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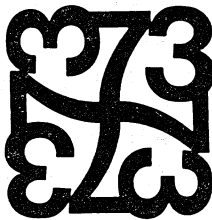
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UNITED STATES DEPARTMENT OF AGRICULTURE
Economic Research Service

IMPLICATIONS OF POPULATION TRENDS FOR QUALITY OF LIFE

Talk by Calvin L. Beale
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at the 1973 National Agriculture Outlook Conference
Washington, D.C., 8:45 a.m., Thursday, February 22, 1973

The size and distribution of our population have been subjects of public concern at several points in our history, but the rapid rise of quality of life concerns -- dominated by environmental issues -- has significantly reshaped our perspective on the implications of current population trends. Let me divide my comments into two parts -- those relating to the overall number and growth of people and those dealing with distribution.

I think it fair to say that an end to population growth for the nation -- and in time for the world -- is an increasingly widely held objective today. Ultimately there are limits to the number of people the world can accommodate under any standard of living. In the United States, there seems to be little sentiment for a decrease in population. But the recent Presidential-Congressional Commission on Population Growth and the American Future reported its strong conviction that it had "...found no convincing argument for continued national population growth. On the contrary, the plusses seem to be on the side of slowing growth and eventually stopping it altogether." (7, p.75) The Commission then went on to marshal the evidence that slower growth would increase average income, conserve energy, avert pollution, and provide "...an opportunity to devote resources to the quality of life rather than its quantity". (7, p.75)

The Commission finished its work none too soon. The present decline in the U.S. birth rate had become very evident before the Commission's report was finished, and had a definite effect on the tenor of the report. There seemed little further need for urgent advocacy of less childbearing. The emphasis turned more to other issues, such as social justice and quality of life. Then, the recent ruling of the Supreme Court on the unconstitutionality of certain State laws restricting access to abortion has made moot the Commission's recommendation that present State laws restricting abortion be liberalized. In terms of the impact of the Commission's recommendations on all other subjects, it is unfortunate that the Supreme Court's ruling did not occur earlier, for the thrust of much of the reaction of the Administration and of the press to the report was on the abortion recommendation, to the relative neglect of other issues.

With the present growth trend of the nation in a state of change, a review of recent birth trends would seem in order. After a two year rise in 1969 and 1970, the birth rate suddenly turned downward in April 1971. No one knows why the marked downward deflection took place at that particular time, but in every month since then the number of births has been below that of the same month in the preceding year. Other things being equal, the birth rate would have increased in this period because of the rapid growth in the population of prime childbearing age, as the children born in the post-World War II baby boom came of age. But clearly other things have not been equal. The crude birth rate fell from 18.2 births per thousand total population in 1970 to 15.7 per thousand in 1972. This is the lowest crude birth rate in American history, and also the lowest when related solely to women of childbearing age. If no further decline were to occur, it would provide a level of childbearing just above that needed for parental replacement without growth. But the decline shows no sign of halting yet, and 1973's births may well be below the number ultimately needed for replacement.

The decline in births is paralleled by a decline in expressed childbearing expectations. During the 1950's and 1960's, expressed preferences and expectations about family size were remarkably stable, commonly averaging out to about 3.2 or 3.3 children per woman. These levels became observed in practice as well as in preference. With only about 2.1 children ever born required per woman for generational replacement, such fertility led to growth rates of 50 percent per generation, and was the source of our rapid national population increase during those decades. But the number of births that women say they expect to have has now dropped to 2.4 per woman in 1972, and 2.3 among wives under 25 years old. (1, p.1) Our society has undergone a major shift in its childbearing intentions in just a few years. Given the human capacity to bear much larger numbers of children, a shift from an average of 3.3 children to 2.3 is not major in absolute terms, but is dramatic in its effect on growth rates and on the potential future size of the U.S. population.

