

The Population Debate in American Popular Magazines, 1946–90

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DOES POPULATION MATTER? In today's context, the meaning of this question is quite broad. Included are considerations of population growth, age structure, spatial distribution, and a variety of factors that can somehow be linked to life's "vital events." Until recently, however, the question's meaning was more narrowly focused: Do population size, density, and growth matter for the social and economic well-being of a group of people? In general, the latter question has been answered in the affirmative, albeit with substantial disagreement over the nature of the connection. The relevant question is not, and probably never was, *Does* population matter? Rather, *How* does it matter?

We have undertaken an extensive review of the American popular literature on population for two reasons. First, a survey of popular perspectives on population change serves as a vehicle for analyzing the structure of the arguments in the larger debate on the issue of population increase. Compared with the academic literature, the popular discussion places greater emphasis on reasons for viewing population growth with alarm or complacency, rather than on evidence supporting those claims. As such, the popular discussion is well suited for analyzing the changing structure of the political and intellectual debate over the desirability of intervention in population processes.

Second, an understanding of the evolution of popular attitudes concerning rapid population growth is essential if demographers wish to influence future population policy. We contend that the creation, in the 1960s and later, of an institutional structure for understanding and altering population-related events was made possible in part by the formation of a consensus among the American public that rapid population growth poses a significant threat to collective well-being—not only to the countries expe-

riencing it, but to global interests as well. An important element in the consolidation of popular opinion on these matters was undoubtedly the coverage of the topic provided by popular magazines, newspapers, and other media during this period.

The debate over the consequences of rapid population growth has changed considerably in character during the past several decades. Among academic specialists, a nearly unanimous "orthodox" view of the disadvantages of rapid population growth and of the possibility for successful intervention to lower birth rates in less developed countries (LDCs) dominated discussions of the topic during the 1960s and 1970s (Demeny, 1986; Hodgson, 1988). Since around 1980, however, various strains of "revisionism" have challenged the validity of this perspective and encouraged attempts to reformulate a scientific consensus on the nature of the threat posed by rapid population growth (NRC, 1986, 1989).

Similarly, popular discussion of the effects of a growing world population has seen several marked shifts of emphasis since World War II. In this article we seek to demonstrate that these shifts reflect broader changes in the social and political agenda of the postwar period. As such, our discussion runs parallel to that of Dennis Hodgson (1988), although our detailed analysis of American popular periodicals during this era reveals a more nuanced set of changes in public perceptions of the "population problem" than offered by Hodgson's reading of the academic literature.

In particular, we have catalogued a long list of arguments used to support or to refute the notion that rapid population growth presents a significant threat to collective well-being. We have grouped these arguments on the basis of their thematic content into five argumentative frames. These frames form the intellectual terrain on which the population issue or, in the majority view, the population problem has been debated. The major task of this article is to trace the historical shifts of emphasis between the five frames and between the arguments themselves. Two auxiliary questions concern overall trends in the popular discussion of population growth as a policy issue, and the role of professional demographers in shaping the popular debate. Specifically, is it true that popular awareness and concern in matters of population growth are currently in decline in the United States? Also, have demographers been active and effective participants in the public debate over population change, and what should be their future roles?

The history of the "population movement" in the United States is chronicled in a fairly extensive literature. This article has antecedents in the works by Demeny (1986, 1988), Donaldson (1990), Finkle and Crane (1975, 1985), Hodgson (1983, 1988, 1991), Piotrow (1973), and others. In contrast to these earlier discussions, however, we focus primarily on the unraveling of population as an issue in the popular, as opposed to the political or academic, arena.

Data and methods

We chose to limit our analysis to the period after World War II, since many of the issues that frame the discussion of population changed dramatically between 1930 and 1950. For example, improvements in health, generated to a significant degree by international assistance, began at about this time to show their demographic effects in the form of lower mortality, hence rapid population growth, in what were then known as the "backward countries." Also, the Nazis' use of eugenics and forced sterilization largely discredited race-based theories, so that the postwar debate on population inevitably took on a new face.

Our analysis is based on a reading of over 500 articles indexed in the *Reader's Guide to Periodical Literature* under one of several population-related headings during the period from 1946 to 1990.¹ The *Reader's Guide* is an extensive index of articles contained in popular, English-language (though mostly American) sources over the last 100 years. The choice to limit our analysis of the American media to magazines and periodicals as indexed in the *Reader's Guide*—excluding, for example, television, radio, and newspapers—is due to practical considerations. A thorough examination of these other sources would undoubtedly provide useful insights but is beyond our current means. Furthermore, we believe that an emphasis on the *American* popular literature is justified by the disproportionate weight of US government policy in shaping international efforts to slow world population growth.

We do not claim that the articles indexed by the *Reader's Guide* provide comprehensive coverage of American magazines and other popular periodicals during the time span we chose for our study. We do contend, however, that a careful examination of their contents offers a valuable opportunity, within practical limits, to improve our understanding of changing currents of opinion in the larger universe of popular writings and discussion on population. Although the editorial perspectives of the articles listed in the *Reader's Guide* are likely to fall mostly within the mainstream of American popular opinion, a variety of perspectives within that mainstream are nonetheless evident. We consider the articles analyzed here as broadly representative of opinions and perspectives expressed in the American popular media as a whole.

In any case, we have proceeded with our study in the belief that practical and desirable alternatives simply are not available. Clearly, to carry out an analysis of television and radio reports on population matters during this era would have been enormously difficult. A systematic examination of newspaper articles on population would have encountered similar obstacles, since very few newspapers have been indexed over a long time period.² An analysis of a single newspaper, such as *The New York Times*, would have had limited appeal, as individual personalities and editorial policies would have exerted

a disproportionate influence on the results. In contrast, the variety of editorial perspectives contained in articles chosen at random from the *Reader's Guide* seems to minimize the risk of systematic bias in representing the relevant spectrum of views.

Limiting our analysis to articles indexed in the *Reader's Guide* offered us a well-defined body of writings that we could study systematically. We began by drawing a representative sample of articles from those published in the period 1946–90. The *Reader's Guide* is organized by subject categories, which are arranged in a hierarchical system of headings, subheadings, and in some cases sub-subheadings. The headings that defined the universe from which our sample was drawn are mostly those beginning with the word "Population."³ From these various headings, we assembled a list of 1,683 distinct citations from which we drew a sample of 548 articles for detailed analysis.

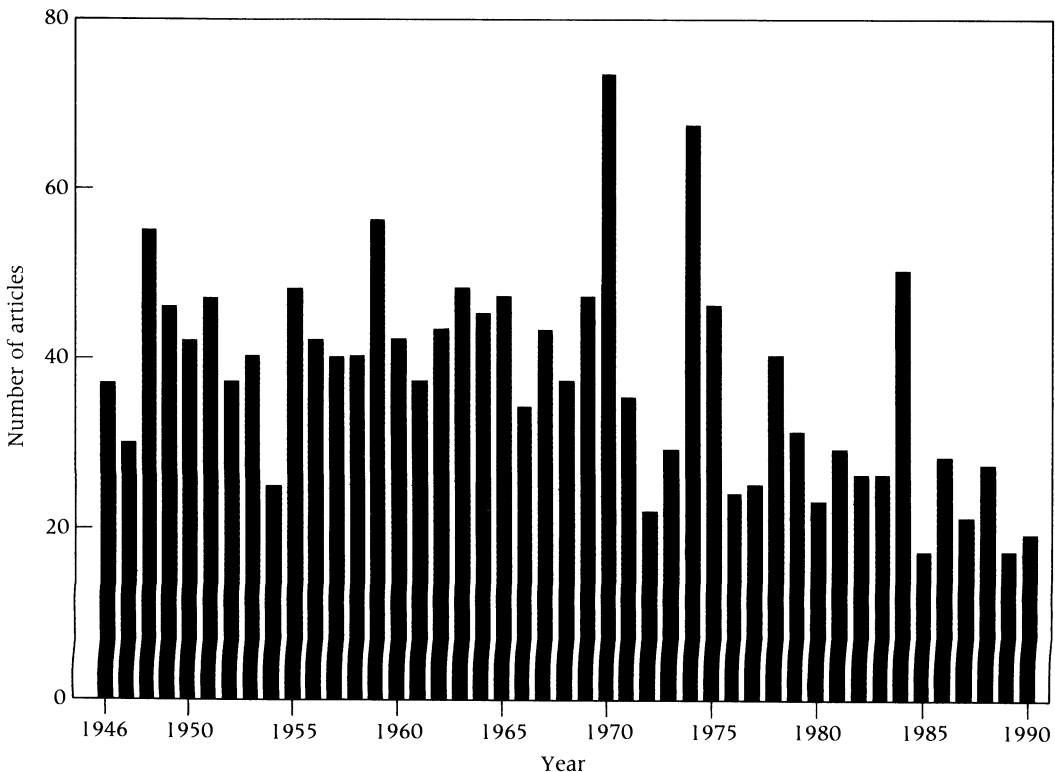
The quality and consistency of the *Reader's Guide* is difficult to assess. According to Jean Marra, editor of the *Reader's Guide* since 1979, there is no written documentation of how the index has been constructed over the years. Rather, the standards for assembling and classifying the entries on a particular topic have been passed down as a matter of oral tradition (Marra, personal communication, 1989). The *Reader's Guide* began with an initial volume, published in 1905, covering the period 1900–04. Subsequent volumes were issued at successively shorter intervals, usually appearing within a year after the period covered.⁴ The indexing scheme of the *Reader's Guide* exhibits a remarkable consistency over this lengthy period. The format of the individual citations and even their typographic layout appear to have been standardized by the second or third volume (that is, by about 1910). The diligence and accuracy with which the indexing has been carried out is illustrated by the fact that only one of the 548 articles in our sample could not be located on the basis of the citation given.

Some changes over time in the indexing scheme are, however, evident. They include changes in the hierarchical structure of the headings and subheadings and in the classification of articles within those categories, although such changes have been relatively minor since 1945. A more important inconsistency is introduced by the gradual change in the list of journals selected for indexing between successive volumes. In the very early postwar period some professional journals (e.g., *The American Journal of Sociology*) were included in the *Reader's Guide*. Such specialized periodicals were mostly eliminated in the 1950s. On the other hand, a proliferation over the years of popular magazines and periodicals of all sorts (e.g., *Mademoiselle*, *The Futurist*, or *The Mother Earth News*) expanded the number of sources indexed: from 121 publications in 1952, to 156 in 1970, and to 180 in 1986. Over half of the articles in our list of 1,683 came, however, from only 15 periodicals. This group consists largely of well-known, mass-circulation mag-

azines (such as *U.S. News & World Report*, *Science*, *Time*, and *Newsweek*), which, with only minor exceptions, have been indexed by the *Reader's Guide* during the entire postwar era.⁵

To provide a rough picture of the composition of our data base of 1,683 articles, we present several descriptive summaries. Figure 1 shows the number of articles by year of publication. The annual numbers appear to be more or less constant until the late 1960s. Three years stand out for having considerably more articles than the surrounding years: 1970, when the first "Earth Day" was celebrated; 1974, the year of the World Population Conference in Bucharest; and 1984, the year of the International Conference on Population in Mexico City. A gradual decrease in the number of articles addressing population matters is evident after the late 1960s. This decline stands in sharp contrast to the aforementioned increase in the number of periodicals being indexed over this period and to the total number of annual citations in the *Reader's Guide* regardless of subject matter. Although the latter number is not known, an indirect measure of it is the substantial increase (roughly

FIGURE 1 Numerical distribution of the 1,683 articles addressing population matters indexed in the *Reader's Guide to Periodical Literature*, 1946–90



on the order of 60 percent from 1970 to 1986) in the number of pages per volume.

