



December 1974

The Myth of a Population Explosion in America: Implications for the Social Welfare Profession

Lillian T. Cochran
Drew University

James M. O'Kane
Drew University

Follow this and additional works at: <https://scholarworks.wmich.edu/jssw>

 Part of the [Social Welfare Commons](#), [Social Work Commons](#), and the [Sociology Commons](#)

Recommended Citation

Cochran, Lillian T. and O'Kane, James M. (1974) "The Myth of a Population Explosion in America: Implications for the Social Welfare Profession," *The Journal of Sociology & Social Welfare*: Vol. 2 : Iss. 2 , Article 7.
Available at: <https://scholarworks.wmich.edu/jssw/vol2/iss2/7>

This Article is brought to you for free and open access by the Social Work at ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.



The Myth of a Population Explosion in America:
Implications for the Social Welfare Profession*

by

Lillian T. Cochran, Ph.D.
Assistant Professor of Sociology
Drew University, Madison, New Jersey

and

James M. O'Kane, Ph.D.
Associate Professor of Sociology
Drew University, Madison, New Jersey

In the past decade, the concern over a hypothetical "population explosion" has become an increasing preoccupation in growing segments of the American public. Terms such as "standing-room-only-world," "demographic catastrophe," "future doomsday," etc. have become common, and the work of organizations such as Planned Parenthood, Zero Population Growth, and countless other agencies has centered around this supposed threat to continued human existence. Paul and Anne Ehrlich have set forth the general position on "overpopulation" stating: "The explosive growth of the human population is the most significant event in the past million millenia. . . . Mankind itself may stand on the brink of extinction; in its death throes it could take with it most of the other passengers of Spaceship Earth. No geological event in a billion years . . . has posed a threat to terrestrial life comparable to that of human overpopulation." (Ehrlich and Ehrlich, 1970:cp1)

America's popular literature is similarly filled with such apocalyptic forebodings. Joyce Brothers, in her advice column, is perhaps more subtle than the Ehrlichs, but her position is clear. In response to a question of a reader who wished to know whether having more than two children was selfish, Brothers writes, "Perhaps . . . the threat of overpopulation continues to be a worldwide problem. If you are sure that you and your husband could enthusiastically care for more than two, a larger family may be right for you. But why not consider adopting an unwanted child? . . . By adoption you could have the large family you want--and at the same time have the satisfaction of knowing that you are contributing to the solution of a serious problem." (Brothers, 1973:78)

Many other examples of society's concern with the question of population could be cited, but the point has been made. There is little question over the existence of a rampant population explosion, and most

* Revised version of a paper presented to the 101st Annual Meeting of the National Conference on Social Welfare, May, 1974, Cincinnati, Ohio.

of the debate centers around possible actions which would stop it. Understandably then, few professionals within the field of social welfare have raised the issue as to whether overpopulation in America is mythical or real. The actions of the profession over the past years have assumed the "a priori" existence of the problem, and the profession's interest has revolved around discovering acceptable measures for alleviating it.

This analysis challenges the assumption of such a population explosion in American society. The authors realize that such a challenge places them among a distinct minority of social scientists, but that is the risk willingly taken, and an attempt will be made to buttress the arguments with both historical and current data which argue that there is no population explosion in American society.

The decline in America's fertility behavior since 1800 serves as a useful starting point. Table 1 presents historical data relevant to the number of children under 5 years of age per 1000 women in the prime child-bearing years (ages 20-44).

