
CONCERNED

September, 1970

DEMOGRAPHY

Vol. 2 No 1.

CONCERNED DEMOGRAPHY LOOKS FORWARD TO
SECOND YEAR

To the despair of many of its critics and to the surprise of most sponsors, Concerned Demography will live for another year. While promising to remain lively and controversial, Concerned Demography as an unofficial journal of population studies will probably seem to be somewhat more respectable this year. Except for occasional contributions from other universities, last year's Concerned Demography was written by graduate students at the University of Wisconsin, long noted as a hotbed of radical thought. This year, Concerned Demography will expand to five issues, each published from a different institution. These include: The University of Michigan, University of Pennsylvania, Brown University, The Population Council, and the University of California at Berkeley. While graduate students will still be writing the majority of articles, many established demographers have already agreed to contribute articles, book reviews, and even edit issues. A complete list of the issues, editors, and topics for Volume 2 are in another part of this newsletter.

The idea for Concerned Demography was borne out of a free-swinging session at the 1969 PAA meetings in Atlantic City. During that discussion, many students and other demographers from a number of universities discovered that they shared a common dissatisfaction with the current state of population studies, especially the relationship between their discipline and the nature

of society. Among the issues which were discussed, many questioned whether an academic discipline which largely depended on handouts from the federal government could remain aloof from the effects of the genocidal war abroad and the increasing signs of repression at home. While many of the elder members of the PAA feared the worst -- disruption of normal academic proceedings -- there was little thought of that. The concerned participants sought wider channels of academic inquiry, certainly not a limitation of academic freedom.

Some of the older members present at that initial discussion suggested that the younger members present should do their homework, write papers and present them through normal academic channels. This advice was followed up with a great deal of activity and diligence. An informal group within the PAA was organized as Concerned Demographers. In addition to publishing four issues of Concerned Demography, the group came back to the 1970 PAA meetings in Atlanta with their issues in suitable academic attire. Two sessions at the meetings were largely dominated by papers given by those who identified with Concerned Demographers. The reaction was mixed. Undoubtedly, there was a great deal of interest as evidenced by the large crowds which attended both sessions. But many PAA members probably agreed with the

CONTINUITIES IN DIFFUSING THE

POPULATION BOMB

SECOND YEAR (continued)

discussant in one session who said that a particular paper was so biased that it did not belong on the program of an academic convention. Upon hearing this comment, one member of the audience whispered that if objectivity and academic merit were the criteria of selection for FAA papers, the program would have to be cut in half.

Whether Concerned Demography will continue in the free-swinging critical tradition of its first year is uncertain. Each editor will have complete freedom to publish whatever he chooses. While some of last year's staff felt that their brand of leftist politics and sharp social criticism will no longer dominate the publication, they all agreed that a policy of maximum free speech was most important. Therefore, it seems certain that Concerned Demography will continue to serve as a forum for the discussion of the broader social, economic and political implications of the field of demography and population studies.

STAFF BOX

Concerned Demography is the official publication of Concerned Demographers, an organization of scholars at U.S. population studies centers. All correspondence and manuscripts are welcomed, from all points of view. Subscriptions cost \$2 per year, and checks should be made out to Concerned Demography. Mail should be sent to Concerned Demographers, 3224 Social Science Bldg., University of Wisconsin, Madison 53706; or to the editors of coming issues. Concerned Demographers have no official ties with the Center for Demography and Ecology at the University of Wisconsin. Editor of the newsletter is James J. Zuiches. Permanent executive editor, Ezekiel Cumings, will retire when Concerned Demography publication moves to other institutions.

After an appearance by Paul Ehrlich, Stanford biologist, the Wisconsin Concerned Demographers felt it necessary to pose an intellectual alternative to the population hysteria. Editor Zake Cumings and his motley crew hit the lecture and debate circuit under the rubric of "diffusing the population bomb, a national alternative." (See C.D. Vol. 1, #3)

Much of our activity was centered around ecology week; however, many Sunday mornings found concerned demographers in church for the first time in years. Especially enjoyable and rewarding was a series of debates and panel discussions with ZPG at various churches and local colleges. The highlights of our activity were two appearances on local TV and radio. Several of our more vociferous members spent three scintillating hours on a local radio talk show in addition to a half-hour appearance on local TV.

These appearances both in person and in the media have been extremely effective in providing the local population with another dimension (one which we feel is crucial) of the "population problem." Judging from the mail and various other types of feedback, C.D. is alive and well in Madison.

-- Get out on the stump! --

WRITE FOR CONCERNED DEMOGRAPHY

Schedule for Volume 2

You do not have to be under 30 and a flaming revolutionary to contribute to Concerned Demography. In fact, we welcome articles from everyone with an interest in the field of population studies. If you have something to say, type it up and send it to one of the editors who are listed below. Tables and graphs do not have to be on separate pages, in fact, no tables are even necessary. While each editor has suggested a theme for each particular issue, articles on other topics are welcome as well. In order to guarantee careful consideration, please submit your articles 4 to 6 weeks before the intended publication date. Letters to the editors will always be welcomed.

Volume 2

No. 2, November 15, 1970. Fred Arnold, editor (Population Studies Center, University of Michigan, 1225 S. University Avenue, Ann Arbor, Michigan 48104), Bob Klein, assistant editor. This issue will focus on the social political and economic implications of family planning in the developing countries. Book reviews will include Savvy's, General Theory of Population.

No. 3, December 15, 1970. Alfredo de Lattes, editor (Population Studies Center, Social Science Building II, University of Pennsylvania, Philadelphia, Pennsylvania, 19104). Eric Weiss and Gretchen Condran, assistant editors. This issue will include several articles reviewing the Latin American Population Conference held in Mexico City in September.

No. 4, January 15, 1971. David L. Sills, editor (The Population Council, 245 Park Avenue, New York, N.Y. 10017). This issue will focus on the problems and opportunities involved in assisting developing countries to develop a population policy.

WRITE FOR CONCERNED DEMOGRAPHY (cont.)

No. 5, February 15, 1971. Ernest Attah, editor (Department of Sociology, Brown University, Providence, Rhode Island, 02912). This issue will focus on urban social ecology.

No. 6, March 15, 1971. Bob Gardner, editor (Department of Demography, M24 Wheeler Hall, University of California, Berkeley, California, 94720)

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The publishers of Concerned Demography have decided to attack inflation at home. Subscriptions will remain at \$2.00 for individuals, be they faculty, students, bureaucrats, rich or poor. Institutional subscriptions (libraries and the like) will rise to \$3.00. (If you have already subscribed for the coming year, it has been recorded for the regular issues.) There will never be another bargain like this again, so mail this stub in today to:

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COMMENTS _____

Concerned Demographers initiated the movement within the PAA to amend the constitution in order to permit equal membership rights to students. Since the PAA had established no educational or professional requirements for regular membership, students were not legally, but economically disenfranchised by the \$20 yearly membership fee. Attempts to change the constitution at the 1969 annual meetings failed due to a misunderstanding of the procedural requirements and a lack of time. But in a continuing effort, the signatures of five regular members who would sponsor the amendment were obtained and it was presented to the PAA at the 1970 meetings. The passage of the amendment, in effect, would permit student members to hold office, serve on committees and vote as well as maintain membership for five years at a reduced rate annual dues.

The recent issue of PAA Affairs announced that the referendum on amendments had passed and specifically this meant:

"There shall be three classes of members: regular members, student members, and organizational members. Students in residence who present evidence of registration at an educational institution may be admitted to student membership for a period not to exceed five years at a reduced rate of annual dues. Organizational members shall not hold office, serve on committees, or vote, but shall be entitled to all other privileges of membership.

The renewed and strengthened interest in student membership by all members is emphasized by the PAA Affairs in its drive for both new members and the invitation to invite graduate students to join the Association. Obviously, the PAA feels that creeping socialization of students into the profession is a thing of the past and the enrollment and full use of interested members will continue to extend the range of topics demographers are concerned about.

PAA AND SANITATION WORKERS IN ATLANTA

May 5, 1970

Concerned Demographers
of the Population Association
of America
Madison, Wisconsin 53706

Dear Brothers and Sisters:

Please accept this letter as our grateful acknowledgement of your contribution on behalf of the City strikers.

Your contribution was very timely and we are most appreciative of the support you gave in our struggle for justice.

Kindest personal regards,

Claude Holt, President
Local No. 1644
AFSCME, AFL-CIO
Greater Atlanta Public Employees
District Council No. 14
Atlanta, Georgia 30303

1707 Chardston
Anne Carter, Me
48103

CONCERNED DEMOGRAPHY

a publication of

CONCERNED DEMOGRAPHERS
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INTERNATIONAL ASPECTS OF POPULATION CONTROL

Pierre Feadervand

Center for Population Planning, University of Michigan

Ann Arbor, Michigan, 48104

1.

The sudden and growing interest in population control is a major sociological and political phenomenon which itself would be well worthy of study. We cannot think of another subject which has managed to awaken such enthusiasm and concern on the international scene in so few years. In the 1950's, the subject was almost taboo in the international arena, (United Nations, World Health Organization, etc.). Yet, in the past decade, there has been a widespread change in attitudes toward the problem - a change due in great part to discrete U.S. pressures on the international level - and innumerable international and national organizations, foundations and technical assistance bodies are getting more and more involved in this field.¹ Yet population control tends too often to be equated with disseminating contraception², and an impressive body of research and theory has already been assembled on this topic.³ The family planning ideology is frequently characterized by a strong neo-Malthusian orientation, which, historically speaking, is the result of a world view of the privileged classes and nations.⁴ In an excellent critique

*To be published in 1971 in a forthcoming book on ecological problems by B. Alina and A. Hansen, eds., Ecology, Science, and Man; Wordsworth Press, San Francisco. Reproduced here with the kind authorization of the editors. A few minor changes have been made.

STAFF BOX

Concerned Demography is a periodic publication of Concerned Demographers, a non-profit national organization of scholars interested in relating demographic research and training to the larger society. All correspondence and manuscripts from all points of view are welcomed. Discussion and rebuttals of articles appearing in CD are encouraged. This issue has been compiled by Concerned Demographers at the University of Michigan. Business office is at the Center for Demography and Ecology, 3224 Social Science Building, University of Wisconsin, Madison, Wisconsin 53706. Subscriptions are available at \$2 per year. Concerned Demography has no official ties with the University of Michigan Population Studies Center, the University of Michigan Center for Population Planning, or the Center for Demography and Ecology at University of Wisconsin. Editor of this issue is Fred Arnold, assistant editor is Robert Klein.

of population control programs, H.M. Kauler has stressed the extent to which neo-Malthusian interpretations are now common. "The less developed countries are thought to be caught in a kind of low-level equilibrium trap in which high rates of population growth impede economic development, and economic backwardness and traditionalism hold back the completion of the 'demographic transition.' (This view is widely accepted by population experts, even those who are critical of family planning programs.)"⁵ A growing number of analysts, despite clear examples to the contrary, consider that "control of population growth is an essential prerequisite of economic transformation and sustained economic growth in major less developed countries."⁶ In a summary of economic theory as related to population, Levine has stated that "In the words of Professor Spengler, in Many underdeveloped areas, even a moderate rate of population growth can be looked upon as a barrier, or perhaps the barrier to economic development and the amelioration such development brings."⁷

These neo-Malthusian interpretations now tend to dominate the whole development scene. For the Agency for International Development (A.I.D.) of the U.S. State Department, the idea that rapid population growth is the main obstacle to development has become the cornerstone of official wisdom, as is stated not only in official publications, but in budgetary considerations.⁸ This position is reflected in many studies made by S. Enke, according to which 1 dollar invested in family planning is worth 100 dollars invested in more traditional fields.⁹ And although Enke's ideas have recently been subjected to considerable criticism, they are still frequently used as a justification for Western concentration on population control.¹⁰

What cannot help but strike an observer who does not accept the neo-Malthusian value premise, is the rather troubling fact that both history and the contemporary scene offer examples of highly successful development despite very rapid rates of population growth; a fact which stands in rather glaring contradiction to neo-Malthusian theory. Sauvy, for instance, argues that if there were any clear-cut relationships between economic development and population growth, then France, which started practising birth-control almost one century before the rest of Europe, should have had a considerable advantage, whereas in fact the contrary proved to be the case,¹¹ i.e., France had one of the lowest recorded rates of economic growth of all Europe.¹² The fact is that one

can distinguish no clear-cut patterns in the relationships of population and economic growth whatsoever, and history offers so many apparently contradictory examples that anyone who wants to prove a point is certain to find some example which will nicely fit his theory.

Taiwan is an interesting contemporary example of a country which clearly disproves the neo-Malthusian case. Taiwan's birth rate was 42 per thousand in 1958, (period during which it was starting its economic take-off), and still over 36 per thousand in 1963, with a population growth rate situated near 3 per cent per annum.¹³ Nevertheless, from 1951-1965, despite its very high rate of population growth, industrial production was multiplied by four, agricultural production by 70 percent, exports tripled, and the illiteracy rate was lowered from 45 to 26 percent. In the period immediately preceding the war, (1920-1940), the population expanded by 60.4 percent, a unique phenomenon for that period which gave Taiwan the highest rate of population growth in the world.¹⁴

Neo-Malthusians might reply that this was due to "special circumstances" (the well-known reply of many social scientists who find cases which do not corroborate their theory), e.g. 4 billion dollars in American aid and an energetic land-reform; but this just proves an important point, i.e. that when a country is of sufficient strategic interest to the West, we are ready to give it enough assistance to overcome the possible disadvantages of rapid population growth,¹⁵ a point other developing countries might usefully ponder. South Korea is a fairly similar case of successful economic "take-off" despite a high rate of population growth and with a background of heavy American investments. Albania is a still more striking example, because in this case an amazing development was achieved almost without foreign assistance.

2. The neo-Malthusian "Population Policy"

To contend that one of the basic problems of development is due to excessive population growth is one thing, convincing governments in developing countries of the necessity and feasibility of a family planning program is quite another. An important means of attaining this aim in recent years has been opinion surveys.¹⁶ These surveys, based on Western (and thus ethnocentric)

polling techniques, have, according to one of their main promoters, a clear market orientation. Thus Styco, a pioneer in this field of KAP surveys, (standing for Knowledge, Attitude and Practice of family planning) has very candidly acknowledged that "the most important function of such surveys is similar to any market research project: to demonstrate the existence of a demand for goods and services, in this case for birth control."¹⁷ One cannot help but question if such an attitude is really conducive to serious scientific research. Yet, there is probably no field of the social sciences today where similar methods have been used on such a broad cross-cultural scale. It is also our opinion that the attitudinal aspect of these surveys represents from a methodological point of view exceptionally poor research, and a growing number of specialists are expressing their skepticism concerning the validity of many of these surveys.¹⁸ Poorly-trained interviewers are sent to question at a very high speed illiterate women on problems they have never heard about in a totally artificial setting, (the interview situation), with questionnaires often composed by foreign experts who know little of the local culture, do not even speak the local languages or dialects, and have often lived only a few weeks in the country. The results of such surveys tend to become self-fulfilling prophecies, as they nearly all show, in varying degrees, that the people interviewed have favorable opinions toward family planning. Their questionable scientific value¹⁹ does not seem to disturb many people, and a knowledgeable observer, after criticizing them for this very reason, openly admitted what most people who have worked in this field already know; i.e., that these surveys, apart from their scientific aspect, are used as instruments of political pressure:

... KAP survey results, erroneous or not, have helped to persuade prime ministers, parliaments, and the general population to move in a desirable direction and have provided family planning program administrators with 'justification' for budget and programs.¹⁹

A further serious limitation of the neo-Malthusian family planners is a

The danger of such a brief overview as this one lies in some inevitable generalizations. The value of these surveys depends to a great extent upon the cultural setting in which they are made; those made in Taiwan for example, being of a much better quality than those made in Africa, for instance, to which our remarks mainly apply.

strong tendency to limit population control to birth control (or family planning). "Birth Control - the only answer," to quote the title of a study by R. Ewell²⁰, could quite fairly describe the position of too many people active in the field of population control. Yet the fact that family planning, in the initial stages of development, can only be a minor aspect of population control, (i.e. that investments in the field of public health, education, transportation, agriculture, etc., are a more important prerequisite of fertility declines) is evident. But one cannot help suspecting, along with Flugel, that the reason family planning is so strongly promoted is not that no other practical means are available, but that family planning is considered the cheapest one, the one that is least likely to make radical demands on Western economic interests. The more vigorous development effort implicit in real population control would evidently cost significantly more.

It (an antinatalist policy of the family planning type) would thus aim at improving conditions where they are bad without imposing any serious handicap or sacrifice on those dwelling in the more fortunate and sparsely peopled regions. . .

Looked at in this light, the organization, even on a large scale, of birth control facilities in the latter (developing) countries would be one of the cheapest and easiest ways in which such help could be given.²¹

Furthermore, it is considered that family planning does not require the radical social and political changes which real development might require (as the examples of China, Algeria, Tanzania, Cuba and other countries have shown). As a matter of fact, the idea is even put forward that population control via family planning is an effective means of counteracting the radical political changes that might be the result of sustained population growth.²²

Because the family planning establishment is so loath to face the basic problems of structural change inherent in population control, e.g. land reform, the status of women, problems of international trade, the distribution of wealth, etc., it tends to reduce the serious problems raised by the adoption of birth control by poor, semi- or totally illiterate populations to technical type problems. Getting family planning adopted is considered simply a matter of more research and better administration,²³ or a more subtle use of mass communication,²⁴ and especially of better contraceptive techniques.

More serious, finally, is the fact that the neo-Malthusians create false hopes among governments in developing countries, leading them to believe that family planning could be a way of solving their "population problem" - as if there could even be a population problem per se (there can only be development problems, of which population is simply one aspect). Thus, a report of the Population Council to the Government of Kenya upholds the idea that a national family planning program "might reduce fertility by as much as 50 percent in 10 to 15 years, a decrease no greater than desirable."²⁵ One of the most knowledgeable demographers in the field of African demography has said about this statement that, "in the absence of previous experience with comparable populations the claim appears to be overoptimistic and perhaps extravagant. We should keep in mind that there is to date no clear example . . . of a large scale fertility decline brought about by an action program initiated by a government in an area where the decline has not already started on its own."²⁶ And although the above-mentioned document aims at a "scientific" presentation, one cannot help being struck by the use of the word "desirable." Desirable from whose point of view? According to what criteria? Such implicit value judgments abound in Western demographic literature on the problems of lesser developed countries.

Despite the fact that Kingsley Davis, in a study that challenged the very premises of the family planning ideology, conclusively pointed out the inadequacy of family planning as a way of controlling population growth²⁷ - a fact now realized by most family planners²⁸ - the consequences of Davis' challenge have not yet been drawn. The reasons are very clear: reducing population control to family planning and reducing the adoption of contraception to technical issues enables neo-Malthusians to evade the radical political, economic and social reforms which a population policy worthy of that name would imply.²⁹ The family planners express the idea that a smaller population will solve many problems, and especially lead to a rise in per capita income³⁰ - whereas in reality a decrease in population, unless accompanied by political changes leading to a better distribution of the national income, will accomplish very little.

3. Population Growth and Levels of Consumption

Economic and social development is a holistic process of which population is only one aspect. The development equation has four variables:

- a. A certain quantity of disposable resources, including capital, which are by definition limited.
- b. A certain level of technology (a high level of technology enables many more people to subsist from limited resources).
- c. A certain population and, more important, a given rate of growth of the population.
- d. A certain form of social organization which will decide among other things who receives the fruit of work and social activity in what quantities, i.e., how the cake is shared.

We have shown elsewhere³¹ that the high levels of consumption of the industrial nations - and mainly the United States - represents a much greater drain on world resources and stability (and thus a much greater ecological and political menace) than the rapid rates of population growth in the Third World. According to Professor R.E. Miles Jr., of Princeton, "205 million Americans are depleting the world's resources and polluting the natural environment more than the 2.5 billion inhabitants of the less developed countries," a point made by quite a few people in the past year.³² A. Sauvy has rightly pointed out that, because the Americans consume more than half of the world's resources, "This consideration, even if it does not lead them to voluntarily delay the development of the retarded areas, (LDC's) does encourage them to adopt an attitude which goes in the same direction."³³ All the commercial policy of the developed nations is in competition with the population growth of the developing countries. In a world of finite resources and still limited technological ability, it is quite clear that the rising expectations of the "have nots" will sooner or later come into violent opposition with the consumption habits of the "haves" . . . unless one can cut down on the number of the former (which is just what neo-Malthusianism is all about), or the tastes of the latter (which a few brave people in the developed countries have suggested, but no sane politician would dare advocate seriously).