Nearly 150 periodicals are represented in our primary data base of 1,683 population articles (counting only once those journals that changed their name or merged with other journals over this period). As we noted before, a relatively small number of these account for a majority of the articles. Table 1 shows the top 25 publications, ranked according to the number of

TABLE 1 The top 25 periodical publications included in this study, ranked according to the number of articles listed

Publication	Number of articles	Cumulative percent of total
U.S. News & World Report	185	11
Science (The Scientific Monthly)	103	17
Science News (Science News Letter)	73	21
Scholastic Update (Senior Scholastic, incl. Teacher's editions)	53	25
Time	53	28
Newsweek	47	31
Science Digest	46	33
The New Republic	43	36
Scientific American	42	38
America	38	41
UN Chronicle (UN Bulletin, UN Review, UN Monthly Chronicle)	38	43
The New York Times Magazine	37	45
The Commonweal	36	47
Business Week	33	49
Saturday Review (Saturday Review of Literature)	32	51
The Christian Century	31	53
Department of State Bulletin	30	55
The Annals of the American Academy of Social and Political Science	29	56
Science and Public Affairs (Bulletin of the Atomic Scientists)	28	58
The Futurist	26	60
Vital Speeches of the Day	26	61
The Reader's Digest	22	62
Foreign Affairs	21	64
Current History	21	65
The American City	21	66
Top 25 publications	1,114	66
All publications	1,683	100

NOTE: Former names of publications (e.g., *Science News Letter* became *Science News* in 1966) or names of publications that have merged operations (*The Scientific Monthly*, absorbed by *Science* in 1958, is the only example among publications listed here) are shown in parentheses.

articles contributed to the data base. If we focus on the top nine journals, which all contributed more than 40 articles, we observe that this group contains four well-known news magazines (*U.S. News & World Report*, *Time*, *Newsweek*, and *The New Republic*), four popular scientific journals (*Science*, *Science News*, *Science Digest*, and *Scientific American*), and one news magazine for high school students (*Scholastic Update*). It is notable that, as the table shows, the top nine journals account for nearly 40 percent of all articles, and the top 15 for over 50 percent.

Table 2 shows the 23 most prolific authors in the population debate, ranked by the number of articles in our data base for which the individual

TABLE 2 The most active individuals in the population debate in the United States during 1946–90 based on the number of articles written by each author and the estimated number of articles written by others that cite the author’s work or opinions

Author	Number of articles written by author	Number of citations of author by others
Ehrlich, Paul R.	24	47
Davis, Kingsley	17	28
Hauser, Philip M.	11	62
Cook, Robert C.	10	47
Brown, Lester R.	9	43
Ehrlich, Anne H.	8	—
Taeuber, Irene B.	7	4
Brown, Harrison	6	24
Green, Marshall	6	0
Holden, Constance	6	—
Holdren, John P.	6	—
Notestein, Frank W.	6	14
Petersen, William	6	—
Simon, Julian L.	6	23
Spengler, Joseph J.	6	16
Dow, Thomas E.	5	—
O’Gara, James	5	—
Gardner, Richard N.	5	—
Greenberg, David S.	5	—
Hardin, Garrett	5	18
Jones, Landon Y.	5	—
McNamara, Robert S.	5	9
Thompson, Warren S.	5	13

NOTE: Out of the total of 1,683 articles, an author or authors were identified by name in 953 cases; 730 were anonymous. The number of citations shown in the last column is an estimate based on 1,468 “relevant” articles (see discussion in text).

was identified as a sole or joint author. The number of authored articles by each tends to underrepresent the actual influence of these contributors to the population debate. The anonymous articles, referred to at the bottom of Table 2, are usually of two types: articles that convey information on demographic facts accompanied by little evaluative commentary, or reports that present an issue and offer the viewpoints of "experts." Articles of the latter type often summarize an expert view drawn from remarks given at a conference, in a public speech, or in a private interview. The expert source is very often one of the authors listed in Table 2.

Accordingly, in Table 2 we indicate our estimate of the number of additional articles in which the various authors are cited (whether favorably or unfavorably) over this period. We derived these estimates from our detailed reading of over 500 articles in the course of a content analysis that we describe later. It is worth noting that, while Paul Ehrlich and Kingsley Davis contributed the greatest number of articles identified by author's name, Philip Hauser, Robert Cook, and Lester Brown were cited with similar or greater frequency as sources of authority in population matters. In addition, two individuals who contributed fewer than five authored articles (and thus are not listed in Table 2) must nevertheless be considered important contributors to the popular discussion of population issues based on the number of citations they received in other articles: we estimate that Ansley Coale and William Vogt were cited 32 and 16 times, respectively.

In the remainder of this article we present results based on the content analysis of the more than 500 population articles referred to above. We began by drawing a stratified random sample⁶ of 548 citations, of which we successfully located 544 articles. As we read these articles, we sought to summarize their contents by completing a detailed coding form. First, we identified articles that addressed the subject of (or issues affected by) population size, growth, or density; these we termed the "relevant" articles.⁷ In most of the time periods, we estimate that 80–90 percent of the population articles listed in the *Reader's Guide* were relevant in this sense, and in all cases more than 70 percent. Overall, we estimate that 1,468 out of the 1,683 articles in our data base are "relevant" with regard to the topics addressed in this article. All other percentages presented here relate to this reduced set of "relevant" articles.

After identifying an article as relevant, our coding procedure was designed to permit a quantified description of its "message" concerning population growth or decline. We first recorded what we call an article's "overall perspective" on population growth in general, or on growth in major world regions or individual countries. The next portion of the form contained various arguments that are often invoked in the literature we have examined to demonstrate why and how population growth matters. For each article, we recorded whether an argument was mentioned at all and, if so, whether

it was cited in a “supportive,” “neutral,” or “critical” manner. One section of the form noted the use of dramatic metaphors and poignant images, such as “population explosion” or “standing room only.” Another portion noted citations of prominent individuals in the population debate, again indicating whether the citation was favorable, unfavorable, or neutral. Another section, which we do not discuss in this article, recorded suggested interventions for influencing population processes.

The main quantitative results from this content analysis are presented in the following sections. These numerical summaries are supplemented with selected quotations from the articles themselves.

Framing the population problem

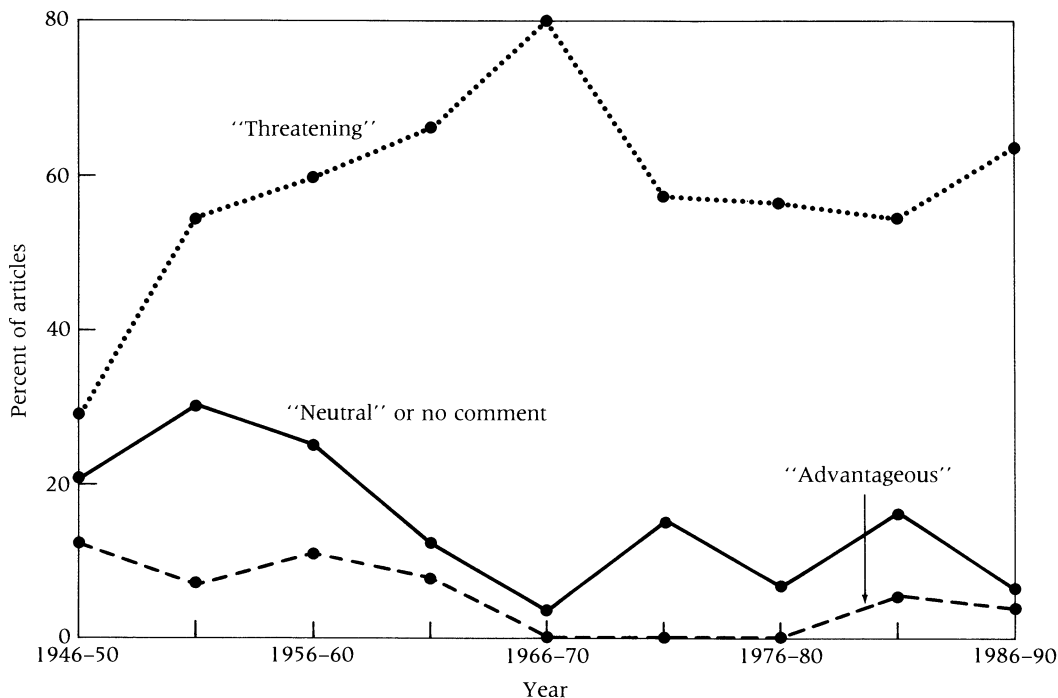
Why does population matter? Perhaps not surprisingly, the dominant theme of the articles in our data base throughout this period was that population growth is rapid and threatens the welfare of humans and other species. We estimate that in all time periods since 1951, over 50 percent of the “relevant” population articles espoused such a view. Other main messages that were common include: population growth is rapid (with no explicit commentary), and population growth is rapid and advantageous to human society. The rates of occurrence of these three dominant perspectives are summarized in Figure 2. Most notable is the rapid rise in the tendency to define population growth as both rapid and threatening, in contrast to the decline in the other two perspectives. Thus, in the popular literature we have examined, the viewpoint that population growth is harmful solidified by the early 1960s. The strongest period of support for this position was in the late 1960s.

Why was growth considered threatening? We have attempted to classify arguments or positions concerning the dangers of population growth into five categories, depending on the nature of the link that they perceive or purport to establish between population and other social phenomena. These categories are referred to as argumentative “frames,” since they describe the manner in which population issues are framed or presented within a larger social and political discourse. In practice, they also represent collections of individual arguments that possess, in our estimation, a certain thematic unity.⁸ Thus, we have identified three anti-population growth frames, one pro-growth frame, and one frame whose arguments are essentially ambivalent with regard to the nature of population growth. These five frames can be described briefly as follows:

The “limits to growth” (or “Malthusian”) frame

The central idea of this frame is that there are limits to the potential growth of human populations. A mild version of the argument asserts that an ex-

FIGURE 2 Changes in the estimated percent of “relevant” articles that advanced one of three dominant perspectives regarding the effects of rapid population growth on human welfare, 1946–90



NOTE: Percentages sum to less than 100, since an article could have a dominant perspective other than the three positions presented here. Alternative perspectives (not shown here) include the assertion that population growth has slowed down and is no longer a problem, or that population is declining (in some country or region).

cessive *rate* of growth threatens the ability of a nation’s economy to absorb additional people. The perceived harm of population growth in this case is retarded economic development, unemployment, or an economically burdensome child dependency ratio. The proposed solution may be merely a slower pace of growth, thus allowing more time for society to absorb the additional individuals. A more pessimistic version of the argument focuses less on economic and more on ecological limits to growth. Rapid population growth, it is asserted, threatens the very survival of the human species, owing to finite limits on the availability of such resources as land, water, and fossil fuels. Population growth must somehow be brought under control, either through limitations on reproduction or through an increase in the death rate. Since the limits to growth are considered immutable, the only sensible solution is to limit population size to a sustainable level. The price of inaction is eventual ecological disaster that will result in widespread famine, disease, misery, and, potentially, the extinction of the human species.