Table 1
Number of Children Under 5 Years Old Per 1000
Women 20 to 44 Years Old by Race
1800-1960

Adjusted Number of Children per 1000 Women

<u>Year</u>	<u>White</u>	<u>Black</u>
1800	1342	N.A.
1810	1358	N.A.
1820	1295	N.A.
1830	1145	N.A.
1840	1085	N.A.
1850	892	1087
1860	905	1072
1870	814	997
1880	780	1090
1890	685	930
1900	666	845
1910	631	736
1920	604	608
1930	506	554
1940	419	513
1950	587	706
1960	469	543

Source: Historical Statistics of the United States, Colonial Times to 1957. U.S. Census Bureau, Washington, D.C., 1960 Series B36-68:24. Data for 1960 and for women age 20-54 years are unadjusted and are taken from U.S. Census 1960, Women by Children Under 5 Years Old PC (2)3C:1. Similar data are not provided in 1970 Census.

The data for white women extends back to 1800, for black women to 1850. In both groups there has been large-scale drop in the number of children. For white women the number has dropped from 1342 children per 1000 women in 1800 to 469 per 1000 in 1960; for black women the number has fallen from 1087 per 1000 in 1850 to 543 in 1960. In scanning these data, the reader may note the continual process of fertility decline throughout American history, with the exception of the 1950-1960 data which relate to the World War II baby boom. As will be noted momentarily, the post 1960 data on birth patterns indicate that this temporary rise lasted but a few years (1946-1957) and since then, the process of a long-term secular decline in fertility patterns has re-appeared. Consequently this secular decline represents a transition from a large family structure to a smaller one.

The data in Table 2 help illustrate the current trends in America's birth rates which are now the lowest in our entire history surpassing the previous low points which were recorded in the Depression. Table 2 shows that present birth rates have been steadily decreasing since the height of the baby boom (1957). In fact, the decline since 1957 has been rather steep, from 25.2 to our present 1973 rate of 15.0 (see Table 2).

Table 2

Crude Birth Rates for the United States
for Selected Years (1910-1973)

<u>Year</u>	<u>Crude Birth Rate*</u>
1910	30.1
1915	29.5
1920	27.7
1925	25.1
1930	21.3
1935	18.7
1940	19.4
1945	20.5
1950	23.9
1955	24.9
1956	25.1
1957	25.2
1958	24.5
1959	24.3
1960	23.8
1961	23.5
1962	22.6
1963	21.9
1964	21.2
1965	19.6
1966	18.5
1967	17.9
1968	17.6

1969	17.8
1970	18.3
1971	17.3
1972	16.4
1973	15.0

* Annual births divided by mid-year population divided by 1000.

Source: Statistical Abstract of the United States, 1972 Table no. 8, p. 10; also various Current Population Reports of U.S. Census Bureau for post 1970 data

It should also be added that America's present population growth rate is virtually below the replacement level. The fertility rate necessary for replacement is 2.11 mean children and the rate for 1973 was 1.90. Hence, the possibility of stable, or even negative growth presents itself. (Schmerck, 1974:lff)

These data help explain some of the panic in demographic circles, for the rate of 25.2 in 1957, if continued, would have meant that the U.S. population in the year 2000 would have been over 400 million. One observer, Valerie Dillon, discusses this as follows: "It is this projection to which Americans are reacting today. What they haven't yet realized is that a decline since 1957 brought birth rates to their lowest point in American history." (Dillon, 1972:4) Furthermore, the recent decline in our birth rate in the past seven years have resulted in the Census Bureau drastically lowering its estimates of our population in the year 2000. Instead of earlier predictions of our future population at approximately 400 million, the present forecast is in the vicinity of 260-280 million people.

These data on our current birth rate decline are complemented by the data in Table 3 which illustrate the general fertility rate for the nation for specific years since 1935. The general fertility rate is a more powerful measure than the crude birth rate, and it helps amplify the data presented in Tables 1 and 2 (see Table 3).

Table 3

General Fertility Rate* for the United States
for Selected Years (1935-1973)

<u>Year</u>	<u>General Fertility Rate</u>
1935	77.2
1940	79.9
1945	85.9
1950	106.1
1955	118.7
1956	121.4
1957	123.0

1958	120.2
1959	120.2
1960	119.1
1961	118.4
1962	113.2
1963	109.4
1964	105.8
1965	97.3
1966	91.8
1967	88.1
1968	86.1
1969	86.2
1970	88.0
1971	81.9
1972	73.4
1973	69.3

* Annual births per 1000 females 15 to 44 years of age.