If the experience of other nations that have liberalized abortion laws is any model, the effect of the recent Supreme Court decision on abortion will almost certainly serve to further lower the birth rate in this decade. But whatever the near term level of the birth rate, it is necessary to keep in mind that the present young adult population is much larger than the older population from which most deaths occur. Thus, the United States would continue to grow in population beyond the end of this century, and exceed 250 million, even if fertility rates were only at generational replacement levels from now on and net immigration ceased. This is a decided shift downward, however, from the prospect of 300 million people by the year 2000 that seemed likely less than 10 years ago.

Despite a professional and lay consensus of reasonable proportions that growth of the U.S. population is a serious problem, the measurable relationship between total population size or growth and impairment of quality of life is by no means always direct, major, or even clear. For example, our society is making strenuous efforts to combat environmental pollution and

this problem is often linked with population growth. But notwithstanding the huge increase in U.S. population since World War II, it is not population growth that is the paramount cause of environmental quality problems. Perhaps the best illustration of this contention is in the area of electric power. Since 1950, electric energy consumption has increased by more than 350 percent. In the same period population grew by just 37 percent. Thus, only one-ninth of the increased use of electric energy -- with its serious attendant problems of air and water pollution, fossil fuel depletion, strip mining, and the rest -- can be ascribed to population growth. The rest is the result of enormously increased per capita usage. The projection of needs for the rest of the century follows the same pattern. Major additions to present capacity will be needed, but only a fraction of the need will stem from increased population.

Natural gas usage from 1950 to 1970 rose by 265 percent and use of crude petroleum by more than 110 percent. The number of cars and trucks in use has gone up about 120 percent. The percentage of families owning two or more cars rose from 7 percent in 1950 to 28 percent in 1971. It is the rising standard of living that is the major source of our problems in the energy and vehicle-related environmental fields, not the growth of population.

The volume of farm production rose only moderately above population growth -- 52 percent against 37 percent. But to achieve this output, the application of fertilizers was doubled, and that of pesticides apparently increased even more. Even in the case of the U.S. mail -- a major service whose quality is widely thought to have declined -- three-fifths of the increase in domestic work load since 1950 is accounted for by greater per capita use of the mails rather than greater population. If the national and State parks are becoming overcrowded, it is largely because overnight visits more than doubled in just 10 years (1960-70) while population grew at one-sixth of that rate.

These are simple measures, but the wide disparity in growth rates between population and consumption or service items leaves no question that the rapid growth in demand for the items mentioned is due primarily to greater per capita usage. Neither the recent nor potential growth of our total population is the crux of our environmental quality problems, although population growth has contributed to them.

So far as general social and economic indicators of quality of life go, it is difficult to say that the total size of the U.S. population has thus far been an impediment to overall progress, although the suddenness of growth has created stresses. Most measures relating to educational attainment, average money incomes, housing adequacy, or leisure activities have advanced very rapidly despite steady population growth. The health picture is somewhat mixed. There have been large increases in two decades in the assets and personnel of hospitals, and in the proportion of the population covered by health insurance. Yet the expectation of life has been slow to increase further, especially for men. But this failure is not to my knowledge thought to be a result of larger population. Lower future population growth should yield societal benefits, but will not be a corrective for our quality of life problems.

The last decade has seen a marked development of concern over the distributional trend of the population. There are those who believe that the concentration of people in metropolitan centers is the source of more problems than the total size or growth of the nation. Problems of pollution, traffic, crime, social alienation and dependency, and race relations all are felt to have been aggravated by the increased massing of people in several major urban regions. This concern is complemented by that over the presumed serious deterioration in the fabric of declining rural communities caused by loss of population, especially loss of the better-trained young people.

The trend of concentration is beyond dispute. The total rural population -- that is people in open country and towns of less than 2,500 inhabitants -- has been nearly stationary since 1920 while the urban population has nearly tripled, increasing by 100 million. Perhaps more importantly, 71 million, or 35 percent of our population, now live in urbanized areas that have over 1 million people each. And in the period since World War II we have seen the development of the megalopolis or urban region concept in which one metropolitan area merges into another and a new level of aggregation evolves, especially along the North Atlantic Coast, the Lower Great Lakes, and in California.

