



The Impact of the Female Marriage Squeeze and the Contraceptive Revolution on Sex Roles and the Women's Liberation Movement in the United States, 1960 to 1975

David M. Heer; Amyra Grossbard-Shechtman

Journal of Marriage and the Family, Vol. 43, No. 1. (Feb., 1981), pp. 49-65.

Stable URL:

<http://links.jstor.org/sici?sici=0022-2445%28198102%2943%3A1%3C49%3ATIOTFM%3E2.0.CO%3B2-5>

Journal of Marriage and the Family is currently published by National Council on Family Relations.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/NCFR.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

The Impact of the Female Marriage Squeeze and the Contraceptive Revolution on Sex Roles and the Women's Liberation Movement in the United States, 1960 to 1975*

DAVID M. HEER**
AMYRA GROSSBARD-SHECHTMAN**
University of Southern California

This paper argues that the advent of the Women's Liberation Movement was very much interconnected to: (1) the revolution in contraceptive technology which began in 1960, and (2) a marked shift in the ratio of males to females at marriageable age, a change which took place in the late 1950s and early 1960s. The former change reduced the number of women in the traditional role of wife and mother; the latter not only had the same effect but also reduced the benefits or compensation to be obtained from following that role. These two changes not only helped to spawn the Women's Liberation Movement but also influenced the proportion of women who married, the divorce rate, the marital fertility rate, the illegitimacy ratio, and male-female differences both in education and in labor-force participation.

The publication in 1963 of Betty Friedan's book, *The Feminine Mystique*, is commonly regarded as initiating the Women's Liberation Movement. In succeeding years this movement gathered tremendous momentum and a large number of women radically changed their ideas concerning their own goals in life and also their concept of a just social ordering of male and female roles.

*Grateful acknowledgment is made to the Project on Human Sexual Development of Population Education, Inc. which provided funds for the senior author to prepare a paper completed in 1977 entitled "A Demographic Analysis of Sex Roles in Cuyahoga County and the Nation, 1960 to 1975." Much of the material from the present paper is taken from this earlier work. We are also indebted to Dr. Nadia Youssef and to Dr. Valerie K. Oppenheimer for comments on earlier drafts of this paper.

**Population Research Laboratory, University of Southern California, Los Angeles, California 90007.

It is our contention that the advent of the Women's Liberation Movement was very much interconnected to: (1) the revolution in contraceptive technology which began in 1960, and (2) a marked shift in the ratio of males to females at marriageable age, a demographic change which took place in the late 1950s and early 1960s. The change in contraceptive technology reduced the number of women who would choose (or be chosen) to pursue the traditional role of wife and mother. A marriage squeeze for females reduced not only the number of women in the role but also the benefits or compensation to be obtained from following it. Many further demographic changes followed from both the reduction in the number of women in that role and the compensation derived therefrom. Furthermore, the decline in the benefits to be obtained from following the traditional female role not only caused women to change their personal goals but

also spawned Women's Liberation as a political movement because increasing numbers of women, shifting their focus from domestic duties to work and careers outside the home, discovered the degree to which the sphere of paid employment presented inequalities in opportunities for women compared to those for men. Furthermore, there can be little doubt that certain political successes of the Women's Liberation Movement were instrumental in creating some further important changes, such as legalization of abortion and additional legislation prohibiting sexual discrimination; and these legal innovations provided additional changes measurable in demographic terms.

Accordingly, there is justification for analysis of the demographic trends with respect to sex-role differences in the United States from 1960 to 1975, a period which closely corresponds to the period in which the Women's Liberation Movement took shape (and which has the advantage of beginning with a year in which a decennial census was taken and much demographic data are accordingly available). We end the period of our concern at 1975 simply because this is the latest quinquennial year for which data are available for all aspects of sex roles which are of interest to us.

In a very brief summary of what we will discuss in detail during the body of this paper, let us say that the 1960 to 1975 period reveals some striking instances of changing sex roles. However, such an analysis also shows at least one type of male-female difference in which a high degree of stability over time was maintained. In this essay we shall attempt to chart these changes and the one nonchange as well as is possible in a concise presentation. We shall also endeavor to show the role of the revolution in contraceptive technology and of the female marriage squeeze among the forces which helped to produce the changes in sex-role behavior which did occur.

We shall begin with a description of sexual behavior, marriage, and divorce. The second section will be concerned with childbearing; under this rubric we shall also consider contraception, abortion, and illegitimacy. The third topic will be male-female differences in school and college enrollment and in educational attainment. The fourth topic will be

male-female differences in labor-force status. The fifth section will focus on male-female income differences. Finally, in our last section we shall attempt to prognosticate the future of sex-role differences.

SEXUAL BEHAVIOR, MARRIAGE, AND DIVORCE

Changes in Sexual Behavior

Traditionally, the legal norm in American society was that sexual intercourse should be confined to persons legally married to each other. The so-called sexual revolution in the United States represented an increasing divergence of actual conduct from that stipulated by the norm, particularly for never-married women. A nationwide survey of never-married women 15 to 19 years old in the United States in 1971 revealed that 28 percent had experienced sexual intercourse (Kantner and Zelnick, 1972). Among 15-year olds the proportion was 13.8 percent while among 19-year olds it was 46.1 percent. It is not possible to estimate from the 1971 survey what change occurred in patterns of sexual behavior for never-married teenagers between 1960 and 1971. However, a second nationwide survey conducted in 1976 by these two researchers revealed a substantial increase in the percentage of never-married women 15 to 19 who had ever experienced sexual intercourse (Zelnick and Kantner, 1977). For all women not living in group quarters, e.g., college dormitories, the incidence increased from 26.8 percent to 34.9 percent for the total 15- to 19-year age group, from 13.8 percent to 18.0 percent for women aged 15, and from 46.8 percent to 55.2 percent for females aged 19 years. With respect to the period between 1960 and 1970, several surveys of sexual practices at the same college campus on two occasions approximately a decade apart confirm that a higher proportion of women at each age had had sexual intercourse at the later period. These surveys of college campuses also indicate that the proportion of men who have experienced sexual intercourse had not changed much (Cannon and Long, 1971). Thus, the traditional male-female difference in the extent of premarital intercourse tended to diminish.

In our opinion, the most plausible reason for this large increase in the incidence of sex-

ual experiences among never-married females in the United States during the 1960 to 1975 period was the advent of new and highly effective methods of birth control. These developments in birth control will be described in more detail in the section on childbearing.

Male-Female Exchange

A major difference in the sexual behavior of men and women is that many men have been willing to pay money for the privilege of sexual intercourse whereas women, by and large, have not. One reason for this is that women, and not men, have had to bear the burden of possible pregnancy. Because prostitution is an illegal industry in the United States, we have no exact figures on the total amount of money involved, but undoubtedly it has been a very large sum indeed. However, the payment of money by men for the sexual favors of women has gone much beyond the institution of prostitution. Custom has dictated that in dating relationships it is the male who should pay for meals and entertainment. Consequently, dating relationships have not only involved a mutual exchange of sexual favors, but also the mutual consumption of commodities, the cost of which has been met predominantly from the financial reserves of the male. Moreover, of course, within marriage the male has also been the chief source of financial support. Thus, the foundation of the marital relationship has been an agreement whereby the woman granted sexual access and the opportunity for legitimate children, in return for which she received secure financial support, sexual gratification, and the opportunity to have children. Hence, it is our contention that many types of male-female relationships in the United States have involved, among other things, a net transfer of monetary resources from male to female.