Source: Statistical Abstracts of the United States, 1972,
Table no. 8:10 and Statistical Abstracts . . . 1973,
 Table no. 9:11, also annual reports of National Center for
 Health Statistics, Census Bureau provided the 1973 figure.

Analyzing these data-more closely, it can be noted that there is general acceptance within demographic circles of the view that the levels of fertility among various socioeconomic groups in American society are converging, particularly in view of the noticeable declines in the fertility patterns of the lower-socioeconomic groups. This decline in the fertility of the lower class in spite of the slight rise in the fertility of the higher socioeconomic groups has had the impact of considerably narrowing the historical social class fertility differentials. (Matras, 1972:323)

The racial differences in American fertility patterns are also converging. Currently (1970 data) black rates are higher than white rates, but these differences are partly spurious, if one controls for level of education. Thus, black fertility is greatest among women with low levels of education, far more so than white women in the same category. But black and white women with high school education have about the same level of fertility. However, the fertility of black female college graduates is far lower than white female graduates (1.4 mean children vs. 2.1 children for white females). (Matras, 1973:325)

How does one then explain these decreasing levels of fertility in our population? Firstly, analyzing census data, it should be stressed that a far larger proportion of our female population is remaining single than in previous eras. In 1970, 44% of women at age 21 were single, compared with 35% in 1960. Even more significant is the proportion of women (ages 35-54) with educations beyond college who never marry which, at present, is approximately 19% (U.S. Census, 1970:Tables 1 and 4). Also of

importance is the later age of marriage for American females, and recent information from the Census Bureau suggests not only that an increasing number of American women will remain single, but the remainder will marry at later ages than earlier age cohorts. (Panic, 1972:8). For example, 38% of women in 20-24 age groups were single in 1973 compared to 28% in 1960 (Birth Rates, 1974). In discussing this "fertility recession" Donald Bogue has said he "finds it impossible to foresee a chain of developments other than the slow but steady decline of birth rates. (Birth Rate, 1971:78)

Of equal importance is the number of American women favoring large families and the data in Table 3 confirm that this number has dropped considerably since 1967. The projection of a fertility decline is thus supported by the fact of a decline in number of children wanted by American women (see Table 4).

Table 4

Percentage of Women in Various Age Groups
Who Wanted Four or More Children 1967 and 1971*

Age Group	1967 %	1971 %
a) 21 - 29 years old	34	15
b) 30 - 49 years old	40	24
c) 50 ⁺	42	27
d) Total	40%	23%

Source: Gallup Poll, 1971; cited in V. Dillon, "Will the Real Population Problem Please Stand Up?" East Brunswick, New Jersey: Bureau of Family Life, Diocese of Trenton, 1972, p. 4.

*A Census Bureau Survey [June 1971] showed that the birth expectations of young married women declined from previous years. The average number of total births expected by wives in the 18-39 age bracket was 2.8, a decline from the 3.1 average reported in a similar survey in 1967; see MORE: The Interfaces Between Population, Economic Growth and the Environment (Washington, D.C.: The League of Women Voters, 1972, p. 11). Other data reported in Social Indicators 1973 (Washington, D.C.: Government Printing Office, 1974) report that since 1965 the average number of children expected by Black women (18-24 years) dropped from 3.4 to 2.4, and from 3.1 to 2.2 for white women.

Consequently, the combination of these factors, more women remaining single, more women marrying at later ages, the growing number of women favoring smaller-sized families--suggest that American society is nowhere near the demographic apocalypse portrayed by a number of respected publicists. In view of these factors, it can be concluded that Malthusian brinkmanship thinking can not be validated by current data.