Is this good or bad? Given the utter inability of agricultural areas to provide employment for their existing labor force, let alone their natural increase, and given the aggregating advantages for employment, services, and income that metropolitan cities have had in the recent past, the concentration may well have been inevitable, whether good or bad. Major social and economic trends seldom move slowly enough for government and society to cope with them in an ideal manner. Furthermore, the world-wide nature of rural exodus and urban growth makes it clear that the process has completely transcended national borders, political systems, and agricultural policies.

The reaction of nations to the process of urbanization, is, I suspect it fair to say, one of initial pleasure and pride at the emergence of great cities, and the amenities, broader life chances, and intellectual stimulation that they afford. But if the residential balance shifts too fast or too far a reaction ensues, perhaps at first dominated by lingering agrarian sentiments and then by apprehension that the very advantages of the city are being degraded and lost by overwhelming growth and change.

I cannot think of a clearer or, indeed, more blatant expression of the presumed moral superiority of rural life against which our cities developed than that expressed by Isaac Newton, the first U.S. Commissioner of Agriculture in his annual report in 1863. Said Newton, "The acquisition of comparatively slow, but sure, wealth, drawn from and reinvested in the soil, develops health of body, independence and simplicity of life, and love of country;..." "The men of the city, living in the midst of excitements, political, social, monetary, and moral, too often feed those baneful causes of national ruin, to wit: speculation, luxury, effeminacy, political corruption, and personal ambition. Never was truer or more comprehensive

line of poetry penned than that which declares that, 'God made the country -- man made the town'." (8, p.23) But the nation was still so overwhelmingly rural in Newton's day that his expression was more than a comforting litany than a cry of alarm.

In a later day, after the rural-urban balance had shifted, the Washington Post commented on the subject with more concern:

It is true that in a not very remote past country life, and especially life on the farm, was extremely dull, dreary, and monotonous, and just because of that the gaiety, amusement, and social attractions provided by the town proved an irresistible lure alike to the younger members of the farmers's family and to his hired help, with a consequent inevitable loss, both of rural population and of producing power. Indeed, even now there are certain pre-eminently agricultural States in which the inducements to stay on the farm are surprisingly meager.

It will be the part of enlightened statesmanship--local, State, and Federal--to help along the processes of modern development, to the end that an increasing and contented population may find duty and pleasure happily linked together in the rural homes of America.

Sounds familiar doesn't it? The surprising fact, however, is that it was written in 1921. (9) Our present concern over population distribution does have some distinctive aspects, but it is instructive to remember that past generations perceived the same basic dilemma.

A number of nations have adopted policies in recent years to attempt to moderate, rationalize, or hopefully halt the drift to the cities, or revitalize lagging regions. France, the United Kingdom, Sweden, Brazil, and the United States are examples. In recent U.S. legislation, such as the Rural Development Act of 1972 or the Agricultural Act of 1970, the detrimental effect of rural-urban migration and the growth of major cities is specifically asserted and identified as a condition to which the legislation is addressed.

How is the quality of life affected by population distribution trends? There are some things that can be said with reasonable certainty. Up to this point in time, the larger the proportion of Americans who live in metropolitan-size communities, the larger the proportion who will live in ready access to college education, or to medical facilities; the lower the proportion who will live in substandard housing or with poverty level incomes; the higher the proportion of women who will find opportunities for employment outside the home at better than low-skilled jobs and subsistence wages.

On the other hand, the greater the metropolitan concentration, the greater the percentage of the population engaged in or victimized by crimes, either of violence or against property; the greater the proportion of youth susceptible to drug use; the greater the exposure to air pollution; the less the likelihood of owning one's home. In short, there are trade offs, and it is in large part a matter of personal judgement as to what the net effects of distribution patterns are on quality of life.