Two recent studies support this conclusion concerning the nature of the exchange which has been involved in male-female relationships. Cameron *et al.* (1977) analyzed personal advertisements placed in the September, 1973 *Singles News Register*, the largest-circulation newspaper for singles in the Western United States. An analysis was made of 192 advertisements placed by males and of 155 advertisements placed by

females. Sixteen percent of the females advertised that they sought a partner with desirable financial status in contrast to only 4 percent of the males. Moreover, 24 percent of the females sought a male partner with a particular occupational status whereas only 3 percent of males sought such a female. Finally, 9 percent of females were looking for a partner with a specified educational level in contrast to only 5 percent of the males. In describing themselves, 19 percent of all the males and only 10 percent of the females mentioned their own financial status, 46 percent of males and only 20 percent of females mentioned their occupational status, and 16 percent of males and only 8 percent of females mentioned their educational attainment.

A study by Frank Furstenberg (1976) of pregnant girls under 18 years old in Baltimore also supports this exchange view of marriage. Furstenberg studies 323 such girls, most of whom were black and most of whom were unmarried. He reported that the girls were much more likely to marry before delivery if the father was working full time than if he was unemployed. In the former case, 34 percent married before delivery and in the latter only 4 percent. According to Furstenberg (1976:75), "When the adolescent mothers were asked in the third interview why they had not married, a common explanation was that the father of the child had not been able to support them."

In the United States the predominant focus for male-female exchange has involved the legal relationship of marriage. Hence it is important to examine the patterning of marital status in the nation for the 1960 to 1975 period.

Trends in Marital Status

Data on marital status by sex and age for the nation for 1960 and 1975 show that for all persons 14 and over there was for both males and females a decline during this period in the proportion married with spouse present; however, the decline was greater for women than for men. Concurrently, for each sex the proportion never-married and the proportion divorced increased (U.S. Bureau of the Census, 1960, 1975c). A striking phenomenon during this period was the decline in the proportion of married women, husband present, at ages under 25. The de-

cline in this category for females was substantially greater than the similar decline for males. Thus the proportion of men 20 to 24 years old who were married, spouse present, declined 6.3 percentage points whereas the proportion of females in this category declined by 12.9 percentage points. Consequently, marriage at a young age became less common both for males and for females but particularly so for females. This corresponds to the marriage squeeze for women which took place in the 1960s.

The Causes and Trends of Marriage Squeeze

Marriage squeezes tend to occur under a set of circumstances as follows: (1) Men and women marry on the average at different ages, and (2) the number of births fluctuates from year to year. In the United States at various times each sex has experienced a marriage squeeze. In the early 1950s it was men who faced a shortage of women. It can be predicted that by the early 1980s men will again be suffering from a marriage squeeze (Carter and Glick, 1970).

The cause of the marriage squeeze for men in the 1950s was the decline in the absolute number of births each year during the late 1920s and early 1930s and the fact that men tended to marry women about two to three years younger than themselves. Because there were more men born in 1930 than women born in 1932 or 1933, men born in 1930 had a difficult time locating a mate, but women born in 1932 or 1933 found the search easy. The cause of the marriage squeeze for women of the 1960s was this same difference in marriage age, combined with the rise in the number of births which took place from the 1940s to the late 1950s. The forthcoming marriage squeeze for men of the 1980s will be caused by the differential marriage age, combined with the decline in births of the 1960s. The left-hand column of Table 1 presents one measure of the magnitude of marriage squeeze for each year from 1955 through 1977 and projection of the magnitude of the squeeze for years from 1978 through 1984. Specifically, what is shown is the ratio of the number of males aged from 19.50 years to 26.49 years to the number of females aged from 17.00 years to 23.99 years. These particular age groups for

TABLE 1. TWO MEASURES OF MARRIAGE SQUEEZE FOR THE UNITED STATES, INCLUDING ARMED FORCES OVERSEAS, 1955-1977 (ESTIMATED) AND 1978-1984 (PROJECTED)

Year	(1) Ratio of Males Aged 19.50-26.49 to Females Aged 17.00-23.99	(2) Ratio of Unmarried Males Aged 20-29 to Unmarried Females Aged 18-29 ^a
1955	1.018	1.221
1956	1.002	1.172
1957	.985	1.128
1958	.950	1.108
1959	.951	1.157
1960	.924	1.115
1961	.915	1.025
1962	.925	1.034
1963	.941	1.057
1964	.904	1.062
1965	.885	.961
1966	.894	.920
1967	.929	.901
1968	.937	.945
1969	.930	.922
1970	.916	.936
1971	.944	.935
1972	.966	.934
1973	.970	.935
1974	.957	.932
1975	.957	.931
1976	.963	.940
1977	.973	.938
1978	.980	
1979	.988	
1980	.997	
1981	1.011	
1982	1.026	
1983	1.044	
1984	1.058	

Sources: (1) U.S. Bureau of the Census, *Current Population Reports*, Series P-25. 1955-1959: No. 310, Table 5. 1960-1969: No. 519, Table 1. 1970-1977: No. 721, Table 1. 1978-1984: No. 704, Table 8. (2) Same as above; also U.S. Bureau of the Census, *Current Population Reports*, Series P-20, Nos. 323, 306, 287, 271, 255, 242, 225, 212, 198, 187, 170, 159, 144, 135, 122, 114, 105, 96, 87, 81, 72, and 62.

^aAnnual number of unmarried males 20 to 29 years was obtained by subtracting from the interpolated March 15 number of males 20 to 29, including those in the Armed Forces Overseas, the number of married males 20 to 29 in the Current Population Survey and 1.437 times the number of married women under 30 with husband absent in the Armed Forces in the Current Population Survey.

men and women, respectively, were chosen because the midpoint of the male age group, 23.00 years, is very close to the median age at first marriage for men during the beginning years of the 1960 to 1975 period; and the midpoint of the female age group, 20.50 years, is very close to the median age at first marriage for women during the beginning years of this period. Moreover, a high

proportion of all men and of all women marry within the 7-year period surrounding the median age at first marriage for their sex.

The left-hand column of Table 1 indicates that there were more males than females at marriageable age in 1955 and 1956 and that this will again be the case beginning in 1981. That column also indicates a very sharp and quite consistent dip in the ratio of marriageable-age men to marriageable-age women from 1955 through 1965 and an equally striking and consistent rise from 1965 through 1984. During this whole period from 1957 through 1980, the ratio of marriageable-age men to marriageable-age women was below unity. The ratio, .885, occurred in 1965.

However, as Akers (1967) has previously pointed out, there is more than one way to measure marriage squeeze. An equally important measure of marriage squeeze is the ratio of the number of unmarried men of marriageable age to the number of unmarried women of marriageable age. The ratio of unmarried men to unmarried women is a function of the demographically more basic ratio of marriageable-age men to marriageable-age women. The relevant relation is that a consistent pattern of ratios of marriageable-age women which are less than unity increases the stock of unmarried women, whereas a consistent pattern of ratios of marriageable-age men to marriageable-age women which are above unity increases the stock of unmarried men.