This basic conflict of interest (given the present world economic system) between western economic and political interests and the development of the new nations is stressed in a study made in 1944 by F. Notestein, when the Third World was still under the colonial domination of the West:

By launching a program of modernization the new dominant powers would in effect be creating a world in which their own peoples would become progressively smaller minorities, and possess a progressively smaller proportion of the world's wealth and power. The determination of national policy toward the underdeveloped regions must be made in the light of that fact.³⁴

Basically there have been no fundamental, qualitative changes in the economic relationships between industrialized and developing nations. The Third World relies still heavily on the exportation of raw materials and the relative gap between rich and poor nations appears to be growing continually, without any clear signs of being reversed. Population control in the form of family planning not only has become a favored leitmotiv of the Western development specialists, but people like R. McNamara are hinting that it should become a condition for further technical and financial assistance. The fact that it is strictly impossible for many nations at a very low level of development to adopt family planning on any meaningful scale - a point documented elsewhere³⁵ cannot, alas, deter people who are ideologically committed to a Malthusian policy, for, as G. Myrdal has so aptly stated,

All knowledge, like all ignorance tends to be opportune and to advance the cause of special interests - as long as investigators fail to observe the necessity of working with specific and explicit value premises. There is a "convenience of ignorance" that enters into our observations and inferences and tends to fit them into a conception of reality conforming to our interests.³⁶

This observation of Myrdal could hardly be better illustrated than in the following passage of one of the western world's leading experts in the field of family planning.

Active objection (to family planning) among the masses on cultural, moral and religious grounds are minor rather than major obstacles. This is true both in Asia and Latin America, and seems to be developing rapidly in Africa. Thus, at the "grass roots" level, the attitudinal and cultural conditions are highly favorable. . . . Wherever one looks in the underdeveloped segments of the world, one finds evidence of firmly established and flourishing family planning activity. By whatever crude estimates it is possible to make, it is quite clear that a sufficiently large share of the population is already making use of modern contraceptive means to have a depressing effect on the birth rate. . . . Because progress in death control is slackening and progress in birth control is accelerating, the world has already entered a situation where the pace of population growth has begun to slacken.³⁷

Nearly every statement in this passage represents a strongly biased view of reality, however tolerant one might be in its interpretation. The only result of such over-optimistic statements is to disconsider the cause they are meant to serve.

4. What a real effort at population control would imply

There is wide agreement among specialists that fertility and population growth are an integral part of the social structure and development process and being the result of the interaction of innumerable variables, of which still today we have only a groping and very imperfect understanding, it is, to say the least, rather surprising to see the neo-Malthusians suddenly consider fertility as a rather independently acting variable in the development process; in other words, that population growth tends to be a rather autonomous "causal" factor in development. One cannot help but agree with P. Podyaschikh that such a standpoint is more the result of an a priori value judgment than of an attempt to approach the phenomenon objectively.³⁸ Such a position is evidently convenient, because it enables many of its proponents to uphold that population control can be brought about mainly by spreading contraception - a relatively cheap investment - despite the fact that historical and contemporary research and experience strongly suggest that the decline of fertility is the result of the whole modernization process - a slow and very costly phenomenon.

Most elements of the structure and organization of a society have a direct or indirect impact on fertility. For this reason, not only can birth control (which deals basically with the contraceptive variable) only be a small aspect of population policy, but even a full-fledged population policy can only be a minor aspect of a real attempt to control population growth, which, to have any hope of success, must be much more far-reaching than anything we have attempted until now. As D.V. Glass has stated,

Direct programs for spreading the use of birth control, are, however, only a small part of the action in which developing societies will require to engage. The largest part will have to consist of planned economic and social development - and development at a considerably higher rate than appears to have been evident so far. This will be needed because, without an improvement in levels of living, birth control programs may well be an empty framework.³⁹

This will be expensive, very expensive - and this is just what the industrialized nations have been hoping to avoid. Yet, sooner or later, they will be faced with the hard facts of development. Even family planning cannot be practiced without a certain level of modernization having been attained, as a growing number of people are beginning to realize.⁴⁰

Thus, one need not be a seer to foresee that developing nations will become growingly impatient with the panacea of birth control as a short-cut to development, until the western nations meet the basic demands made by the "Group of the 77" (Algiers, October, 1967) and repeated at the UNCTAD conference in New Delhi (1968).^{*}

Latin America is becoming more and more allergic to population control propaganda⁴¹ - which is hardly surprising at a period when Latin Americans are increasingly aware of the extent of American economic domination. Algeria, a country which plays a leading role in Africa, has officially rejected population control as a solution to development problems, and a recent Algerian document on the problem of population policy contains the following statement which, we believe, will reflect the position of more and more countries in the Third World in the seventies:

There is no 'population' solution to problems that are first of all economic: the solution to the problem of underdevelopment is first and foremost an economic solution; the problem of unemployment is solved first of all by creating jobs, not by preventing potentially unemployed people from being born; the problem of illiteracy will be solved first of all by building schools and by a radical reform of an educational system inherited from the colonial occupation, rather than in preventing children from being born; the problem of the health infrastructure and health personnel will find its solution first of all in a more balanced expenditure of health funds and in the creation of 2-3 medical technicians in lieu of one doctor, rather than in a Malthusian policy which is a way of escaping radical structural reforms

There is no rapid solution to the problem of underdevelopment: whatever measures are taken, it can find no solution before at least one generation. The establishment of a population policy - be it in the form of family planning or otherwise - will not enable us to evade this issue. . . . Birth control cannot be a way of evading structural reforms: This is by far the most important issue. For today, in many parts of the Third World, we see nations turning anxiously toward Family Planning without having introduced the more radical reforms without which they will stay permanently in a state of underdevelopment.

India is a typical case. This country, which suffers permanently from undernourishment, has not yet managed to bring about the land reform which would enable it to attack the root of its problems because its parliament is dominated by wealthy landowners who evidently prefer upholding Family Planning.⁴²

A leading expert in the field of family planning recently asked: "Are family planning programs themselves a conservative political manifestation, not only in their alleged discriminatory focus upon the lower social classes, but more broadly?" One reply he received from a population specialist raised an issue which is creating uneasiness among a growing number of people:

We dispense birth control to the slum dwellers as a reproach for reproductive stupidity*: they are prolific because they are incompetent. . . . The social worker here and elsewhere has always provided a Band-Aid approach to social problems, helping the systems and institutions which are at the roots of the difficulty to persist just a little longer. . . . Such activities are clearly counter-revolutionary: they help to shore up the traditional culture. . . . I detect in much of the discussion of population policy in relation to the problem of development the disposition not to question norms, and to gravitate toward that solution which is most palatable to the present governments because it offends nobody of influence.⁴³

Neither free gifts of millions of cycles of pills nor injectable contraceptives will ever replace the much greater development effort needed on behalf of the industrialized nations, an effort which is only a repayment of past debts,

^{*}The "Group of the 77" refers to a meeting of the representatives of the main developing countries in Algiers, during which they outlined a series of fundamental changes they considered necessary in the field of international trade and development. Needless to say, the western nations turned a deaf ear on what we consider to be eminently reasonable demands, and they may well live to reap the unsavory reward of their ignorance.

^{*}There is an evident parallel between the situation of the Blacks in the U.S. and the poorer inhabitants of the lower developing countries: in both cases, a suspiciously large effort is made to disseminate contraceptive propaganda without identical efforts being made on the economic level. The accusation of "genocide" levelled by representatives of both groups against the white, western middle-class family planners, however irritating it may appear, is an instinctive reaction to the above-mentioned discrepancy between aid in the field of family planning and economic development.

as Lester Pearson has pointed out. Concluding his comments on the Pearson Report, the Canadian diplomat added a note of warning, saying,

But if the destiny of this century as it moves to its end, is to balance the discovery of physical and ecological unity with an equal effort of social and moral solidarity, then the reforms we propose in our Report can be seen not so much as intergovernmental arrangements as a modest step toward the building of the human city, toward a better planetary balance, more justice, more sharing, more generosity, more real partnership, for all mankind. A planet cannot, any more than a country, survive half slave, half free, half engulfed in misery, half careening along toward the supposed joys of almost unlimited consumption. Neither our ecology nor our morality could survive such contrasts. And we have perhaps ten years to begin to correct the imbalance and to do so in time.⁴⁴

Family planning comes both too early and too late: too early for the countries which are not modernized enough for their inhabitants to adopt such a new behavior rapidly, too late to prevent the hundreds of millions of half-starving under- or unemployed in the Third World from being born. We need much more, much quicker. Do we have the strength to pull ourselves out of our convenient rationalizations and moral lethargy? That will be the question of the century.

NOTES AND REFERENCES

¹ Among the international organizations which have developed an active interest in population control one can mention the U.N., UNESCO, W.H.O., I.L.O., F.A.O., UNICEF organizations like the O.E.C.D., The World Bank, private associations or foundations like the I.P.P.F., (International Planned Parenthood Federation), the Ford Foundation, Population Council, Planned Parenthood World Population, Pathfinder Fund, (financed mainly by A.I.D.) Asia Foundation, Christian Aid, Church World Service, Commonwealth Fund, etc. (all American, except I.P.P.F. which receives nevertheless 40% of its budget from A.I.D.) national governmental agencies of the following countries are also involved, Denmark, Japan, G.B., Holland, Sweden, Norway) without forgetting the Agency for International Development which spends in this field about as much as all the other national and private agencies combined. For further details on this aspect, see Population-International Assistance and Research, O.E.C.D. Development Centre, Paris, 1969.

² F. Notestein, "Zero Population Growth," Annual meeting of the Population Association of America, Atlanta, Georgia, 16-18 April, 1970 (mimeographed); D.J. Bogue, "The World Movement Toward Fertility Control," Principles of Demography, N.Y., 1969, pp. 824, ff., S.N. Agarwala, "Population Policy for India", Chapter 10, in Some Problems of India's Population, Bombay, 1966, pp. 141-151.

³ See for instance, M. Sheps and J.C. Ridley, eds. Public Health and Population Changes, Pittsburgh, 1965; B. Berelson et al. Family Planning and Population Programs, Chicago, 1966; C.V. Kiser, ed., Research in Family Planning, Princeton, 1962; S.J. Behrman, L. Corsa, Jr., and R. Freedman, eds., Fertility and Family Planning, a World View, Ann Arbor, 1969; Demography, 5(2) 1968, special issue on Progress and Problems of Fertility Control around the World. This is but a very small sample of some of the major studies in this field.

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¹¹ A. Sauvy, op. cit., Vol. II, p. 159.

¹² P.R. Cox and C.J. Thomas, "Population and Resources" Journal of the Institute of Actuaries, 94(1, 397), 1968, pp. 1-34.

¹³ Taiwan, Country Profile (Population Council, N.Y.) February, 1970; Freedman and Sun, "Fertility Trends in a Crucial Period of Transition", Studies in Family Planning, 44, August, 1969, pp. 14-19.

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and Economic Growth", Proceedings of the American Philosophical Society, III, pp. 170-193.

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¹⁷J. Stykos, "Survey Research and Population Control in Latin America", in B. Berelson et al., "Sample Surveys. . .", op. cit. p. 368.

¹⁸P. Pradervand, "Critique Methodologique des Esquisses C.A.P. dans le Tiers Monde", MS, June 1969, 103 p.; R.W. Morgan, "Fertility Levels and Fertility Change in Nigeria" forthcoming in a book on socio-economic change and fertility in tropical Africa, J.C. Caldwell, ed; A.V. Cicourcel, "Fertility, Family Planning and the Social Organization of the Family: Some Methodological Issues", Journal of Social Issues, 23(4), October 67, pp. 52-81.

¹⁹P.M. Hauser, "Family Planning and Population Programs: A Book Review Article", Demography 4(1), 1967, p. 405. (Underscoring ours)

²⁰R. Ewell, "Birth Control - The Only Answer", chapter 6 in J.A. O'Brien, Family Planning in an Exploding Population, N.Y., 1968.

²¹J.C. Flugel, Population, Psychology and Peace, London, 1947, p. 97, 120, quoted by K. & A. Organski in Population and World Power, N.Y. 1961, p. 191. This position was restated recently (although in different terms) by F. Notestein, honorary President of the Population Council who, in a recent conference at the Population Association of America, stated that "I do not want a reduction of our per capita consumption" (op. cit. p. 6). If one sets this down as a condition of "acceptable" means of population control, then one a priori eliminates many of the structural changes in the economic relations between the rich and the poor nations which are a condition of modernization, itself the most effective agent of population control.

²²The references on this point would easily fill papers and are among the motivations the Malthusians are understandably less eager to publicize; see for instance W. Barclay et al. op. cit.; J. Robbins, Too Many Asians, N.Y. 1959, A.J. Stuart, Overpopulation - 20th Century Nemesis, N.Y. 1958; K. Davis, "Population and Power in the Free World", in P.M. Hauser, ed. Population and World Politics, 1958, pp. 193-213; and especially the book by W. & P. Paddock, Famine 1975, America's Decision - Who Will Survive, Boston, 1967, which is a movement of misinformation and cynicism.

²³Cf. D.J. Bogue, "The Demographic Breakthrough" in idem, edit., Mass Communication and Motivation for Birth Control, Chicago, 1967, pp. 1-7; also L. Baumgartner, "Family Planning Around the World" in B. Berelson et al., op. cit.

²⁴R. Blake, ed. Final Report, International Workshop on Communication Aspects of Family Planning Programs. Carolina Population Center, University of North Carolina, 1969. At a course for family planning administrators from developing countries held at the University of Chicago in the summer of 1969, a well-known family planning specialist spoke for two hours on the problem of "marketing"

contraception; he used the analogy of a deodorant, saying repeatedly that "selling" family planning didn't present any more problems than those of selling a deodorant!

The head of one of the world's largest family planning programs, while describing the huge difficulties of getting sterilization adopted on a large scale, remarked to us, "There must be some anthropological gimmick (sic) to bring them to the operation table."

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²⁸B. Berelson, "Beyond Family Planning", Studies in Family Planning, 38, February, 1969, pp. 1-16, and especially his latest, remarkably balanced assessment of the field, "The Present State of Family Planning Programs", *ibid*, 57, September 1970, pp. 1-11.

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³⁰See e.g. G. Zaidan, "Population Growth and Economic Development", Studies in Family Planning, May, 1969, p. 3.

³¹P. Pradervand, op. cit.

³²R. E. Miles, Jr. "Who's Baby is the Population Problem" Population Bulletin, 16(1), February, 1970, p. 34; see especially C. Ogburn, "Why the Global Income Gap Grows Wider", Population Bulletin, June, 1970.

³³A. Sauvy, op. cit. vol. II, p. 216.

³⁴F. Notestein, "Problems of Policy in Relation to Areas of Rapid Growth", in Demographic Studies of Areas of Rapid Growth, Milbank Memorial Fund Quarterly, N.Y., 1964, p. 156.

³⁵Cf. P. Pradervand "Obstacles to and Possibilities of Family Planning in Francophone West Africa", OECD, Development Center, Paris, April 6-8, 1970, forthcoming at the end of 1970.

³⁶G. Myrdal, Asian Drama, N.Y. 1968, Vol. II, p. 982.

³⁷D.J. Bogue, "The World Movement Toward Fertility Control", in Principles of Demography, N.Y. 1969, p. 824, Underscoring ours. This neo-Malthusian approach toward developing countries is even more accentuated in some European countries than in the U.S.A.; in America, some clear headed people are at least strongly

advocating population control for Americans, starting with middle class whites, (cf. R.J. Miles, Jr., op. cit.) whereas a leading French newspaper, *Le Figaro*, on April 8, 1970, had a full page article calling for birth control in the Third World, (p. 5) and a few pages further (p. 9) the report of a government commission advocating stronger pro-natalist measures in view of increasing the size of the French population.

³⁸ P. Podyaschick, "Impact of Demographic Policy on the Growth of the Population" in E. Szabady (ed.) *World Views on Population*, Budapest, 1968, pp. 231-252. This statement is also full of value judgments, made in this case by a Marxist.

³⁹ D.V. Glass, "Population Growth and Population Policy" in Sheps and Ridley, op. cit., p. 23. It is sad to see a prominent demographer write that "the only way in which fertility can decline is through the use of family planning methods" (S.N. Agarwala, *Some Problems of India's Population*, Bombay, 1966, p. 144) when it is an undisputed fact that a raise in the mean age at marriage, a high percentage of unmarried women, or abortion to mention but three "non-contraceptive measures" have had a very important impact on fertility in many countries.

⁴⁰ Cf. R. Freedman, "The Transition from High to Low Fertility, Challenge to Demographers", *Population Index*, October, 1965, 31(4), pp. 417-435, and P. Pradervand, "Obstacles to . . . West Africa", op. cit. which outlines some of the "pre-conditions" necessary for the adoption of family planning in this part of the world.

⁴¹ J. M. Stycos, "Opposition to Family Planning in Latin America - Conservative Nationalism", *Demography* 5(1), 1968, pp. 246-254, and *Christian Science Monitor*, March 12, 1970, p.2.

⁴² *Republique Algerienne Democratique et Populaire, Ministere d'Etat Charge des Finances et du Plan, Direction Generale du Plan et des Etudes Economiques, Note de Synthese sur le Probleme de la Planification Demographique*, Algiers, January, 1969, pp. 2-3.

⁴³ B. Berelson, "Population Policy: Current Issues", Annual Meeting of the Population Association of America, Atlantic City, N.J., April 10, 1969, p. 11, mimeographed.

⁴⁴ L. Pearson, "Pearson on the Pearson report", *Ceres*, (FAO Review) 3(2), March-April, 1970, pp. 20-25.

RELEVANCE AND VALIDITY: CONSTRAINTS AND CONTROLS IN DEMOGRAPHY

RONALD FREEDMAN

Population Studies Center, Ann Arbor, Michigan 48104

The relevance and validity of scientific work, whether for the development of science or the solution of social problems, is often difficult to judge, especially on a contemporary basis. The difficulty is even greater in the early stage of a proposal to do research.

There is an arrogance in claims to make such judgments authoritatively on ideological grounds or otherwise ex cathedra—an arrogance which is at the same time in conflict with scientific humility and the history of science. Nevertheless, it is true that many scientists must regularly make such painful judgments about their own work. Persons, committees, and institutions which allocate funds, make appointments or select papers do make contemporary choices. Are they wise? Are they politically or ideologically motivated or are they "unbiased"? Are they too often in "error"? (Error, irrelevance, wastage are inevitable in free scientific work to some degree. The important question in the end is how much work is poorly done, invalid or "irrelevant" and how much first-class relevant work is discouraged.)

On the basis of thirty years of work in the field of demography, I advance some observations which may be pertinent to these problems in the field of demography:

1. The most important basis for judging the scientific relevance of a piece of research is the extent to which its findings or methodology have implications for other aspects of the system of socio-demographic relations.

A trivial finding is one that leads nowhere; it has no wider implications; it raises no new questions. Unfortunately, the history of science provides many examples of findings that at first seemed trivial and later turned out to be of great importance, either in the light of later developments or because of connections just not perceived initially.

The basic ideas of stable population analysis languished for many years, were kept alive by a few scholars, and were generally regarded as technical gimmicks with which games could be played by the handful of scientific aficionados. In the last decade or so, stable population concepts have emerged as powerful tools for understanding basic aspects of demographic structure and change and for estimating demographic parameters in countries which have desperate scientific and social needs for knowledge of their populations.

For those who favor a "zero rate of population growth", stable population analysis has great relevance in understanding both the necessary demographic prerequisites and consequences. I find that many of the youthful zealots in this social movement are unaware of the fact that zero population growth means fewer of them (the young) and more of us (the older characters) albeit the current generation of young may "groove" to sweeter rhythms when they are senior citizens.

2. Scientific humility consists in making it possible for others to judge the merits of your work. This means making available as fully and openly as possible the methods, data, and reasoning which are behind the substance of the work.

