyses of variance. For one analysis, the LBE 1/LBE 2 comparison, the individualism model explained a significant amount of the variance in the birth expectations being analyzed. The variable in this model contributing a significant amount of information to the variance explained was AOMDM.

Insert Table 15 about here

On the basis of the findings, hypothesis 2 was rejected for the LBE 1/LBE 2 comparison ($p < .05$), and it was concluded that for the wives in this study, the ability to predict whether a wife expected one child or two children was significantly better than chance with the individualism model. Hypothesis 3 was rejected for the AOMDM variable in this same comparison ($p < .05$).

In the next chapter, the major findings of the study are briefly summarized, followed by a discussion of the results.

TABLE 15

ABILITY OF INDIVIDUALISM MODELS TO PREDICT BIRTH EXPECTATIONS
Tests of Significance for Full Models and for Variables Separately

	D.F.	F Ratio
LBE 0/LBE 1 Comparison		
AOMDM	3, 85	1.80
EDOCCUP	5, 85	1.27
INCWK	3, 85	.46
EMPEXP	3, 85	.38
Full Model	14, 85	1.31
LBE 1/LBE 2 Comparison		
AOMDM	3, 315	3.55*
EDOCCUP	5, 315	1.85
INCWK	3, 315	.82
EMPEXP	3, 315	.33
Full Model	14, 315	1.76*
LBE 0/LBE 2 Comparison		
AOMDM	3, 354	.92
EDOCCUP	5, 354	.76
INCWK	3, 354	.87
EMPEXP	3, 354	.05
Full Model	14, 354	.72

* $p < .05$

** $p < .01$

V. SUMMARY AND DISCUSSION

Summary

The major purposes of this study were to determine differences among childless wives expecting zero, one, or two children, and to identify which characteristics of the wives were better predictors of their expected number of children. Using data from the 1973 National Survey of Family Growth, 401 white wives who had married under age 30, who were childless, and, with few exceptions, were fecund, were chosen as the sample for the study. Of the 401 wives, 70 expected zero children, 31 expected one child, and 300 expected two children.

In Stage I of the research, the three groups of wives were compared by their frequency distributions across fifteen characteristics. From the results of one-way analyses of variance and chi-squares, hypothesis 1 was rejected at the $p < .01$ level for the five characteristics of age, age at first marriage, years since first marriage, length of employment since first marriage, and size of current residence; and hypothesis 1 was rejected at the $p < .05$ level for education level at marriage. Except for the characteristic "size of current residence", the characteristics where significant differences were found corresponded to expectations based on previous research.

Further tests of two-group comparisons where highly significant differences had occurred revealed that wives expecting zero children were significantly different from wives expecting one child and wives expecting two children by four of the five characteristics.

Wives expecting zero children were older, had first married at an older age, had been married for a longer time, and had been employed for a longer time since first marriage than wives expecting one child or two children. For the fifth characteristic, size of current residence, the results of the two-group comparisons showed that whether a woman expected zero or two children, or expected one or two children, was associated with the size of current place of residence.

Upon studying the frequency distributions of the wives by birth expectations, there were some findings that, while not of statistical significance, were of interest in terms of suggesting some possible patterns among wives with certain expectations. In particular, wives expecting one child compared to wives expecting zero or two children had higher proportions of wives who had been an only child, who had first married under age 18, who had 11 years or less of education or 1 to 3 years of college at the time they married, who were currently under age 18, who currently lived in the South, and whose current family income was under $8,000. Also, higher percentages of the wives expecting zero children and wives expecting one child stated they had no religion than did wives expecting two children.

The results from the six multiple classification analyses in Stage II confirmed that the individualism models explained more of the variance in birth expectations than the cultural background models, as reflected in the multiple R^2's. For the two analyses of the individualism model involving wives expecting zero children, the multiple R^2's were above .20. The individualism model in the analysis of wives expecting zero children and one child accounted for nearly 30 percent

of the explained variance, while in the analysis of wives expecting

zero children and two children, the model accounted for nearly 22

percent of the explained variance.