The “population pressure” (or “world systems”) frame

A second means of framing the population problem is to assert that growth produces population pressure, which in turn threatens the stability of world political systems. Population pressure may lead nations to press outward from their borders in search of *Lebensraum* (i.e., “living space”), or it may foster internal political instability, leading in some cases to communist-inspired revolutions. Population pressure, it is argued, has been the cause of past wars and will be a source of future conflict if population growth is not controlled.

The “quality of life” (or “overcrowding”) frame

A third type of argument that asserts that rapid population growth is disadvantageous focuses on the negative effects of overcrowding on the quality of human existence. Without claiming that humans must limit their reproduction to avert war, famine, disease, or ecological disaster, the arguments in this frame suggest that population growth produces a general deterioration in the quality of the natural and social environments of human societies. Overcrowding, it is argued, brings in its train a host of adverse side effects, including urban congestion, pollution, and shortages of housing and recreational space. In addition, it is often suggested that living in overcrowded cities and towns encourages various forms of “social pathology,” ranging from street crime to domestic violence and sexual deviance. Overcrowding may also necessitate an increased role for governments at the expense of individual liberties.

The “growth is good” frame

An alternative set of arguments with regard to population growth upholds the position that population growth, on balance, has positive effects on economic development and human progress. In general, it is asserted that population growth fuels economic expansion or, more directly, that a healthy capitalist economy depends on expanding markets and that this is facilitated by a growing number of consumers. Potential problems of resource scarcity are seen as successfully resolved by technology through provision of usable substitutes. Humans, on the other hand, are seen as the “ultimate resource” for which there can be no technological substitute. A larger population, it is argued, provides a larger pool of individuals who might become great thinkers and innovators. Social creativity and economic productivity are thus enhanced by an expanding population. Population growth, rather than impeding the maintenance of present living standards, promotes wealth-augmenting technological breakthroughs as humans strive to overcome the short-term effects of crowding and resource scarcity.

The “race suicide” (or “population decline”) frame

The central premise of arguments classified under this label⁹ is that population growth among some *other* group is too rapid in comparison with the growth of *our* group. However the notion of “us versus them” is defined, the argument deplores the fact or perceived prospect that we are being outbred by them, or that they are invading, now or eventually, our space. Thus, the arguments in this frame focus on differential fertility among sub-groups within a larger population, on migratory flows into or out of a population, or on the threat of dominance (military or otherwise) posed by the more rapid growth of a competing population. In all of these cases, the argument builds on a perception that one population (or sub-population) is losing or will lose control over some vital aspect of social and political life because of its relative decrease in numbers. Within the race suicide frame, therefore, population growth is viewed favorably or unfavorably depending on the population experiencing it.

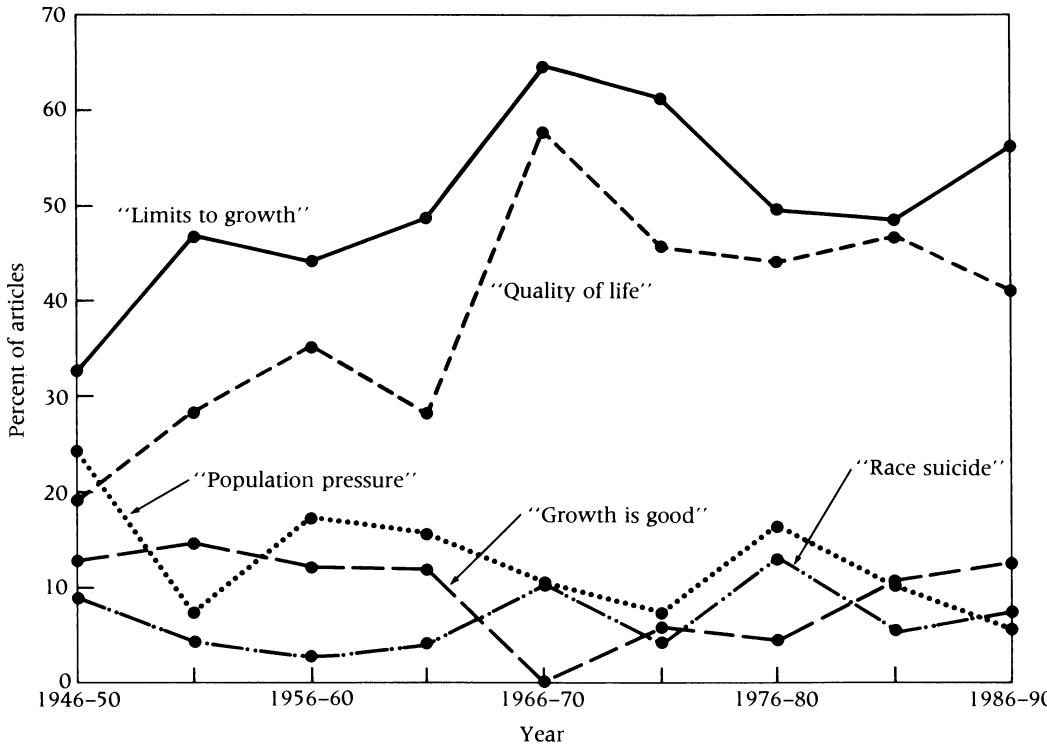
In order to quantify the prevalence of these five frames, we found it necessary to exclude consideration of all arguments about the connection between population increase and immigration, since these arguments tended to fall into more than one frame (we discuss this issue in a later section). Thus, in Figure 3 we present estimates of the time trends in references to these five categories of arguments net of arguments about immigration.¹⁰ Since a single article could cite arguments in more than one frame, the sum of the five percentages is often greater than 100.

As seen in Figure 3, the importance of the five argumentative frames to our discussion is quite uneven. “Limits to growth” was the most important frame throughout the postwar period. Arguments from the other two anti-population growth frames could be found in all years; but whereas the “population pressure” frame lost importance over time, “quality of life” arguments assumed an expanded role in the popular debate. The “growth is good” frame had two periods of prominence, one before the early 1960s and one after the late 1970s. “Race suicide” arguments, at least when measured net of references to immigration, were relatively uncommon throughout this period; often, as in discussions of population increase and immigration, they are found in admixture with arguments from the limits to growth or quality of life frames. These comments are illustrated more fully below.

Limits to growth

As noted, the most persistent theme in the popular discussion of the dangers of rapid population growth in the period since World War II focused on perceived limits to sustainable growth. Mainly, there were fears about famine, resource depletion, and persistent underdevelopment.

FIGURE 3 Changes in the estimated percent of “relevant” articles that employed one or more of five argumentative frames to describe the effects of rapid population growth, 1946–90



NOTE: Percentages may sum to more than 100, since an article could contain more than one argument about the effects of population change, hence more than one argumentative frame.

Famine was often presented as the gloomy, but inevitable, consequence of failing to limit world population growth. *U.S. News & World Report*, in a 1964 article entitled “Why hunger is to be the world’s No. 1 problem,” asserted:

Hunger is to emerge as the No. 1 problem for the world in the years immediately ahead. In the foreseeable future, famine looms as a prospect that can become more serious than the threat of nuclear war. Unless a way soon is found to control the problem of worldwide population explosion, starvation will take over as a partial solution to that problem.¹¹

By the late 1960s and early 1970s, Paul Ehrlich and others were arguing that time had run out and that widespread famine was inevitable even *with* population control. Writing in *Mademoiselle* in 1970, Ehrlich claimed:

Even if we started with a rigorous world-wide program of birth control right now, which we're nowhere near doing, we wouldn't even make a dent in the population problem for at least 30 years. Population will inevitably and completely outstrip whatever small increases in food supplies we make, and the death rate will increase until at least 100–200 million people per year will be starving to death during the next ten years.¹²

Ehrlich, among others, also emphasized the link between overpopulation and resource depletion. Writing in 1970 for *National Wildlife*, he argued:

The public must be made aware that we are rapidly depleting our stores of fossil fuels, non-renewable mineral resources and fresh water. Someone has accurately described this behavior as "grand larceny against the future," and it cannot continue much longer.¹³

Arguments linking population to food shortages and underdevelopment typically emphasized the problem of population *growth*. Population *size* itself was not necessarily problematic from this perspective. Rather, it was common to argue that, regardless of current population size, the real problem lay in the difficulties of maintaining a level of growth in economic and, in particular, agricultural output that matched, or preferably exceeded, the growth in population. Arguments about the dangers of excess population size and high growth rates were not mutually exclusive, however, and were sometimes found in tandem. *Senior Scholastic* told its young readers in 1965, for example, that population was already too large in parts of Asia and Latin America, and that continued growth threatened to exacerbate the problem:

Poverty and hunger—the twin "fallouts" from the population "bomb"—have already stricken many areas of our world. In much of Asia and Latin America there are already far more people than the food supply can provide for. Yet it is precisely in those areas that the population explosion has been the greatest. . . .

The population explosion makes it doubly difficult for underdeveloped countries to make economic progress. A country in which the population is growing by two per cent (or more) a year must increase its production by at least that much each year merely to maintain the *same* standard of living for its people. Some areas simply can't keep pace with their population expansion. Each year, in spite of some increases in agricultural production, there is less food available per person.¹⁴

These aspects of the concern over rapid population growth are familiar and, as we noted, have been the most recurrent themes in popular discussions of the topic. In some sense, they provide a backdrop against which other perspectives on the population problem have risen to prominence or have sunk to obscurity. In the next section, we examine population increase as a

threat to the world order, including the fear of war, communist aggression, and creeping socialism.