The scientist's own statements of doubts, possible sources of error, "false" leads abandoned, etc. can be helpful. However, I believe that it is much more important that he publish his work in such sufficient detail so that others may find the error of procedure or interpretation of which the scientist himself may be unaware or whose importance he may misjudge.

In judging validity, relevance or merit, I am skeptical of the importance of knowing the scientist's values, motives, or support sources. Obviously, it is important to know about the rare cases of outright fraud. What most radical critics have in mind, however, is unconscious bias or, worse, self-interested, craven obedience to institutional pressures. Such allegations (even if they were true) would be difficult to document with evidence. Therefore, they tend to be windy, blanket ideological indictments. In any case I believe that the motives of the scientists are not only difficult to unravel but are irrelevant except for the serious student of the sociology of knowledge. The real question is: what is the quality of the work done and what is its relevance for the body of knowledge in the field? Checking, replication, and testing the work and its implications are eminently feasible in a field like demography. I believe that is where the work should go.

A good case in point is the recent work by Bumpass and Westoff on the number of "unwanted births" in the United States for the period 1960-65 (*Science*, September 18, 1970, vol. 169). Their work bears directly on the issue of whether there is a significant number of births which would be averted if there were "better" birth control services. The work was supported by a federal agency which has been accused of having an "establishment" bias toward what some consider a futile "family planning" approach to the problems of population change. Both the findings themselves and their implications are open to controversy. That is just the point. The open publication of these results and the questions and methodology behind them permits a vigorous discussion and further research on an important scientific and social problem. Do the questions asked yield valid responses? Can they be replicated? Do the assumptions made in projecting the results to a national population stand up to a critical review? Do the interpretations about the meaning of the data for fertility in a "perfect contraceptive society" flow from the data and results or do they require untested assumptions?

3. Demographic work that is scientifically relevant is likely to be socially relevant, too.

Demographic facts and relationships which have repercussions elsewhere in the socio-demographic system almost inevitably are pertinent to social and economic processes of change. Scientific relationships are found where systems are in motion or in change. That is where problems reside. I cannot think of any demographic relationships of scientific relevance which do not also have social relevance.

4. In the United States I believe that qualified investigators can almost always get support for demographic research, irrespective of their political or scientific ideology.

This assertion is based on my many years of service as a reader or panel review member for foundations, government agencies, professional associations, and journals. For at least a decade we have been in a "seller's market" in demography. There is an acute shortage of minimally reasonable applications for the available funds. This results partly, I believe, from the small number of demographers and demographic centers developed in the past. It may also partly be due to the misperception of some young investigators that the "establishment" will not consider applications from those without a known record of work. My observation is quite the opposite: the application of a bright young "unknown" which states a problem clearly and indicates some reasonable plan to work on it is likely to get both a hearing and an award. Discovering that kind of rare talent is rewarding and a "jewel" in the crown of either reviewers or financing agencies.

In my experience the great majority of "rejected" applications are those which are so poorly written and detailed as to indicate that the applicant probably is not technically competent to carry out the project. Similarly, in my experience rejected journal articles are likely to be technically grossly deficient, trivial repetitions of work already done, or, less often, policy diatribes rather than scientific reports or reasoned analyses. Obviously, I can claim no complete knowledge of all applications and manuscripts. It is very likely that there have been errors of judgment and even petty injustices, given the frailties of people and institutions. However, the demographic field is still small enough so that such matters are likely to become known. I am unaware of any individual, institution, or set of problems which have been systematically excluded from the sources of funding or publication.

I am prepared to assert that the United States leads the world in the number of well-trained demographers, in the range of subjects they cover, in the contributions made to the science of demography, and in the opportunities for innovation and for young people to make their mark.

5. Some critics assert that the Foundations (e.g., Rockefeller, Ford, and Population Council) "biased" the field by an overemphasis in "family planning". While the emphasis is undeniable, I find little evidence that it is malevolent or necessarily ill-advised:

a. Contacts with leading officials of all of these organizations leave me with the conviction that almost none of them believe that "family planning" is a substitute for development or that major changes in population trends are likely to result from family planning programs alone. In this respect I find them much more open minded than many of their critics who appear to know dogmatically what will work on the basis either of the projection of historical experience which may not be relevant or of simple ideological assertion.

b. The assertion that such organizations either through malevolence or ignorance use "family planning" to divert attention from more fundamental needed social and economic changes is just that--an assertion. I know of no evidence that they have that intention or that they are powerful enough to have that effect inadvertently.

c. My personal experience has been that research in the area of family planning meets an important social need and at the same time creates research instruments and personnel for research on a wide range of other important social and economic and demographic trends importantly related to fertility and family planning.

d. Bringing family planning to families that want it seems to me to be a perfectly legitimate and humane endeavor, worthwhile in itself, and at the same time, a plausible means for rapid demographic change, when other conditions increase the demand for lower fertility. Of course, if one takes the position that any "palliativos" retard desired "revolution", then anything done for the welfare of people in developing countries (including health programs) is undesirable. I regard such a position as both immoral and politically naive.

e. My observation is that the funding agencies are ready and eager to support research that goes "beyond family planning". They may not be as imaginative as they should be in finding ways to do that. I do not find their critics very imaginative in coming up with proposals that could be funded. Unfortunately the problem is not very simple, and there are few geniuses at work on the problem, either inside or outside the establishment.

f. Quite apart from the work on family planning, there is more support for demographic research and training than ever before. The foundations and the Government deserve some credit for that.

8. The University of Michigan Population Studies Center, which I know best, has had substantial basic support from the Ford Foundation for almost a decade now, with the explicit understanding that it is free to choose to work in any aspect of the field of population studies. Some of us have chosen to work on problems in the field of fertility and family planning. No doubt this pleases our sponsor. But, we have been under no pressure to do that in general or specifically. A very significant part of our activity has no direct connection with such specific objectives.

6. The foundations and government funding agencies make many errors of judgment, policy, and administration, but I doubt that these account for the direction which research is taking and its relevance or irrelevance.

No doubt these agencies employ a number of fools. I have known some, and I have trained some. I'm not able to say whether their proportion of fools is greater than that in the demographic or population studies field taken as a whole.

I have suffered, along with others, from what strikes me as undue bureaucratic delays, confusion, and frustrating requirements. I have proposed that one solution would be that established investigators should be funded with minimal application requirements or supervision--with the test being the production of research products that meet the scrutiny of experienced peers before the next grant is made. However, such a policy might rigidify the control of "establishment types" (like me) and work against the young investigators with new ideas. However, university centers need not have such rigidities if provided with basic funds for a period of years. Unfortunately, the formula for flexible and free administration of large funds is not immediately apparent.

The publishers of Concerned Demography have decided to attack inflation at home. Subscriptions will remain at \$2.00 for individuals, be they faculty, students, bureaucrats, rich or poor. Institutional subscriptions (libraries and the like) will rise to \$3.00. (If you have already subscribed for the coming year, it has been recorded for the regular issues.) There will never be another bargain like this again, so mail this stub in today too.

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IS THE OLDER AGE DISTRIBUTION OF A STATIONARY POPULATION NECESSARILY A "NON-NEGOTIABLE COST"?

Deborah Oakley

Center for Population Planning, American University, Washington, D.C.
Council on Population and Environment

It is generally believed that the higher median age achieved in a stationary United States population would be an undesirable concomitant of a zero rate of population growth. While it is true that the median age would be higher than it now is, it is an unsubstantiated claim, consistent with our society's denigration of old age, that this higher median age would incur net costs.

The evidence generally marshalled to show such costs includes political and psychological research that older people, under current conditions, tend to be more conservative. Also it is alleged that an individual's chances of promotion within the economic system would be hampered. Further, technological advance would be endangered, according to some, because the pool of newly trained workers would be a smaller percentage of the total working force.¹

However, if we are to make decisions on whether an aging, or an older, population is actually a non-negligible cost of a stationary population, as Ansley Coale has asserted,² we must conduct a more complete analysis of the role played by values, attitudes and institutional arrangements in determining whether a rising or a declining median age is beneficial or detrimental. This paper is not an exhaustive consideration of all the variables and all the interactions, but I hope a few useful points are made.

First, we can probably all agree that having a "young" population is not necessarily good. The dependency burdens of very young age distributions are clearly not making economic development any easier in many less developed countries. Nor can we say with any certainty that the current median age in the United States of 27.7 is necessarily good (or bad) for economic growth, social stability, or the individual's quality of life. We might agree that all of these depend on many factors other than the median age of the population.

A lower median age, of course, is no insurance against conservatism. The most

tradition-oriented societies have age distributions heavily weighted with youth. Our current political scene seems to indicate that even an increasing percentage of 20-30 year olds does not provide immunity to conservatism in politics. The question really is whether a lower median age than that of a stationary population would be less prone to conservatism. To find an answer we should establish criteria for affixing the label of conservatism: such as type of political regime in power, degree of local participation in decisions affecting individual lives, social mobility and many others. So far as I know, we do not know precisely the interrelationship of age and social and political structures in various cultures. We can point to examples, such as Sweden, where the median age is over 34 years as compared to the current U.S. 27.7 and a Series X projection for the year 2037 of 37.3. Neither the politics nor the technology seem to suffer from conservatism in Sweden. If we wanted to extrapolate from such examples and not go to the work of collecting the needed data, we probably would conclude that political traditions, economic institutions, mores and other such factors will have a greater effect on the degree of "conservatism" than age structure would have.

However, the age composition may have indirect effects that would be more significant, even at the intermediate median age we are now experiencing in the U.S. As one example, our educational system has responded to the needs of a population with a large proportion of young people, so that education is concentrated in the ages under 25. If, however, we had an older population, plus the needs of a continually changing technology, it is entirely possible that we could fashion an educational system that continued throughout life; as a byproduct of re-vitalizing skills it might successfully challenge ossification of political and social attitudes. We already have several models for such a system: the periodic exposure of top business executives to academia; in-training seminars; the return of women to education and to the labor market after a few years at home. Some may feel that such a restructuring of education would be a real, calculable, and net cost of achieving a stationary population. Others would point out that businesses calculate noticeable returns for their investments in executive education and that society seems to benefit from the return of women to the working force.

Still it may be true that there is some threshold below and above which society cannot easily adjust to the age composition of its population. There is some indication that too young a population, under certain economic conditions, may be costly. For some idea as to whether the projected age structure of a stationary U.S. population would be costly, we may look at the current distributions of age groups in Sweden and the United Kingdom.

AGE STRUCTURES OF SWEDEN, UNITED KINGDOM AND
UNITED STATES, COMPARED WITH SERIES X PROJECTION

Country	% Under 15 Years of Age	% 65 Years and Older
Sweden (1967)	21.0	13.1
United Kingdom (1966)	23.4	12.6
United States (1968)	29.7	9.5
Series X U.S. 2037	20.2	16.0

Whatever attractions or disadvantages life may have in Sweden and the United Kingdom, we probably would say that their history and their cultures have considerably more effect on current practices than the particular age structure they are now experiencing. This is not to say that age composition has no effect, or that its effect on social institutions will not increase with time once age structure is stabilized. Clearly, however, we may surmise that an age composition somewhat older than our own is not necessarily disastrous; and whether it alone entails costs that are separate from historical traditions and institutionalized social values has not yet been definitively ascertained.

The effects of a particular age composition may arise not from the actual median age or from the distribution, but from the process of changing the age structure. I have already pointed out the educational changes that might be needed to maintain technological modernism. For a clue as to whether a changing age composition necessarily entails undesirable costs, or net costs, let us look at the change in median age already experienced in the United States.

In 1870 the median age was 16.2 years. By 1950 it had climbed to 30.2, an increase of exactly 14 years. In 1970 the median age is 27.7, and the projected level in Series X of the recent Census Bureau projections for 2037 is 37.3, an increase of less than 10 years in approximately the same time span. We have dealt with an increasing median age before, and probably can do so again, especially over the

years required to move from replacement reproduction to zero population growth.

MEDIAN AGE IN THE UNITED STATES 1820-2037⁴

Year	Median Age	Projections		
		Series D	Series E	Series X
1820	16.7			
1830	17.2			
1840	17.3			
1850	18.0			
1860	19.4			
1870	20.2			
1880	20.9			
1890	22.0			
1900	22.9			
1910	24.1			
1920	25.3			
1930	26.5			
1940	29.0			
1950	30.2			
1960	29.2			
1970	27.7			
1980		29.0	29.3	29.4
1990		30.8	31.6	31.7
2000		32.0	34.0	34.3
2020		32.6	36.0	36.4
2037				37.3

It would be difficult to argue that the vast economic growth of the United States in the 19th century was slowed by a rising median age. It could in fact be theorized that a rising median age in the years ahead would be valuable: with the accelerating pace of social and technological change,⁵ it might be a good thing if a higher proportion of the population were older and had gained the power of decision making.

A question that needs investigation is whether the proportion of decision makers (managerial, economic, social, etc.) in any given age group is a function of the age structure or of the technology, or of some other factors. Coale has argued that it might be harder to get a promotion within the economic system because larger proportions of the population would be in the competing age groups. I would tend to believe that the total number of decision-making positions available, and whether or not they are a constant proportion of a given age group, probably depends more on factors like technology than on the age structure. Also, we cannot ignore the fact that with each year that a zero rate of population growth is delayed, we have more people, but not necessarily equivalent increases in the number of supervisory and executive jobs.

In emphasizing the median age as an important indicator of population composition, writers may have been using an inappropriate summary measure. Let us look, for example, at the percentage of the total population that is 20-64, or to lessen the damping effects of such a large portion of the population, the percentage of the population 35-59 years or age.

U.S. POPULATION IN THE PRODUCTIVE AGES 20-64 AND 35-59 1900-2037⁶

Year	% 20-64 Years			% 35-59 Years		
	Series D	Series E	Series X	Series D	Series E	Series X
1900	51.3			17.1		
1920	54.1			26.5		
1940	58.5			30.3		
1960	52.3			29.6		
1970	52.4			27.5		
1980	55.7	56.2	56.1	26.0	26.2	26.3
2000	56.5	58.9	58.7	32.3	34.0	34.1
2020	56.4	58.6	58.5	29.6	31.9	31.9
2037			57.1			31.7

The increase in median age to be expected after 1970 seems to be largely the result of the change in the composition of dependency. At the current time the major share of total dependents in the United States is composed of people under 20 years of age. In a stationary population, the two types of demographically defined dependents will be more nearly equal. The total proportion of dependents in the population will be slightly lower in a stationary population than it is now.

Such an analysis indicates that the age structure of a stationary population might yield substantial savings, in at least governmental expenditures.⁶ This would be especially true in the transition to zero population growth from replacement or below-replacement level reproduction because the proportion of youth would decrease, while the percentage of older people would not increase substantially right away. The net costs to society involved in savings from the reduction in the percentage of youth vs. increased costs from care of a larger proportion of older people should be thoroughly investigated. (The projected costs for those over 65 would be reduced if our medical care system is able to deliver more adequate preventive care.)

In the past it seems that many people have adopted the attitude that achieving and maintaining a zero rate of population growth would be a rather bitter pill for society. It must be done, they have admitted, because it is inevitable or

because it may ultimately save society from chaos or from a deteriorating quality of life. I have tried to show in this informal article that the age structure implied by a stationary population in the United States, entirely apart from the methods used to achieve the condition of zero population growth, may be a desirable concomitant of zero population growth rather than a costly by-product. If it is simply stated that the costs are high, we tend to discourage investigation of whether the per costs are high; and we tend not to examine what the costs and benefits of a change in the age structure actually are, who will bear the costs, and how the benefits will be distributed.

Finally, to state that a higher median age runs the risk of imposing conservatism on a society is to ignore the many other forces molding our social, political and economic institutions. The task of demographers and sociologists to isolate the effects of the important demographic factors under various conditions of population size, population distribution, population growth and resource availability is far from finished!

FOOTNOTES:

1. Coale, Ansley, "Low U.S. Birth Rate Not Entirely Desirable," University: A Princeton Quarterly, Winter, No. 19, 1968-1969.
Coale, Ansley, "Man and His Environment," Science, Vol. 170, No. 3954, 9 Oct. 1970, pp. 132-136.
2. Coale, "Man and His Environment,"
3. United Nations Demographic Yearbook, 1968.
Bureau of the Census, "Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex (Interim Revisions): 1970 to 2020," Series P-25, No. 448, August 6, 1970.
4. Bureau of the Census, op. cit.
Bureau of the Census, Historical Statistics of the United States: Colonial Times to 1957, Washington, D.C., 1961, Series A 54-54, p. 11.
5. Platt, John, "What We Must Do," Science, Vol. 166, Nov. 28, 1969, pp. 1115-1116.
6. Enke, Stephen, "Zero U.S. Population Growth - When, How and Why," Tempo, General Electric Co., Center for Advanced Studies, Santa Barbara, California, 1970.

IS THE OLDER AGE DISTRIBUTION OF A STATIONARY POPULATION NECESSARILY A
"DEMOGRAPHIC CURSE"?

Deborah Oakley

Center for Population Planning, Amsterdam, January 1980
Council on Population and Environment

It is generally believed that the higher median age achieved in a stationary United States population would be an undesirable concomitant of a zero rate of population growth. While it is true that the median age would be higher than it now is, it is an unsubstantiated claim, consistent with our society's denigration of old age, that this higher median age would incur net costs.

The evidence generally marshalled to show such costs includes political and psychological research that older people, under current conditions, tend to be more conservative. Also it is alleged that an individual's chances of promotion within the economic system would be hampered. Further, technological advance would be endangered, according to some, because the pool of newly trained workers would be a smaller percentage of the total working force.¹

However, if we are to make decisions on whether an aging, or an older, population is actually a non-negligible cost of a stationary population, as Ansley Coale has asserted,² we must conduct a more complete analysis of the role played by values, attitudes and institutional arrangements in determining whether a rising or a declining median age is beneficial or detrimental. This paper is not an exhaustive consideration of all the variables and all the interactions, but I hope a few useful points are made.

First, we can probably all agree that having a "young" population is not necessarily good. The dependency burdens of very young age distributions are clearly not making economic development any easier in many less developed countries. Nor can we say with any certainty that the current median age in the United States of 27.2 is necessarily good (or bad) for economic growth, social stability, or the individual's quality of life. We might agree that all of these depend on many factors other than the median age of the population.

A lower median age, of course, is no insurance against conservatism. The most

tradition-oriented societies have age distributions heavily weighted with youth. Our current political scene seems to indicate that even an increasing percentage of 20-30 year olds does not provide immunity to conservatism in politics. The question really is whether a lower median age than that of a stationary population would be less pione to conservatism. To find an answer we should establish criteria for affixing the label of conservatism: such as type of political regime in power, degree of local participation in decisions affecting individual lives, social mobility and many others. So far as I know, we do not know precisely the interrelationship of age and social and political structures in various cultures. We can point to examples, such as Sweden, where the median age is over 34 years as compared to the current U.S. 27.7 and a Series X projection for the year 2037 of 37.3. Neither the politics nor the technology seem to suffer from conservatism in Sweden. If we wanted to extrapolate from such examples and not go to the work of collecting the needed data, we probably would conclude that political traditions, economic institutions, mores and other such factors will have a greater effect on the degree of "conservatism" than age structure would have.

However, the age composition may have indirect effects that would be more significant, even at the intermediate median age we are now experiencing in the U.S. As one example, our educational system has responded to the needs of a population with a large proportion of young people, so that education is concentrated in the ages under 25. If, however, we had an older population, plus the needs of a continually changing technology, it is entirely possible that we could fashion an educational system that continued throughout life; as a byproduct of re-vitalizing skills it might successfully challenge ossification of political and social attitudes. We already have several models for such a system: the periodic exposure of top business executives to academe; in-training seminars; the return of women to education and to the labor market after a few years at home. Some may feel that such a restructuring of education would be a real, calculable, and net cost of achieving a stationary population. Others would point out that businesses calculate noticeable returns for their investments in executive education and that society seems to benefit from the return of women to the working force.

Still it may be true that there is some threshold below and above which society cannot easily adjust to the age composition of its population. There is some indication that too young a population, under certain economic conditions, may be costly. For some idea as to whether the projected age structure of a stationary U.S. population would be costly, we may look at the current distributions of age groups in Sweden and the United Kingdom.