The right-hand column of Table 1 shows for each year from 1955 through 1977 a measure of the ratio of unmarried men of marriageable age to unmarried women of marriageable age. Specifically, we present an estimate of the ratio of unmarried males 20 to 29 years old to unmarried females 18 to 29 years old. We emphasize that this is an estimate of the ratio, since the Current Population Survey, which is the basic source of the data, does not include males in the armed forces except for those who are living off post or with their families on post in the United States. Our measure attempts to include all males in the Armed Forces both in the United States and overseas but must rely on some incomplete data from the Department of Defense concerning the marital status of those not included in the Current Population Survey.

The data shown in the right-hand column of Table 1 indicate that when marriage squeeze is measured as the ratio of unmarried males to unmarried females, the timing of the squeeze is rather different than when it is measured as the ratio of males of marriageable age to females of marriageable age. Now the marriage squeeze for males is shown to last through 1964, and the nadir of the marriage squeeze for women is shown to occur not in 1965 but in 1967. Moreover, it may be conjectured that the forthcoming marriage squeeze for males under this second definition would begin not in 1981, as it does under the first definition, but around 1985.

What was the impact of the marriage squeeze for women which, according to either of our two definitions, took place during the 1960-1975 period? To answer this question, let us now focus more explicitly on the terms of exchange which men and women negotiate with each other in the marriage relationship.

The Wife Market

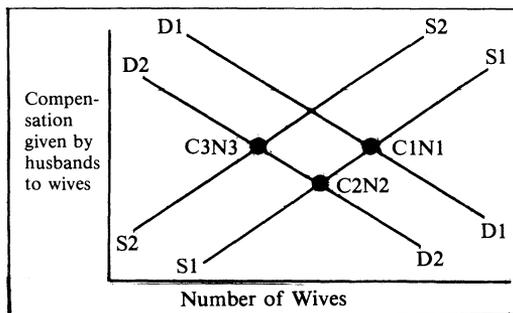
Among economists, Becker (1974) originated the idea of borrowing supply and demand analysis from microeconomics and applying it to marriage. Becker's approach formalizes the sociologist's exchange theory (Thibaut and Kelly, 1959; Homans, 1961), which was first explicitly applied to an analysis of the relationship between husbands and wives by Heer (1963). Figure 1 illustrates three possible equilibrium points in the wife market. The reasons for the downward-sloping demand and upward-sloping supply curves shown in Figure 1 are explained more fully in Grossbard (1976). The monetary and other benefits which husbands give their wives in exchange for a combination of sexual, childbearing, childrearing, and household services are henceforth termed the wife's compensation. This is shown on the vertical axis of Figure 1. The horizontal axis shows both the number of women who would want to be wives at any given level of compensation and the number of women whom husbands would want as wives at any given level of compensation. The equilibrium points (determining the actual number of women who become wives and the compensation they receive) occur where the supply and demand lines intersect.

The marriage squeeze for women (in whatever way defined but probably most strongly as defined by the ratio of unmarried males to unmarried females) reduced the demand by men for marriage and thus, other things being equal, should have reduced not only the number of married women but also the compensation which men gave women in order to obtain the traditional services of a wife. These changes are shown by the movement from C1N1 to C2N2 in Figure 1.

Of course, during the 1960-1975 period the wages husbands received from their employers (*i.e.*, the husband's market wage) increased substantially. Therefore, the effect of the marriage squeeze probably served only to reduce the wife's compensation from her husband relative to her husband's market wage rather than to reduce the absolute magnitude of her actual compensation. However, this point is unimportant because it is the terms of exchange between men and women upon which we should focus and not upon the absolute level of the wife's compensation from her husband.

It might be argued that the wife's compensation relative to her husband's market wage would *not* have to fall if the market wage of women relative to that of men were to rise (since this would reduce the supply of women for any given level of compensation from husbands). The effect of this hypothetical change in the supply schedule of wives is shown by the equilibrium point of C3N3 in Figure 1.

FIGURE 1. THE WIFE MARKET



- D1 = Assumed original demand schedule by men
- D2 = Assumed lower demand schedule due to marriage squeeze for women
- S1 = Assumed original supply schedule for women
- S2 = Hypothetical supply schedule if there were an increase in the female market wage

Only empirical research, which so far has not been conducted, could determine with accuracy the actual change from 1960 to 1975 in the compensation husbands gave their wives relative to their own market wage. Nevertheless, as we shall show in a later section, there is no evidence that the market wage for women relative to the market wage for men increased during the 1960-1975 period. Therefore, it appears very likely that the compensation given married women by their husbands relative to the husband's own market wage did decline during the 1960-1975 period. Moreover, this interpretation is strengthened by the very fact that adherents to the Women's Liberation Movement have been very often characterized by their intense anger with men. It is very plausible to imagine that this anger arose because the compensation given to wives and mothers by husbands declined as a proportion of the husband's market wage.

However, we have yet to explain why the proportion of young males who were married, wife present, declined from 1960 to 1975, when during this period marriage opportunities for men increased substantially. A crucial factor, in our opinion, was the gradual erosion of the link between marriage and sexual cohabitation caused by the advent of the oral contraceptive and the IUD, which were not only more effective than previous contraceptives, but also more acceptable on other grounds. Whereas in the past most men had been obliged to offer the benefits of marriage in exchange for sexual favors, increasingly, in the 1960-1975 period, more of them were able to offer something less. As the disutilities to women of engaging in sexual intercourse when children were not intended decreased, the compensation which men had to pay them for this service likewise declined relative to the compensation necessary for procreative sex. Accordingly, the number of couples deciding on informal relationships involving sex without the intent of procreation rose at the expense of those deciding on marriage with children. Although the full extent of cohabitation by unmarried couples cannot be documented by Census data, the data available from the 1960 and 1970 Censuses in this regard are illuminating. These data show that, in 1970, 143,000 unmarried couples existed, *i.e.*, nonrelated persons

sharing their living quarters with a partner of the opposite sex. The number of such couples in 1970 was eight times as high as the number in 1960 (Glick, 1975). Light on more recent trends in this regard can be obtained only from data based on a broader and less accurate definition. The 1970 Census showed 523,000 households in which an adult householder shared living quarters with an unrelated adult of opposite sex. Many such households included landlord-tenant and employer-employee relationships as well as relationships between two cohabiting partners. Nevertheless, the fact that the number of households of this latter type had increased to 957,000 by 1977 is suggestive of a continuing large increase after 1970 in the number of cohabiting unmarried couples (Glick and Norton, 1977). What was probably developing in this country was a norm that couples may sexually cohabit as long as they refrain from having children and need marry only if they decide to have children.

Divorce

Marriages can be disrupted either by death or by divorce. A very important trend between 1960 and 1975 was the sharply escalating divorce rate. The incidence of divorce per 1,000 married women 14 and over for the nation as a whole increased from 9.2 in 1960 to 20.3 in 1975 (U.S. Bureau of the Census, 1976d:37, 68).

What are the reasons for this remarkable increase in the divorce rate between 1960 and 1975? Since divorce involves a voluntary exit from the state of marriage on the part of at least one of the partners, one way of analyzing divorce is to analyze the causes of marriage. The economist Gary Becker, in his recently published theory of marriage, has discussed the determinants of marital dissolution. In his words, "The incentive to separate is smaller the more important are investments that are 'specific' to a particular marriage. The most obvious and dominant example of marriage-specific investments is children . . ." (Becker, 1974:338). Following this line of reasoning one would predict that if the utility of having children were to decline over time, the probability of marital dissolution would increase. As we shall see in the next section, the average desire for children definitely declined during the 1960-1975 period and thus provides at least

one plausible explanation of the rapid increase in the rate of divorce.