In further investigating the predictive ability of the models,

the analyses of variance results showed statistical significance for

two of the six analyses. Hypothesis 2 was rejected at the $p < .01$

level for the cultural background model where wives expecting zero

children were compared with wives expecting two children, and for the

individualism model where wives expecting one child were compared with

wives expecting two children at the $p < .05$ level. Thus, in this study,

the ability to predict whether a childless wife expected zero or two

children was significantly better than chance using the cultural back-

ground model; and the ability to predict whether a childless wife ex-

pected one child or two children was significantly better than chance

using the individualism model.

The results related to hypothesis 3 indicated that, with few

exceptions, no one variable by itself contributed a significant amount

of information to the variance explained in the analyses. In assessing

the contributions of the four cultural background variables to the

variance explained, the beta coefficients revealed that residence

characteristics were generally more important than size of woman's

family of orientation or degree of religiosity. For two of the cul-

tural background analyses, a residence characteristic contributed a

significant amount of information. The variable, woman's past and

present geographic residence contributed a highly significant amount

of information to the variance explained in the analysis of wives

expecting zero children and two children. The variable, region of current residence added a significant amount of information to the variance explained in the analysis of wives expecting zero children and one child.

Among the four individualism variables, the rankings of the variables by beta coefficients were similar for all three analyses. Ranging from most important to least important, the rankings were age at marriage/duration of marriage, education/occupation, family income/ wife's labor force status, and premarital duration of employment/postmarital duration of employment. The only variable contributing a significant amount to the variance explained in any of the analyses of the individualism model was the age at marriage/duration of marriage variable in the comparison of wives expecting one child and two children.

The adjusted deviations in the multiple classification analyses pointed to several slight trends in the patterns of these deviations. In the cultural background analyses, three consistent trends observed in the adjusted deviations were: (1) a low level of religiosity was associated with above average percentages of wives expecting the lower number of children; (2) a smaller size of family of orientation was associated with above average percentages of wives expecting the lower number of children; and (3) rural experience both as a child and at the present time was associated with above average percentages of wives expecting the lower number of children. Two trends reflected in the adjusted deviations for the individualism analyses were: (1) a higher family income when the wife was currently in the labor force was associated

with above average percentages of wives expecting the lower number of children; and (2) a higher educational level was associated with above average percentages of wives expecting the lower number of children.

Discussion

As summarized in the foregoing section, the results of this study revealed a few differences between wives expecting zero, one, or two children by their cultural and socioeconomic characteristics. Furthermore, although the explanatory power of the cultural background and individualism models was statistically significant in only two analyses, the results suggested that certain characteristics were more predictive of wives' birth expectations than other characteristics. The findings on the differences between the wives will be discussed first, followed by a discussion of the adequacy of the utility model in explaining variations in birth expectations.

Differences Between Wives Expecting Zero, One, or Two Children

The results from the first stage of this research showed that childless wives expecting zero, one, or two children were alike on most of the cultural and socioeconomic characteristics. Differences of significance were found for six characteristics. These characteristics included age, age at first marriage, years since first marriage, postmarital duration of employment, education level at marriage, size of current residence.

Of the three groups of wives, wives expecting zero children were the most distinct in terms of the characteristics where differences were found. To begin with, these wives were older and had been married

longer than the other wives. Their older age and longer duration of marriage give support to postponement as the way in which the child-bearing decision occurred for many of these wives. One would need information on the wives' birth expectations at the time of marriage to verify whether postponement had, in fact, taken place. However, the results here provide additional evidence to Veevers' (1974) finding that wives expecting zero children come to their childbearing decision over time, quite possibly as a result of postponement of childbearing.