AGE STRUCTURES OF SWEDEN, UNITED KINGDOM AND
UNITED STATES, COMPARED WITH SERIES X PROJECTION

Country	% Under 15 Years of Age	% 65 Years and Older
Sweden (1967)	21.0	13.1
United Kingdom (1968)	23.4	12.6
United States (1968)	29.7	9.5
Series X U.S. 2037	29.2	16.0

Whatever attractions or disadvantages life may have in Sweden and the United Kingdom, we probably would say that their history and their cultures have considerably more effect on current practices than the particular age structure they are now experiencing. This is not to say that age composition has no effect, or that its effect on social institutions will not increase with time once age structure is stabilized. Clearly, however, we may surmise that an age composition somewhat older than our own is not necessarily disastrous; and whether it alone entails costs that are separate from historical traditions and institutionalized social values has not yet been definitively ascertained.

The effects of a particular age composition may arise not from the actual median age or from the distribution, but from the process of changing the age structure. I have already pointed out the educational changes that might be needed to maintain technological modernism. For a clue as to whether a changing age composition necessarily entails undesirable costs, or net costs, let us look at the change in median age already experienced in the United States.

In 1970 the median age was 20.2 years. By 1990 it had climbed to 30.2, an increase of exactly 10 years. In 1970 the median age is 27.7, and the projected level in Series X of the recent Census Bureau projections for 2037 is 37.3, an increase of less than 10 years in approximately the same time span. We have dealt with an increasing median age before, and probably can do so again, especially over the

years required to move from replacement reproduction to zero population growth.

MEDIAN AGE IN THE UNITED STATES 1820-2037⁴

Year	Median Age	Projections		
		Series D	Series E	Series X
1820	16.7			
1830	17.2			
1840	17.8			
1850	18.9			
1860	19.4			
1870	20.2			
1880	20.9			
1890	22.0			
1900	22.9			
1910	24.1			
1920	25.3			
1930	26.5			
1940	29.0			
1950	30.2			
1960	29.2			
1970	27.7			
1980		29.0	29.3	29.4
1990		30.8	31.6	31.7
2000		32.0	34.0	34.3
2020		32.8	36.0	36.4
2037				37.3

It would be difficult to argue that the vast economic growth of the United States in the 19th century was slowed by a rising median age. It could in fact be theorized that a rising median age in the years ahead would be valuable: with the accelerating pace of social and technological change,⁵ it might be a good thing if a higher proportion of the population were older and had gained the power of decision making.

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In emphasizing the median age as an important indicator of population composition, writers may have been using an inappropriate summary measure. Let us look, for example, at the percentage of the total population that is 20-64, or to lessen the damping effects of such a large section of the population, the percentage of the population 35-59 years of age.

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Such an analysis indicates that the age structure of a stationary population might yield substantial savings, in at least governmental expenditures.⁶ This would be especially true in the transition to zero population growth from replacement or below-replacement level reproduction because the proportion of youth would decrease, while the percentage of older people would not increase substantially right away. The net costs to society involved in savings from the reduction in the percentage of youth vs. increased costs from care of a larger proportion of older people should be thoroughly investigated. (The projected costs for those over 65 would be reduced if our medical care system is able to deliver more adequate preventive care.)

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because it may ultimately save society from chaos or from a deteriorating quality of life. I have tried to show in this informal article that the age structure implied by a stationary population in the United States, entirely apart from the methods used to achieve the condition of zero population growth, may be a desirable concomitant of zero population growth rather than a costly by-product. If it is simply stated that the costs are high, we tend to discourage investigation of whether the net costs are high; and we tend not to examine what the costs and benefits of a change in the age structure actually are, who will bear the costs, and how the benefits will be distributed.

Finally, to state that a higher median age runs the risk of imposing conservatism on a society is to ignore the many other forces molding our social, political and economic institutions. The task of demographers and sociologists to isolate the effects of the important demographic factors under various conditions of population size, population distribution, population growth and resource availability is far from finished!

FOOTNOTES:

1. Coale, Ansley, "Low U.S. Birth Rate Not Entirely Desirable," University: A Princeton Quarterly, Winter, No. 9, 1968-1969.
Coale, Ansley, "Man and His Environment," Science, Vol. 170, No. 3954, 9 Oct. 1970, pp. 132-136.
2. Coale, "Man and His Environment,"
3. United Nations Demographic Yearbook, 1968.
Bureau of the Census, "Population Estimates and Projections: Projections of the Population of the United States, by Age and Sex (Interim Revisions): 1971 to 2020," Series P-25, No. 448, August 6, 1970.
4. Bureau of the Census, op. cit.
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5. Platt, John, "What We Must Do," Science, Vol. 166, Nov. 28, 1969, pp. 1115-1116.
6. Enke, Stephen, "Zero U.S. Population Growth - When, How and Why," Tempo, General Electric Co., Center for Advanced Studies, Santa Barbara, California, 1970.

OBSERVATIONS ON POPULATION*

Otis Dudley Duncan
Population Studies Center, University of Michigan
Ann Arbor, Michigan 48106

1. There is hardly any social problem confronting this Nation whose solution would be easier if our population were larger. There are few, if any, sectors of the economy whose efficiency would be greater if numbers were larger than they are now.
2. In the long run, population growth must come to a halt. We occupy a modest, though exceptionally well-endowed, fraction of a finite planet. For all we know to the contrary, our present population may already be larger than the equilibrium size that can be sustained at our present level of living over the indefinite future.
3. There is really only one argument, then, against a policy tending to reduce growth to zero as quickly as it may be feasible to do so. The argument is that it may be less agreeable to us (the present tenants of the United States) to attempt to reach this goal than it would be to leave that task to our descendants. Such an argument is unworthy.
4. Except under conditions that we would not wish to tolerate for other reasons, some substantial further growth of U. S. population is virtually inevitable. The reason is that our population's history of past growth has left us with an age distribution that has an excess of persons in the reproductive ages, relative to their proportions in a stationary population. There will be a lag of some two-thirds of a century between the time when fertility falls to a replacement level and the time when growth actually stops.
5. Although the eradication of the goal of zero growth is urgent in the immediate future, we cannot expect large, immediate payoffs in amelioration of social problems from implementation of a zero growth-policy. The first reason is that it is probably not feasible to attain a stationary population no greater than the present one; some substantial further growth is almost unavoidable under the best of circumstances. Second, while many social problems are clearly exacerbated by increasing population size, the immediate causes of most of these problems do not reside in population size per se. Perhaps it is best to think of population growth as an intensifier of social problems. Automobiles, not people as such, cause air pollution. But for a given ratio of cars to people, the more people, the more pollution. We shall have to do more than limit population size to solve the pollution problem, but limiting population size would be a distinct help. A parallel analysis holds for other problems. In particular, it appears that many of our problems are consequences of the concentration of population in metropolitan areas. We will not solve metropolitan problems solely by limiting population size; but if we could limit size it would surely help with some of those problems.

*Extract from a statement to a Special Committee of the Michigan Senate to Study the Impact and Trends of Population Growth, October 15, 1970.

6. The population problem, per se, is thus a "long-run" problem, but it is no less urgent on that account, for the solution must likewise be a long-run solution. Postponement of the day of reckoning will not render the reckoning less painful -- quite the contrary. The very fact that the solution will be a long time in coming attests to the need to get on with it at once.

7. With mortality apparently under control and immigration subject to legal regulation, the decisions that determine the rate of population growth are primarily those of women and married couples with respect to procreation. Some fraction of the production of offspring that occurs in the United States is no doubt involuntary in the sense that it reflects ignorance of birth control techniques, their careless application, or moral scruples against their use. The size of this fraction is unknown. Nevertheless, it is quite probable that the greater part of the excess of fertility over the rate required for population replacement is not involuntary but is rather due to the fact that the number of children desired (on the average) is greater than the number required for replacement. If this observation is correct -- and it is subject to both uncertainty and controversy -- then a policy to reduce fertility to the replacement level cannot be fashioned solely out of programs to disseminate information and improve access to birth control techniques. Instead, it must include measures that alter the incentives for childbearing. This is easier to say than do, and demographers know almost as little as anyone else about how to do it.

8. Implicitly, one tends to rule out compulsion as a means of affecting decisions on family size. But, in fact, one form of legal compulsion -- albeit in the wrong direction -- is now practiced. This consists in compelling a woman who conceives to deliver, or rather, it consists in denying her the legal opportunity to decide otherwise. It may be argued that legalized abortion would work like other forms of birth control, to wit, that while it would forestall involuntary childbearing it would not of itself alter the number of children ultimately desired. Yet there is one crucial difference between abortion and all forms of contraception: the woman gets the chance to have "second thoughts" after conception occurs. For a period of time, albeit a limited one, she can consider whether it is really a prudent and humane decision to bring another human being into this world. Experience with legalized abortion in other countries suggests that the second thought tends in a significant proportion of cases to lead to a different decision than even careful forethought.

9. Many couples do, of course, desire a home peopled with children. But attainment of this goal does not require that the wife bear the children. The growing practice of legal adoption could no doubt be significantly encouraged by appropriate legislation and incentives. It need not be assumed that only children born out of wedlock or to utterly improvident women would be available for adoption. In a slightly altered social climate -- and an alteration could come quickly if widespread discussion of the topic were stimulated -- many children could come to have adoptive as well as biological parents for the mutual benefit of all concerned.

10. As compared with such specific measures as the legalization of abortion

and the encouragement of adoption as an alternative to childbearing, many analysts place most faith in a broad spectrum strategy of altering women's social roles to the end of making alternatives to procreation desirable to them. For too many women, the only tangible accomplishment of a lifetime is to produce offspring. If other opportunities for socially appreciated achievement were to become more salient, fewer women would be bearing children for lack of something better to do.

11. Although we do not know what programs and measures can actually do the job of bringing about a stationary population, the clear statement of the policy goal should not be delayed. The American people do not now clearly understand the relationship between personal reproductive behavior and national population growth, and they do not fully appreciate the social and personal liabilities of further population growth. It may well take some time and considerable effort to educate them. Because of our low mortality rates, some 97 per cent of female babies can be expected to survive to the average age of childbearing (about 27). According to our current and prospective vital statistics, of each 2050 babies born, 1050 are male and 1000 are female, so that if the 1000 females in turn give birth to $2050 / .97 = 2110$ babies, replacement is assured. If each woman, on the average, has significantly more than 2.1 babies during her reproductive cycle, then population will continue to grow indefinitely. The logic of this arithmetic has inspired some college women recently to "sign the pledge" not to have more than two children. Of course, a few women never marry, and a few of those who do are physiologically unable to bear children. Taking this into account, it can be estimated that the replacement level of reproduction amounts to 2.47 births per second married woman. Thus, if just over one-half of all women had no more than two children and the remainder only three, their fertility would be enough to secure population replacement. But the American people today do not accept an average of 2.47 as an ideal family size. Instead, as reported by public opinion polls, a heavy majority prefer families of three or more children. If the decision as to family size is to be left to the individual couple, as all believers in liberty will presumably agree that it should, then an enormous job of educating couples as to their social responsibility remains to be done. To begin with, the most prestigious symbols of our society should be mobilized on the side of the proposition: Two is enough!

12. Americans easily see how rapid population growth threatens the political stability, economic growth, and sheer survival of the vast numbers in so-called developing nations. As a matter of national policy, we have for some time stood ready to aid these nations in programs of population control. If we are to retain any shred of credibility for our high motives in holding to this policy, we shall have to show that we mean business about controlling our own growth.

13. The year 2000, though selected for symbolic reasons, will serve for a few more years as a convenient reference point for statements of long-term goals. Our population will undergo further increase by the year 2000, though the magnitude of the increase is modifiable within limits. As of the year 2000, the Nation will still have to face the prospect of continued growth for some period. But a policy of aiming toward stationary size could be measurably along toward realization -- the goal could be within sight by the year 2000 -- if that policy were convincingly stated and pursued with determination and tenacity beginning in the early 1970's.

14. We have no choice as to whether population growth will ultimately come to a halt. We may have some choice as to when this will occur and whether it will occur as a consequence of prudence or of disaster.

Selected Projections of U.S. Population Size:
1970-2070

[in millions]

Year	Contin- uous "high" growth	Contin- uous "low" growth	Replac- ment level after 2020	Replac- ment level at once
	(1)	(2)	(3)	(4)
1970	205	205	205	205
1980	246	228	232	220
1990	296	256	260	236
2000	357	283	287	250
2010	435	311	315	263
2020	527	342	339	273
2030	639	376	359	280
2040	774	414	373	281
2050	937	455	382	280
2060	1,135	501	388	280
2070	1,374	551	390	280

Sources and assumptions:

Cols. (1) and (2) involve rough but minor adjustments of Census Bureau A and D projections. A assumes fertility stabilizes at 3.35 births per woman, D at 2.45. Figures for 2020-2070 are extrapolations from Census Bureau projections at growth rates attained by 1990-2015. (U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 391, 1967.)

Cols. (3) and (4) involve rough but minor adjustments of T. Frejka's projections 11 and C. Projection 11 assumes fertility decreases gradually to replacement level (2.1 births per woman) by 2020, while C assumes this occurs quickly after 1970.

(Tomas Frejka, "Reflections on the Demographic Conditions needed to Establish a U.S. Stationary Growth Rate," Population Studies, 22: 379-397, November 1968.)

THE POLITICAL ECONOMY OF ZERO ECONOMIC GROWTH

Paul Gingrich

Department of Economics, University of Michigan, Ann Arbor, Mich. 48104

Most of the history of economic thought has been dominated by the idea that increased growth rates are the goal, though not the inevitable result, of any economic system. Writers such as Malthus, Ricardo and Keynes feared that the growth rate of total output in the economy would eventually fall, perhaps approaching zero in the long run. In recent years American and European economists and politicians have been preoccupied with the idea of achieving faster growth of GNP. This is viewed as a solution for a variety of social and economic problems ranging from poverty to ideological competition with the Soviets.

What is not generally realized is that many of society's problems are a result of this one-sided emphasis on growth. As long as expansion occurs and corporations seek profitable investment opportunities the problem of imperialism will continue. Alienation of workers and youth and the inequitable distribution of income and wealth result in large part because most emphasis is placed on an increase in material standards. The problems of congestion, pollution and even the fiscal problems of local, state and federal governments result from this same process.¹ Social scientists looking at these latter problems see each of them as separate issues. Fragmentation in the social sciences makes it difficult to see why growth within the monopoly capitalist system inevitably produces such problems.

This paper will focus on the ecology problem, to show how it is a result of this growth process and how any solution may depend on slowing or even stopping economic growth. Here zero growth is concerned with much more than zero population growth. While the failure to attain ZPG may be part of the problem, the basic problem will be seen to be the whole process of economic growth in developed capitalist nations.

In recent years the output of effluents has grown at an approximate annual rate of 7% (ie. doubling every ten years). Given such an exponential

growth within a limited environment, disaster could occur within a fairly short period of time.

Since effluents originate in the process of production, various methods of altering the production process have been proposed. The most common are: (1) laws limiting allowable pollution levels, (2) an effluent tax, (3) recycling of waste products and (4) slowing the economic growth which produced the effluents. As the ecology problem becomes more serious it is likely that all these solutions will be attempted. Laws will be passed and fines levied on polluters. Effluent taxes would tax producers emitting wastes. The tax would make it more expensive to produce pollution-prone goods and services, thus making consumption of these goods and services less desirable and at the same time encouraging producers to adopt pollution control devices.

The complexity of the problem would make it difficult to ensure no increase in wastes emitted into the environment. Even if (1) - (3) could take care of most of the wastes, the problem of growth will have to be faced sooner or later. Increasing percentages of the nation's productive facilities would need to be devoted to controlling the pollution created by these facilities. For example, chemical companies, already one of the main sources of pollution, also produce pollution control equipment. GNP growth has little meaning when much of the increase is devoted to cleaning up the mess caused by that growth in the first place.

This latter point is already true of large percentages of growth in industrial nations. Services formerly done in the home are now incorporated into the capitalistic sphere or are becoming public services. Growth of output thus becomes made up of goods and services which can be produced in the private sector for profit or goods and services provided by the public sector often in order to service the interests of capitalists (e.g. the military industrial complex). It becomes questionable whether growth beyond a certain point represents any increase in the welfare of society.

An additional reason to emphasize the desirability of zero growth in advanced western industrial nations is connected with their role as imperialists.

ZPG in less developed countries is pushed by western population control experts. While increased population in these countries may make their development more difficult, per capita resource use is still small and population growth in these countries does not result in greatly increased use of the world's resources. However, the United States, with only 6% of the world's population, uses 30-50% of the world's raw materials, with projections running as high as 80% by 1980.² Growth of population and income in industrial nations results in huge amounts of the world's scarce resources being used by these nations. Growth of GNP and population in developed countries thus becomes one of the chief hindrances to the development of the third world.³

MEANING OF ZERO GROWTH

This paper is concerned mainly with zero growth of GNP in developed countries. In the long run zero population growth would have to be added to this in order to prevent living standards from falling.

During human history many economies and societies have been characterized by zero growth. This was probably true of China for several centuries and also of tribal societies. An economy with zero growth would have an old or aging population; the same would be true of its capital stock. There would be lessened flexibility in meeting shifts in demand and other external changes. It is always easier to satisfy new demands if an increased output of goods is available because no one need suffer a loss and the new output can be more widely shared. The hierarchical structures which result from growth would have a tendency to solidify and mobility would be lessened. Innovation and change would also be discouraged because this would upset the orderly patterns which prevail.

Traditionally, zero growth societies have been poor by our standards although not always the poorest societies known. Today practically every industrial country has the ability to solve the major food and health problems. The tendencies toward inflexibility noted in the previous paragraph might be overcome as well. For example, innovation could be encouraged so long as society ensured that total GNP or at least total output of pollutants did not increase. An input-output table might be constructed for the economy where the entries

would be wastes rather than outputs. In certain areas and industrial sectors of the economy growth could be allowed for some time so long as pollution and congestion did not become too severe in these areas.

Zero growth would mean that material goods are not completely abundant so the concept of scarcity would have to be reckoned with even in a communist or utopian society. Such a notion of scarcity, however, is very one-sided in its emphasis on material standards. A communist society would be characterized by a very different income distribution and entirely new methods of creation of demand. GNP would not be used as a measure of welfare because most of the material needs could be met. Most emphasis would be placed directly on the quality of life and the demand for better human and social relations.

THE TRANSITION PROCESS

Growth seems to be absolutely essential under capitalism, both for individual businessmen and for the economy as a whole. In fact, growth is forced on non-capitalist groups and societies coexisting in the same world with capitalism. This was true historically as the agricultural sector was invaded by capitalism. Now, socialist countries must grow in order to provide protection from capitalist aggression.

Under competitive capitalism growth occurred naturally, and without growth the economic system did not work well. During periods of slow growth there was unemployment, little innovation and much human suffering.

In order to understand the need for growth under competitive capitalism it is necessary to look at the role of profits. In an economy dominated by private ownership of the means of production profits are a return to people who offer unique services. If there is competition profits should disappear in the long run, since the unique services being offered by the original profit-makers can be duplicated and their profits would approach zero. If capitalists are to continue making profits they must continually innovate. This is done by offering a new product for sale or lowering costs by developing a new method of production. As long as there is private ownership there is always an inducement (or even a compulsion) to innovate because this will tend to prevent profits from falling

toward zero and will ensure the capitalist's survival. But this innovation is the main reason that capitalist economies have grown so rapidly. By constantly expanding markets through the creation of new demands and the development of new products and by developing new techniques of production with strong linkage effects capitalist economies grow rapidly.

Under monopoly capitalism there is still a strong compulsion toward growth. Here profits are no longer the key to this growth because a large percentage of the profits emerge merely because of monopolistic privileges. However, the large corporation is faced with various problems of survival and growth seems to be the easiest way to solve these problems.⁴ Some of this growth occurs at the expense of smaller firms, but, given the immense size of the largest corporations, any long run growth must involve innovation and development of new markets. Government fiscal and monetary policies are designed to create an economic environment favorable to corporate expansion besides ensuring high growth rates for the economy as a whole.

A capitalist economy can achieve zero growth through a stagnation process. This happened during the Great Depression. Obviously this is not the type of zero growth desired. Government intervention of some sort would be necessary to ensure no growth and also to coordinate plans of the various enterprises in the economy. Even Keynesian-type monetary and fiscal policies are unlikely to be adequate tools. The experience of recent years indicates that when growth is slowed high unemployment rates result, housing starts drop, etc. More specialized government tools would be needed to bring about desirable results.