Another cause of the rise in the divorce rate may have been the increasing proportion of all females who were employed (a matter we will consider in more detail in a later section). The costs of divorce are less for the working female than for the non-working female; in the event of divorce, the working female avoids the cost of a job search and the lower average wage commonly granted to individuals with little job seniority. Becker's theory that the gain to marriage varies as a positive function of the differential between the husband's and the wife's market wage supports this argument concerning the cause of the 1960 to 1975 increase in divorce (Becker, 1974; Becker *et al.*, 1977).

We believe that the level of the wife's compensation may also affect the divorce rate. As Grossbard (1978) has pointed out, protection against divorce is in fact one of the components of the wife's compensation. Accordingly, we should expect a higher divorce rate when the level of the wife's compensation is low than when it is high.

Additionally, it may be supposed that one of the causes for the sharp increase in the divorce rate may have been a change, whether upward or downward, in the average level of the wife's compensation from her husband. What may have happened is that many men and women married under outmoded terms of exchange and then divorced when new terms of trade deemed necessary by one partner were found unacceptable to the other. If this argument is correct, a change in the average level of the wife's compensation either upward or downward should lead to a rise in the rate of divorce. However, if the direction of change in the wife's average compensation was downward, as we believe, then the impact on the rate of divorce should be greater than if the direction of change were upward. Empirical research shows that women, who in the event of divorce usually assume custody of the children (Becker *et al.*, 1977), are thereby more handicapped in the remarriage market than are males. Additionally, the woman's desirability as a marriage partner decreases more rapidly with age than does that of the man. Consequently, if the trend in the average level of the wife's compensation is downward, many

men already married to wives to whom they have given a high level of compensation will be motivated to divorce and remarry women who will be less demanding. On the other hand, if the trend in the average level of the wife's compensation is upward, the wives with children who have been receiving relatively low compensation from their husbands compared to newly-married wives are not likely to do better by remarrying.

CHILDBEARING

Fertility Decline and its Causes

Although only females bear children, changes in childbearing constitute a very important component of male-female role difference, since many role differences between men and women are reduced to the extent that female childbearing is curtailed. One of the most striking trends of the 1960-1975 period was the dramatic decline in female fertility. Perhaps the best simple measure of fertility is what is known as the total fertility rate. The total fertility rate for a given year measures the average number of children a group of women would have if all of them lived through their years of potential reproduction, *i.e.*, ages 10-50, and bore children at each age at the age-specific childbearing rates of the year in question. The total fertility rate in 1975 for the United States was less than half of what it was in 1960, declining from 3.654 to 1.800 (United States National Center for Health Statistics, 1976; U.S. Bureau of the Census, 1976a). More-

over, during this same time span, the proportion of ever-married women 20 to 29 years old who had never borne a child increased from 24.2 to 42.3 percent (U.S. Bureau of the Census, 1974, 1976f).

What have been the reasons for this remarkable decline in childbearing? As of now, scholars hypothesized four main causes. The first of the presumed causes is that there was a reduction in the rate of *unwanted childbearing* because of improvements in the technology of birth control. The major developments with respect to contraceptive technology were the development of the oral pill (first marketed in 1960), the IUD, and certain improved methods of performing female sterilization (Draper World Population Fund Report, 1976). Another major development was the suction method of abortion, which had fewer side-effects and a lower mortality than previous methods of abortion and which was adopted in the United States in the late 1960s (Tietze and Murstein, 1975).

There is no doubt that these developments in birth control technology have played a significant role in increasing the acceptability of birth control methods. Table 2 shows the results of national surveys in 1965, 1970, and 1975 concerning the proportion of all currently-married women in the United States, aged 15-44, who were currently using contraception, by type of method used.

The table shows large increases in the proportion using both the oral pill and the IUD

TABLE 2. PERCENT DISTRIBUTION OF CURRENTLY-MARRIED UNITED STATES WOMEN AGED 15-44 BY CURRENT CONTRACEPTIVE PRACTICE, 1965, 1970, 1973, 1975

	1965	1970	1973	1975
Total	100.0	100.0	100.0	100.0
Not using contraception	36.1	34.9	30.3	23.7
Using contraception	63.9	65.0	69.7	76.3
Wife sterilized	4.5	5.5	8.6	14.0
Husband sterilized	3.3	5.1	7.8	11.1
Pill	15.3	22.3	25.1	26.3
IUD	0.7	4.8	6.7	6.4
Diaphragm	6.3	3.7	2.4	2.5
Condom	14.0	9.2	9.4	7.5
Withdrawal	2.6	1.4	1.5	—
Foam	2.1	3.9	3.5	2.6
Rhythm	6.9	4.1	2.8	2.2
Douche	3.3	2.1	0.6	—
Other	4.9	2.9	1.3	3.7*

*Includes withdrawal and douching, 1975.

Sources: C. F. Westoff, "Trends in Contraceptive Practice: 1965-1973," *Family Planning Perspectives*, Vol. 8, No. 2, March/April, 1976. C. F. Westoff and E. F. Jones, "Contraception and Sterilization in the United States, 1965-1975." *Family Planning Perspectives*, Vol. 9, No. 4, July/August, 1977.

and substantial declines in the use of both condom and diaphragm. Unfortunately, Table 2 cannot include data from the 1960 national survey of fertility (Whelpton *et al.*, 1966), because that survey did not tabulate methods currently used in the same categories as the published data of the subsequent surveys.

On the basis of these nationwide fertility surveys, Westoff (1976) showed a substantial decline in age-specific rates of unwanted childbearing from 1961-1965 to 1966-1970. Weller and Hobbs (1978) showed further substantial decline in the rate of unwanted childbearing from 1968-1969 to 1973. In summarizing these data on unwanted childbearing, Westoff has indicated that "the decline in births that occurred in the 1960s was almost entirely due to a decrease in the number of unplanned births" but that "the accelerated decline since 1970 no doubt continues this trend but includes a reduction in the number of planned births as well" (Westoff, 1978:80).

A major group of economists, the adherents of the "New Household Economics" of which the major spokesman has been Gary Becker, have explained fertility decline in terms of the increasing cost of children relative to the cost of other items in the family budget. This group has particularly emphasized the increasing opportunity costs of the time devoted by mothers to childrearing tasks (Becker, 1965) and the increase in child costs resulting from an increased demand for children of higher quality, that is, with more money invested in their education (De Tray, 1974; Becker and Lewis, 1974). However, the adherents of the New Household Economics have also emphasized the positive impact on fertility of increased male earnings (Becker, 1965; Spengler, 1966). When this factor is taken into account, it is evident that the theory advanced by these scholars would not necessarily have predicted the sharp fertility decline which the United States experienced during the 1960-1975 period.