Wives expecting zero children, when compared to the other wives, had first married at an older age and had been employed longer since first marriage. Although the difference by employment duration was primarily a function of the wives' older age, previous research findings suggest that both of these variables may be influential in the wives' decision not to have children. Other researchers have found that women who marry later are more likely to be involved in nonfamilial roles prior to marriage, to be more individualistic in their sex role orientation, and to work after marriage (Bumpass, 1969; Scanzoni, 1975). Relating this to wives expecting zero children, the decision process might proceed as follows: This "postponement of marriage" and the concomitant involvement in nonfamilial roles predisposes the wives to postpone childbearing after marriage in order to continue their involvement in roles other than that of parenthood. As hypothesized, some of the wives eventually come to perceive their "net profit" from these other roles as being greater than that to be gained from the parental role. Thus, they decide not to have children.

Another characteristic on which the wives differed was in their level of education achieved by the time they first married. Wives expecting zero children and wives expecting one child were similar by average educational level at first marriage, with both groups having achieved a slightly higher level than wives expecting two children. The potential impact of the wives' achieving different educational levels has been described by Janowitz (1976). She states that education beyond high school, "widens a woman's horizons.... and increases the productivity of her time in the market relative to her time in the home..." as well as resulting in a later age at marriage (p. 190). Thus, increased education raises the wife's "opportunity costs", often leading to the decision to have fewer children or none.

The final characteristic found to be associated with the wives' birth expectations was size of current residence. Wives expecting two children were more frequently living in metropolitan areas than the other wives. While this finding corresponds to earlier findings for women with average birth expectations of approximately two children (Freedman & Bumpass, 1966), that wives expecting zero or two children were living in metropolitan areas somewhat less frequently was unexpected. This difference will be explored later in the discussion.

In all, the findings in Stage I identified four possible factors representative of a woman's degree of individualism and influencing her decision to have zero, one, or two children - her age at first marriage, her level of education achieved when she marries, her length of employment since marriage, and the size of her place of residence. Furthermore, the older age and longer marital duration of wives

expecting zero children suggests that time is a major variable in the decision process to have no children, or to have one or two children.

Ability of the Utility Model to Explain Low Birth Expectations

The conceptual framework employed in this study was a utility model. The premise of this framework is that a woman will decide on her expected number of children according to her perception of what will be the most "profitable" for her. On the basis of the utility framework, it was predicted that the greater the individualism, the fewer children a woman will expect to have. Two models were developed, one model representing possible cultural influences on the wives' sex role learning, and a second model consisting of behavioral indicators of the wives' degree of individualism.

From the results in the second stage of this research, it can be concluded that the individualism model and cultural background model were limited in their ability to explain the variance in the wives' birth expectations. Therefore, except in two analyses, differences in the wives' cultural experiences and degree of individualism, as measured in this study, were unrelated to birth expectations.

The cultural background characteristics of wives expecting zero children and wives expecting two children were found to be predictive of their birth expectations. The characteristic of most importance in differentiating the wives was past and present residence. Wives expecting zero children had more farm/nonmetropolitan experience in past and present residence compared to wives expecting two children.

The comparison above was the only one in which the difference by past and present residence was found to be of significance. However,

there was a trend in all three cultural background analyses for greater "rural experience" to be associated with above average percentages of wives expecting the lower number of children. This trend was unexpected since the usual relationship between rural experience and birth expectations is a positive one. Based on the pattern in these results, the relationship appears to be more of a curvilinear one; that is, while high birth expectations are associated with greater rural experience, so are very low birth expectations.

Although the four cultural background characteristics together were not shown to be related to whether a wife expected zero children or one child, one of the characteristics, region of current residence, was found to be important in differentiating the two groups of wives. Similar to what Gustavus and Henley (1971) found, wives expecting zero children were more likely to be living in the Northeastern and North Central regions of the U.S. In contrast, wives expecting one child were overrepresented in the Southern and Western regions of the U.S. What this difference seems to imply is that attitudes toward sex roles and toward certain family sizes may vary regionally in the U.S. Thus, remaining voluntarily childless may be more acceptable, for instance, in the Northeastern and North Central regions, whereas having one child may be more acceptable in the Southern and Western regions. There is no evidence, however, at this time to support this explanation.