In any year production can be divided into three parts: consumption goods, changes in the economy's capital stock (net investment) and government provision of goods and services. The latter can be divided into those government services which act like investment to increase growth rates and those which are essentially consumption items. In order for growth to be reduced to zero, net investment and the productive part of government services would both have to approach zero. The only investment that would take place would be replacement of worn out capital

goods. There would seem to be no general tools available to the government of a capitalist system to accomplish this reduction and at the same time allow the economy to operate close to full employment.

The main reason this cannot be accomplished in a capitalist system is that investment decisions are decentralized and financed mainly out of the profits of capitalists. If net investment is to approach zero, either profits must disappear or increased planning will be necessary in order to ensure that no businessman increased investment beyond replacement. In the latter case, when profits still exist, there are three possibilities: (1) vastly increased consumption by capitalists, (2) redistribution of income to workers and lower income classes, and (3) increased government taxation and provision of services. That is, total product must be used by someone in the economy in order to avoid recession. If total product is not consumed, businessmen will cut back on production and the economy will experience severe unemployment. (1) - (3) give the various uses to which profits might be put in order to ensure full employment.

In order to see what might happen imagine that a crisis situation begins to develop. Large amounts of wastes in the air mean death rates are climbing rapidly in urban centers. Steps will be taken to cut pollution levels in particular industries. If we can judge by the history of regulatory commissions, capitalists are not going to sit idly by and watch their profits disappear. What might result is a structure much like defense procurement or utility regulation where profit rates are assured by the government. This would likely encourage further concentration of industry.

In order to ensure profit levels, output would have to be sold. If profits were merely accumulated, consumption levels would be inadequate to ensure full employment. While capitalist's consumption would rise, it is likely that government would be forced to tax away a large part of the profits. In return the government would likely provide increased services for capitalists. Some redistribution of income would likely occur although too large a redistribution would be inconsistent with a system of private property rights.

If this tendency continued without opposition the economy would begin to approach a fascist system, i.e. increased government regulation in the interests of the capitalist class. Increased demands for redistribution would occur for several reasons. First, the functions now performed by the capitalists would have been assumed by government and profits now serve no function. Second, upward mobility of low income groups would be severely curtailed because upward mobility could only happen by displacing children of the rich. Third, other struggles could no longer be coopted by promising higher material standards. Fourth, the class structure would have become much more rigid and harder to justify. The state's role in maintaining this structure would become much clearer and thus would be subject to more attacks.

For these reasons it would appear that the society would have to move to a system of increased police controls to ensure the continuing power of capitalists. As the absurdity of guaranteed profit levels increased, the need for these controls would become greater. Thus the economy would move to a highly planned system with vast powers of control over all areas of life.

What are the alternatives? One that has been sketched is the idea that more and more people will drop out of society and begin to form countercommunities. But if these begin to grow they would probably be smashed as soon as they are seen as a threat to the system.

The other alternative would be a system of democratic socialism. It would not be easy to achieve this but given the drift toward fascism it would seem necessary to make demands on the system that push for socialism. If there was a move toward a slowing of growth, lower income groups would have to make demands for a real redistribution of income. The absurdity of profits in such a situation would mean demands to abolish profits and the capitalist class. Increased worker control would allow the redistribution to take place at the plant or firm level. Democratic control over work would seem to lessen alienation so some of the need to offset alienation through increased wage levels would disappear. While increased planning would be necessary, the type of planning that government would try to institute would have to be struggled against at the political level.

Social controls would be opposed because of the absurd situation of using profits, which should have gone to workers anyway, to control the people who might fight for an increased share of profits.

CONCLUSION

While the sketch given may seem very hypothetical it does have relevance for the situation that is likely to be faced by western industrial nations. The ecology movement will have to be faced seriously sooner or later. Many of the government actions already taken are similar to those described here. For people fighting to save the environment, the tendencies toward government intervention in favor of the capitalist class should be recognized and dealt with. To separate the solution to the environmental problem from the class nature in which decisions are made in capitalist nations would seem to be a serious error. This point has already been made by poorer groups in the United States who see the environmental issue as a rich persons issue. Demands to clean up the environment must be made. What this paper tries to point out is the need to connect these demands to demands for redistribution of income, wealth and power and demands for increased democratic control over production and consumption decisions.

FOOTNOTES

¹ James O'Connor, "The Fiscal Crisis of the State," Socialist Revolution, Vol. 1, No. 1 and 2.

² Paul R. Ehrlich and Anne H. Ehrlich, Population, Resources, Environment, Ch. 4.

³ Andre Gunder Frank, Capitalism and Underdevelopment in Latin America.

⁴ For a discussion of the problems faced by large corporations and how they attempt to solve them see Robert T. Aueritt, The Dual Economy.

THE POPULATION STUDIES CENTER, UNIVERSITY OF MICHIGAN

Located two blocks from the central campus on the second floor of a looming high-rise (which may yet receive an award for being the foremost engineering fiasco of the 60's), the University of Michigan Population Studies Center must be reckoned as one of the top demographic research and training institutions in the country. Among the names on the roster of the professional staff are some of the truly eminent personalities in the field of the scientific study of population. Those of the staff who hold academic appointments at the university are with either the sociology or economics departments, although in terms of numerical emphasis, sociology clearly dominates. This imbalance, characteristic of the field as a whole, is similarly reflected in the departmental affiliation of students. Of the thirty-seven graduate students who participated in the Center's apprenticeship program last year roughly two-thirds were drawn from the department of sociology. All students, including usually around half a dozen foreign students, are enrolled in programs leading to the M.A. or Ph.D. in these departments since the university offers no graduate degree in population studies or demography. While fulfilling departmental degree requirements, students will normally also take many of the eight or so courses offered in the population studies curriculum.

There are many aspects to being affiliated with the Michigan Population Studies Center which, from the student's point of view, are quite favorable. Student financial support is certainly adequate, the terms of the support being generally broken down into three parts: tuition payment, a monthly tax-free stipend and wages for the approximately twelve hours per week spent in fulfillment of the apprenticeship obligation. For a first-year student, the monthly stipend amounts to roughly \$200 per month and wages about \$2.10 per hour. Support is generally proffered on a nine-month basis but continued support either through the three summer months or for one-half of the summer is usually assured if desired by the student.

The Center has an impressive array of statistical programs on file, a standard and well-maintained suite of data processing equipment including a teletype terminal to the university computer, and a competent programming staff who readily assist students and staff alike in matters pertaining to use of the University's computing system. Rotary desk calculators are being gradually phased out and replaced with modern, high-speed, solid-state calculators.

The student apprenticeship program is one in which the Center takes pride - and perhaps justifiably so. While this type of program may be seen by some as amounting merely to maintenance of a cheap source of labor for performing mundane and repetitious calculations of the staff members' research (all for the glory of appearing in a footnote, "...statistical calculations were carried out by..."), closer examination will generally reveal that this is, in most instances, simply not the way it works out. The Center employs a small group of part-time help for the express purpose of performing just those kinds of routine tasks. Each apprentice, on the other hand, is assigned to one (usually his choice) of the professional staff members to enter into one of the on-going research programs at the Center. As the student proceeds in his graduate program the apprentice obligation becomes less structured so that by the end of the third year the student is working largely on his own, most likely on dissertation research. That this aspect of the program does not merely relegate the student to the status of statistical assistant and often leads to co-authorship of published papers is to the Center's credit and is, for the most part, responsible for its great effectiveness in training students in learning demographic skills and conducting independent

empirical research.

At the Population Studies Center there seems to be an established consensus among the professional staff as to what the boundaries of the corpus of the scientific study of population are. The boundaries are wide indeed. The sense of profession and scholarship is clearly communicated through formal class work and research training, through not quite so formal weekly brown-bag luncheon discussions, and more informally through daily interaction either on a group or one-to-one basis. There is clearly a concerted effort to socialize the students into the profession as the staff defines it.

And they carry out this task well. Certainly there is variability among students at the Center not only with respect to general political orientation but also with respect to the definition of a professional ethic, the appropriate role of the demographer in society and the ends to which their efforts in the study of human populations should be directed. Some would have aspirations of becoming full members of the establishment: an appointment to one of the leading centers for population research, accumulation of a massive bibliography of their own work and perhaps even eventual aspiration to the presidency of the PAA as it is now constituted. Others, perhaps, aspire to positions within the establishment from which change in the present structure of the PAA could be affected to make it more amenable to the exchange of ideas on the ideological and political implications of demographic research. (This is not to say that this is not already happening.) Still others might wish to use their methodological skill and substantive knowledge of population dynamics to further radical social change. But one doesn't have to spend much time around our Center to know that this third group is rather small.

While there is nearly unanimous interest (perhaps curiosity would be better) in what is taking place in the world of the Concerned Demographer, the Michigan Populations Studies Center is not a hotbed of political activism - or any other type of activism for that matter. To what extent this is a matter of selection (on the part of the students or on the part of the admissions committee) or formal socialization is not clear. In any case, many students at the Center, for better or for worse, are involved in the same kinds of projects which have been denounced by other Concerned Demographers as part and parcel of a U.S. elitist, imperialistic program of repression abroad.

Does this imply that there is a complete absence of any conflict at Michigan? Not exactly, but it might seem that way since student grievances are rarely formally brought to the attention of the Center director. There is nevertheless nearly unanimous and strong feeling among the students about certain aspects of the Population Studies Center that apparently run counter to the desires of the staff.

The protective and conservative nature of the staff at the Center was recently made marvelously evident when the Michigan Concerned Demography editorial staff was explicitly forbidden from using Center facilities for preparation of the current issue. This has included even use of Center space for organizational meetings.

Another focus for contention as seen by the students concerns use of the Population Studies Center library. The Center has a small non-circulating reference library which is maintained by a part-time professional librarian and which includes a rather nice collection of standard demographic source materials. But use is exclusively the privilege of Center personnel. For example, students at the Center for Population Planning who take population courses taught by the staff of the Population Studies Center are not allowed to use the PSC library even though the two Centers are located on the same floor of the same building, and in spite of the fact the PSC students are allowed use of the Population Planning library. This situation, however, is symptomatic of a larger problem which serves both as a point of sensitivity and a source of embarrassment to students of population at Michigan: the rather open antagonism which exists between the Studies Center and her sister Center for Population Planning across the hall. This is not a matter simply of sister rivalry, for the interests of the two centers are not overlapping but are indeed complementary. The distinct impression is that the staff (and perhaps the students, too) of the PSC see the Center for Population Planning as a dedicated group of pill-pushers and loop-inserters who understand neither the rationale nor the techniques of demographic methods. On the other hand, it seems that the staff (and also, perhaps, some students) of the Center for Population Planning see the Studies Center as the home of a group of polished academicians who really don't understand the problems of needs of the real world. This is an exaggerated and all too simplistic view of the complex relationship between two organizations. There is truth in the assertion, however, and the students in both centers are certainly aware of it. The collaborative effort on this issue of Concerned Demography represents an attempt to reduce the conflict between the Centers - at least from the students' vantage point.

The issues raised above hint at the bureaucratic nature of the Population Studies Center. My goodness; even Weber would marvel at this one! The list of house rules is extensive. Each bulletin board in the Center has its custodian and purpose. Woe to the student who unknowingly puts an announcement on the Director's bulletin board, or on the administrative assistant's bulletin board, or on the receptionist's bulletin board. There are rules covering where food may be consumed (certainly not at one's own desk) and about where and when coffee may be enjoyed (in the coffee room only between 10 and 10:30 and between 3 and 3:30, of course.) Students affiliated with the Population Studies Center have virtually no voice in even those policy matters which concern them daily. There is a consensus among students that more student participation in some of the internal decision-making processes would be beneficial to both students and faculty.

THE CENTER FOR POPULATION PLANNING, UNIVERSITY OF MICHIGAN

The Center for Population Planning (CPP) at the University of Michigan was established in 1965 as a unit of the School of Public Health, and has as its goal the support of "organized efforts to achieve optimal balance between human reproduction and quality of life." It is an interdisciplinary organization, including on its staff both social scientists and physicians, and both academicians and practitioners. The three general functions are teaching, research, and consultation. International population issues are of major concern, although U.S. population problems and family planning programs are also of interest to faculty and students.

The teaching program has as its base the Master's of Public Health--a one to two year program for about 25 students which gives a general acquaintance with demography, family planning programs, and public health organizations. While most students here feel that the MPH is as good if not better than similar programs at other universities, it has a few deficiencies which it most likely shares with these other programs. The first problem is one of identity--what are you when you get your MPH in population planning? With no real specialization intrinsic to the program, the MPH is neither an administrator, a researcher, an educator, nor a social work type unless he comes into the program with the necessary skills or credentials. Secondly, the MPH students lack an organized field training which is an integral part of their program or of their professional development. Thus, students who emerge into the job market for the first time tend to have academic skills but not the practical skills which are desired by family planning agencies. Finally, while the program is somewhat tailored to individual students, many feel it has a reverse logic to it. Those with no practical experience (and who usually have a strong social science background) are asked to spend two extra semesters taking courses. They further their learning of sociology or psychology, etc., at the expense of gaining meaningful field experience. On the other hand, those with experience in family planning or public health are given the short program of 3 semesters, with little time to gain the background in sociology, psychology, and administration of which they tend to be in need. All MPH students take equivalent to a full semester in general public health courses, and have little time in 3 semesters to take much coursework in the social sciences.

However, there are many good points to the teaching program. There is an air of genuine informality, and frequent seminars and invited speakers are presented. The CPP library is an excellent resource, as is the faculty and libraries of the University of Michigan. Progress is being made to revamp the curriculum and to develop a more meaningful and individualized set of programs. In the past, all CPP MPH students have been offered a somewhat similar set of course requirements along with some opportunities for short-term field training and individualized research. Dr.P.H. candidates have also had to meet a similar set of course requirements. A CPP committee is now actively at work defining channels of specialization for CPP students so that once a student decides upon his or her area of primary interest, course requirements and suggested courses will be clear. At present, three channels have been identified: administration and management (including population planning policy), research and evaluation, and education and communication. Another recent development is the availability of a joint health education-population planning MPH. Finally, the CPP has developed an overseas internship program which provides for one or two years experience in a family planning setting for MPH graduates.

In addition to the MPH, there is a MS program for those who wish to spend a year studying population problems, perhaps specializing in one aspect, and do not wish to take the public health general courses. Along with "special" students (those not receiving a degree), these comprise about 7 students a year. The CPP has two forms of doctorate study. The first is a Doctor of Public Health--Dr.P.H.--which is under the control of the CPP and the School of Public Health. The second format is a Ph.D. which is awarded jointly by the CPP and another academic department in the University, or a degree awarded solely by another department but where the student spends considerable time at the CPP and carries out research in population issues. At present there are five Dr.P.H. students and three Ph.D. students--associated with Genetics, Sociology, and Education/Psychology. The CPP is attempting to enlarge its doctorate program, mainly in the direction of creating more links with other academic departments such as economics, political science, and geography.

In sum, a variety of programs is offered the graduate student interested in population, though he needs to think through carefully which degree program is best suited to his objectives. Many students feel that more attention should

be given to the organization of courses, the use of more effective teaching methods, and to the counseling of individual students. These complaints are hardly unique in today's university, especially in schools of public health.

The research activities of the staff of the CFP are extremely varied, though they often do not result in publications available to the general public. A large project has been operating in suburban Detroit to determine how effectively public hospital maternity services and public health departments can promote family planning. With both hospital records and interviews along with follow-up household surveys, a large amount of data has been collected upon which a preliminary analysis has been performed. Some of the other recent or in progress activities include a family planning acceptor study in Malaysia, a study of manpower requirements in family planning programs in Michigan, research on the political implications of demographic change, a study of population awareness of youth in India and in the U.S., the economic evaluation of India's family planning program, and various studies of abortion practices and attitudes. There is a growing emphasis upon evaluation of family planning programs, and methodologies and data collection capacities are being developed. In general, the faculty has a greater interest in population programs in the developing nations, and five of the faculty have had research and consultation experience in India, a not inappropriate emphasis. In addition to the research carried out by its own staff, the CFP supports faculty (full and part-time) in other departments of the university, such as sociology, geography, and psychology, who carry out research in population issues.

The CFP actively engages in consultation in family planning programs both in the U.S. and abroad. Detroit, the surrounding Wayne County, and the State of Michigan have had the assistance of members from the CFP in designing and evaluating their family planning programs. Center staff have provided long-term technical assistance to the family planning programs in Malaysia and Nepal. Individual faculty members have also worked in Pakistan, India, Algeria, and Togo.

The internal operation of the Center has traditionally been largely under the control of the Director, acting with the guidance of a set of faculty committees. Progressively over the last two years, students have asked for and have obtained some say over what goes on at the Center. Policy issues are

now more open for discussion, and students are sharing the responsibility for revising the curriculum, recruiting minority students, and establishing admission qualifications. While student participation in governance of the Center has often been ineffectual, their voices are nevertheless heard, and even occasionally heeded. A welcome change.

COMING ISSUES

Volume 2, No.3 December 30, 1970. Alfredo de Lattos, editor (Population Studies Center, Social Science Building II, University of Pennsylvania, Philadelphia, Pennsylvania, 19104). Eric Weiss and Gretchen Condren, assistant editors. This issue will include several articles reviewing the Latin American Population Conference held in Mexico City in September.

Volume 2, No.4 January 30, 1971. David L. Sills, editor (The Population Council, 245 Park Avenue, New York, N.Y. 10017). This issue will focus on the problems and opportunities involved in assisting developing countries to develop a population policy.

Volume 2, No.5 February 30, 1971. Ernest Attah, editor (Department of Sociology, Brown University, Providence, Rhode Island, 02912). This issue will focus on urban social ecology.

Volume 2, No.6 March 30, 1971. Bob Gardner, editor (Department of Demography, 224 Wheeler Hall, University of California, Berkeley, California, 94720)

GENERAL THEORY OF POPULATION: BY ALFRED SAUVY

A BOOK REVIEW
BY BOONIE TUSCHL

Population Studies Center, University of Michigan, Ann Arbor, Michigan 48104

General Theory of Population by Alfred Sauvy (New York: Basic Books, Inc., 1969, \$12.50) A treatise claiming the title "General Theory" may not, in fact, be a very general approach to a subject, but may at the same time bring about a revolution in thought. Conversely, a General Theory may provide broad coverage while containing little that will fundamentally alter other scholars' thinking on the subject. Professor Sauvy's book is of the latter type: the range of coverage is enormous--from animal ecology to the division of labor, and from the cost of a man to the coexistence of populations. But while he provides numerous insights into many aspects of population, Sauvy's main (and not inconsequential) achievement appears to me to be the ability to stimulate the reader to do his own thinking about a wide range of population related topics, many not normally considered by American demographers. The book is elegantly written, a fact that makes the task of reading its 544 pages considerably more enjoyable than one would expect. There is something in this book for everyone interested in population: political considerations are given considerably more attention than is customary in American writings. Chapters on "demographic ageing" and "the prevention of births" coexist happily with chapters on "war and population" and "the Marxist point of view," and "collective will and individual attitudes."

In a book of such wide scope, coverage is apt to be thin in spots: social factors in child mortality are allocated a page and a half; the interaction of business conditions and marriage and birth rates is not mentioned; and the discussion of population policy in the Third World (a term apparently coined by Sauvy in 1952) is disappointing. Nevertheless, the book belongs on the shelf of every serious student of population. It is a valuable reference on many topics, a handy source of anecdotes, and provides interesting insights into the manner in which an important continental demographer thinks about problems of population. The reader will find much to disagree with in Sauvy's approach to many issues, but he will be forced to reexamine many of his own preconceptions.

The remainder of this article will provide a brief description of the book's organization and will then provide a longer discussion of Sauvy's treatment of optimum populations and overpopulation in the developed and underdeveloped worlds.

Professor Sauvy approaches population first from an economic point of view, providing economic interpretations of the optimum population, population and the division of labor, the effect of technological progress on the maximum population and on employment, the effect of foreign trade on the optimum and maximum populations, the cost of man to society, and the cost of reductions in mortality. In the second section of the book he turns to "...sociological issues so described usually because they lend themselves less easily to measurement." Here he treats in turn such topics as social factors in mortality and fertility, elimination of unwanted members from society, the prevention of births, overpopulation in developed economies and in the Third World, war and coexistence, and population policy.