This decrease in fertility, if sustained, will have a profound impact on America's population, particularly in the dependent age categories (under 15 and over 65). Firstly, the nation will have proportionally fewer children under 15 years of age than in earlier eras. In 1970, for example, there were 15% fewer children than in 1960 in the 5 and under age category, and this trend will be accentuated in future years. Secondly, the fertility decline implies a higher median age for our population; in 1972 it was 28 and this will rise to 38 in the next generation if the present birth rate is sustained in future years. This consequently means that our death rate, which is now 9.4 per 1000 will rise substantially, since the higher ages have higher mortality rates than the lower ones. Thirdly, by 1980 it can be expected that there will be approximately 18% more people in the 65+ age category than in 1970. Fourthly, in relation to our central cities, we can expect lower absolute populations in 1980 than in 1970 because of high out-migration to the suburban ring.

In spite of these factors, critics constantly argue that we are still, as a nation, overpopulated and that the decline in the current birth rate is of minor importance. Thus the nation should be very much concerned with such factors as the future food production of America, the high density so evident in the nation, the industrial pollution created by large populations, etc. Again, it can be argued that these are invalid arguments. Firstly, America's capacity to feed its existing population cannot be seriously questioned. Until very recently a large food surplus had been produced and the cost of merely storing the surplus was staggering. Farmers have been paid, by way of federal subsidy, simply not to grow food! The real problem here is not food production, but its distribution wherein means must be developed to channel surplus food to those in the population who need it (inner city residents, the aged, rural poor, etc.). The internationally-noted agricultural economist Colin Clark says that the U.S. population could continue to increase at its present rate until the year 2000 and still have large food surpluses. (Dillon, 1972:4)

Secondly, the nation is far from overpopulated in relation to its available land area. Table 5 compares America with other nations and the data contained therein confirm that the United States is one of the least densely populated countries with a density of 57 people per square mile (see Table 5).

Table 5
Population Density of Selected Nations

<u>Nation</u>	<u>Persons per Square Mile</u>
Netherlands	985
Japan	710
West Germany	627
United Kingdom	590

Italy	455
India	416
France	237
China (mainland)	198
Indonesia	197
Greece	174
United States	57
U.S.S.R.	29

Source: Bureau of Census, cited in MORE: The Interfaces Between Population, Economic Growth and the Environment (Washington, D.C.: The League of Women Voters, 1972).

Essentially, the difficulties here are not related to the density of the nation as a whole, but rather are due to the distribution of our 210 million people. Of these 80% live on 10% of our land, 70% on 2% of the land. Furthermore, a review of the data in Table 6 shows the growth and change in our population distribution since 1950. These data indicate that most of the recent population growth in American metropolitan areas has taken place in what sociologists call the urban "fringe." In fact, since 1960 the population of central cities grew by six percent, while the contiguous areas within metropolitan areas (SMSA) grew by 27 percent (see Table 6).

Table 6

Growth of the Suburban, Central City and Non-metropolitan Population of the United States 1950 - 1970

AREA CATEGORY	RESIDENT POPULATION as of APRIL 1, 1970			
	Total in Thousands			Percent of total
	1950	1960	1970	1970
243 SMSAs	94,600	119,600	139,400	68.6
central cities	53,800	60,000	63,800	31.4
outside central cities	40,800	59,600	75,600	37.2
urban	n.a.	43,000	59,200	29.1
rural	n.a.	16,700	16,400	8.1
Non-metropolitan areas	56,700	59,700	63,800	31.4
urban	n.a.	22,300	26,400	13.0
rural	n.a.	37,400	37,400	18.4

Source: U.S. Bureau of the Census, Pocket Data Book, U.S.A. 1971, Table 7, p. 40 (revised for this study).