Population pressure, the fear of war, and the ravages of communism

The most resonant topic in the years immediately following 1945 was undoubtedly the possibility of another major war. Not surprisingly, the threat to peace posed by population pressure in Europe and Asia was a frequent topic of discussion in the popular American press. Both German and Japanese government propaganda had used an expanding population as one justification for conquering neighboring lands during World War II. The postwar discussion of the link between population growth and war often employed the common term from Nazi propaganda, *Lebensraum*, in reference to the outward military expansion of a growing population. Warren Thompson, writing in 1947, argued:

[T]he facts force us to ask why we should regard it of unquestioned benefit to man to have 400 million Indians in 1945 where there were about 250 million in 1870. . . . [A]s the Indians increase in numbers and as they learn to manufacture steel and the implements of modern war, will they want more *Lebensraum*? and under the present world organization will they be able to get it without fighting for it?¹⁵

Some postwar writers were clear in arguing for a causal connection between population growth and past wars. In 1948 a columnist for *Newsweek*, Joseph Phillips, made the link between population pressure and war in Europe:

In London a few weeks ago I heard Ernest Bevin [then Foreign Secretary of the Labour Government] say that the first world war would have come ten years earlier had it not been for the emigration of nearly 1,000,000 people a year—mostly Germans, Italians, and Central Europeans—to the United States before 1914, and that lack of an outlet for surplus population was one of the fundamental causes of the second world war. Bevin added that no economic recovery in Europe and no sensible colonial settlement could be attained unless the strain of overpopulation was kept in mind.¹⁶

According to this article, Europe's overpopulation problem was most acute in Italy, where postwar recovery would be unsuccessful "so long as there were no outlets for some 2,000,000 surplus Italians a year." Growth of the Soviet population was also seen as a potential source of harm:

While Italian overpopulation is the one nearest the boiling point, the more remote question of the growth of the Soviet population is just as often discussed

in Europe. . . . The effect which this growth will have on Soviet world policy is the question. For twelve years now the Soviet Government has been making strenuous efforts to increase the birth rate and there is no indication that its policy will change in the future.¹⁷

Fear of impending war fueled by population growth did not disappear with the postwar economic recovery of Europe, but it did take on another face. In the late 1940s, the references that we found to Soviet population growth and any associated military threat, such as the one given above, were rather guarded in their assessment of the severity of the problem. It is notable, furthermore, that the military threat owing to Soviet population growth was presented on a par with the situation in various countries of Europe. With the onset of the Cold War, however, a fundamental shift occurred in the manner by which population growth was linked to the threat of military conflict. Instead of the selfish pursuit of *Lebensraum*, countries would be propelled toward conflict, both internal and external, by the interaction of population growth with the ravaging forces of ideological communism.

In the 1950s the fight for and against world communism took on new meaning. The Chinese Revolution brought a fifth of the world's population under communism's ideological banner, the demise of European colonialism opened up new areas for potential recruitment to its ranks, and the buildup of a nuclear military arsenal by the Soviet Union evoked much fear among communism's opponents. Any social or political unrest around the world, it was thought, could be turned to the advantage of the communist cause. It was suggested that, even in Western Europe, the economic dislocation and poverty of the postwar period could be a breeding ground for communist expansion. *Senior Scholastic*, in 1951, explained the situation to its readers in the following way:

Over-population in Western Europe has created serious problems, both economic and political. Economically, it is the cause of a steadily dropping standard of living. Large numbers of people are permanently unemployed. Heavy taxes have to be paid by wage-earners and property owners to support the jobless. Lower incomes mean lower purchasing power and a limited internal market for consumers' goods. Politically, over-population creates a breeding ground for communism. Communist propaganda thrives on poverty and discontent.¹⁸

In 1957 as part of an article entitled "The capitalist challenge: Building a better world with free enterprise," *Time* magazine spoke euphemistically of the fear that the underdeveloped countries would resort to "political extremes" in an attempt to better their position:

The profound economic and political significance of this runaway human inflation is that the two-thirds of mankind who live in the world's underdeveloped countries are now multiplying twice as fast as in industrial societies.

To support the extra population these countries are least able to afford, they are forced to consume less and produce more, and are falling ever lower in living standards. . . . While modern communications have whetted consumer appetites in Pakistan as in Peoria, the danger is that nations whose production continues to lag far behind their hopes of material progress will resort to political extremes that will plunge them deeper into want.¹⁹

Kingsley Davis, writing in 1959, was less circumspect. In *The New York Times Magazine*, he described the prospects for continued communist expansion:

Not only is the glut of people in the poorer areas itself conducive to communism, but in the past communism has made its gains by conquest rather than by population growth. In 1920 it held less than one-tenth of the world's people under its fist: today it holds more than one-third. The lack of unity in the rest of the world against communism suggests that Red expansion may continue. If this happens, and if the conquests are made in the poorer countries, superior population growth will join territorial expansion in increasing communism's share of the world.²⁰

The communist takeover in overpopulated China posed an unparalleled menace. Davis continued:

[T]he picture of a [Chinese] communist elite organizing and driving an ocean of humanity evidently frightens the Russians themselves. If the venture succeeds, China, with a projected 1975 population almost double the expected figures for the United States and Russia combined, would be the strongest contender for world leadership. Such a mass, equipped with modern arms and disciplined by a dictatorship, if bent on conquest, could be stopped only by a united world outside.²¹

The military threat of overpopulation in the communist world soon lost all credibility, however, once it became fully apparent that nuclear weapons had effectively removed manpower as a key variable in the equation of military might. Indeed, it could be argued that this was already the case in 1959, at the time Davis was writing. In 1956 Edgar Ansel Mowrer, writing in *Saturday Review*, noted:

Until the advent of nuclear weapons it could be argued that no Great Power, however desirous of promoting the quality rather than the quantity of its citizens, dare do so lest it be militarily overwhelmed by a conceivably inferior but more numerous enemy. But the H-bombs seem to have become the "equalizers" of nations much as the six-shooter was that of individuals.²²

Although there were recurrent references to the link between population growth and the threat of war or revolution in the LDCs, the association

between population and global disorder was gradually eclipsed by a concern for the effects of overpopulation on the quality of life in the United States. The links that were hypothesized, in the period after 1960, between population and conflict were generally less detailed and typically formed only one of many claims about the harms of population growth. For example, an article in the *Department of State Bulletin* in 1978 discussed the ills of population growth in connection to food shortages, underdevelopment, unemployment, urban crowding, overburdened social services, environmental destruction, and the threat of international conflict:

Overpopulation has been an underlying factor in certain international conflicts and major internal disorders. This danger continues and may intensify as populations burgeon and the scramble for scarce raw materials intensifies.²³

Clearly, this article does not use the threat of war to evoke the same visions of horror as in the previous citations, since the link between population and war did not hold the same rhetorical power after 1960. Instead, the popular discussion of population change in this period focused increasingly on issues of urban growth and related problems, such as crime, and on the role of population growth in the destruction of the natural environment. It can be said that the population problem “came home” around 1960, in the sense that after that date the outlook of concern was slanted less exclusively toward the effects of growth on world famine, poverty, and conflict, and included a greater awareness of its potential to degrade the quality of life in the United States.

Population growth and the quality of life

Philip Hauser distinguished three critical dimensions of population change in the postwar period: “population explosion,” “population implosion,” and “population displosion.” These referred, respectively, to the increasing absolute number of humans, to their increasing concentration in urban centers, and to their increasing tendency to live in close proximity to individuals of dissimilar racial, ethnic, and cultural backgrounds. Hauser and others offered an almost endless litany of problems that could be attributed at least in part to population change. In particular, population implosion was thought to have contributed to urban crowding and congestion, various forms of pollution, and to crime, alcoholism, drug addiction, and general discontent. In an article entitled “Our population crisis is here and now,” which appeared in *The Reader’s Digest* in 1962, Hauser argued:

The population crisis is felt right now in our metropolitan centers. Between 1950 and 1960, population in metropolitan areas increased 25.3 percent, nearly

twice the national growth. Some communities, developing without regard for water supply, drainage, sanitation and other urban services, become slums virtually before the concrete is dry. . . . Our city streets are hopelessly choked with traffic. Cities such as New York soon must drastically limit parking and driving.²⁴

The social problems attributed to overcrowding found ready support from a series of animal studies, whose results were applied, with dubious validity, to human populations. As an example, an account from *U.S. News & World Report* in 1970 invoked findings about animal behavior to suggest the role of overcrowding in promoting child abuse:

Describing what happens to animals held in captivity over a long period, Dr. [Desmond] Morris [curator of mammals for the London Zoological Society] says: "They develop neuroses of various kinds and stereotyped patterns. Their parental behavior fails—that is, they eat their young, which is the equivalent of the 'battered baby' syndrome in our cities. . . ." ²⁵

The prognosis offered in one *Time* magazine article in 1964, entitled "A self-corrective for the population explosion?," was scarcely less horrific:

Nature . . . has its own subtle systems for choking off excessive breeding. . . . Horrible things happen among jammed-up flour beetles. Females destroy their eggs; they turn cannibalistic and eat one another. Males lose interest in females, and though plenty of flour is left for food, the beetle population reaches a statistical plateau.

Mammals are much the same. The population cycles of jack rabbits in Minnesota seem to have little to do with the food supply. When the cycle approaches its peak, rabbits begin to die in horrible convulsions, with wild leaps and running movements. Their corpses are well nourished and show no signs of epidemic disease. But their internal organs are fat-clogged, degenerated and damaged by hemorrhages. Overcrowding seems somehow to upset the rabbits' pituitary and adrenal glands, causing their abnormal secretions to trigger a long chain of fatal troubles.²⁶

The threat to the American lifestyle posed by overcrowding was not merely a question of the "urban crisis." More broadly, many authors questioned whether the amenities of modern life could be made available to an ever-expanding population. Joseph Spengler, writing in *Parents' Magazine* in 1968, wondered what life would be like in an America of 400 million people:

There are now more than 200 million people in our country. And if today's young couples and those men and women just growing to adulthood average three children per couple, our population will double in about fifty years. What then would life be like if we had 400 million? Would we have enough hospitals and schools? Enough jobs and places to live? Would we have enough food

and water? Enough open spaces for recreation? Would cars be able to move over already overcrowded streets and highways? With such population density, our children and our grandchildren would have a hard time doing more than existing. They would have little chance to live comfortably and productively.²⁷

From the early 1960s onward, various articles lamented a loss of open space or noted that population was increasing faster than additions to park acreage or other recreational areas. By the late 1960s, this argument was joined by a growing concern over the role of population growth in the deterioration of the natural environment. The concern was not merely that too many humans were competing with one another for the privilege of finding some solitude on a deserted beach or an isolated mountaintop. Rather, it was increasingly feared that ingrained patterns of human interaction with the environment risked invoking severe and irreversible damage on a delicately balanced ecology. The cries of alarm about these issues and their relation to population growth reached a peak in 1970, not coincidentally the year of the first "Earth Day" celebration.