On Maximum and Optimum Populations

Drawing on the principles of animal ecology, Sauvy argues that the tendency

of a population to grow brings forth "...pressure from the environment" resulting in animal like in fertility and rises in mortality. The discussion at this stage is strictly limited to populations "...that are not very advanced." Long run equality between birth and death rates brings about a stationary population at a size dictated by several factors: the level of technology, the structure of mortality and fertility, and the organization of the distribution of goods and services.

Utilizing a simple graphical apparatus, Sauvy argues that technological change can raise the maximum population for a given society but cannot raise the standard of living at which the new maximum lives. A fall in mortality can both raise the maximum population and lower the standard of living. The reasoning behind these assertions is plausible but not extremely convincing; perhaps this is an instance in which graphical exposition masks some dubious underlying assumptions. Sauvy's discussion of the maximum population is dominated by his dependence on the analogy with animal ecology. The society of humans he treats is one in which little or no birth control is practiced, and in which the inhabitants are "completely subjected to natural resources." He explicitly fails to extend the discussion to advanced populations that control fertility, control the environment, and enjoy high standards of living. The question of maximum population may, in the long run, prove to be more relevant to these societies.

His discussion of population optima again leaves me with the opinion that he has avoided some of the most interesting problems. Sauvy defines an optimum population as the one "...that achieves a given aim in the most satisfactory way." To be made operational this concept must be defined in relation to some objective. Sauvy suggests as possibilities individual welfare, full employment, long life, power, or "culture and knowledge."

Again, the analysis is presented with the use of simple graphs drawn and discussed under the assumptions that (1) the level of technology is given, (2) the age structure is constant, (3) the distribution of goods is constant, and (4) internal economic stability prevails. Sauvy chooses two objectives: the economic optimum (maximum income per capita), and the "power" maximum.

Employing an aggregate production function for the economy as a whole, Sauvy describes graphically the economic optimum for a given capital stock. The optimum population in economic terms is that population for which national output per capita is maximized. Sauvy's treatment of population density is revealing: for a given land area, the optimum population is that population for which national product is maximized, and for a given population the optimum land area is that for which total production is maximized. Thus he views land entirely as a factor of production, not as (at least in part) a consumption good that should appear in the objective function of the society in the same way that goods and services do. As Americans are beginning to understand, open space itself is a commodity of significant value. Calculation of an optimum population without any reference to land as a consumption good seems to me to introduce serious distortion into the idea of an economic optimum population.

The notion of a power optimum implies a significantly different notion of welfare than does the economic optimum. Sauvy's power optimum implies the maximum return of wealth to the state so as to increase its power, militarily, politically or in some other manner. The state seeks to keep the population at subsistence level while taxing away the surplus to be used in the service of the objectives of the state. As Sauvy demonstrates, the power optimum implies a larger population

that does the economic optimum because the state benefits from all surplus production above basic subsistence. As long as the marginal worker produces more than his own subsistence, the state benefits; hence, the power optimum is that population at which aggregate marginal product and the aggregate average wage are equal. The power optimum for a militaristic state is still larger, since non-productive soldiers must be replaced in the productive sector by other workers if the state's income is to be maximized.

Throughout Sauvy's discussion of population optima, the assumption of a fixed technology remains. But technological change is continuous and one must wonder whether the concept of a static optimum is really very relevant after all. The march of technology might, in fact, enable more people to live in comfort as time passes. After all, people themselves, may be desired as part of society's increasing welfare with the result that an economic optimum might imply something less than maximum per capita income. Also the continuing progress of technology and rising production might be offset by the increasing value of open space and wilderness. Thus, it would seem that if there is an optimum population this optimum is a dynamic quantity, changing along with technology and income.

Overpopulation

Given the notions of static optima and maxima, Sauvy discusses the question of overpopulation (Chapters I-23, II-13, 14, 15). He argues that there are two types of overpopulation: absolute overpopulation which cannot persist and relative overpopulation vis a vis a stated optimum. This is, I believe, a valid dichotomization; a region may in fact be able to support a substantially larger population than it hosts, while at the same time being overpopulated with respect to some optimum.

Sauvy argues, "There is no longer any danger of overpopulation in the absolute sense in developed countries: there is no lack of vital subsistence." In the Third World, overpopulation as demonstrated by underemployment and food deficiencies is of a transient nature that can be eliminated by increases in agricultural and industrial productivity. Once this takes place "...one is led to consider the available space, or the biomass as the only ceiling." Sauvy is impatient with those extreme Malthusians whose arguments, he claims, too often lack acceptable rigor. He agrees that "...assuming that high mortality is undesirable, humanity will sooner or later have to reduce its fertility," but he points out that the time frame desirable to achieve slower or zero growth is still an open question. Much depends on the extent to which world production can be increased, and Sauvy devotes considerable space to a discussion of how little is known about future resource availability and production possibilities.

Given the vastly increased attention being given to environmental deterioration and overpopulation in the past two years, it is reasonable to predict that if Professor Sauvy were to produce a new edition of this work, his discussion of overpopulation would treat the idea of absolute overpopulation more carefully. The book begins with a discussion of animal ecology, but this ecological viewpoint is not carried over to the question of overpopulation. A general theory of population should include a better discussion of the effect of the human population on the natural environment and the extent to which population size and density contribute to environmental decay.

CONCERNED DEMOGRAPHY

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THIS ISSUE

As announced, the current issue includes articles reviewing the Regional Latin American Population Conference held in Mexico City in 1970. When we were planning this issue, we agreed not to make evaluations of the Conference, nor to include the usual statistical facts: number of participants, number of papers given, sex ratio of the participants, and so on. We also found it physically impossible to cover all the topics included in the Conference or to give a "balanced" account of the various views presented. In the end, we decided to ask some of the participants in the Conference for a written contribution on topics which they had mentioned in oral interventions at the Conference. We may add that the oral interventions of Hugo Behm and Susana Torrado de Ipola were among those receiving the greatest response among delegates (as measured by the applause they received).

We also review four papers which, among others, made a great impact at the Conference, especially among the younger participants. All four deal with the possible role of fertility and population in economic change. Kingsley Davis repeats his 1967 arguments against family planning, while maintaining an anti-natalist stance. Jack Harewood, Angel Fucaraccio and Paul Israel Singer criticize the efficacy of fertility decline in terms of achieving economic growth. Fucaraccio and Singer also point to ways of dealing with demographic-economic interrelations, an area of inquiry to be encouraged among demographers.

The review of the most recent book by well-known television personality Paul Ehrlich continues in this line of interrelations.

We close the present issue with two letters to the editors that we have received. We encourage this form of response and hope that our current selection will nurture lively discussion.

The Editors

STAFF BOX Concerned Demography is a periodic publication of Concerned Demographers, a non-profit national organization of scholars interested in relating demographic research and training to the larger society. All correspondence and manuscripts from all points of view are welcomed. This issue has been compiled by Concerned Demographers at the University of Pennsylvania. Business office is at the Center for Demography and Ecology 3224 Social Science Building, University of Wisconsin, Madison, Wisconsin 53706. Concerned Demography has no official ties with the University of Pennsylvania Population Studies Center or the Center for Demography and Ecology at University of Wisconsin. Editors of this issue are Gretchen Condran, Alfredo Lattes and Eric R. Weiss-Altaner.

WHAT IS THE POINT OF MORTALITY STUDIES?

Mortality can be looked at from just purely a demographic point of view; it is important to study it because the level, structure and trends of mortality are one of the determinants of the growth of population and of other population characteristics.

Mortality studies show that the rates are always higher in the vast populations that have low standards of living. Mortality is always found to be associated with factors such as low level of income, unsanitary housing, inadequate education, inadequate medical care, etc. The structure of causes of death in these populations demonstrates the persistence of lethal afflictions for which a technology of efficient prevention exists. This technology has permitted the disappearance of these afflictions as important causes of death in the more advanced countries.

A good share of the deaths occurring in the world, then, have a clear connotation of social class. As Sartre has said, social class is the subtle way in which societies choose their dead. And because they pitilessly select their amon; the majority that enjoys but a minority of the goods and services of a society, deaths become the cruelest indicator of social inefficiency and injustice that man has been able to construct.

It is understandable, then, that in those countries where such conditions obtain, the ultimate goal of any study of mortality can not be other than to make a concrete contribution to the programs aimed at modifying such an unjust situation. Mortality studies must deal with the reality of the nation under study, without copying lines of inquiry that be useful in advanced countries but are not relevant to one's own country. This distortion of inquiry is a frequent error. It draws on foreign models merely because the discipline investigation is more advanced in certain nations which also provide the largest share of the world's scientific information.

Only an awareness of the problems of society in which one is living, and the conviction that scientific activity should serve the people and is not a vain "knowledge for knowledge's sake," can save us from making this error.

Thus, for example, the new popular and democratic government of Chile, as one of the several ways of giving the working class the well-being until now concentrated in a minority, has begun an emergency campaign to control infant diarrhea. The campaign was planned using, among other data, the information gathered on this cause of death in each of the Health Areas for each month of the year. In this way, the information on children who have already died will immediately help to prevent the deaths of other children at risk.

Demographers have made important contributions to study mortality. They have produced more refined methods of analysis; they are helping to improve the systems of collecting data on mortality; they have methods to detect and correct errors in this data. Demographers must avoid the alienation of so many other scientists who end up thinking that their techniques and sciences are ends in themselves. Precisely because they deal with a phenomenon that involves the loss of life itself and is often strongly determined by deficiencies in the socio-economic system, mortality studies have great social significance. Furthermore, such studies would have no real meaning if they did not contribute effectively to an improvement in mortality conditions.

Rigorously speaking, the task of a scientist is not only to produce evidence regarding a problem of social import, but also to see that this evidence becomes the source of action and change.

HUGO BEHM

(Tr. E.H. Weiss-Altaner)

*Dr. Behm is Director of School of Public Health, University of Chile

A CONTRIBUTION OF THE U.S. DEPARTMENT OF STATE TO THE LATIN AMERICAN POPULATION CONFERENCE, MEXICO, 1970

In the past several years, the United States has been increasing its support to efforts to develop and apply means for reducing population growth in "developing countries". It is argued that high population growth is a serious obstacle to economic development.

As might be expected, this policy has produced heated debates among intellectual and political circles in those countries which we shall call underdeveloped (with the clear understanding that we reject the euphemistic connotation of "underdeveloped", and use this term as a very unrigorous concept). A major worry is whether the population policy suggested by U.S. governments for underdeveloped countries is in fact just another facet of "Yankee imperialism".

The specialists in developing countries who study economic growth scientifically (i.e. excluding ideological influences) have been inevitably drawn into this debate.

One must recognize that the position of many of these specialists is not enviable. Every day they must face American intervention in many aspects of their societies and economies. How then can they remain aloof from such controversies in the area of population?

In fact, how can they scientifically demonstrate whether U.S. policy in the area of population is an ideological decision aimed at protecting the underlying interests of the international political strategy of the United States? Such a demonstration would take several stages, each of which would require certain data.

As a first step, we have to test the validity of the social and economic theories that support an antinatalist policy. Moreover, it is necessary to determine the relevance or applicability of these theories to a given situation in time and space. In this first stage, the theoretical corpus that explicitly serves as a base for the antinatalist policy is the data required. Besides, it is evident that, if the theories are refuted, one can infer the ideological nature of the policy that is derived from these theories.

This essay is an outcome of some brief reflections on possible sources of current American population policy. The conclusions reached here with regard to this problem are in no way applicable to the problem of whether high rates of population growth should be reduced. As we understand this latter issue, population policy depends on the socio-economic conditions and the political system existing in a given society in history.

We do not need to emphasize the primary importance of the first stage. Nevertheless, a supplementary investigation is necessary if we want to demonstrate the ideological character of a population policy as well as the nature of the underlying ideology. In fact, there are still two aspects of the question. Does the government that espouses an antinatalist policy:

- (1) accept each and every one of the hypotheses implicit in the theories supporting the antinatalist policy?
- (2) exclude all arguments outside of this same theoretical corpus?

In this second stage, the necessary data are, usually, infinitely more complex and imprecise. We need then a relatively explicitly formulation, made by the government which is supporting the given policy.

In this connection, Mr. Philander P. Claxton is to be congratulated for his paper describing U.S. policy with regard to population and family planning^{2/}. This paper is very valuable to the scientists involved in this controversy, for it provides some data required to carry out the two stages of the inquiry we have set ourselves.

In this preliminary analysis we are leaving aside the first stage, which involved testing the theories that support the U.S. antinatalist policy. Other contributions to this conference have dealt with this matter in more detailed and convincing fashion^{3/}. Furthermore, we shall limit our remarks to those parts of the paper which deal with underdeveloped countries, particularly in Latin America, leaving aside those parts of the paper referring to population policy for the United States.

To sustain the statements to follow, we shall have to quote extensively from Mr. Claxton's paper. Because of limitations of space, we shall restrict our comments to the most essential points.

In the first place, we think that Mr. Claxton's paper demonstrates convincingly that the U.S. government does not use, as much as it crudely manipulates those theories that postulate a decline in fertility as a prerequisite of economic and social development. Examples of this style are the way in which variables such as 'income per caput' and 'financial independence (!)' are treated, and the causal nexus that is presumed to be empirically established between 'Knowledge of contraceptive practices' and reduction of fertility (pp. 9, 10 and 15 respectively), and between 'population growth' and 'rural out-migration' (p.11).

These examples in our judgment, lead us to an inescapable conclusion: the ideological character of the U.S. antinatalist policy is demonstrated not only by the fact that this policy is based on theories that are nothing more than ideological pronouncements ('ideological' in the sense that they are 'inapplicable' to the reality for which they are formulated), but also because of the arbitrary selection of only certain variables, leaving out certain others (e.g. distribution of income and land tenure system).

^{2/}Philander P. Claxton, "La Política de los Estados Unidos respecto de los asuntos de población y planificación familiar (dentro de los Estados Unidos y hacia los países en desarrollo)". Mr. Claxton is with the U.S. Department of State. He did not explicitly disassociate himself from it in his paper, and in the paper he cited prominently several official statements of the U.S. government. On these grounds, we suppose that the position in Claxton's paper is probably not far removed from that of the Department of State.

^{3/}e. g. A. Pucaraccio, P. Singer and others. (Editor's note: the papers by Pucaraccio and Singer are reviewed in this issue). In addition, some participants attacked the uncritical use of the 'theory' of the demographic transition in the study of Latin American populations.

In the second place, Mr. Clanton's paper increases our understanding of the nature of the underlying ideology of American policy in this area. This occurs because, when we describe the bases of American population policy, we uncover certain elements that are completely outside any corpus of the theory: e.g. the use of the (underlined) 'public safety and security'.

To illustrate the last point we shall enumerate a number of propositions which, taken together, seem to provide a coherent picture of the ideology which guides the formulation of U.S. population policy for the Third World. To the left of each proposition we have placed the original statement as it appeared in Mr. Clanton's paper (emphases are ours).

ORIGINAL

1. 'Insurrection ... is one of the grave dangers threatening public safety and stability' (p.14)
2. 'Masses of people who (pressed into slums) are beginning to realize their power to make trouble' (pp. 14-15)
3. 'These people are easy prey... for all the irresponsible demagogues (p.11)...and for the agents of the world revolution' (p.15)
4. 'In this enormous mass of wretched and desperate humanity lie the seeds of the greatest danger in Latin America' (p.11)
5. 'Neither agrarian reform nor fiscal reform are solutions' (p.11)
6. 'The fundamental cause of this threat to public safety and stability... is the excessively rapid growth of population. It is necessary to take actions to reduce its evil effects for the future' (p.15)
7. '(The government of the U.S.) is concerned with the adverse effects of current rates of population growth... on public safety and stability.' (p.9)
8. 'These policies (with regard to population) of the U.S. government are an outgrowth of the fundamental

TRANSPOSITION

1. Public safety and stability are synonymous for the established order.
2. Exploited social groups in Latin America are beginning to be conscious of their rights to a style of life fit for humans.
3. This increasing consciousness may lead exploited groups to seriously put the established order in question.
4. The gravest danger threatening Latin America is this questioning of the established order (since this danger exists in those social groups that are most likely to put the social system in question).
5. It is impossible to solve the problem posed by this threat to the established order. (In other words, it seems impossible to assure the exploited groups a proper standard of living and/or stop the process of increasing consciousness of their true situation).
6. Given that it is impossible to solve this problem, it is necessary to eliminate it, that is, to prevent the absolute growth of the exploited groups.
7. The maintenance of the established order is of direct concern to the U.S. government.
8. The population policy which the U.S. proposes for the Third World is an outgrowth of its fundamental

interest of U.S. in raising the dig-
nity of and bettering the quality of
the life of the individual to pre-
serve the security and the peace that
will allow the achievement of these
goals". (p.3)

Unfortunately Mr. Clanton's paper offers no clue as to why the main-
tenance of the established order is of such fundamental interest to the
United States. Despite the lacuna, we consider that Mr. Clanton's paper
has made a great contribution to scientists involved in the elaboration
of population policies. He has provided them with a good source for the
difficult and necessary task of distinguishing science from ideology. Al-
so he has clearly shown how knowledge can be ideologically warped.

Still, we nourish some hopes. If with his paper to the Conference
in Mexico, Mr. Clanton has made such contribution, is it possible that at
some point in the future the Department of State will write. The rapid
growth of population in the Third World is a threat to the vital interests
of American monopolies and financial groups, as well as a threat to Amer-
ican foreign policy in its spheres of influence?

Of course, such a statement would also be ideological. Nevertheless,
it would be straightforward and to the point.

OSAMA TERRADO DE IPOL

(Dr. E.A. Weiss-Alvarer
and A. Lallas)

CONING ISSUES

Volume 2, No. 1, David L. Gills, editor (The Population Council, 245
Park Avenue, New York, N.Y. 10017). This issue will focus on the pro-
blems and opportunities involved in assisting developing countries to
develop a population policy.

Volume 2, No. 5 Ernest Attah, editor (Department of Sociology, Brown
University, Providence, Rhode Island, 02912). This issue will focus on
urban social ecology.

Volume 2, No. 6 Bob Gardner, editor (Department of Demography, 1234
Wheeler Hall, University of California, Berkeley, California, 94720).

Jack Harwood, 'Algunos pensamientos acerca de los probables efectos de las disminuciones recientes de la fecundidad y el crecimiento de la población en el Caribe Británico.'/

Harwood's paper illustrates the worry of many Latin Americans who are concerned with the study and policy implications of the relationship between population change and social and economic development. Such concern consists in the tendency of many recent studies of under-developed countries to over-simplify the solution of their problems with a 'magic formula', namely that a decline in fertility necessarily will have a favourable impact on the rate of social and economic development.

Jack Harwood considers that such over-simplification could be justified on the grounds that fertility in most of the developing countries is so high that some significant reduction is urgent and would lead to some improvement. Thus, to sell family planning, some dramatization of its beneficial effects is needed, but it is the general belief that reductions would not be significant in most developing countries for some years.

However, the recent experience of several developing countries shows a dramatic and continuing reduction in fertility. That is the case of the Commonwealth Caribbean islands, which the author uses to point out the effects of declining fertility on education, health and housing, which should be seen after a short period. Harwood feels that in these aspects there will be no significant change in the near future, demonstrating that the social and economic development depends on a number of other factors as well, including internal and international migration, the terms of international trade, the attitudes of richer countries towards economic aid, trade and capital investment abroad. He gives some reasons why the promised improvement in social and economic development may not occur. The growing emigration is unfavourable because of the process of selection on the part of the receiving countries, the United States and Canada. The emigrants are not the unemployed persons but those with the highest skills, and highly qualified professional persons, that are already in short supply in the developing countries.