Another economist, Richard Easterlin (1973), has developed a more sociological approach to explaining the rise in American fertility associated with the baby boom and its subsequent fall since 1957. Borrowing from reference group theory and the concept of relative deprivation (Merton and Kitt,

1950; Stouffer *et al.*, 1949), Easterlin has hypothesized that young married couples compare their standard of living with that of their parents when they themselves were teenagers. According to Easterlin, the demand for children is more elastic than the demand for the comforts and items of status display experienced in the parental home during adolescence. Accordingly, if the couple's own income exceeds that of the income of the parental home some ten years earlier, fertility will rise and, conversely, if it falls short of that income, fertility will decline. Easterlin tests the hypothesis by means of annual aggregate fertility data and annual data on average family income by age of head and finds a good fit, not only for the period of rising fertility in the late 1940s and early to mid-1950s but also for the period of declining fertility since 1957. However, the fit does not necessarily confirm Easterlin's hypothesis. Moreover, a recent empirical study by DeFronzo (1976) indicates that at best Easterlin's key variable is only weakly related to variation in the cumulative marital fertility of young women across the 48 continuous states in 1950, 1960, and 1970.

A fourth presumed cause of the reduction in fertility concerns the declining value imputed by society to other people's children and the resulting efforts by governmental authorities to make birth control more accessible. In 1969 the Commission on Population Growth and the American Future, appointed by President Nixon, concluded in its final report to the President "that no substantial benefits would result from continued growth of the nation's population" and "that the stabilization of our population would contribute significantly to the nation's ability to solve its problems" (Commission on Population Growth and the American Future, 1972:12). As one way of achieving this goal, the Commission recommended the complete legalization of abortion.

The rate of reported legal abortion per 1,000 women aged 15-44 in the United States was 16.5 in 1973, 19.5 in 1974, and 22.1 in 1975. The ratios of abortions per 1,000 live births in these three years were respectively 239, 282, and 331 (Sullivan *et al.*, 1977).

Another consequence of the increasing public concern with higher birth rates was

the decision taken by the federal government in 1966 to make funds available to state and local agencies to subsidize family-planning services. For the nation as a whole the number of women provided with medical family-planning services increased rapidly from fewer than 700,000 in fiscal 1967 to 3.41 million in fiscal 1974. The dollars provided by the federal government for this purpose increased from 11 million in fiscal 1967 to 149 million in fiscal 1974 (Corey, 1975).

What effect have these subsidized family-planning programs had on fertility? The evidence is somewhat mixed. The apparent inference to be drawn from two studies concerned with this question is that the effect of the subsidies on fertility was much greater in nonmetropolitan than in metropolitan areas (Cutright and Jaffe, 1976; Udry *et al.*, 1976).

We have now discussed four possible causes for the substantial drop in American fertility since 1960: (1) improvements in the technology of birth control which caused reduction in unwanted births, (2) increases in the cost of children relative to other items in the family budget, (3) decline in the status of young couples relative to that of their parents, and (4) changes in the value placed on other people's having children, a situation which stimulated the federal government to make the various means of birth control more accessible. Are these sufficient to explain the observed decline in fertility? Without denying that the causes already discussed were important ones, alone they are not sufficient to explain the decline.

Specifically, we contend that the marriage squeeze and the contraceptive revolution both played a role in the increasing proportions of young married couples who intentionally decided to remain temporarily childless.

A direct effort of the contraceptive revolution (and also of the legalization of abortion) was to increase the utility to the wife of a relationship which intentionally did not involve children relative to one which did intend children. This change in relative utility to the wife further caused: (1) a reduction in the average compensation given by husbands to wives for a relationship intentionally not involving children relative to one intending children, and (2) a decline in the proportion of couples intending to have children.

We believe that the female marriage squeeze affected marital fertility in two separate ways. The first had to do with the selection of husbands, and the second had to do with concern over the possibility of divorce.

Consider first the effect of a change in the intensity of female marriage squeeze on the wife's choice of husband. The more intense the female marriage squeeze, the smaller will be the proportion of women able to choose husbands with: (1) a high monetary income, (2) a high inclination toward having children, and (3) a high productivity in child-rearing tasks. Women able to select husbands with these characteristics will possess greater resources for childrearing and hence can be expected to bear more children.

Consider next the effect of a change in the sex ratio of marriage eligibles on the wife's fear of divorce. As pointed out earlier, the greater the marriage squeeze for females, the more fearful the wife will be that she will be abandoned by her husband and forced to rear her children alone. The greater this anxiety, the less she will be motivated to want children.

It is probably not possible to determine the exact effect either of the contraceptive revolution or of the marriage squeeze for women on the increasing proportion of childless marriages during the 1960-1975 period. However, it may be possible to investigate this question more thoroughly during the 1980s, at which time young males rather than young females will be experiencing difficulty in finding a marriage partner.

Illegitimacy

The large majority of births in the United States have been to married women. However, between 1960 and 1975 a substantial and increasing proportion occurred to women who were unmarried. The percentage of all births occurring out of wedlock for the United States increased from 5.3 percent in 1960 to 14.3 percent in 1975 (U.S. National Center for Health Statistics, 1976; U.S. Bureau of the Census, 1975a:57).

A recent study by Janowitz (1976) indicates that the size of the AFDC payments to mothers with one child was a significant factor positively affecting the illegitimacy rate for black women at all ages under 30. Many

children who are born out of wedlock are not receiving AFDC payments, and conversely, many children receiving AFDC payments are not born out of wedlock; nevertheless, the increase in the proportion of all births occurring out of wedlock coincided with an increase in the proportion of children receiving AFDC payments. The proportion of all children under 18 receiving AFDC payments in the United States and its possessions increased from 3.5 percent in 1960 to 11.9 percent in 1975 (U.S. Bureau of the Census, 1976d:316).

In congruence with the results obtained by Janowitz, an increase in the level of AFDC payments might explain the increasing proportion of children born out of wedlock and/or receiving AFDC payments. Additionally, it may be speculated that a contributing factor may have been a decline in the average level of the wife's compensation from her husband so that many mothers found that they could benefit more from welfare payments than from the compensation received from the father of the child.

MALE-FEMALE DIFFERENCES IN EDUCATIONAL ATTAINMENT AND ENROLLMENT

In contrast to many other nations, in the United States there has been little difference between the median years of schooling attained by men and that attained by women. However, what may be surprising to some persons is the fact that during the 1960-1975 period the difference in attainment increased in favor of men rather than women. This is true not only for persons 25 and over but also for persons 25-34 years of age, who have completed their education more recently. Thus for all persons 25 and over in 1960, educational attainment was 0.6 years greater for females, whereas in 1975 it was 0.1 years greater for males; for persons 25 to 34 years the difference in 1960 was 0.0 years and in 1975, it was 0.3 years greater for males (U.S. Bureau of the Census, 1976c).

Nevertheless, it is important to be aware that changes which show up in data on educational attainment between 1960 and 1975 even for a group of persons 25-34 years of age indicate relatively little about events which transpired during this period. Rather, such changes reflect the consequences of

decisions concerning enrollment which for the most part took place in an earlier time span. The best way to look at more current male-female differentials in education is to look at enrollment and graduation data by level of schooling. Data on the proportion of females among total students, undergraduate and graduate, enrolled in college, for the United States from 1960 to 1975 show that the proportion female rose from 34.5 percent in 1960 to 44.9 percent in 1975 (U.S. Bureau of the Census, 1961, 1976b). Data shown in Table 3 additionally show the sharp increase in the proportion of all bachelors' and first professional degrees awarded to women. Thus it is apparent from these data that the earlier differential in the proportions of men and women who had completed four years of college or more was being rapidly reduced. Furthermore, perhaps most significant are those data, also shown in Table 3, concerning the increasing proportion of females among graduates of schools of medicine, dentistry, and law. These data are important because students in such schools were there because of a serious desire for a career and not for extraneous social reasons. We see, for example, that the proportion female among graduates of schools of medicine increased from 5.5 percent in 1960 to 13.1 percent in 1975 and among graduates in law from 2.5 percent to 15.1 percent. Even more reflective of current conditions than data on graduates from professional schools are data on first-year professional enrollments. In 1975, 23.6 percent of all first-year students in medical schools in the United States were female—a dramatic rise from the 13.1 percent female among medical-school graduates that same year (Fields, 1977).