Paul Ehrlich alone was the author or co-author of nine articles indexed in the *Reader's Guide* for 1970. Ehrlich's influence on the popular discussion of population issues during this period cannot be overemphasized. His primary concern was the problem of ecological limits to the growth of human population, which evinced his gloomy predictions of deadly famines cited above. In addition, he drew attention to the ongoing environmental destruction that, he claimed, was a consequence of the rapid growth in both population and affluence. In an article in *Mademoiselle* in 1970, he condemned the American tradition of reckless growth and corporate self-interest:

We've always had what you might call a "cowboy economy," where we fouled up our nest and then moved on westward to find a new one. But we've reached the limits of the westward movement a long time ago, and now we are stuck with our waste. . . . A good part of our fate is in the hands of the economic powers in this country, and American industry seems interested only in growth—growth of the GNP; growth of profits; growth of dividends; mindless growth. Growth rides roughshod over everything, and nobody seems to stop to wonder if this growth resembles that of cancerous cells, or if it is taking place at the expense of the planet we live on. The trouble is that the Government, or the System, or the Establishment, or whatever you want to call it, is more responsive to industry and its desires for growth than it is to us and our human needs.²⁸

Clearly, Ehrlich was not the sole champion of the need to limit population growth for the sake of environmental safety. Lester Brown and his Worldwatch Institute, established in 1975, were particularly influential, although Brown's prose lacked the dramatic flair that characterized Ehrlich's

warnings. Writing in *National Parks & Conservation Magazine* in 1979, Brown argued:

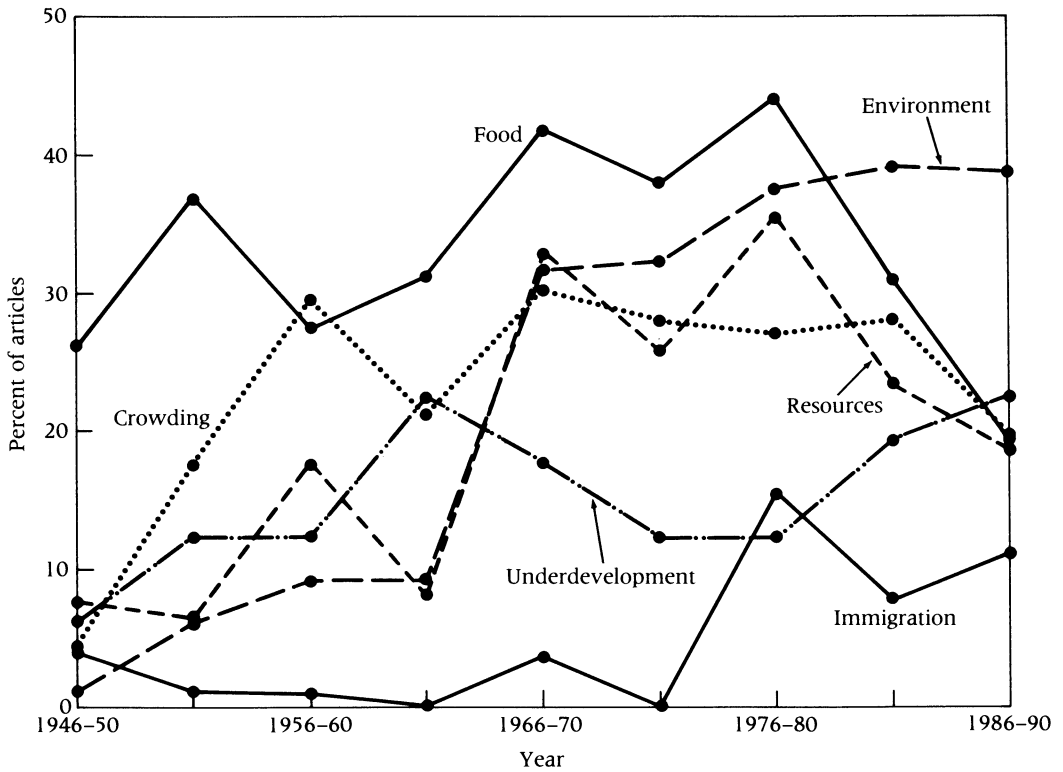
Without a concerted effort to stabilize population size at a level far lower than currently projected, the earth's ecosystems and the living standards of more and more of the world's people will deteriorate. . . . If the demographic brakes are not applied soon, overfishing, overgrazing, deforestation, overplowing, and their associated economic stresses are certain to grow worse. The rapidly expanding demand for basic energy and food supplies is driving humanity up a rising cost curve. An immediate slowdown of world population growth will buy time to make needed adjustments and to develop new technologies and alternative energy sources.²⁹

Thus, while Ehrlich was claiming that "our planet now has between four and seven times more people than can be supported over the long term,"³⁰ Brown was calling for "a concerted effort to stabilize population size at a level far lower than currently projected." Similarly, Ehrlich's polemical assertion that "we are rapidly destroying our planet as a habitat for *Homo sapiens*"³¹ stands in contrast to Brown's more measured claim that, in the absence of population limitation, the present situation is "certain to grow worse." Brown's more guarded description of the threat to the environment posed by population increase, as well as his success in institutionalizing his work through the creation of the Worldwatch Institute, seems to have made him a more credible source for citation by others. For the years 1976–80 and 1981–85, we estimate that 12 and 7 percent, respectively, of the relevant population articles in the *Reader's Guide* listings cited Brown's opinions in a positive manner, more than for any other individual during this period.

Led by Ehrlich and Brown, the popular focus on the environment as a dominant theme in the population debate has continued from the late 1960s up to the present. In Figure 3, the environment was just one issue among many in the "quality of life" frame, which showed a substantial increase in importance over the period of this study. This increase is more dramatic, however, if we consider the relative frequency with which anti-growth arguments invoked the environment alone versus other factors, such as food, underdevelopment, and so forth, as shown in Figure 4. Here, again, the dominance of "food and famine" is apparent over most of the period considered. The most striking change, though, occurs in the estimated percent of articles citing the link between population and the environment, a link that goes from being a non-issue in 1946 to being the single most frequently invoked anti-growth argument in the 1980s.

Figure 4 also documents the rise, since the early 1970s, of immigration as an argument for limiting world population growth or as a component of the concern over domestic growth. The special character of immigration in connection with the population debate is the topic of the next section.

FIGURE 4 Changes in the estimated percent of "relevant" articles that cited one or more of six specific harms posed by rapid population growth, 1946-90



NOTE: See note to Figure 3.

Immigration

Population growth may be seen as either a cause or a consequence of immigration to the United States. Growth coupled with underdevelopment in poor countries may indirectly feed immigration, which in turn contributes directly to population growth in the United States. Similarly, at a rhetorical level, immigration can be construed both as an argument for controlling world population growth and as a culprit in overpopulation at home.

By the evidence of our sample, there seem to be three classes of arguments used to oppose large-scale immigration to the United States. First, immigration is often perceived as a threat to the quality of life in the United States, since it may exacerbate problems related to crowding (e.g., traffic congestion, various forms of pollution). Second, immigrants from poorer nations are often perceived as taking jobs from American workers, on the

assumption that the US economy cannot grow fast enough to absorb the inflow of labor. Finally, immigration may be seen as posing a threat to the existing racial or ethnic composition of the United States. The problems attributed to immigration fall, then, into three of our five frames, namely, quality of life, limits to growth, and race suicide. Because of these complexities, we address this topic separately from our discussion of the individual frames.

Numerous articles in our sample, especially in recent years, argued that population growth in poor countries was bad because it would result in higher levels of immigration to the United States. For example, an article by Sol Sanders in *Current* magazine noted in 1986:

Among the various factors that account for human migration in the modern setting, rapid population growth obviously is a major generator of the phenomenon. Not only does such growth provide direct prods for demographic movements that ultimately strain against a nation's borders, but it also feeds the fires of economic distress and sociopolitical conflict which are apt to turn refugee waves into floods.³²

This quotation is typical in one important respect: although it links rapid population growth in less developed countries to the issue of US immigration, it fails to specify why immigration itself is considered problematic. Because of the article's dominant tone, there can be no doubt that its author views immigration unfavorably. For example, the article speaks of "the growing problem of worldwide refugee and immigration flows" and asserts that "[t]he tensions within our society resulting from illegal immigration could grow to dangerous proportions." But will these tensions be the result of racial conflict? Will there be resentment from American workers who are forced to compete with immigrants for jobs? Will immigrants contribute disproportionately to problems of crowding and environmental pollution? On these issues, the article has little to say, as though it is assumed that the reader already shares the author's perception of the problems associated with immigration.

Some articles not only make the link between rapid population growth in poor countries and the level of US immigration, but also attempt to explain why immigration itself is problematic. Typically, however, this latter part of the argument is relatively crude and undeveloped. In a 1980 editorial, for example, *The New Republic* argued:

Perhaps we worry too much about nuclear war and not enough about the slow attrition caused by overpopulation. Here, for example, is a conundrum in the US-Mexico relationship, one of the few instances where an industrialized country shares a long common border with a developing country. The US had 214 million people in 1975 with an average annual increase of 0.6 percent; Mexico had 60 million, with a galloping 3.1 percent increase. By 2000 the

US will have 248 million and Mexico a swollen 131 million; Mexico City, with 30 million, will be the largest city on earth. The population pressure in Mexico will be explosive. Mexico already exports a possible million illegal immigrants a year, despite 8.5 percent US unemployment. What will happen 20 years hence if the US still leaves the border virtually unguarded?³³

Even the most casual reader cannot avoid making the connection between illegal immigration from Mexico and high unemployment in the United States. Still, this article seems to be the exception, at least among those in our sample. In its connection to population increase, the discussion of immigration in popular American periodicals has been nearly mute on reasons why immigration itself is problematic. Since various individuals may oppose immigration for different reasons, such a strategy may be prudent when the underlying purpose is to focus attention on the population problem.

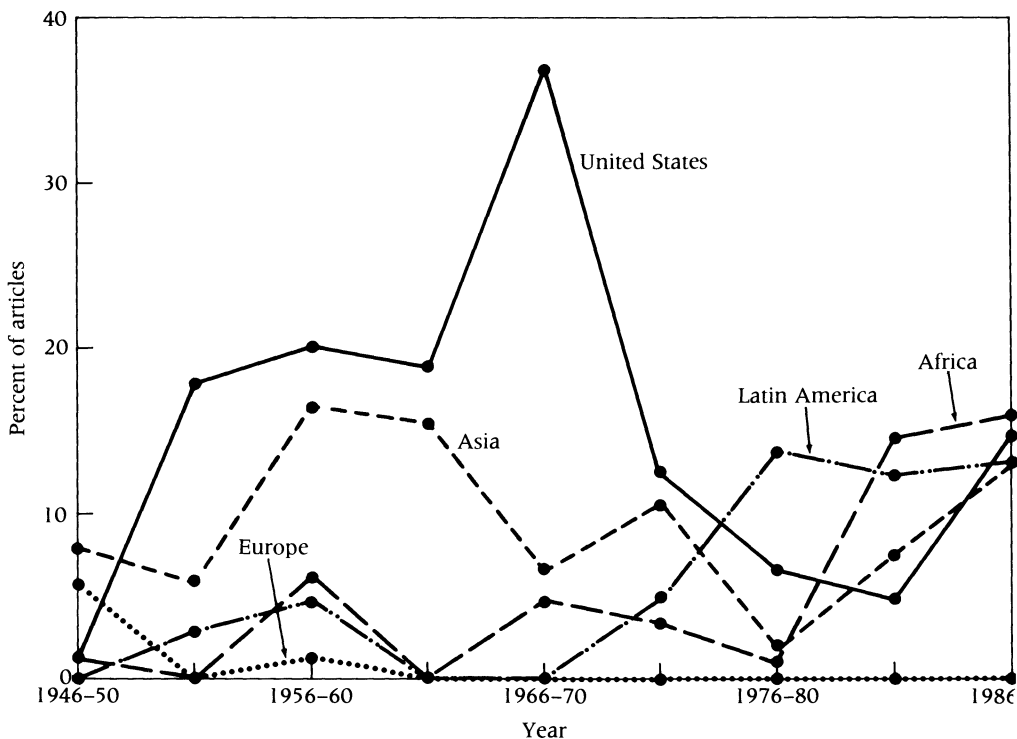
The shifting geographic focus

Popular apprehension over rapid population growth has shifted its focus through time from one part of the globe to another. Especially during the late 1960s and in 1970, the discussion centered on domestic growth, and in particular on the link between population increase and environmental deterioration. One area outside the United States, the continent of Asia, has occupied a singularly prominent position in the discussion of world population growth. As indicated by Figure 5, the dominance of Asia in the discussion of growth outside the United States was clearest during the 1950s and 1960s. In more recent times, attention has been split more evenly between Asia, Africa, and Latin America. These geographic patterns reflect the same social and political changes that explain the shifts among frames and arguments discussed earlier.