A negative effect of factors other than population is the relative inefficiency in the planning, management and execution of programmes in education by the public sector. The education programs have declined in efficiency partly because of the pressure of increasing numbers of children and growing aspirations as regards education. But a reduction in the numbers of children will not automatically result in any increased efficiency in the education system, nor will it necessarily increase the

*/(Random thoughts on the probable effects of recent declines in fertility and population growth in the Commonwealth Caribbean.) Paper presented to the session on Population and Social and Economic Development, of the Regional Latin American Conference on Population, Mexico City, 1970. All translation into English are from the Spanish version distributed in the Conference.

student-teacher ratio (because of the loss of qualified teachers through emigration). Moreover, if there appeared to be any reduction in the pressures on education, it is likely that the government will shift resources to other areas which have been neglected in recent decades because of the educational pressures. Also, Harewood points out the efforts to change the educational system in the Commonwealth Caribbean countries and the problems associated with them, problems which have no obvious relationship with a reduction in fertility. The situation as regards health facilities is similar to that of education: the emigration of nurses and doctors is large. Also, the housing problem cannot have a simple solution, for continued expansions of construction for tourists and the construction of new factories raising building costs.

Harewood does not present a systematic study of the multitude of economic, social, political, cultural factors which determine the rate of modernization. His paper is, as he himself called it, 'random thoughts' to draw attention to factors that might explain why the 'magic formula': fertility decline = development, could fail.

BERNARD PERERO UNCO

FERTILITY DECLINE, SAVINGS AND ECONOMIC GROWTH

Angel Lucaraccio, 'El control de la natalidad y el argumento del ahorro y la inversión'

Paul Israel Singer, 'Cambios de población y producción'

The papers under review were given at the IUSBP-sponsored Regional Latin American Conference on Population, held in Mexico from 17 August to 22 August 1970. They were contributed to the session on Population and Social and Economic Development. Dr. Lucaraccio is with CELADE, the Latin American Demographic Center whose headquarters are in Santiago de Chile. Mr. Singer is with CEBRAP, the Brazilian Center for Analysis and Planning.

Both papers express a severe criticism: (1) of the application of models that may (1) be inadequate for the analysis of U.S. or West European problems but are grossly unable to deal with Latin American problems; and (2) of the widely accepted positive association between fertility decline and economic growth, working through increases in savings and investment. Their conceptual critique is buttressed by empirical data, which, while not abundant, presents a 'prima facie case'.

Lucaraccio begins his essay by saying that the antinatalist theory is actually an ideological not scientific statement. I shall return to that comment at the end of this review. Singer, while not forming the connection between lower fertility and higher saving and investment as 'ideological', concludes that Latin America faces different than did the United States or Western European countries at comparable stages of modernization. The less developed countries have to cope with trade barriers, barriers to international labor mobility, and small-scale markets; all conditions which the now-developed countries faced to a lesser degree in the XIX century. Consequently, says Singer, the Latin American path to development will be

different than the U.S.-West European one.

Such a conclusion has clear implications for the models used to explain, forecast, and make policy in Latin America. The authors complain that current models exclude crucially important variables and relations between variables. For example, they leave out of consideration the distribution of income, low utilization of capital inputs and labor inputs (i.e., disguised unemployment), and the influence of foreign trade. As result, the antinatalist discussion serves as a distraction from the real question: why is Latin America less developed economically? (Pucarraccio).

The authors pose several questions to the antinatalist policies that base themselves on the supposed benefits to be derived from a decline in fertility, in terms of increases in savings, investment, and income. In Latin America, what are some connections between:

- (1) fertility and savings
- (2) savings and investment
- (3) investment and growth of income
- (4) fertility and investment

Fertility and savings. The postulated beneficial effect of a fertility decline on savings would be an effect on household savings. Singer presents data for several Latin American countries which indicates that the relative contribution of household savings to total savings (including net imports of funds) is very small indeed. Government contributions to total savings are much more significant, and net imports of funds are more important still. Thus, even if there were some positive association between fertility decline and level of household savings, such a decline would have to be weighed by the small participation of household savings in total savings of the society.

Who does the saving in Latin America? A very restricted portion of the population. Pucarraccio cites a 1964 CEPA (U.N. Economic Commission for Latin America) study which revealed that 50% of the Latin American population had an average income of less than US\$ 130; and that 20% of the Latin American population received 60.6% of the region's income.

Which group has the higher fertility? The very low income group. Combining these two broad facts, we find that antinatalist policies are being recommended (as a way to increase savings) precisely to those people whose low income prevents them from making any significant contribution to household savings, let alone to society's total savings. It was only when the distribution of income was brought into the model that the particular absurdity of the antinatalist policy (in regard to the connection with savings) came to light.

Savings and investment. Saving and investment in exchange economies, is largely done by different groups of people, acting on different motives and aims. As Singer's case showed, households have a tiny impact on the level of total savings in Latin America today. Most savings are due to governments or to net imports of funds. Investment decisions, too, are out of the hands of households. They are usually made by governments, be they a technocratic middle-class elite or a consortium of landed oligarchs and monopoly industrialists. The separation of household savings from what is done with the funds saved is largely complete. The effect on investment of fertility declines among Latin America's poor, working through rises in household savings, would seemingly be small indeed.

Investment and growth of income. Pucarraccio and Singer, especially the former, complain that the growth model used to support antinatalist policy pressures that increases in net investment are necessary for output

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(income) to rise. For one thing, as they aptly point out, this presumes that the economy is at its production frontier, that it is using all its capital stock to capacity. Both authors cite studies showing that full use of capital inputs is not being made in Latin America.

Therefore, increases in net investment would not necessarily be required to maintain a capital-to-labor ratio in the face of increments to the labor force. A concurrent response to population growth would be to see what would be required to achieve a fuller use of existing and new capacity.

Why does low use of capacity (another ignored variable) exist? Puccaraccio points out that the very unequal income distributions in the area have skewed investment excessively into residential housing for the rich and to the production of luxury goods. The techniques for producing such goods were imported from the developed countries, and tend to be capital-intensive techniques that were developed to operate at peak efficiency in markets of larger size than are found in Latin America (Singer). With the smaller effective demand existing in Latin America (partly a result of the inequality of income), there is great unused capacity. Both authors suggest that investment is badly allocated in terms of trying to provide for economic growth that would assure in the future an adequate standard of consumption for all the population.

The authors only glancingly mention the issue of technological change. It should be brought out in any discussion of economic development. Studies have shown that technological change was the main source of output growth in the developed countries since 1750. A very important problem in Latin America, then, is how to improve the creation and diffusion of new and better techniques of producing. The key variables are likely to be the same ones pointed out by Puccaraccio and Singer: the social, economic and political structures of the societies in question.

Not only is capital input underutilized, so is labor input. The authors strongly criticize the antinatalist discussion for not explicitly including disguised unemployment.

If these variables are included in the inquiry, they indicate that the influence of a decline in fertility on the gap between the demand for opportunities and the supply of opportunities will be little, and that the only serious and effective way of dealing with this gap is a process of economic growth. Both authors identify the social-economic-political frameworks of the societies under review as chiefly important in the drama, not high fertility. When an investigator wonders how to set this process into motion, he becomes aware that the major blocks to economic growth are of socio-political nature.

Fertility and investment. A traditional antinatalist argument says that a decline in fertility will lead to a fall in the dependency ratio, which will in turn lead to a fall in 'unproductive' investment in education and housing. Puccaraccio presents a crude calculation which suggests that the savings in education and housing outlays due to a fertility decline would not make a significant dent in Latin America's economic problems.

The level of consumption of educational and housing services is much too low for most Latin Americans. A rise in such consumption would probably have a high "pay off" in terms of raising the productive potential of the labor force.

However, looking just at education, an increase in per caput consumption of education will not result only from a decline in fertility; nor will a fertility decline assure a rise in per caput consumption of educa

and housing. Will the "savings" in total expenditures on education now might result from a decline in fertility continue to be spent on education? This is not sure. Those funds might go to uses with lower yields in terms of economic growth.

Also, technological change in education might allow the same total outlay to buy a higher amount of education per person. Expenditures per pupil might remain constant or might even decline. Often, the expenditures per pupil in developed country (e.g. U.S.) are used as the standard for what is required in order to provide a proper education. Certainly, an aware observer of the American educational scene knows that innovation in education is not only possible, it is necessary. Capital-intensive methods are not the only ones. One can replace capital with labor; one can improve the quality of both; one can change the organization of the production of education. Similar comments would apply to housing.

In closing, I would like to comment on Pizarro's charge that the antinatalist position is ideological. In his first paragraph he writes: "Se trata de un planteamiento ideológico en el sentido de que es producto de pensamientos que no reflejan la realidad latinoamericana." (Tr. it is an antinatalist thesis) is an ideological argument in the sense that it is the product of thoughts that do not reflect Latin American reality). In other words, the models supporting the antinatalist position are inadequate accounts of what is going on; they ignore important variables, e.g. income distribution and the distribution of power among classes. Therefore, the models are ideological!

But they could also just be bad theory. A strong element in the ideological character of a theory should seem to be that the theory is aimed at justifying the interest of a certain class or group (in a society and also on an international scale). But a theory might be correct (as far as our current scientific knowledge permits us to judge) and still serve the interests of certain class. A statement, then, is not either ideological or scientific. It can have both traits, in varying degrees. The antinatalist position might be part of the family of ideologies (thought/action, value/act, practice/theory) that have done so much to impede critical inquiry.

Pizarro attacks the antinatalist position as a cover job for an attempt to repress the growth of the exploited classes. The socio-political system cannot respond to the pressure of population growth on the supply of opportunities by increasing that supply. To do that would require strong changes that might mean the loss of power of the dominant class. Instead, the ruling group(s) responds to population pressure by trying to decrease the demand for opportunities, i.e. curtailing the growth of the poor. The poor are the potential executioners of the current system. The greater their number and the greater their share of the total population, the greater is their power, ceteris paribus.

The economic theories behind antinatalist policies can provide a rationale for actions that have as a partial result an attempt to hold down the poor. Pizarro and Singer certainly point out the nakedness of the fertility-savings connection, that supports the antinatalist position. Yet their own theories regarding the true obstacles to development can be used to support and justify serious social changes.

Kingsley Davis, "Orígenes de las deficiencias de los programas de población modernos". (Tr. "Origins of deficiencies of modern population programs")^{2/}

In this paper, presented to the Regional Latin American Conference on Population that took place in Mexico, Professor Davis takes up again the topic he discussed in his 1967 article in Science ("Population Policy Will Current Programs Succeed?"). In the paper under review, Davis repeats his diagnosis of the failure of the majority of population control programs currently under way throughout the world. As a response to this failure to control population (by which we may probably understand "control of fertility") Davis again expresses his agreement with coercitive measures that "by now many people find it necessary to adopt". Let us first try to present a brief summary of the main points.

In the first part of this "new" paper, Davis writes that he hopes to demonstrate that the current programs of population control are practically a wasted effort, because they have been undertaken without adequate scientific study beforehand. He must make clear that when Davis refers to programs of population control, he distinguishes two types: (1) "negative programs" or programs of "inaction" in which the existing rate of population growth is seen to be producing on balance either favorable results or negative results that are not serious enough to call for government action upon the demographic trend; (2) "positive programs" or "action programs", which are aimed at modifying current demographic trends because of their deplorable consequences.

According to the author the necessary scientific basis for a program of deliberate intervention is a theory about the causes of demographic trends, a theory about how intervention would affect those causes, and a theory about the way in which the modified demographic trend would better the socio-economic situation. Davis claims that a necessary scientific basis is clearly lacking in the first type of programs, which he has defined as "programs of inaction". In the case of the "positive-action programs" while also lacking an adequate scientific basis, one must at least recognize that they show concern for the goals of the society as a whole in the matter of population. Finally, Davis underlines that he criticizes the "positive programs" not in order to eliminate them, but in order to improve them. After all, he says, an inefficient program could be the same as no program at all.

In the remainder of the article, under the heading of "Population programs and demographic history" Davis tries to demonstrate that the history of modern population control programs is a history of failure. With this goal in mind, Davis presents his version and interpretation of some events between 1700 and 1960 -- a year by which many governments were organizing population control programs. However, Davis warns that, while such diffusion of population control efforts was a victory for those who had been calling for government intervention, it did not guarantee the success of such programs.

Throughout his historical journey, Davis emphasizes that most programs of population control were oriented exclusively toward family planning. In this connection, Davis remarks: "There are three reasons why family planning has been seen as the road to population control:

^{2/} All the quotations from Davis' article are translation into English from the Spanish version distributed in the Conference.

"the first is of a historical nature... the second is that family planning did not require and does not require today a drastic reorganization of society... the third is that it does not require self-discipline or sacrifice on the part of the individual. It gives him greater liberty: it allows him to enjoy sexual relations without fear of pregnancy, to have as many children as he wants..."

According to Davis, the inefficiency of family planning programs as a measure of population control is revealed by demographic data. He cites surveys conducted in United States which show that couples intend to have more children when the economic situation turns up. He concludes: "there will not be population control at a national level unless other programs are instituted in addition to family planning programs."

In the last part of his paper, Davis mentions several measures which would help free society from traditional pro-natalist pressures. He also suggests some coercive measures "that many people already find justifiable and that generally involve penalizing in different degrees selfish couples who have many children. He ends his paper with the thought that "it remains to be seen whether the revolutionary character of population control policies will prevent their adoption."

One could criticize this paper from several standpoints. There are many individual points that merit refutation or discussion. (Much of the criticism that Davis' 1967 article received is also applicable to the current work. In keeping with the reduced space available here, we shall try to consider the most essential aspects.

Davis begins his article by raising false hopes. He promises to show how it is that current population programs are doomed because of their inadequate scientific basis, but he soon forgets his promise and turns all his guns against family planning as an instrument of population control. (We shall not discuss the inadequacy of this criticism of family planning here, since it is not germane to the main topic at hand.)

In what seems to be a critical tone, Davis tells us in the first sentence of his paper that current population programs emphasize action rather than analysis. But then he dedicates most of his paper to the action of current programs (family planning) and finally proposes other possible actions. That is to say, his starting point seems to be critical of action without analysis, of action without an adequate scientific base, yet Davis' final proposals are just another set of actions without adequate scientific base. Perhaps Davis can demonstrate how the inadequate scientific basis of population programs based on family planning becomes a solid basis for his proposals. Let us remember that, according to Davis himself at the beginning of the paper, an adequate scientific base implies "a theory about the causes of demographic trends, a theory about how intervention would alter these causes, and a theory about the way in which the modified demographic trend would better the socio-economic situation."

What is the basic theory to support Davis' claims? He does not expound it in either of his two articles. But it clearly appears in several sentences, such as the one from the article under review: "In the XVII-XX centuries the bases of current population problems were firmly established. Far from recognizing that the growth in natural increase was robbing the new technology of much of its potential human benefit, we verament mistakenly assumed that such growth was beneficial for progress." As far as Davis is concerned, he does not need to demonstrate the accuracy of the theory behind these statements. He presumes that this work has

already been done. However, many specialists in the field would disagree with such a bald assertion of overwhelmingly negative effects of population on economic growth. To the contrary, they would warn that the precise nature of the interrelations between population changes and social-economic changes are still very inadequately known.

It is remarkable that Davis would repeat his 1967 article so closely, although this time in Spanish for Latin American consumption. Let us recall, however, that an important point in the Science article was the need to reorient the funds available for population control. Davis asked that the share of these funds going to efforts to find and experiment with socio-economic means of population control be as great as or greater than the share of these funds going to family planning. In the article under review there is no mention of the allocation of funds. It is understandable that a paper addressed to Latin American opinion not make reference to such funds. After all they are found chiefly in the United States, not in Latin America.

Although Latin America is not a source of funds for population control programs, many governments in the area have family planning programs. That is to say, Latin America is a potential laboratory for experimenting with new ideas of population control. The governments of some Latin American countries are potential adopters of socio-economic measures like those proposed by Davis. Indeed, at several points in this spiel in scientific wrapping, Davis suggests some slogans that fit wonderfully with the new language of governments that, pressured by the call for change, begin by modifying their vocabulary, e. g. "We adopt population control because we are revolutionaries, etc."

To try to influence the fund-givers and the consumers is nothing new. It is also legal. Perhaps the only remarkable thing about this piece of advertising is that it was seriously presented as a meeting organized by the International Union for the Scientific Study of Population.

ALFREDO E. LATTES

The publishers of Concerned Demography have decided to attack inflation at home. Subscriptions will remain at \$2.00 for individuals, be they faculty, students, bureaucrats, rich or poor. Institutional subscriptions (libraries and the like) will rise to \$3.00. (If you have already subscribed for the coming year, it has been recorded for the regular issues.) There will never be another bargain like this again, so mail this stub in today to:

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Population, Resources, Environment

By Paul and Anne Ehrlich

W.H. Freeman, 1970, 383 pp., \$0.95

Paul R. Ehrlich, biologist from Stanford, might easily be the Paul Revere¹ of the coming ecological apocalypse. Two years ago, in The Population Bomb, he pamphleteered vigorously for contraception, abortion and ecological responsibility, scoring a great publishing success. The most memorable part of that effort, aside from its polemical impact, was the drawing on the cover of an old-time anarchist's bomb, set to go, surrounded by the warning, "The population bomb keeps ticking." Apparently, so does Dr. Ehrlich, who now, in cooperation with his wife, presents us with the work under discussion. Population, Resources, Environment is meant to be a sourcebook on population and the environment, for use in school and also for the non-enrolled reader.

The topic is important. Population is growing rapidly, especially in the poorer nations. Social conflict, economic inequality and stagnation, environmental despoliation, all exist, and at significant and dangerous levels. The question is: What are the precise links between population changes and environmental-economic changes?

Here lies the weakness in the book. The Ehrlichs have their hearts in the right place --- aiming for better living, closer contact with Nature, more equality of opportunity and achievement--- and their recommendations ring with convinced determination. Their book is built upon commendable anger at the current situation and upon certain insights as to correlated variables. But they do not produce a detailed theoretical description of the connections between population and the ills they diagnose.

They are thus open to the danger that bad theory may yield bad action: it identifies the wrong devil, or overemphasizes one devil, while the more important fiends hoof away unscathed. Actually, many of their recommendations hit the mark (for example, regulation of business by government rather than the converse). Yet because their disparate insights have not been gathered into an analytical engine, other possible insights and recommendations are left out from the start.

Broadly speaking, the Ehrlichs claim that population size and growth have leached, no, have trampled down, the barriers of resource availability. However, a more accurate account would be that population growth is in fact butting against the barriers of outdated ways of producing, distributing and consuming. This applies among both modernized and modernizing societies.

In chapter 13 (!) the authors summarize their gloomy conclusions:

- (1) the Earth is currently "grossly overpopulated," in view of "present technology and patterns of behavior";
- (2) the high rates of population growth and the large size of populations are "major hindrances to solving human problems";
- (3) the limits of producing food "by conventional means have very nearly been reached";
- (4) attempts to increase food production by currently accepted advanced technology will actually despoil the environment further, thereby reducing the capacity of the Earth to produce food;

(1) Or the Chicken Little; take your pick.

- (5) population growth increases the chances of plagues on an international scale, and increases the likelihood of a thermonuclear war;
- (6) there is no technological rescue for the 'population-food-environment crisis.' The basic solutions involve 'dramatic and rapid changes in human attitudes', especially those relating to reproductive behavior, economic growth, technology, the environment, and conflict resolution."