It is possible that the increase in the proportion female among college students, college graduates, and graduates from schools of medicine, dentistry, and law was related both to the squeeze on female marriage opportunities and the contraceptive revolution. The marriage squeeze caused women to make more intensive plans for a career, in case they had either no opportunity to marry or would be able to marry only at the price of an unacceptably low level of compensation from their husbands. The contraceptive revolution made more attractive for

TABLE 3. NUMBER OF BACHELORS' AND FIRST PROFESSIONAL DEGREES AND PERCENTAGE AWARDED TO FEMALES, UNITED STATES, 1960 TO 1975 (NUMBERS IN THOUSANDS)

	1960	1965	1970	1975
Number Awarded	395	539	833	988
Percent Female	35.2	40.6	41.5	43.5

Sources. U.S. Bureau of the Census, *Statistical Abstract of the United States, 1977*, Table 264.

women a life style combining a career with a noncelibate but nonmarried status.

MALE-FEMALE DIFFERENCES IN EMPLOYMENT STATUS

Throughout the 1960-1975 period the proportion of males in the labor force was considerably higher than the proportion of females (U.S. Bureau of the Census, 1976d: 358). However, one of the most striking trends in the 1960-1975 period was the increasing proportion of married women in the labor force. There was a marked increase in the labor-force participation of married women at all ages under 65. However, the increase was most pronounced for married women 20-24 years of age. In this age group the proportion of married women who were in the labor force increased from 31.7 percent in 1960 to 57.0 percent in 1975.

It might be presumed that this increase in female labor-force participation occurred because the income of males was not increasing as fast as the increase in the cost of living. However, this was definitely not the case. From 1960 to 1975 the median income of male year-round full-time civilian workers, adjusted for the increase in the Consumer's Price Index, increased by 33.1 percent. Even among such workers who were 20-24 years of age, a subgroup in which median income increased less than in older age groups, income adjusted for the increase in the cost of living rose by 19.7 percent (U.S. Bureau of the Census, 1976d:414, 439).

Given these facts, it will be advantageous to analyze in more detail the correlates of the increase in labor-force participation of married women. Table 4 presents data on the labor-force participation rates of married women, husband present, by presence and age of children. We see that in 1975 among married women, husband present, the subcategory having the highest proportion in the labor force (52.3 percent) was that with children 6-17 years of age only. However, the largest increases in the proportion of women in the labor force came among married women, husband present, with children under 6 or under 3. The proportion of women in the labor force for women with children under 6 rose from 18.6 percent in 1960 to 36.6 percent in 1975 and the proportion with children under 3 from 15.3 to 32.7 percent. One may speculate that the dramatic increase in labor-force participation for women with children under age 6 and under age 3 came about, at least in part, because of substantial changes in the proportion of these women who had only one child under 6 or under 3 rather than two or more. However, we have seen no data with which this supposition could be directly tested. One can rule out as explanation for the increase the possibility that a smaller proportion of these women with very young children worked full time rather than part time in 1975 as compared to 1960. Available data from the Current Population Survey indicate a slight change in the opposite direction (U.S.

TABLE 4. PERCENTAGE OF MARRIED FEMALES, HUSBAND PRESENT, IN THE LABOR FORCE BY PRESENCE AND AGE OF CHILDREN, UNITED STATES, 1960 TO 1975

	1960	1970	1975
Total married women, husband present	30.5	40.8	44.4
No children under 18	34.7	42.2	43.9
With children under 18	27.6	39.7	44.8
Children 6 to 17 only	39.0	49.2	52.3
Children under 6	18.6	30.3	36.6
Children 3 to 5, none under 3	25.1	37.0	41.9
Children under 3	15.3	25.8	32.7

Sources. U.S. Bureau of the Census, *Current Population Reports*, Series P-23, No. 58, Table 7-5, April, 1976.

Bureau of Labor Statistics, 1962, 1977).

Many researchers have sought to analyze the relation for married women between labor-force participation and fertility. The question as often posed is whether a change in fertility provokes a change in labor-force participation or whether a change in labor-force participation instigates a change in the level of fertility. Proponents of the New Household Economics take a more sophisticated view. They see the decision as to whether or not to have a child (or an additional child) and the decision as to whether or not the wife should work (or continue to work) to be largely a function of the relative costs of the goods and services foregone if the wife should stay out of the labor force in order to bear and rear a child. Since the foregone costs in goods and services of having another child have been increasing over time, their theory predicts, other things being equal, both a decline in fertility and an increase in female labor-force participation.

Two sociologists have emphasized that the inverse relation between female labor-force participation and fertility will be enhanced when the woman finds her job intrinsically rewarding (Cogswell and Sussman, 1974) and also when the job setting promotes heterogeneous experience (Cogswell and Sussman, 1979).

What role might the contraceptive revolution and the female marriage squeeze have played in the trend toward greater female labor-force participation? Let us assume that husbands must grant their wives a higher compensation for a marriage with children than for a marriage without, mainly because in the former situation the wife leaves the labor force, and that the female marriage squeeze and the contraceptive revolution both worked in the direction of causing more couples to choose marriage with children postponed rather than marriage with children as soon as possible. Then both the marriage squeeze and the contraceptive revolution would have been factors causing the proportion of married women at work to rise. Furthermore, if because of the marriage squeeze the compensation given by husbands to wives for maternal services declined during the 1960-1975 period relative to the husband's own market wage, then this decline might also help to explain why so many more

married women with children under 3 were in the labor force in 1960 than in 1975.

MALE-FEMALE DIFFERENCES IN INCOME

As was shown in the previous section, during the 1960-1975 period, there was a major difference between males and females in the proportion employed. This difference had obvious consequences for male-female differences in income in that a much higher proportion of females than of males had no income. Table 5 presents data on the proportion of persons 14 and over with no income and the median income of all persons 14 and over (including those with no income) for each sex in the United States for 1960, 1965, 1970, and 1975. We observe that a much higher proportion of females than of males had no income and the median income of

TABLE 5. PERCENT WITH NO INCOME IN PRECEDING YEAR, AND MEDIAN INCOME IN PRECEDING YEAR FOR PERSONS WITH OR WITHOUT INCOME 14 YEARS OLD AND OVER BY SEX, UNITED STATES, 1961, 1966, 1971, 1976

	Percent with No Income	Median Income in Dollars of Persons with or without Income
1961		
Male	8.6	3,683
Female	44.0	242*
Female Median as Percent of Male Median		6.6
1966		
Male	8.5	4,481
Female	40.6	413*
Female Median as Percent of Male Median		9.2
1971		
Male	7.9	6,044
Female	33.5	897
Female Median as Percent of Male Median		14.8
1976		
Male	8.2	7,933
Female	28.4	1,888
Female Median as Percent of Male Median		23.8

*Assumes no women experienced income loss.