In the first decade following World War II, the aftermath and memories of hostilities lent salience to discussions of population growth and overpopulation in Europe. If population pressure had been a contributing cause of two world wars, then postwar population trends in this part of the world held a critical importance. Similarly, early postwar conflicts in the Far East (the Chinese Revolution, culminating in 1949, and the Korean War of 1950–53), combined with the large population size of a number of Asian countries, especially China and India, inspired fears that population growth would fuel continued hostilities in this region. Europe dropped out of the discussion as it recovered economically and its western half became closely interlinked with the North American economy. Asia retained its importance, however, since the poverty of its masses was thought to provide a fertile breeding ground for communist subversion.

The population problems of Africa and Latin America have risen to prominence more recently. Although a possible connection between pop-

FIGURE 5 Changes in the estimated percent of “relevant” articles which claimed that population growth is “rapid and threatening” in one or more of five geographic regions, 1946–90



NOTE: An individual article may contend that population growth is “rapid and threatening” in more than one world region and thus be counted more than once in the calculations used to produce this figure. If such an argument was made with respect to an individual country (but not explicitly for the region of which it is a part), we counted the article as though the argument were made for the entire region.

ulation and underdevelopment in these areas has been recognized throughout the postwar era, only since the early 1970s has the popular discussion given more equal attention to the situation in these regions. The relative inattention previously accorded to population change in Africa and Latin America probably resulted from the lesser importance of these areas in the American social and political agenda of the 1940s, 1950s, and 1960s. Population growth in Africa and Latin America in these years threatened neither American military security nor Americans’ comfortable lifestyle. Clearly, the growing importance of Latin America in discussions of population issues since the early 1970s relates to the rise of the immigration debate. The discussion of African population problems took off mainly in the 1980s and coincided with the increasing attention given to famine and poverty in that part of the world. The popular discussion of African population growth in the 1980s seems unique, in that it is not connected with some perceived threat to the material

well-being of Americans, but appears to derive primarily from humanitarian concerns.

Growth is good

The position that population growth is, on the whole, advantageous has been a minority perspective throughout the postwar period. During the first 20 years of this period, we estimate that between 7 and 11 percent of the "relevant" population articles indexed in the *Reader's Guide* took this general stance, as was shown in Figure 2. In later years this percentage, according to our sample, fell to zero and remained there until the early 1980s, when the argument resurfaced.

In the earlier version of the argument, the focus was mostly on the US situation and held no pretensions of being a universal theory of the relationship between population and economic growth. It was not a philosophical argument, but a "common sense" outlook that appealed to American business interests. For example, in 1950 *U.S. News & World Report* spoke enthusiastically of the rising rates of marriage and fertility during the early postwar years:

Families are being formed at the fastest rate in 30 years. They are growing at a much faster rate than the population as a whole. That creates a big demand for family-type goods—homes, cars, appliances. . . . The importance of family growth on [sic] business activity is beginning to be realized by business planners. They are revising upward their estimates of the future market. Automobile manufacturers expect this year to be better than 1949—the biggest car year in history—and they expect sales in years beyond 1950 to be better than before the war.³⁴

Some articles even lauded the positive aspects of population growth in the United States, while decrying growth in the developing world. *Senior Scholastic* told its student readers in 1959:

There is no doubt that for many parts of the world Malthus' theory of populations tending to outrun food supply is a stark reality. Famines still hit China and India. Many millions of other people live on short rations the year around in Southeast Asia and the Middle East. . . . In an *under*-developed economy, more people means more mouths to feed. The pity is that there is hardly enough to feed the population of an underdeveloped country as it stands.

In a developed economy, such as we have in the United States, the situation can be quite different. More people means more consumers—and more opportunities for the economy to expand to service more consumers. The difference is electrifying when you fully understand it.³⁵

In contrast to this pragmatic view, the later resurgence of support for the positive aspects of population growth was in part a philosophical and

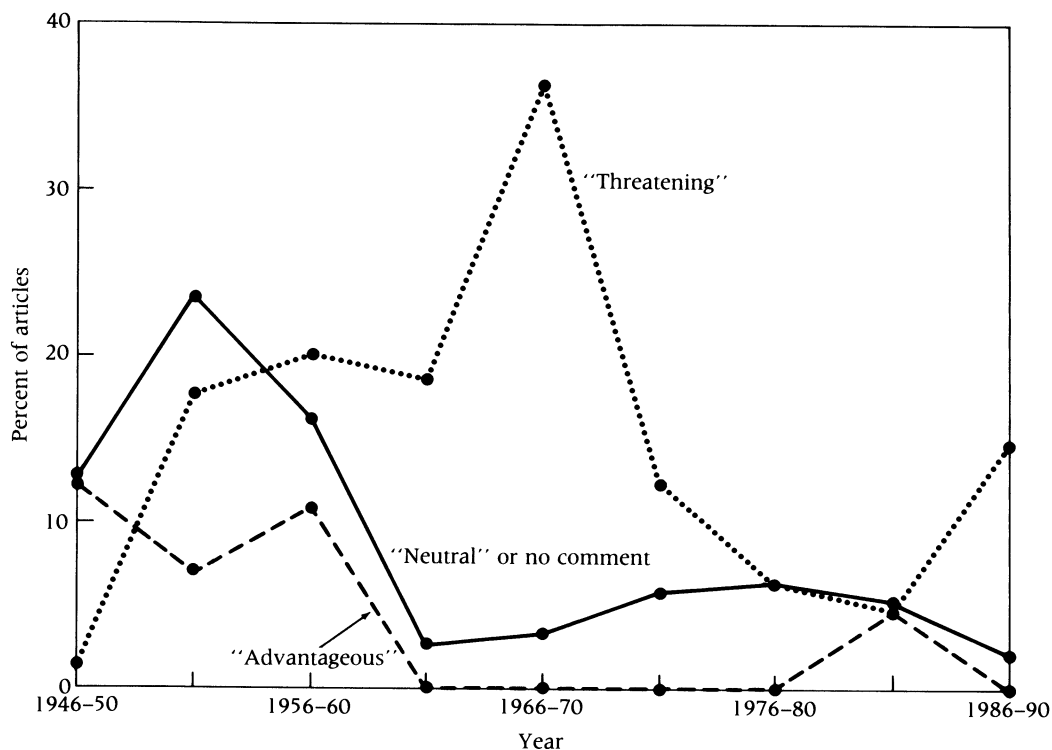
political reaction to the dominant anti-growth position of the previous two decades (Hodgson, 1988). A moderate version of the argument, put forth by the US delegation to the 1984 International Conference on Population in Mexico City, held that “population is, of itself, a neutral phenomenon” (Finkle and Crane, 1985). A more radical perspective argued that population growth would aid, rather than hinder, economic and technological development, thus alleviating hunger, misery, and other economic and social ills. An excerpt from Julian Simon’s *The Ultimate Resource*, appearing in *The Atlantic Monthly* of August 1981, upheld this position:

Even a casual consideration of history shows that as population has grown in the last century, there have been many more discoveries and a faster rate of growth in productivity than in previous centuries. In prehistoric times, progress was agonizingly slow. For example, whereas routinely we develop new materials—say, plastics and metals—millennia passed between the invention of copper metallurgy and of iron metallurgy. If population had been larger, technological discoveries would surely have come along faster.³⁶

In both its earlier and later manifestations, the “growth is good” position was invoked more frequently with regard to the US population than to population in general. As was seen in Figure 2, even during the first 15 to 20 years of the postwar period, the articles in our sample assumed a general pro-growth stance only infrequently. It was more commonly observed, during these years, that population growth was rapid without asserting that this situation was either good or bad. Furthermore, the estimated proportion of “relevant” articles supporting these two positions as a dominant perspective on population growth fell from a combined total of over 30 percent during the period 1946–60 to some 10–15 percent in later years. Most significantly, in no instance were these perspectives on growth more prevalent than the view that growth was threatening.

In the case of US growth, on the other hand, an ambivalence about the pros and cons of growth during this earlier period is more plainly evident. Figure 6 shows the estimated percentages of articles that advanced one of three positions on rapid population growth in the United States. In the first three time periods (1946–60), there was considerable disagreement regarding the advantages or disadvantages of domestic population growth. Nevertheless, the trend is clear: an early postwar view that saw growth either with indifference or as advantageous yielded gradually to the position that rapid population growth in the United States is harmful. Our estimates indicate that by 1956–60 the view of US growth as threatening had established itself as the most common position. Yet, it is only after 1960 that this perspective accounts for a greater percentage of the relevant articles than does the sum of the two competing positions. A similar ambivalence in the popular perspective on US growth is evident in the early 1980s. By that time, however, the importance of the US situation to the general discussion of population

FIGURE 6 Changes in the estimated percent of "relevant" articles that advanced one of three perspectives regarding population growth in the United States, 1946-90



NOTE: Percentages sum to less than 100, since not all articles in our data base mentioned the population situation in the United States. Other perspectives on the state of US population growth were possible (see note to Figure 2) but are not shown here.

trends was considerably diminished, as reflected in the low percentage of articles expressing any one of the three positions. More recently, in the late 1980s, there appears to have been a resurgence of concern over the threat posed by rapid population growth in the United States itself.

Demographic orthodoxy, popular opinion, and the population problem

Orthodoxy in American demography has been previously defined as "a perspective founded on two basic assumptions: rapid population growth in nonindustrial societies is a significant problem, and providing contraceptives to peasant couples can lower fertility prior to industrialization" (Hodgson, 1988: 542). During the first two decades of the postwar period, Hodgson

argues, various factors both internal and external to the field of academic demography led scholars, politicians, and opinion makers to embrace this orthodox view of the population problem in less developed countries.³⁷ While accurate, in our opinion, this analysis overlooks another prominent change in the popular discussion of population during this period.

Judging from the articles in our sample, in the years before 1960 it was common to lament the dangers of population growth in the poorer nations of the world, while simultaneously lauding the positive aspects of growth in the industrialized countries. This practice began to disappear when, in the late 1950s, it became increasingly common to argue that population growth was harmful also in the United States, on the grounds that overcrowding threatened the quality of American life. By the early 1960s the turnaround was complete, and the seemingly contradictory stance that growth was advantageous in some situations or localities (e.g., the United States) but harmful in others (e.g., the third world) disappeared from the popular discussion altogether. An additional characteristic of demographic orthodoxy that we are suggesting, then, was that orthodoxy implied the undesirability of population growth under any circumstances, in any part of the world, and for any number of reasons.