Of the four cultural background characteristics, the residence characteristics were more important generally in explaining birth expectations than size of family of orientation and religiosity. As

described above, wives expecting zero children seemed to have had cultural experiences related to their past and present residence and their region of residence that differentiated them from wives expecting two children and wives expecting one child respectively. Traditionally, residence characteristics have not been important in explaining birth expectations. Their importance in this research suggests that where a woman grows up and lives may be of some influence on her preference for zero, one, or two children.

In general, the individualism model explained more of the variance in birth expectations than did the cultural background model, as was predicted. The results for both individualism model analyses involving wives expecting zero children revealed that adjustment for the effects of age reduced the importance of all four individualism variables. Especially in the comparison with wives expecting two children, age differences accounted for most of the variation between the two groups of wives. The older age of wives expecting zero children is a well-established fact (Rosenzweig & Seiver, 1975), and so the strong relationship between age and birth expectations was not of much surprise nor of much interest. Its importance here, though, reconfirms the results in Stage I that suggested the time variable is a significant one in the decision to have no children or "some" children.

The individualism model was able to explain a significant amount of the variation in the comparison of wives expecting one child and two children, with age at first marriage/duration of marriage found to be the most important variable. It was of interest that wives expecting one child fell into two sub-groups on this characteristic,

a trend that was also apparent for this characteristic when they were

compared to wives expecting zero children. One sub-group consisted

of wives who first married under age 21 and had been married less than

three years, while the other sub-group was comprised of wives who

first married at age 21 or older and had been married three years or

longer. Clearly, wives in the former sub-group were still relatively

young, and therefore, postponement of childbearing does not seem to

be involved in their childbearing decision. For the latter sub-group,

the wives' older age at marriage and longer length of marriage suggest

that postponement could be related to their childbearing decision.

The separation of wives expecting one child into two sub-groups

noted above, was a pattern observed throughout this study. For example,

these wives were as likely to be in blue- and pink-collar occupations

as in professional and administrative occupations. They were also

fairly equally represented at low and high levels of education and

family income. In speculating on why these wives should separate into

two groups, one explanation would be to consider that different fac-

tors are more influential in the childbearing decision process. For

one group, the economic benefits of having only one child, as Simon

(1975b) suggests, may be most important. The wives in this group may

have married young, or possibly have a high school education

or a lower-status occupation, and perceive a one-child family as pro-

viding them with the most "net profit" rather than two or more chil-

dren. The factor of major importance for the other group would seem

to be satisfactions gained from nonparental roles. For these wives,

the childbearing decision process might be similar to that described

earlier related to wives expecting zero children.

As with the cultural background model, certain of the individualism characteristics were more important in explaining the variance in birth expectations. Of the four characteristics, age at marriage/ duration of marriage was consistently the most important. Although it contributed a significant amount of information in only one analysis, its general importance further substantiated the earlier findings regarding its ability to differentiate these wives. Education/occupation was the characteristic next in importance, followed by family income/current labor force status. The characteristic employment experience contributed the least amount of information in all three analyses. In looking at the ranking of the characteristics, it was interesting that the economic characteristic, family income/ current labor force status, was not of much importance in the individualism model.

A review of the findings from the predictive analyses relative to the hypothesized results reveals that few of the predicted results were statistically significant. However, there were certain trends in the data indicating that the major hypothesis was a meaningful one. There was a tendency for a higher level of education, and a higher family income to be associated with slightly above average percentages of wives expecting the lower number of children. The predicted positive relationships between size of family of orientation , degree of religiosity, and birth expectations were only observed as trends in the data rather than significant relationships.