Source: Computed from Current Population Survey Data as reported in U.S. Bureau of the Census, *Statistical Abstract of the United States*, 1976, Table 666.

females was only a small fraction of that of males. As illustrated, in 1976, 28.4 percent of all females 14 and over had no income in the preceding year as compared to only 8.2 percent of males and the median female income was only 23.8 percent as large as the median income of males.

However, Table 5 does show significant change from 1960 to 1975 both in the proportion of women with no income and in the ratio of the median income of females to that of males. The percentage of females 14 and over with no income declined from 44.0 percent to 28.4 percent and the median female income as a percentage of median male income rose from 6.6 percent to 23.8 percent.

A major reason for the increase in median female income as a percentage of median male income was the increasing proportion of females in the labor force. Is there evidence that, in addition, the female market wage rose relative to that of the male? Data from the Current Population Survey enable us to examine the trends in median income for males and females by age for year-round, full-time workers, *i.e.*, those who worked 50 or more weeks during the preceding year and who worked 35 hours or more per week for a majority of the weeks during which they worked. The striking fact is that there was no change in the ratio of female to male median income for such workers for 1960, 1965, 1970, and 1975, either for the total of all workers or for workers in any age group. For all workers 14 and over the ratio was 60.6 percent with respect to 1960 income and 58.7 percent with respect to 1975 income (U.S. Bureau of the Census, 1962, 1967, 1971, 1977). Additional data from the Current Population Survey comparing income in 1970 with income in 1975 indicate that between these two years there was also no change in the ratio of female median income to male median income among year-round, full-time workers cross-classified by level of educational attainment (U.S. Bureau of the Census, 1971, 1977).

These results have important implications for our general argument because, as we demonstrated from Figure 1, if the market wage for women were to have risen relative to the market wage for men, then the effect of marriage squeeze in reducing the compen-

sation which a wife received from her husband would have been substantially counteracted.

CONCLUSIONS

In this paper we have been concerned with the relationship between the changes in sex roles which took place from 1960 to 1975 and the rise of the Women's Liberation Movement. We have pointed out two changes which we believe may have been very much instrumental in provoking the feminist movement. These two changes were: (1) the marriage squeeze for women, and (2) the improvements in birth-control methods which eroded traditional links between desire for sexual intercourse and demand for children. It is our hypothesis that the marriage squeeze was instrumental in reducing not only the proportion of females who could marry but also the compensation which men were obliged to give women for traditional wifely and maternal duties. Moreover, the contraceptive revolution increased the utility for women of sexual relationships without procreative intent relative to the utility of a relationship combining sex with procreation. This fact not only reduced the compensation which men were obliged to give women for sexual companionship without procreative intent, relative to the compensation necessary to secure the traditional combination of wifely and maternal services, but also served to reduce the proportion of women engaged in that traditional role. The decline in the wife's compensation provoked by the marriage squeeze served to increase the rate of divorce and the proportion of children born out of wedlock. The reduced proportion of women who were in traditional wifely roles, or who anticipated the future assumption of such roles, resulted in increases both in the proportion of females making use of the educational system to prepare seriously for a career and in the proportion of females actually employed. The Women's Liberation Movement may be interpreted, on the one hand, as a collective means by which women helped themselves to reorient each other to the new lower compensation for the traditional female role and, on the other, as the means by which the increasing number of women outside of the traditional wife-

mother role sought to combat the discrimination meted out to women in the job world.

However, as discussed earlier, the marriage squeeze for women is a strictly temporary phenomenon which will end in the 1980s, to be replaced by a marriage squeeze for men which is likely to last for the remainder of the twentieth century (Heer and Grossbard, 1979). Will the end of the female marriage squeeze signalize the end of the Women's Liberation Movement and the beginning of a new period reminiscent of that of the 1950s when women were quite content to stay home as wives and mothers? The answer to this question obviously depends on the impact of the second independent variable posited here as provoking the Women's Liberation Movement—namely, the revolution in the methods of birth control. It seems certain that future years will see no retrogression in birth-control technology and that, most probably, there will be further improvements. Therefore, it seems likely that the proportion of cohabiting couples who intentionally choose to have children will never again be as high as it was in 1960 and a full return to the values prevalent in the 1950s appears unlikely. Nevertheless, it is probable that the 1980s and 1990s, because of their marriage squeeze for males, will see some return to a higher evaluation of the traditional female role. Thus, the situation foreseen here is opposed to that projected by Westoff (1978) or by Butz and Ward (1979), namely, a continuation of the trend in the female role initiated in the 1960s. But it is similar to that predicted by Easterlin (1978). The latter postulates that, because in the 1980s there will be few young males entering the labor force relative to the number of older males already in it, the relative earnings of young males will rise and from this change there will ensue a rise in fertility. If both Easterlin's viewpoint and the argument advanced here are correct, young males in the 1980s and 1990s will enjoy relatively favorable economic opportunities but face relatively unfavorable chances for marriage. During the next two decades, both of these factors will operate to counteract the change in female role brought about by the contraceptive revolution, the female marriage squeeze, and the other changes which served

to devalue the traditional female role in the 1960s and 1970s.

REFERENCES

- Akers, D. S.
1967 "On measuring the marriage squeeze." *Demography* 4 (2):907-924.
- Becker, G. S.
1965 "A theory of the allocation of time." *The Economic Journal* 75 (September):493-517.
1974 "A theory of marriage." Pp. 299-344 in T. W. Schultz (Ed.), *Economics of the Family*. Chicago:University of Chicago Press.
- Becker, G. S., E. M. Landes, and R. T. Michael
1977 "An economic analysis of marital instability." *Journal of Political Economy* 85 (December):1141-1187.
- Becker, G. S., and H. G. Lewis
1974 "Interaction between quality and quantity of children." Pp. 81-90 in T. W. Schultz (Ed.), *Economics of the Family*. Chicago:University of Chicago Press.
- Butz, W. P., and M. P. Ward
1979 "The emergence of countercyclical U.S. fertility." *American Economic Review* 69 (June):318-328.
- Cameron, C., S. Oskamp, and W. Sparks
1977 "Courtship American style: Newspaper ads." *The Family Coordinator* 26 (January):27-30.
- Cannon, K. L., and R. Long
1971 "Premarital sexual behavior in the sixties." *Journal of Marriage and the Family* 33 (February):36-49.
- Carter, H., and P. C. Glick
1970 *Marriage and Divorce: A Social and Economic Study*. Cambridge:Harvard University Press.
- Cogswell, B. E., and M. B. Sussman
1974 "Changing roles of women, family dynamics and fertility." Pp. 9-26 in H. Y. Tien and F. Bean (Eds.), *Comparative Family and Fertility Research*. Leiden:Brill.
1979 "Family and fertility." Pp. 180-202 in W. R. Burr, R. Hill, F. I. Nye, and I. L. Reiss (Eds.), *Contemporary Theories about the Family* (Vol. 1). New York:The Free Press.
- Commission on Population Growth and the American Future
1972 *Population and the American Future*. Washington, D.C.:U.S. Government Printing Office.
- Corey, M.
1975 "U.S. organized family planning programs in FY 1974." *Family Planning Perspectives* 7 (May/June):98-103.