The notion that demographic orthodoxy, as an ideological stance, was concerned with more than population growth in the third world is not merely a matter of definition. The added focus on the negative effects of population growth in the United States itself, as part of the orthodox perspective, may help to account for orthodoxy's political successes during the early 1960s.

The traditional taboo on public discussions of birth control provided a formidable obstacle to government action in population matters before 1960 (Piotrow, 1973). Certainly, breakthroughs in the technology of birth control around that year encouraged a more candid discussion of sexuality and thus helped to overcome the taboo.³⁸ In addition, the factors discussed by Hodgson (e.g., the Cold War, the end of colonialism, the shortcomings of demographic transition theory) undoubtedly played a part in convincing academic demographers and elite policymakers that action by the US government to slow population growth in poor countries was both feasible and desirable. Beyond the influences of social and political circumstance, however, Piotrow's account of events during the late 1950s and early 1960s underlines the importance of individual action to the formation of an activist US population policy.

What, if any, was the role of the popular discussion of population matters in these events? Unfortunately, we have no direct measures, based on sample surveys taken in this time period, of public attitudes on the issue of population growth.³⁹ Popular writings may be only a poor indicator of what the common citizenry was actually thinking, but it seems reasonable to assume that the two levels of public opinion are positively correlated

(whether because readers are influenced by what they read, or because writers are constrained to write what the public wants to hear, or both). Moreover, it is possible that popular writings, even if they are not a fully accurate guide to public beliefs, are the form of popular opinion that matters most for the formation of public policy.

As we have noted, the popular discussion of population matters began to emphasize the negative aspects of population growth in the United States itself around 1960. In the popular view, it seems likely that the attributed effects of excess population growth that touched Americans directly (e.g., pollution, traffic, crowding, violence) were a more potent tool for building political consensus than the ascribed effects that most Americans understood only in the abstract (e.g., famine, poverty, underdevelopment, geopolitics). In addition, judging by the articles in our sample, many popular commentators around this time sought to convince Americans of the importance of their own actions, calling on them to practice "responsible parenthood" to mitigate the problem of overpopulation in the United States. For example, Philip Hauser argued in *The Reader's Digest* in 1962 that "[o]nly recognition of the need for responsible parenthood in the interest of the individual, the family, the nation and the world can overcome the problems of our runaway population."⁴⁰

Although much uncertainty remains regarding the importance of popular writings to the formation of US population policy in the early 1960s, it is likely, in our opinion, that this discussion facilitated the acceptance of a policy that sought to slow population growth in other parts of the world, since through that discussion Americans could see themselves as participants in a problem of truly global proportions. If the popular dialogue on population matters has political consequences, then it is sensible to inquire about the role of demographers in the ongoing debate over population issues.

Demographers and the population debate

Figure 1 documented the gradual though erratic decline in the number of articles on population indexed in the *Reader's Guide to Periodical Literature* after 1970.⁴¹ Yet, as we have noted, both the number of popular magazines being published and the number of articles indexed were growing rapidly during this same period, so that the relative position of population as a topic for discussion in popular American periodicals has declined substantially. This trend can be attributed to several causes.

First, a decreasing popular interest in population matters reflects in part the successful institutionalization of orthodoxy in the late 1960s and early 1970s, as the US government increasingly offered assistance for family planning programs both at home and abroad. With institutionalization, it must have appeared to proponents of an activist population policy that a major

victory had been won and that reductions in population growth would soon follow. In this context, policy advocacy in the popular media must have seemed less important to most population experts than the day-to-day task of building family planning programs.

In addition, during the 1970s it became apparent that the rate of world population growth had indeed slowed, if only slightly, following its all-time record level reached during the previous decade. This early sign of perceived success probably fostered complacency and may account for a portion of the declining interest. Another explanation for diminishing attention to population issues is that the various gloom-and-doom scenarios of population disaster prophesied during the late 1960s may have backfired. Predictions of widespread famine by the mid-1970s resulting from population increase were soon discredited, and it is possible that the "population movement" lost credibility as a result of these exaggerated claims. Together, these factors probably worked to weaken public interest in population issues and to diminish popular concern over the possible dangers of rapid population growth.

Lack of interest was not the only threat to the continued hegemony of orthodoxy during the late 1970s. In addition, there followed a series of intellectual and eventually political challenges that carry the name of "revisionism." Among academic demographers, strict orthodoxy was under attack almost before it was institutionalized. Ester Boserup (1965) argued that population growth may have positive as well as negative effects on agricultural development, and Richard Easterlin (1967) and Simon Kuznets (1967) noted the absence of any clear correlation between population growth rates and economic development. Direct challenges to orthodoxy did not penetrate the popular discussion until the early 1980s, however, and then were strongly associated with the work of one individual, the economist Julian Simon.

By 1984 revisionism was clearly successful on a political level in the United States due to the support given it by the Reagan Administration (Finkle and Crane, 1985). From a popular perspective, though, revisionism never achieved the dominance once enjoyed by orthodoxy. Even while the US delegation was asserting in Mexico City that "population is, of itself, a neutral phenomenon," *Time* magazine ran a cover story entitled "The Population Curse," asserting that "[t]he consequences of a failure to bring the world's population growth under control are frightening."⁴² Revisionism gained a toehold in the popular literature, but scarcely more than that.

The popular periodical literature has maintained an essentially orthodox view of world population growth since 1970, although it has done so with substantially less assistance from professional demographers than in previous decades.⁴³ In the 1950s and early 1960s, demographers Philip Hauser, Kingsley Davis, and Robert Cook were active participants in the popular discussion of population issues. Later, around 1970 and thereafter, Paul

Ehrlich and Lester Brown (not demographers by professional association) became the most prominent voices in the population debate on the side of demographic orthodoxy. Ehrlich, in particular, pushed the population movement to new heights of popular awareness and involvement.

As always, it is difficult to say whether "the man made the movement" or "the movement made the man." Indeed, we have argued that shifts in the popular discussion of population issues reflect broader changes in the social and political agenda during this time, perhaps suggesting that individuals are severely limited in their ability to alter the course of the debate. Nevertheless, we also contend that the debate was formed at every turn by individuals, who took the previous discussion as it was given and guided it forward within the constraints imposed by the larger social and political environment. We suggest that three essential characteristics for successful demographic activism in the style of Hauser, Davis, or Cook in the 1950s and 1960s, or Ehrlich a decade later, are: a clear message, political insight, and originality. Since 1980, in our opinion, only the popular writings of Julian Simon have possessed all three of these characteristics.

The main sticking point for most professional demographers seems to be the need for a clear message. Not surprisingly, the heavily qualified conclusions of the 1986 report issued by the National Academy of Sciences (NRC, 1986) translated poorly into a popular parlance that revolves around 30-second "soundbites."⁴⁴ Paul Demeny (1986: 486) has noted that "the thinking epitomized by the NAS report gives us a construct with all the daring and charm of a Levittown house." Where is a clear and simple message, coming out of the 1986 NAS report or from other recent work by academic demographers, to convince the residents of Levittown or Middletown, U.S.A., of the need for government policies to limit population size and growth rates?

Perhaps demographers themselves are unconvinced of the need for such policies, or perhaps their attention has shifted to other pursuits. Some authors have suggested that demographers during the past decades have been preoccupied with carving out a place for themselves in the halls of academia (Caldwell and Caldwell, 1986; Hodgson, 1988; Demeny, 1988). It is perhaps for this reason that most, if not all, academic demographers hesitate to show any public signs of being a "true believer." If there are demographers today who indeed believe that population growth is, on the whole, a menace to life on this planet, is it not curious that their voices are so conspicuously absent from the popular debate?

Certainly, we would not advocate a return to the Cold War alarmism of the 1950s, or the famine scares of the late 1960s, in an effort to rekindle interest in population policy. We recognize that an important function of demographic science is to serve as a corrective for the excesses of policy advocacy in population matters, and here the positive contribution of the 1986 NAS report is beyond question. Still, from a popular perspective, that

report created a void that can hardly be filled by the later NAS report (NRC, 1989), which focuses on reproductive health, not on population policy in the traditional sense. The current challenge in moving the debate forward, as we see it, is to develop a scientifically valid theory of the effects of human population growth whose core ideas are equally penetrating in the popular, academic, and political arenas. As difficult as that task may be, we hope that a new generation of professional demographers will not neglect the popular portrayal of population issues.

Appendix: Definitions of argumentative frames

Five argumentative frames are defined in the text, and estimates of the percent of articles promoting at least one argument in each of these frames were presented in Figure 3. Intraframe contradictions (i.e., situations where some arguments within a frame are cited in a supportive fashion while others are refuted) were rare and are discussed in Ball and Wilmoth (forthcoming). The five argumentative frames described in the text were operationalized as composites of the variables listed below. In the first three groups ("limits to growth," "population pressure," and "quality of life"), the short phrases given below describe the purported effects of rapid population growth that might be found in an article in our data base. In the last two cases ("growth is good" and "race suicide"), the phrases below express the perceived benefits of population growth or disadvantages of (relative) population decline.

Limits to growth

famine, food shortages, overwhelm Earth's carrying capacity
 disease, misery, human suffering
 bring an end to the human race, destroy mankind
 impoverish entire world
 breed poverty, lower per capita income, impede economic development in LDCs
 encourage dependency of LDCs on foreign aid
 flood labor market, increase unemployment
 increase dependency burden because of more children
 consume natural resources

Population pressure

revolution in LDCs, communist expansion
 present political/military threat because of Soviet-bloc growth
 past wars caused by population pressure
 future wars are more likely because of population pressure

Quality of life

urban sprawl, traffic, congestion
 strain schools, housing capacity

require bigger government, threaten human freedom
 social or political unrest, riots
 crime, juvenile delinquency
 destroy environment, increase pollution
 overcrowded recreational areas, beaches, parks

Growth is good

population growth supports economic expansion
 younger population is more productive, creative
 slower population growth threatens societal productivity, creativity

Race suicide

US/developed world being outbred by poorer nations/non-European peoples
 US fertility higher for lower classes/nonwhites than for upper classes/whites
 population decline poses military threat
 population decline portends the end of US/Western cultural preeminence

Notes

The authors thank Ronald Lee and Anne Pebley, as well as the participants in the Stanford–Berkeley Colloquium on Population (February 1991), for their many helpful comments on earlier versions of this paper.

1 A less extensive analysis of population articles appearing in American popular magazines was conducted by David Yaukey (1985).

2 To our knowledge, the only two major American newspapers that have been indexed over the entire period 1946–90 are *The New York Times* and *The Christian Science Monitor*.

3 Our universe included all articles listed in the *Reader's Guide to Periodical Literature* over the years 1946–90 under the following headings: "Population"; "Population, distribution of"; "Population, increase of"; "Population Association of America"; "Population education"; "Population forecasting"; "Population Institute"; "Population policy"; and "Population Reference Bureau, Incorporated." Under the heading "Population" are several subheadings of a general nature, such as "Population—overpopulation" or "Population—statistics." Also, numerous subheadings refer to specific regions or countries, such as "Population—Asia" or "Population—France."