One unsettled issue of considerable concern, is the effect of massing and density of population on human beings. The noted scientist and writer Rene Dubos was cited by former Secretary Orville Freeman as saying that, "Some of the most profound effects of the environment created by urban and technicized civilization may not be on physical health, but behavioral patterns and mental development". (4, p.8) After a review of the state of knowledge in this area, the Population Commission concluded that, "In general, the research on the effects of population density on human behavior is sparse and the findings either inconclusive or negative. Despite popular belief, the evidence is lacking to show that social pathology is associated with density itself". (7, p.69)

It is known that certain kinds of anti-social behavior among animals result from excessive crowding. It is also accepted that large urban areas, and central cities in particular, have high rates of crime and mental illness, but it is difficult to name mass or density per se as the culprit rather than other aspects of the urban social situation. There do seem to be studies emerging that associate life in the upper stories of high-rise apartments with social pathology in both adults and children, but high-rise apartments are not a necessary concomitant of high density.

Aside from the conditions of life that can be quantitatively assessed, we must also consider what people believe to be true, for beliefs -- however incorrectly held -- become real in their effects if acted upon. Several surveys in recent years have attempted to determine residential preferences and to identify the advantages that people perceive in urban or rural life. In a national survey made for the Commission on Population Growth and the American Future, 56 percent of the population described themselves as living in a medium or large city or in the suburbs of such a place, but only 35 percent expressed a preference to live in such places. (2) The implication was that a net of about 21 percent of the people -- or more than 40 million -- would prefer to live in the open country or a small town or city, rather than in their present metro setting. Three-eighths of these people considered themselves very likely to make such a move within the next few years, and an additional fourth thought they would make such a move in the more distant future. This preference pattern I think we must accept as a matter of fact. It is supported by other surveys. The net yearning of the people seems to be away from metro areas at the very time that metro concentration has reached its peak.

The forces that have produced metropolitanization are unlikely to be casually displaced, however. Nor do we really yet know what the small

town and open country preference consists of. Surveys in Washington and Wisconsin reveal that the predominant preference of metropolitan residents in those States who want a change is for a locality that is small-scale in character but that is not too far beyond the urbanized area. (3, 10) Thus, they appear to want accessibility to urban employment and services but not residential involvement in either the city or the suburbs. The implication would seem to be even greater sprawl and a more dispersed form of metropolitanization.

The Washington survey and a national one have dealt with the images that people have of urban and rural settings. (3, 6) These surveys seem to agree that where ever they live, the great majority of people believe that the availability of good jobs is best in metropolitan cities. A majority perceive recreation-entertainment opportunities and medical care to be best in the cities. On the other hand, even metro residents themselves believe that rural and small town people are friendlier, more likely to be in good general or mental health, have more voice in community affairs, and that rural communities are the best places in which to rear children.

It also seems possible to detect some differences in attitudes and values on the part of urban and rural people that are relevant for discussions of population distribution policy. The sociologist Norval Glenn reviewed national opinion polls in which the views of rural and urban residents were distinguished. (5) On some issues, the two populations showed no meaningful differences, but in other areas such as views on religion, the role of women, liquor laws, and corporal punishment in school they differed significantly -- with rural people in each case taking what might be termed a more conservative attitude.

It is also true that voting patterns may still be sufficiently different between metropolitan and nonmetropolitan residents to affect the outcome of major elections. In 1968, nonmetropolitan voters cast only 30 percent of the total U.S. vote in the presidential election, but it was their wide preference for the Republican ticket that produced President Nixon's winning margin. The Democratic ticket had a narrow plurality in the metro areas, but lost the election.

If more people from the metropolitan centers settled in the small cities and the countryside, would their philosophical views and outlook change in the smaller-scale communities? If more rural youth remained in the country, would the differences between countryside and city be widened? I don't think we can say with certainty. But we should be aware that there are differences in the proportions of urban and rural people who adhere to given values or viewpoints, and that population distribution policies do have implications--whether implicit or explicit--for the overall ideological outlook of the nation. Whatever the economic possibilities for the greater dispersal of the population in smaller-scale communities, the belief that such a policy is desirable or not desirable is a value judgment itself, determined as much by social heritage and personal convictions as by facts objectively derived and impersonally viewed. There is no one optimum population size or distribution. They may be different optima for different

objectives. Within the constraints of economic reality, popular consensus would seem to be the determinant of what the perceived implications of population trends are for quality of life.

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