A tentative conclusion drawn from this study is that the utility framework can be a useful model for understanding and explaining the childbearing decision process for wives expecting zero, one, or two children. As originally described, the utility framework included economic, sociological, and psychological variables as potential factors influencing the childbearing decision process. In this research study, only sociological and economic variables were considered. The limited success in accomplishing the purposes of the study is most likely indicative of the omission of psychological variables, rather than the inability of the utility model to explain low birth expectations.

VI. CONCLUSIONS AND IMPLICATIONS

A primary goal of this study was to gain knowledge about the childbearing decision process of wives who expect to have zero, one, or two children. The specific purposes were to determine how these three groups of wives differed on certain characteristics, and to identify the characteristics which were important predictors of their birth expectations. Overall, there were few differences in the cultural and socioeconomic characteristics of the three groups of wives. The major conclusion from the research is that the cultural background and individualism characteristics selected to test the utility framework were moderately successful in explaining the variation in the wives' birth expectations.

Several other conclusions drawn from this study were related to the ability of the models to explain the variations in certain birth expectations. The cultural background model was found to be predictive of whether a childless wife expected zero children or two children. This finding suggests that acquiring more knowledge about differences in these wives' cultural experiences could further the understanding of the childbearing decision process. The individualism model was able to predict whether a childless wife expected one child or two children. For these two groups of wives, a greater understanding of how they make their childbearing decision would seem to be facilitated by assessing their degree of individualism.

There was limited evidence from the findings to support the major hypothesis that the greater the wife's degree of individualism,

the fewer children she will expect to have. Trends in the results did point somewhat to wives expecting zero children as being the most individualistic in sex role orientation, while wives expecting two children appeared to be the least individualistic in sex role orientation. However, wives expecting one child tended to fall into two groups, one group that was higher on most of the individualism indicators, and one group that was lower on the individualism indicators.

The knowledge gained from the study is a starting point for understanding more about the childbearing decision process for women with low birth expectations. The findings indicated that the conceptualization of this process in terms of the utility framework can be useful in explaining and predicting birth expectations. To increase the power of the utility framework, the cultural background and individualism models should be expanded upon to include other variables. For example, degree of geographic mobility, social mobility, participation in organizations, and kinship involvement are variables which would supplement the measures of cultural background influences. Additional measures of individualism could encompass psychological variables like one's level of self-esteem, ability to cope with change, locus of control, and level of aspiration. Another group of variables to be considered in an expanded utility model would be family process variables such as the communication and decision-making patterns within families.

In two analyses, the cultural background model and individualism model were each able to explain a significant amount of the variance in the birth expectations being analyzed. Another study is needed to

test out these models with an independent sample. Findings from such research would aid in determining whether the models' ability to predict birth expectations can be generalized to other populations.

One of the primary criticisms of research on women with birth expectations of zero children and one child is the inability to generalize conclusions drawn from the research because of nonrepresentative samples. Researchers usually respond to this criticism by stating that representative samples often result in "too few" subjects; and, this was, in fact, a major problem in this study. To compensate for the small samples, one method would be to make use of a stratified sample in which wives who expected zero children or one child would be oversampled. According to the results of this study, a researcher who wishes to oversample wives expecting zero children might begin by concentrating on the Northeast and North Central regions of the U.S.; whereas, oversampling of wives expecting one child would seem to be more feasible if the researcher focused on the Southern region of the U.S.

Another suggestion for future research is a longitudinal study to assess how perceived costs and benefits in the childbearing decision processes change over time for the same individual and for the family as a unit. Another gain from a study like this would be the information acquired about the stability of birth expectations over time, information that is necessary in making population projections.

An important application of fertility research is in population forecasting. Ultimately, then, population analysts are concerned with predicting fertility behavior. Although fertility expectations was the dependent variable focused on in this study, the research

findings have implications for the usefulness of a utility framework in predicting subsequent fertility behavior. One might speculate that the experiences these women are likely to encounter later will reinforce their current expectations and therefore, their actual fertility behavior. In the context of the utility framework, the general trends toward increased education and participation in the labor force as two examples, will likely continue to be supportive of, and possibly result in raising, the wives' degree of individualism.