Beginning in 1959 with volume 22 of the *Reader's Guide*, country or regional subheadings under the main heading "Population" ended and were replaced by "Population" subheadings under entries for individual countries or regions. Thus, "Population—Asia" became "Asia—Population." To insure temporal comparability in light of this indexing change, we first chose a well-defined set of countries and regions. For the period before 1959, population articles listed under a country or regional subheading were included in our data base only if the country or region was a member of our chosen set. After 1959, we checked under each country or regional heading in this same group and included any articles with a subheading "Population."

The country and regional categories that we included in this set were the following (in parentheses are alternate names or names of subregions that were grouped together at the time of initial coding): "Africa" ("East," "Southern," "West," or "North Africa"); "South Africa"; "Asia" ("Far East"); "China" ("People's Republic of China"); "Egypt"; "Europe" ("Western" or "Eastern Europe"); "France"; "Germany" ("West" or "East Germany"); "Great Britain"; "India" ("Pakistan," "West" or "East Pakistan," and "Bangladesh"); "Italy"; "Japan"; "Latin America" ("Central" or "South America," "Western

Hemisphere," and "Americas"); "Mexico"; "Middle East" ("Arab States"); "Puerto Rico"; "Soviet Union" ("Russia"); and "United States." Excluded from this list, for example, are regions such as Oceania, or countries such as Turkey, Australia, Canada, or Guatemala. An article about population problems in Guatemala that was listed under "Population—Latin America" (or, after 1959, "Latin America—Population") would have been included in our data base. If the same article appeared only under "Population—Guatemala" (or "Guatemala—Population"), it was excluded for the reasons stated above.

4 The only issue of the *Reader's Guide* that appeared more than one year after the period covered was the volume pertaining to 1890–99, which was published in 1944.

5 All of the top 15 journals listed in Table 1 have been indexed during the entire period 1946–90 with only two exceptions: the magazine *America*, tenth on the list, was not indexed before 1953; *Saturday Review*, fifteenth, ceased publication after the August–September issue of 1986.

6 The sample was stratified along three dimensions (author, journal, and time period). Our first priority was to draw up all articles by authors who had contributed five or more articles to the collection (see Table 2). Second, we decided to oversample articles from the top nine journals (see Table 1). Third, we stratified by time period in order to insure similar levels of sampling variability for our estimates in different five-year periods. All estimates of the percent of articles with various characteristics were obtained using weights derived from these sample percentages.

7 Some articles in our sample treated such issues as internal migration, the baby boom, or business demography, without simultaneously discussing population size or density. Although the former are population-related issues, they fall outside the scope of this study.

8 For more on the notion of a frame, see Ball and Wilmoth (forthcoming).

9 The term "race suicide" has historical origins in the population debate in the United States from around the beginning of this century (Gordon, 1976). Although it was connected with various social currents at the time,

the core of the race suicide position held that a growing population of Yankee stock was needed to counter the rising tide of immigrants, nonwhites, and the poor. The term "race" is thus used in its broader and more traditional sense of "stock," hence referring to any group united by claims of common ancestry. We employ the historical term "race suicide" to refer to any rhetorical position on the issue of population that is taken by one self-identified group in response to the perceived encroachment of some other group as a result of immigration, aggression, or unequal birth rates.

10 The specific arguments included in each of the five frames are given in the Appendix. The percentages presented in Figure 3 represent the estimated percent of articles citing at least one of the arguments in each category during a given time period.

11 "Why hunger is to be the world's No. 1 problem," *U.S. News & World Report*, 6 January 1964, p. 28.

12 Peter Collier, "' . . . Ecological destruction is a condition of American life . . .': An interview with ecologist Paul Ehrlich," *Mademoiselle*, April 1970, p. 293.

13 Paul R. Ehrlich, "We're standing on the edge of the earth," *National Wildlife*, October 1970, p. 16.

14 "The population explosion . . . How much of a menace?," *Senior Scholastic*, 18 March 1965, p. 7.

15 Warren S. Thompson, "The impact of science on population growth," *The Annals of the American Academy of Social and Political Science*, January 1947, pp. 116–117.

16 Joseph B. Phillips, "Too many people," *Newsweek*, 27 September 1948, p. 37.

17 *Ibid.*

18 "Europe's surplus millions," *Senior Scholastic*, 28 November 1951, p. 11.

19 "The capitalist challenge: Building a better world with free enterprise," *Time*, 28 October 1957, p. 61.

20 Kingsley Davis, "The other scare: Too many people," *The New York Times Magazine*, 15 March 1959, pp. 108+.

21 *Ibid.*, p. 110.

22 Edgar Ansel Mowrer, "Sawdust, seaweed, and synthetics: The hazards of crowding," *Saturday Review*, 8 December 1956, p. 56.

23 Marshall Green and Robert A. Fearey, "World population: The silent explosion," *Department of State Bulletin*, October 1978, p. 4.

24 Philip M. Hauser, "Our population crisis is here and now," *The Reader's Digest*, February 1962, p. 148.

25 "A scientist looks at 'the human zoo,'" *U.S. News & World Report*, 2 March 1970, p. 38.

26 "A self-corrective for the population explosion?" *Time*, 28 February 1964, p. 56.

27 Joseph J. Spengler, "Overpopulation: Threat to America's future," *Parents' Magazine*, April 1968, p. 42.

28 Collier, cited in note 12, p. 291.

29 Lester R. Brown, "Reassessing population policy in a world of scarcities," *National Parks & Conservation Magazine*, October 1979, p. 16.

30 Paul R. Ehrlich, "We're standing on the edge of the earth," *National Wildlife*, October 1970, p. 16.

31 Paul R. Ehrlich, "Coming famine," *Natural History*, May 1968, pp. 6-8+.

32 Sol Sanders, "A fortress America? Mexican immigration," *Current*, July/August 1986, p. 22.

33 "TRB from Washington," *The New Republic*, 2/9 August 1980, p. 2.

34 "Rapid growth of family units is spur to business in U.S.," *U.S. News & World Report*, 2 June 1950, pp. 11+.

35 Haig Babian, "Increasing population means increasing opportunity," *Senior Scholastic*, 18 November 1959, p. 26.

36 Julian L. Simon, "World population growth," *The Atlantic Monthly*, August 1981, p. 74.

37 "Internal factors" included the inability of demographic transition theory to explain the postwar fall in mortality in underdeveloped countries or the baby boom in industrialized societies. If mortality can fall prior to development, then why not fertility? If post-transitional, industrial societies can experi-

ence high fertility (i.e., the "baby boom"), then conversely maybe nonindustrial countries can be pushed forward toward the demographic transition. At the same time, Hodgson suggests, "external factors" like the Cold War, the downfall of colonialism, and enhanced funding for demographic research encouraged demographers to view population growth in LDCs as harmful and to search for solutions (Hodgson, 1988).

38 The most important development was the oral contraceptive pill, which was approved for use by the US Food and Drug Administration in 1960. The emergence of new contraceptive technologies—in addition to the pill, the intrauterine device came into widespread use around this time—fueled a rising popular interest in birth control. For example, the number of *Reader's Guide* articles indexed under "Birth Control" was very low during the period 1945-54, increased modestly in 1955-59, and grew quite rapidly thereafter (Piotrow, 1973).

39 To our knowledge, the first representative national surveys of American public opinion in matters of population size and growth were taken in 1965. In 1965 and 1967, the Population Council commissioned the Gallup Organization to undertake surveys in the United States of public attitudes on population issues (Kantner, 1968). Also in 1965, the National Fertility Survey asked questions about attitudes toward population growth in the United States and the world, although the earlier Growth of American Families studies (conducted in 1955 and 1960) did not.

40 Philip M. Hauser, "Our population crisis is here and now," *The Reader's Digest*, February 1962, p. 150.

41 The articles from the late 1970s, furthermore, were characterized by a preoccupation with population topics other than size, density, and growth. Increasingly, the topics of interest were population aging, business demography, the baby boom, and internal migration. The late 1970s were unique in this regard, and by the early 1980s the articles in our sample returned to their usual preoccupation with population growth.

42 *Time*, 6 August 1984, pp. 24-39.

43 To quantify the claim that demographers have become less involved in the pop-

ular debate over population issues, first consider the set of population articles written by the individuals listed in Table 2. On the basis of professional affiliation (defined as regular membership in the Population Association of America), we count only ten of these individuals as "demographers": Kingsley Davis, Philip Hauser, Robert Cook, Irene Taeuber, Frank Notestein, William Petersen, Julian Simon, Joseph Spengler, Thomas Dow, and Warren Thompson. The professions of the other individuals in this list include biologists or ecologists (Paul Ehrlich, Anne Ehrlich, Lester Brown, John Holdren, Garrett Hardin), a physicist (Harrison Brown), government officials (Marshall Green, Richard Gardner, Robert McNamara), journalists (Constance Holden, David Greenberg, Landon Jones), and a religious leader (James O'Gara). The number of articles written by demographers, as a percent of articles by all individuals listed in Table 2, declined markedly from 1946 to 1970. For successive five-year time periods from 1946–50 to 1986–90, the percent of articles that we attribute to demographers is 100, 90, 91, 40, 34, 25, 24, 25, and 29 percent, respectively. The decreasing percentage of articles attributed to demographers is due both to a decline in the number of articles written by demographers and to an increase in the number written by nondemographers.

Another measure that can be constructed from our data also documents the diminished influence of demographers in the period after 1970. We collected citation data on 17 contemporary participants in the popular discussion of population issues. They include 14 of the individuals listed in Table 2 (specifically, those for whom a numerical value is given in

the second column), plus Barry Commoner, Ansley Coale, and William Vogt. Based on our sample of articles, we estimated the number of times an individual was cited in articles written by other persons for each five-year time period from 1946–50 to 1986–90. In addition to the individuals listed above, we count Ansley Coale as a demographer (but not Commoner or Vogt).

The estimated number of citations of demographers, as a percent of citations of all individuals for whom we collected these data, also declined steeply from 1946 to 1970. For successive five-year time periods from 1946–50 to 1986–90, the proportions of total citations that we attribute to demographers are 89, 84, 62, 78, 85, 20, 20, 53, and 58 percent, respectively. According to this measure, then, the low point of demographers' influence in the popular discussion of population issues was during the 1970s. The increase in demographers' "share" of the popular debate during the 1980s, as measured by these data, is due almost entirely to citations of Julian Simon.

44 One of the best (though also one of the few) attempts to translate the 1986 National Academy of Sciences report into a form appropriate for popular consumption is an article by Samuel Preston, entitled "Population growth and economic development," that appeared in *Environment*, March 1986, pp. 6–9+. Another noteworthy attempt to decipher the report's "cautious, low-key wording and heavily qualified conclusions" is an article by Constance Holden, "A revisionist look at population and growth," *Science*, 28 March 1986, pp. 1493–1494. Other similar articles may have fallen outside our sample.

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