In addition, if this trend of concentration and centralization continues, 50% of the nation's population will live in one or the other of two huge urban regions one of which is the area encompassing the region from Boston to Washington which will join the area running from Chicago

to Pittsburgh, the second of which is on the west coast of the United States will include the area between San Francisco and San Diego, California. (MORE, 1972:12) Hence, the need for de-centralization of these huge metropolitan areas is apparent. For those living in these areas, it is understandable to see why they consider the United States to be one of the most densely populated areas on earth! The population density of New York's Manhattan Island, for example, in 1970, exceeded 67,000 persons per square mile. (Statistical Abstracts, 1972:23, no. 22) Donald Bogue has argued that the population of America could easily double and it would help immensely if these metropolitan areas were more decentralized.

Thirdly, the relationship between population growth and pollution is complex since the American life style presupposes that a value on material consumption and the resultant problems of this choice cannot be simply blamed on population growth. It's just as logical to argue that the amount of pollution can be better reduced by lower material consumption on the part of the nation than by lower fertility! Conrad Tauber, former associate director of the U.S. Census Bureau, has stated this in the following way:

The recent public concern with environmental problems has often confused the element of population growth with the consequence of the way in which we live. Economic and social factors are more important than population growth in threatening the quality of American life. (MORE, 1972:20)

Also, the apocalyptic writers often equate lower population size with economic growth in the nation. Perhaps the opinion of the French demographer Sauvy might be useful in this respect for he argues that if limiting population growth enriches a country then France should be the richest on earth, since it attained population control long before the other industrialized nations! (Clark, 1946:276)

Hence, the arguments that the United States risks chaos because of overcrowding, dwindling food potential, and irreversible atmospheric pollution, etc. cannot be supported since the empirical data suggest otherwise. Yet why do these arguments constantly arise in discussions of population phenomenon? Why then do the advocates of population control, whether it be via contraception, sterilization, abortion or euthanasia, ignore the data which suggests that the United States can easily accommodate increased population growth? Why are alternatives such as re-distribution of population through in-migration, greater decentralization of urban centers, more equitable distribution of wealth and natural resources, etc., consistently ignored in favor of emotional, even hysterical approaches?

These questions must largely remain unanswered, but it might be hypothesized that the Malthusian underpinnings of the crisis position comes closest to a reasonable answer. Malthus, writing in 1798, reasoned that in human society two indisputable variables were operant: food

increases in an arithmetic ratio (e.g., 1, 2, 3, 4, 5) while population increases in a geometric ratio (e.g., 1, 2, 4, 8, 16). Hence while the number of mouths grows geometrically, cultivable land grows only arithmetically. The result is inevitable and logical: the number of people is bound to outstrip the amount of food in a given population.

Yet even though Malthus' theory has been demonstrated to be incorrect--primarily because the pace of urbanization and industrialization since 1798 have circumvented his paradox--it still remains extremely powerful in the United States. Americans, just as did Malthus, tend to see the source of all human poverty and misery in individual inadequacies. Hence, the problems which beset American society--whether they be crime, alienation, or poverty--are consistently and incorrectly associated with population growth. If only the individual would control the size of his progeny, then society would see the slow dissolution of its problems--so say the neo-Malthusians. Their pessimism is always associated with a profound sense of utopian idealism. Hence, solutions must always be personal and for this reason neo-Malthusians have a great deal of difficulty in examining other approaches on population questions. This is particularly true of other positions such as the Marxian position and the Roman Catholic position--both of which are diametrically opposed to each other in their principal assumptions, but both of which see economic and social justice as the solution to population "problems." Neo-Malthusians cannot understand these other stances since they are unable to break away from the land-people ratio relationship inherent in Malthus' argument.

Implications for Social Welfare

The data which have been cited in Table 1-6 have obvious policy implications for the field of social welfare since they suggest a rapidly changing demographic situation within the United States. As such, the social welfare professions should put their human and economic resources "where the action is." This action will presumably entail the shifting of emphasis from former needs to new evolving needs. Yet what will these future human needs entail?