The information acquired in this research on childbearing decision motivations is useful in the formulation of population policies. If the goal of a population policy is to lower total population without employing strong anti-natalist tactics, one strategy would be to encourage women to seek alternative sources of satisfactions to that of motherhood. Based on the results, one specific method for accomplishing this goal would be to increase both informal and formal societal support for women to pursue and complete higher education before marriage.

Certainly, professionals serving families can also benefit from learning more about motivations for parenthood or nonparenthood. In parenthood education courses or family planning programs, presenting information about how individuals differ in their perceptions of the costs and benefits of parenthood, and how these perceptions may vary according to the life cycle stage a family is in, could be very valuable. Such information would help participants better understand their own motivations for parenthood, and hopefully, to make wiser childbearing decisions. Increasing the awareness that there are

differences in these perceived costs and benefits of parenthood among individuals may also encourage more tolerance of individuals who choose to have no children or one child.

In conclusion, this research study represented a first attempt to acquire substantive information about wives who have usually been treated as one group - wives with low birth expectations. The study provided moderate support for a utility, or cost-benefit, approach to the childbearing decision process as applicable to these wives. If low fertility expectations continue as the fertility pattern in the future, further knowledge about the childbearing decision processes involved in the decision to have zero, one, or two children will be crucial to understanding fertility variations and in predicting population trends.

BIBLIOGRAPHY

Andrews, F., Morgan, J., & Sonquist, J. Multiple Classification Analysis: A Report on a Computer Program for Multiple Regression Using Categorical Predictors. Ann Arbor: University of Michigan, 1973.

Barnett, L. D., & MacDonald, R. H. A study of the membership of the National Organization for Non-Parents. Social Biology, 1976, 23, 297-310.

Becker, G. S. An economic analysis of fertility. In National Bureau Committee of Economic Research, Demographic and Economic Change in Developed Countries. Princeton: Princeton University Press, 1960.

Blake, J. Income and reproductive motivation. Population Studies, 1967, 21, 185-206.

Blake, J. Can we believe recent data on birth expectations in the United States? Demography, 1974, 11, 25-44.

Budd, L. G., & Hey, R. N. Demographic and social characteristics of childfree couples. Unpublished manuscript, 1977.

Bumpass, L. L. Comment and controversy: Is low fertility here to stay? Family Planning Perspectives, 1973, 5, 67-69.

Bumpass, L. L., & Mburugu, E. K. Age at marriage and completed family size. Social Biology, 1977, 24, 31-37.

Cain, G. G., & Weininger, A. Economic determinants of fertility: Results from cross-sectional aggregate data. Demography, 1973, 10, 205-224.

Clifford, W. B. Modern and traditional value orientations and fertility behavior: A social demographic study. Demography, 1971, 8, 37-48.

Coombs, L. C. The measurement of family size preferences and subsequent fertility. Demography, 1974, 11, 586-611.

Cutright, P., & Polonko, K. Areal structure and rates of childlessness among American wives in 1970. Social Biology, 1977, 24, 52-61.

Davidson, M. Expectations of additional children by race, parity, and selected socioeconomic characteristics, U.S.: 1967. Demography, 1971, 8, 27-36.

Duesenberry, J. S. Comment. In National Bureau Committee of Economic Research, Demographic and Economic Change in Developed Countries. Princeton: Princeton University Press, 1960.

Duncan, O. D., Freedman, R., Coble, J. M., & Slesinger, D. P. Marital fertility and size of family of orientation. Demography, 1965, 2, 508-515.

Easterlin, R. A. Towards a socioeconomic theory of fertility: A survey of recent research on economic factors in American fertility. In S. J. Behrman, L. Corsa, Jr., & R. Freedman (Eds.), Fertility and Family Planning: A World View. Ann Arbor: University of Michigan Press, 1969.