- Cutright, P., and F. S. Jaffe
 1976 "Family planning program effects on the fertility of low-income U.S. women." *Family Planning Perspectives* 8 (May/June):100-110.
- DeFronzo, J.
 1976 "Cross-sectional areal analyses of factors affecting marital fertility: Actual versus relative income." *Journal of Marriage and the Family* 38 (November):669-676.
- De Tray, D. N.
 1974 "Child quality and the demand for children." Pp. 91-116 in T. W. Schultz (Ed.), *Economics of the Family*. Chicago:University of Chicago Press.
- Draper World Population Fund
 1976 "Voluntary sterilization." Report No. 3 (Autumn-Winter). Washington, D.C.:Draper World Population Fund.
- Easterlin, R. A.
 1973 "Relative economic status and the American fertility swing." Pp. 170-223 in E. B. Sheldon (Ed.), *Family Economic Behavior*. Philadelphia:J. B. Lippincott.
 1978 "What will 1984 be like?" *Demography* 15 (November):397-432.
- Fields, C. M.
 1977 "More medical students consider general practice." *Chronicle of Higher Education* (March 28):9.
- Friedan, B.
 1963 *The Feminine Mystique*. New York:Norton Publishing Company.
- Furstenberg, F., Jr.
 1976 *Unplanned Parenthood*. New York:The Free Press.
- Glick, P. C.
 1975 "A demographer looks at American families." *Journal of Marriage and the Family* 37 (February):15-26.
- Glick, P. C., and A. Norton
 1977 "Marrying, divorcing, and living together in the U.S. today." *Population Bulletin* 32 (October):1-39.
- Grossbard, A. S.
 1976 "An economic analysis of polygyny: The case of Maiduguri." *Current Anthropology* 17 (December):701-707.
 1978 "A theory of marriage formality—the case of Guatemala." Paper presented at the annual meeting of the Population Association of America, Atlanta (April).
- Heer, D. M.
 1963 "The measurement and bases of family power: An overview." *Journal of Marriage and the Family* 25 (May):133-139.
- Heer, D. M., and A. S. Grossbard
 1979 "The wife market, the marriage squeeze and marital fertility." Paper presented at the annual meeting of the Population Association of America, Philadelphia (April).
- Homans, G. C.
 1961 *Social Behavior: Its Elementary Forms*. New York:Harcourt, Brace.
- Janowitz, B. S.
 1976 "The impact of AFDC on illegitimate birth rates." *Journal of Marriage and the Family* 38 (August):485-494.
- Kantner, J. F., and M. Zelnik
 1972 "Sexual experience of young unmarried women in the United States." *Family Planning Perspectives* 4 (October):9-18.
- Merton, R. K., and A. Kitt
 1950 "Contributions to the theory of reference group behavior." Pp. 40-105 in R. K. Merton and P. F. Lazarsfeld (Eds.), *Studies in the Scope and Method of "The American Soldier"*. Glencoe, Illinois:The Free Press.
- Spengler, J. S.
 1966 "Values and fertility analysis." *Demography* 3 (1):109-130.
- Stouffer, S. A., E. A. Suchman, L. C. DeVinney, S. A. Star, and R. M. Williams
 1949 *The American Soldier: Adjustment During Army Life* (Vol. 1). Princeton:Princeton University Press.
- Sullivan, E., C. Tietze, and J. G. Dryfoos
 1977 "Legal abortion in the United States, 1975-76." *Family Planning Perspectives* 9 (May/June):116-129.
- Thibaut, J., and H. H. Kelly
 1959 *The Social Psychology of Groups*. New York: John Wiley and Sons.
- Tietze, C., and M. C. Murstein
 1975 "Induced abortion: 1975 factbook." *Reports on Population/Family Planning*, No. 14 (2nd ed.). New York:Population Council.
- Udry, R. J., K. B. Bauman, and N. M. Morris
 1976 "The effect of subsidized family planning services on reproductive behavior in the United States: 1969-1975." *Demography* 13 (November):463-478.
- U.S. Bureau of Labor Statistics
 1962 "Marital and family characteristics of workers, March 1961." *Special Labor Force Report*, No. 20. Washington, D.C.:U.S. Government Printing Office.
 1977 "Marital and family characteristics of the labor force in March 1976." *Special Labor Force Report*, No. 206. Washington, D.C.: U.S. Government Printing Office.
- U.S. Bureau of the Census
 1960 "Marital status and family status: March 1960." *Current Population Reports*, Series P-20, No. 105. Washington, D.C.:U.S. Government Printing Office.
 1961 "School enrollment, and education of young adults and their fathers: October 1960." *Current Population Reports*, Series P-20, no. 110. Washington, D.C.:U.S. Government Printing Office.
 1962 "Income of families and persons in the United States:1960." *Current Population Reports*, Series P-60, No. 37. Washington, D.C.:U.S. Government Printing Office.
 1967 "Income in 1965 of families and persons in the United States." *Current Population Reports*,

- Series P-60, No. 51. Washington, D.C.:U.S. Government Printing Office.
- 1971 "Income in 1970 of families and persons." Current Population Reports, Series P-60, No. 80. Washington, D.C.:U.S. Government Printing Office.
- 1974 "Fertility histories and birth expectations of American women: June 1971." Current Population Reports, Series P-20, No. 263. Washington, D.C.:U.S. Government Printing Office.
- 1975a Statistical Abstract of the United States, 1975. Washington, D.C.:U.S. Government Printing Office.
- 1975b "Projections of the population of the United States:1975-2050." Current Population Reports, Series P-25, No. 601. Washington, D.C.:U.S. Government Printing Office.
- 1975c "Marital status and living arrangements: March 1975." Current Population Reports, Series P-20, No. 287. Washington, D.C.:U.S. Government Printing Office.
- 1976a "Population profile of the United States: June 1975." Current Population Reports, Series P-20, No. 292. Washington, D.C.:U.S. Government Printing Office.
- 1976b "School enrollment—social and economic characteristics of students: October 1975 (advance report)." Current Population Reports, Series P-20, No. 294. Washington, D.C.:U.S. Government Printing Office.
- 1976c "Educational attainment in the United States: March 1975." Current Population Reports, Series P-20, No. 295. Washington, D.C.:U.S. Government Printing Office.
- 1976d Statistical Abstract of the United States, 1976. Washington, D.C.:U.S. Government Printing Office.
- 1976f "Fertility of American women: June 1975." Current Population Reports, Series P-20, No. 301. Washington, D.C.:U.S. Government Printing Office.
- 1977 "Money income in 1975 of families and persons in the United States." Current Population Reports, Series P-60, No. 105. Washington, D.C.:U.S. Government Printing Office.
- U.S. National Center for Health Statistics
- 1976 "Advance report, final natality statistics, 1975." Monthly Vital Statistics Report, 25 (10) Supplement. Rockville, Maryland:U.S. Department of Health, Education, and Welfare.
- Weller, R. H., and F. B. Hobbs
- 1978 "Unwanted and mistimed births in the United States: 1968-1973." Family Planning Perspectives 10 (May/June):168-172.
- Westoff, C. F.
- 1976 "The decline of unplanned births in the United States." Science 191 (January 9):38-41.
- 1978 "Some speculations on the future of marriage and fertility." Family Planning Perspectives 10 (March/April):79-83.
- Whelpton, P. K., A. Campbell, and J. Patterson
- 1966 Fertility and Family Planning in the United States. Princeton:Princeton University Press.
- Zelnik, M., and J. F. Kantner
- 1977 "Sexual and contraceptive experience of young unmarried women in the United States, 1976 and 1971." Family Planning Perspectives 9 (March/April):55-71.