To answer this we might look at the major age distributions of our population and, in so doing, divide them demographically into their three major component parts: dependent children population (ages 0-15 years), active adult population (ages 15-64) and dependent aged population (65+). The transition from a relatively high birth rate to a lower one in the past 15 years, and short-range projections of an even lower birth rate than the present one--each of these factors implies that the dependent children grouping will be relatively less important than the active adult and dependent aged categories. This is already apparent in 1974 where the impact of the declining fertility rate has been strongly felt in elementary school enrollments, teacher training programs, child adoption services and dozens of similar programs geared towards service to youth. It will become more apparent as the low birth rate cohort of the late 1960s and early 1970s age and approach adolescence. Here demographic projections indicate a declining high school enrollment and eventually

a fairly pronounced negative impact on college enrollments. Similarly adolescent service units will be affected as they experience a declining "clientele," a decline which may have little to do with the type and extent of service which they offer to adolescents!

These changes may not necessarily be negative changes since a good portion of social welfare service programs have been traditionally overwhelmed by the enormity of the needs of their respective client populations. With a projected decline in the number of children, for example, the typical family service agency, child guidance clinic, pre-school nursery program, etc. should be enabled to provide more extensive assistance to those in need. Assuming that the financial support for these agencies remains relatively constant, and the clientele diminishes, the resultant professional attention to that clientele should be maximized. Such an assumption of financial stability might be outside the control of the respective agencies, however!

An analysis of the second grouping, the active age population, suggests the continued increase in its number. Since its members are already present in American society, and since migration to and from the nation is relatively small, the forecast for this group is somewhat simplified. As the baby-boom children mature, they will demand services which are geared toward their needs. In 1974, the entire baby boom is in the active adult grouping. As such, they will need everything from employment to additional ski resorts! The bulk of this age cohort 15 entering the post-college age brackets. Their employment possibilities are dimmed somewhat since so many of them have been seeking positions which traditionally have been hard to fill. Hence, for example, there is presently a glut of newly trained elementary school teachers seeking teaching positions in schools beset with declining enrollments; the social work profession will increasingly feel this pressure as young adults previously geared to teaching begin to seek positions in social service agencies. As this competition continues and even increases, it is conceivable that certain groups (e.g., ethnic and social minority) will be at an even greater disadvantage than at present. Because of supply and demand considerations, those better equipped in terms of education, family background, etc. will be in a better position for the ensuing competition.

Those adult-age individuals at the higher ages in this category (e.g., 35+) will presumably be at less of a disadvantage. Since much of America's employment pattern is based on some system of seniority, this group may be "locked in" secure positions, from which they can conceivably immunize themselves from the increasing competition of their younger colleagues. Yet this advantage may be short-lived since the tension between the two groups may necessarily resolve itself in things such as early retirement, periodic review of job abilities, shorter work weeks for the older workers, etc. Those units within the social welfare profession specifically relating to employment policy, trade unionization policy, guaranteed annual income policy, and minority hiring policy should be alerted to these future possibilities.

The third grouping, the dependent aged population, represents the area which should have the greatest future need, and therefore the greatest attention from the social welfare field. Since the number of aged is presently increasing both in relative and absolute terms, the profession should immediately initiate programs geared toward the needs of the aged. These programs will involve a greater emphasis on senior citizen clubs, higher social security payments, more adequate medical and dental care, better nursing home facilities, etc. Also, the changing demographic picture will necessitate the profession's providing consideration to those dependent aged not serviced by nursing facilities, senior citizen clubs. Careful provision must be made for the group so that its needs are met. Also to be considered is the differential life expectancies of males and females. In 1971, the average life expectancy for males was 67.4 years, while for females the expectancy was 74.9 years. (Social Indicators, 1973:Table 1) Consequently, there will be, as there now are, an absolute "excess" of females at the higher age brackets. How will they be provided for? How will the increasing difficulty of loneliness resulting from the death of a husband be handled? Will facilities for the aged be able to handle the unbalanced sex ratio wherein male residents become something of an oddity? Again these are current problems, and their severity can only increase in future years.