Espenshade, T. J. The value and cost of children. Population Bulletin, 1977, 32.

Fawcett, J. T. (Ed.). The Satisfactions and Costs of Children: Theories, Concepts, Methods. A Summary Report and Proceedings of the Workshop on Assessment of the Satisfactions and Costs of Children, April 27-29, 1972. Honolulu: The East-West Center, 1972.

Fawcett, J. T. (Ed.). Psychological Perspectives on Population. New York: Basic Books, 1973.

Freedman, D. The relation of economic status to fertility. American Economic Review, 1963, 53, 414-426.

Freedman, R., & Bumpass, L. Fertility expectations in the United States: 1962-64. Population Index, 1966, 32, 181-197.

Freedman, R. & Coombs, L. Economic considerations in family growth decisions. Population Studies, 1966, 20, 197-222.

Freedman, R. & Coombs, L. Expected family size and family growth patterns: A longitudinal study. In E. Szabady (Ed.), World Views of Population. Budapest: Akadémiai Kiadó, 1968.

Freedman, R., Goldberg, D., & Slesinger, D. Current fertility expectations of married couples in the United States. Population Index, 1963, 29, 366-391.

Freedman, R., Whelpton, P., & Campbell, A. Family Planning, Sterility, and Population Growth. New York: McGraw-Hill, 1959.

Gibson, C. The U.S. fertility decline, 1961-1975: The contribution of changes in marital status and marital fertility. Family Planning Perspectives, 1976, 8, 249-252.

Glick, P. C., & Norton, A. J. Marrying, divorcing, and living to-
gether in the U.S. today. Population Bulletin, 1977, 32.

Griffith, J. Social pressure on family size intentions. Family
Planning Perspectives, 1973, 5, 237-242.

Groat, H. T., Workman, R. L., & Neal, A. G. Labor force participation
and family formation: A study of working mothers. Demography,
1976, 13, 115-126.

Gustavus, S. O., & Henley, J. K. Jr. Correlates of voluntary child-
lessness in a select population. Social Biology, 1971, 18, 277-
284.

Hawthorn, G. The Sociology of Fertility. New York: Macmillan, 1970.

Janowitz, B. S. An analysis of the impact of education on family
size. Demography, 1976, 13, 189-198.

Kupinsky, S. Non-familial activity and socio-economic differentials
in fertility. Demography, 1971, 8, 353-367.

Mason, K. O., Czaka, J. L., & Arber, S. Change in U.S. women's sex-
role attitudes, 1964-1974. American Sociological Review, 1976,
41, 573-596.

Moore, M. J., & O'Connell, M. O. Perspectives on American fertility.
Current Population Reports, Special Studies Series P-23, No. 70,
U.S. Department of Commerce, 1978.

Mueller, E. Technological Advance in An Expanding Economy: Its
Impact on a Cross-Section of the Labor Force. Ann Arbor: Insti-
tute for Social Research, 1969.

Namboodiri, K. Which couples at given parities expect to have addi-
tional births? An exercise in discriminant analysis. Demography,
1974, 11, 45-56.

Nason, E. M., & Poloma, M. M. Voluntarily Childless Couples: The
Emergence of a Variant Lifestyle. Sage Research Paper, #90-040,
1976, 5.

Okun, B. Comment. In National Bureau Committee of Economic Research,
Demographic and Economic Change in Developed Countries. Princeton:
Princeton University Press, 1960.

Polit, D. F. Stereotypes relating to family size status. Journal
of Marriage and the Family, 1978, 40, 105-114.

Pohlman, E. The Psychology of Birth Planning. Cambridge: Schenkman
Publishing Co., 1969.

Poston, D. L. Jr. Characteristics of voluntarily and involuntarily childless wives. Social Biology, 1976, 23, 198-209.

Poston, D. L. Jr., & Gotard, E. Trends in childlessness in the United States, 1910-1975. Social Biology, 1977, 24, 212-224.