In substance, the social welfare professions should be primarily prepared to gear their programs towards the active adult and dependent aged populations. This presumably will entail less of a proportional emphasis on the needs of youth in the dependent children population category. While these latter needs are great, there should be a relaxing of the strains among the dependent youth in years to come.

Secondly, the profession as a whole should be somewhat suspicious of the claims of the advocates of a population explosion here in America. Granted it is difficult for a profession which is comprised of so many different constituencies to take such a stance, either pro or con; however, when various vested interest groups begin to translate slogans such as "stop at two," or "none is fun" into a call for legislative curtailment of large families, then the profession, or sizable segments of it, will be compelled to take a position; when various demographic crisis groups argue that we'll starve if we don't stop at two children and that as a consequence we must adopt everything from abortion on demand, to euthanasia, then social welfare professions should have enough intellectual integrity to question the underlying fallacies inherent in such statements.

It might be noted in passing that numerous bills have been introduced in both Congress and state legislatures relating to population control. For example, in Hawaii a bill was introduced in the state legislature requiring the sterilization of every woman giving birth to her second child. In addition there is the perennial offering of mandatory contraception or sterilization of those too poor to support their families. (Dillon, 1972:3)

In 1973 the Alabama legislature passed a law permitting the sterilization of mental patients with their consent or with the consent of the institution's administration if the individual is incompetent to make such a decision. We should note that a similar measure was introduced in Nazi Germany under Reichfuhrer Rüdin whereby all schizophrenic, manic-depressive, feeble-minded patients etc. were to be sterilized by surgical operation. This sterilization law was enacted in 1933, and by 1936, the famous "Nuremberg Laws" were in full force, paving the way for the "legal" elimination of Jews, Gypsies, and other "non-Aryan" groups. Where will social welfare professionals stand on these issues? If the majority of the profession is convinced that America faces a genuine demographic crisis simply because of the rhetoric of the prophets of doom, then it will be difficult for this number not to support these proposals.

Hopefully this analysis has aired the other side of the argument currently voiced in both academic and non-academic circles. Population questions are intricately related to space, sustenance, technology and social organization and by attempting to interrelate these factors, the authors hope that they may have minimally assisted the profession in examining the myth, rather than the reality, of a population explosion in the United States.

References

-
- 1971 "Birth Rate Declines Here, Reversing a 3-Year Trend." New York Times (Oct. 3):78
- 1974 "Birth Rates Are Lower Than Ever." New York Times (April 21)
- Brothers, Joyce
1973 "Joyce Brothers." Good Housekeeping (Spring):78ff.
- Clark, Colin
1967 Population Growth and Land Use. London: St. Martin's Press.
- Dillon, Valerie
1972 "Will the Real Population Problem Please Stand Up?" East Brunswick, New Jersey: Bureau of Family Life Diocese of Trenton
- Ehrlich, Paul and Ann Ehrlich
1970 Population, Resources, Environment: Issues in Human Ecology. San Francisco: Freeman Press

-
- 1970 Marital Status - 1970 United States Census.
Department of Commerce, Bureau of the Census,
PC(2)4C, Tables 1 and 4;2ff., 102ff.
- Matras, Judah
1973 Population and Societies. Englewood Cliffs,
New Jersey: Prentice Hall
-
- 1972 MORE: The Interfaces Between Population, Economic
Growth and the Environment. Washington, D.C.:
The League of Women Voters
-
- 1972 "The Panic as You Approach Zero."
New York Times (June 4)
- Schmeck, Harold
1974 "Birth, Fertility Rates at a New Low in U.S."
New York Times (April 16):1ff.
-
- 1973 Social Indicators 1973. Washington, D.C.:
Department of Commerce, 1973
-
- 1972 Statistical Abstract of the United States, 1972:
U.S. Department of Commerce, Bureau of the Census,
Washington, D.C.