Ridley, J. C. Numbers of children expected in relation to Non-Familial Activities of the Wife. The Milbank Memorial Fund Quarterly, 1959, 37, 277-296.

Rindfuss, R. R., & Bumpass, L. L. How old is too old? Age and the sociology of fertility. Family Planning Perspectives, 1976, 8, 226-230.

Ritchey, P. N., & Stokes, C. S. Correlates of childlessness and expectations to remain childless. Social Forces, 1974, 52, 349-356.

Rosenzweig, M. R., & Seiver, D. A. Comment on N. K. Namboodiri's "Which couples at given parities expect to have additional births? An exercise in discriminant analysis." Demography, 1975, 12, 665-668.

Ryder, N. B., & Westoff, C. F. Reproduction in the United States 1965. Princeton: Princeton University Press, 1971.

Scanzoni, J. H. Sex Roles, Life Styles, and Childbearing: Changing Patterns in Marriage and the Family. New York: The Free Press, 1975.

Silka, L., & Kiesler, S. Couples who choose to remain childless. Family Planning Perspectives, 1977, 9, 16-25.

Simon, J. L. The Effects of Income on Fertility. Chapel Hill: Carolina Population Center, Monograph 19, 1974.

Simon, J. L. The mixed effects of income upon successive births may explain the convergence phenomenon. Population Studies, 1975a, 29, 109-122.

Simon, J. L. Puzzles and further explorations in the interrelationships of successive births with husband's income, spouses' education and race. Demography, 1975b, 12, 259-274.

Sklar, J., & Berkov, B. The American birth rate: Evidence of a coming boom. Science, 1975, 189, 693-700.

Smith, M. B. A social-psychological view of fertility. In J. T. Fawcett (Ed.), Psychological Perspectives on Fertility. New York: Basic Books, 1973.

Turchi, B. A. The Demand for Children: The Economics of Fertility in the United States. Cambridge: Ballinger Publishing Co., 1975.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 265, Fertility expectations of American women: June 1973, U. S. Government Printing Office, Washington, D.C., 1974.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 301, Fertility of American women: June 1975, U. S. Government Printing Office, Washington, D.C., 1976.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 308, Fertility of American women: June 1976, U. S. Government Printing Office, Washington, D.C., 1977.

U.S. Department of Health, Education and Welfare. Vital and Health Statistics. Data Evaluation and Methods Research. National Survey of Family Growth, Cycle 1: Sample Design, Estimation Procedures, and Variance Estimation. DHEW Pub. No. (PHS) 78-1350. Series 2, Number 76, Hyattsville, Md., 1978.

Veevers, J. E. The child-free alternative: Rejection of the motherhood mystique. In M. Stephenson (Ed.), Women in Canada. Toronto: New Press, 1973a.

Veevers, J. E. Voluntarily childless wives: An exploratory study. Sociology and Social Research, 1973b, 57, 356-366.

Veevers, J. E. The lifestyle of voluntarily childless couples. In C. R. Figley (Ed.), Readings in Intimate Human Relationships. West Lafayette: Purdue University Press, 1974.

Waite, L. J., & Stolzenberg, R. M. Intended childbearing and labor force participation of young women: Insights from nonrecursive models. American Sociological Review, 1976, 41, 235-252.

Westoff, C. F., & Jones, E. F. Contraception and sterilization in the United States, 1965-1975. Family Planning Perspectives, 1977, 9, 153-158.

Westoff, C. F., Potter, R. G., Sagi, P. C., & Mishler, E. G. Family Growth in Metropolitan America. Princeton: Princeton University Press, 1961.

Westoff, C. F., & Ryder, N. B., The Contraceptive Revolution. Princeton: Princeton University Press, 1977.

Whelpton, P. K., Campbell, A. A., & Patterson, J. E. Fertility and Family Planning in the United States. Princeton: Princeton University Press, 1966.