These statements deal with the kinds of connections involved in the following broad relationships:

- I. population ----- output
- II. population ----- pollution
- III. population ----- urbanization
- IV. population ----- politics

1. Population and Output

As the authors recognize in their first conclusion, population by itself poses no problem. Population pressure is not solely a matter of the rate of growth of population or the absolute size of a population, but is an outcome of the interplay between population variables, on the one hand, and consumption standards and production possibilities, on the other. Stated more precisely, population pressure is an adverse change due to population variables in:

- (1) the balance between consumption requirements and production possibilities; and

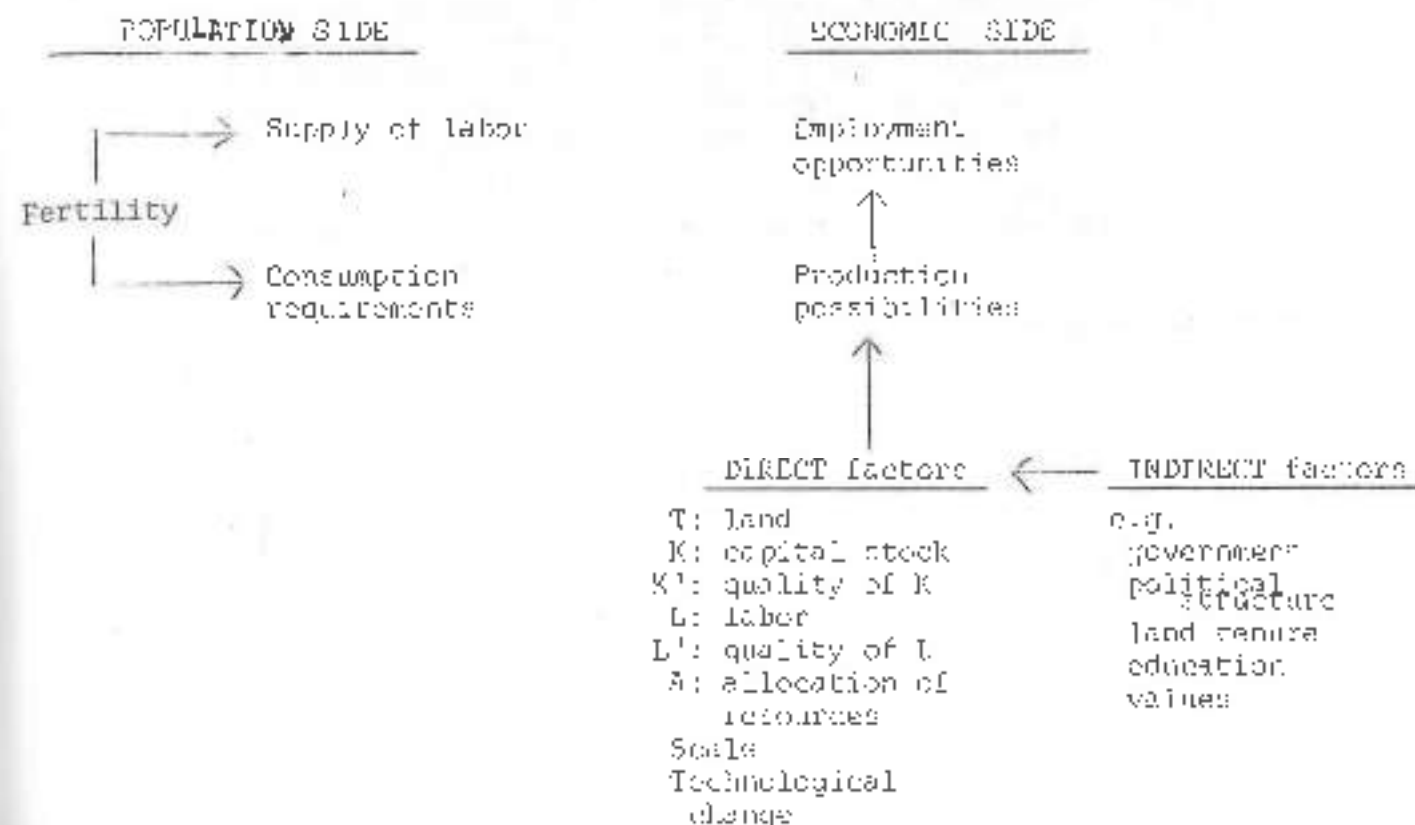
(2) the balance between the supply of labor and employment possibilities. There is a consumption problem [1], and an employment problem [2]. Perhaps it would help to present this diagrammatically on the next page. That diagram, like the others to follow, is not comprehensive. They just present some of the influences on some key variables.

Population problems are a two-bladed affair: stress is caused by an imbalance among many factors. Equally, the diagram shows that a situation of imbalance can be righted by action upon a variety of variables, only one of which is fertility. For example, is fertility to blame for unemployment because, with a lag, it directly affects the size of the labor force? Fertility helps determine the supply of labor, but unemployment is the outcome of supply and demand conditions. One could equally well ask for a change in the factors affecting the demand for labor.

Much of the controversy about the relationship between population and production rages with regard to the production side. Is it possible for output to grow adequately in response to rapid population increases? This discussion is most germane to less developed countries, where the difficulties of increasing production are vastly more acute than in the modernized nations.

The literature on the determinants of output has gradually evolved and come to accept a production function including the inputs which appear on the diagram on the next page as "Direct factors of production." The direct factors appearing as variables in a production function are: natural resources, labor, quality of labor, capital stock, quality of capital stock, allocation of resources, scale of production. Technical change appears as a shift in the production function.

- (1) Professor Richard A. Easorlin has had a vast influence on the development of the reviewer's understanding of this issue. This is a grateful acknowledgment; only the reviewer is responsible for what he does while under the influence.



In addition to these direct factors there are variables that have an influence on the level of output through their immediate influence on the direct factors of production. Some important ones are: distribution of income, land tenure, education, health, housing, government, social relations of production, attitudes. Changes in these variables, as far as the model above is concerned, could be very significant in resolving an imbalance between, say, consumption demands and output. Such changes might even be more significant in resolving the imbalance than changes in fertility. That remains to be demonstrated by detailed inquiries.

One can view the indirect factors of production as providing the matrix or context within which the direct factors of production proceed. Put another way, the indirect factors of production are parameters: they limit in some way the workings of the direct factors of production. A strong rationale for agrarian reform in Latin America is that the great concentration of sovereignty over land has prevented the growth of agricultural output. In order to provide adequate food supply per caput, it has been necessary to struggle for an institutional change --- for a new arrangement of land tenure --- in order to allow the direct inputs freedom to raise agricultural production.

Previous formulations of production functions have been less inclusive. It would be instructive to look at two models which have been and are now receiving much attention.

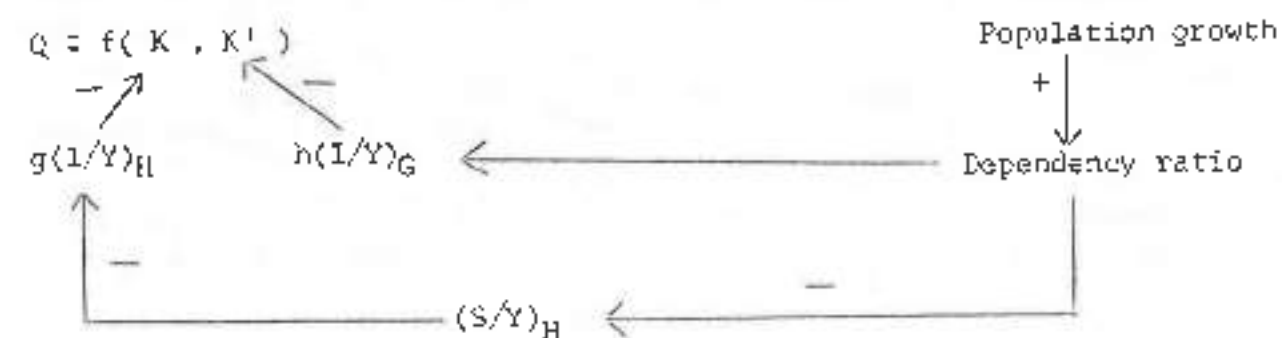
The classic Malthusian model is fairly simple:

$$Q = f(L, K) \quad \text{where} \quad \begin{array}{ll} Q : & \text{output} \\ L : & \text{labor} \\ K : & \text{natural resources} \end{array}$$

ASSUMED: a. fixed input proportions
b. K does not change
c. f does not shift (no technological change)

In this model, as population grows, so does labor. However, because of diminishing returns to labor (all other inputs are constant), production rises less than proportionately to population, and output per caput declines. Why are techniques restricted (fixed input proportions) and why is innovation ruled out? This error vitiates the model, particularly in our day, when studies assign the dominant share in the secular growth of output since 1750 to improvements in technology.

A more recent formulation is an outgrowth of the belief that increases in net investment and in the capital stock are the major determinants of increases in output:



where Q : output
 K : capital stock
 K' : quality of K

I : investment
 S : saving
 Y : income
 G : government
 H : households

In this model population growth works its evil through the average rate of investment, I/Y . This is divided into investment from households and investment from government:

$$I/Y = (I/Y)_H + (I/Y)_G$$

As the population grows, household savings decline; the increase in population results in a higher ratio of dependency, forcing a reallocation of household revenue toward a greater share for consumption. This lowers the contribution of household savings to the funds available for investment. Meanwhile, on the national level, the rise in the dependency ratio leads to a reallocation of government investment to items like housing and schools, namely to less productive investments, thereby decreasing the quality of the society's capital stock.

This argument can be criticized in several ways. Angel Fucaraccio and Paul Israel Singer (reviewed in this issue) insist that the indirect factor "distribution of income" must be brought into the model. They remark that the social classes having the highest fertility are those with very low incomes. Fucaraccio and Singer expect changes in fertility to have little effect on the share of their income that the poor devote to saving, for most of their income goes to consumption anyway.

Also, is it true that investment in housing and education is always considerably less productive than investment in factories and machinery? Improvements in education and housing, at least through their effects on the quality of labor, can in theory influence output positively.⁽¹⁾ What their

(1) E.H. Phelps-Brown, The Economics of Labor (New Haven: Yale, 1962), ch.3.

significance is in specific countries and times remains to be revealed by studies. Nevertheless, one expects that, if the consumption of education and housing is at very low levels, increases in them would, *ceteris paribus*, raise output. At low levels of consumption of education and housing, one would still be in the region of increasing marginal returns to their consumption.

Furthermore, the Ehrlichs rule out the possibility of innovating in education. They suppose that educating a growing population requires the congruent multiplication of educational facilities. For example, a doubling of population would require a doubling of educational inputs in order to double the output of education and maintain the average level of education. Thus, according to the Ehrlichs, as population grows a society will be expending a greater and greater share of its resources in trying to just stand still.

Surely, we can admit the possibility of shifting input proportions, of changing the quality of inputs, and of changing the framework within which production goes on. The current educational literature seethes with suggestions for new ways of educating. Perhaps the pressure from population will provide the incentive to put some of those critiques to the test of practice. Such innovations might allow the cost of a given "amount" of education to remain relatively stable in the face of population growth.

Repeating the production function described at the beginning of this section, we have

$$O = f(K, K', L, L', T, A, D)$$

where

O : output	L : labor	A : allocation of resources
K : capital stock	L' : quality of labor	D : scale
K' : quality of K	T : natural resources	

With f allowed to shift, this formulation explicitly recognizes the role of technology in the growth of production. Although the Ehrlichs would probably agree with this fuller formulation, they would claim that

L	: is growing too fast
T	: ceiling has been reached
L', K, K'	: cannot be changed quickly enough to avoid a short-term disaster. (Therefore, a drop in fertility is required to avoid a catastrophe over the long term also.)
f	

It is not clear that the ceiling on land (natural resources) has been reached. For one thing, data sources are uncertain: soil censuses are rare and of varying reliability. Still, the prestigious National Academy of Sciences, using the same table that appears on page 91 of the Ehrlichs' book, find that slightly "less than half of the world's potentially arable land (3.5 billion acres) is now cultivated." [1] The physical ceiling is still far away. The question really is: can the existing supply of land be brought into production? Can the existing technology be applied?

The indirect factors of production now come to the forefront. If L', K, K', f cannot be changed quickly enough it is importantly because of constraints

(1) John S. Chapman, "Food from the Land," in Committee on Resources and Man, National Academy of Sciences - National Research Council, *Resources and Man* (W.H. Freeman: San Francisco, 1969), p.67.

in the economic and social structures, which are the matrix of production, distribution and consumption.

In view of this, a fertility response to population stress is certainly not the only response possible. It might even be --this remains to be seen in practice-- that a significant decline in fertility in a country experiencing population pressure might not affect economic growth, because there was no parallel transformation in the social organization. The theoretical possibility of social transformation as a means to liberate and create productive potential is also relevant to industrialized countries, who must try to bring their standards of living up to the level of their power of material production.

II. Population and Pollution

The astounding pollution of the environment in the modernized countries is rightfully a cause for anger. It also disheartens less developed nations, who fear they may be seeing the shape of their own future.

The Ehrlichs blame large population growth and consumption standards for the high levels of pollution. These standards (e.g., foul cars that last a short time and must be scrapped), when applied over more and more consumers, threaten to create piles of garbage that will shroud us back into the primeval ooze.

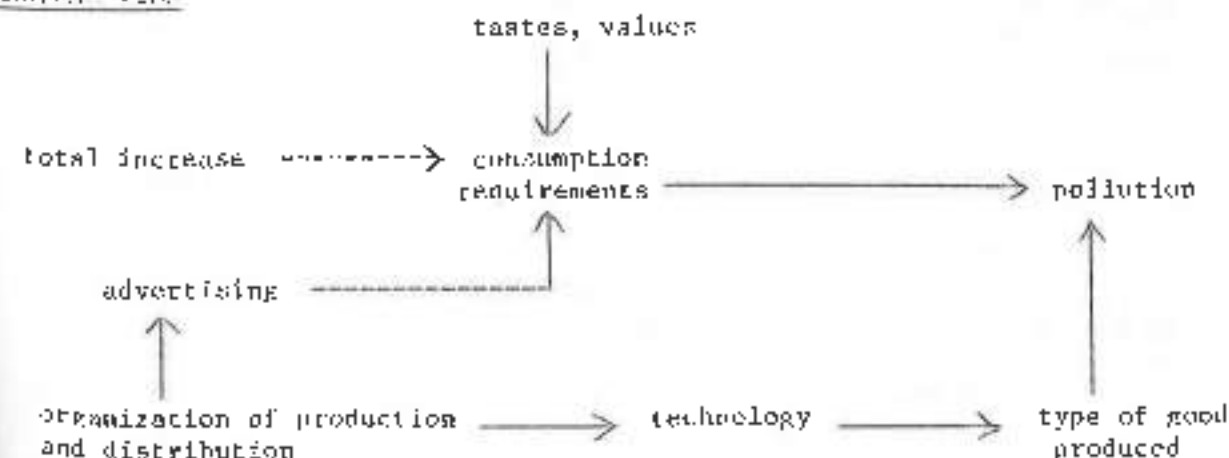
This is only a small part of the story. India has a high rate of population increase; pollution of the air and water on the American scale does not exist there. France has had a very low rate of population growth for at least a century, yet its environment is polluted. What is the important difference between these two countries? France is industrialized, India is not. Or, considering the size of a population: the United States had 5.7 % of the world's estimated population in 1960, but accounted for more than 50 % of the pollution. [1]

Compare the following outlines:

PRINCIPLES

population growth \longrightarrow consumption requirements \longrightarrow pollution

ANOTHER VIEW



[1] Reprint from Time, 2 February 1970, p. 7.

The current technology used in production accounts chiefly for the environmental pollution in the developed countries. More accurately, though, the culprits are they who pass the waste products of this technology on to the society at large as external diseconomies. The Ehrlichs recognize this last point when they recommend that the diseconomies be internalized to the firm through legal restrictions. This is typical: there are many accurate observations scattered through the book. Since they are in no proper analytical framework, the coherence and power of the argument is removed.

The influence of consumption standards on pollution is evident and important. However, before happily thumping the drums to call for "changes within the individual," look to the organization of production. One of the more blissful fantasies of standard economics (as hallowed in Samuelson's *Economics*, 9th edition) is that the consumer, through his purchases, determines what is produced. This is a very gross and tenuous influence at best. Affected by many factors (such as tendentious advertising), a consumer decides to buy or not to buy; he does not decide what is offered. The consumer has very limited sovereignty over production. That sovereignty is exercised by people who can only in unusual cases (e.g. Ford car, mini skirt) be affected "through the marketplace." They must also be influenced by "noneconomic" means as (among others): real government regulation, worker participation in production decisions (*Mitbestimmung*), a strong consumers' union to apply political pressure.

Of course, such institutional changes are not sufficient, although they are necessary. We all need to develop and adopt ways of consuming and producing that are less destructive of environment and society. But at the same time we must create the institutional framework to ensure that the new ways become established habits.

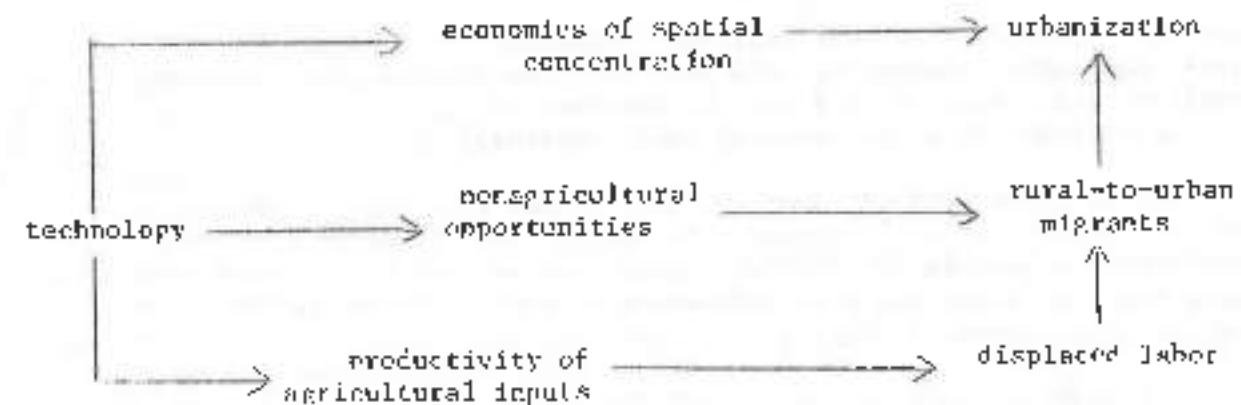
The evangelistic model of social change through individual conversion is inadequate as a guide to explanation, forecasting and policy. Besides, it seems suspiciously like a tool for maintaining false consciousness by keeping the critics and exploited well off the track. An orientation to changes in power distribution may be a better guide for our efforts.

III. Population and Urbanization

Properly speaking, the Ehrlichs present no theory of urbanization. They record the growth of cities and the increasing deterioration of the quality of life within cities. The one explanatory statement regarding the development of cities within the last century is a "push" notion dealing with the displacement of rural labor by improvements in agricultural productivity:

productivity of
agricultural inputs ----> displaced labor ----> urbanization

Such a "push" influence alone cannot account for urbanization. It is only one contributing factor. The principal impulse for the international pattern of urbanization is the peculiar technology that developed over the last two hundred years, a technology that implied great economies of spatial concentration:



Data appearing now on the growth of suburbs in the United States during 1960-70 suggest that a ceiling on net agglomeration economies has been reached, given the social-cultural context. It is essential to add this caveat, so as to forestall the interpretation that there exists an immutable scale factor that makes it impossible to live in large cities enjoyably. Current experience --in the United States and elsewhere-- should not be seen as representing some unchangeable "law of urban living." The quality of urban living, too, is a function of institutional variables, and not only of the rate of population growth. We must encourage the evaluation of alternative ways of communal living, some of which may not exist anywhere today: the study of utopias.

IV. Population and Politics

Throughout this essay, one theme has become more resonant. In the present state of conflict and stress, changes in the structure of societies and cultures seem to be the most important components of a successful response to population pressure (and for most of our other major problems).

Rapid growth of population may provide a strong impulse for such a transformation. A system of exploitation and inequality that otherwise might have been able to endure with minor disturbances, is seriously threatened by continuing population growth. Such growth reveals the inadequacies of an inflexible system and sharpens them. All the while it provides a weapon to the exploited by increasing their numbers. Unfortunate and machre as it might be, the increasing misery of a growing share of the population as a result of the imbalance between population increase and an incompetent economic-social structure may be a "positive" development in the process of liberation.

This aspect of population change gets by the Ehrlichs entirely, and not unexpectedly, since their social theory is not oriented to thinking in terms of exploiters and exploited. [1] When they consider the political effects of population growth, they envision an international struggle for control of scarce resources; a zero-sum game, or the Lohensraum model. Hopefully, the earlier discussion on population and output --with its emphasis on innovation in production and social relations-- has shown the weakness of such a model.

[1] I would not disdainfully call them "liberals," for that term has acquired its current derisive meaning chiefly because of the bad company it keeps. There are traditions and developments in liberal thought that have divorced it from a capitalist economic system, and this should be recognized.

The most relevant of the Ehrlichs' political proposals is their call for a political movement embodying the goals of ecologically sounder production, distribution and consumption. This may be adequate for the U.S. at this time. At least it points to the long work of organizing that is required in any process of social change.

However, this suggestion, and most of the book, is irrelevant to the experience of the Third World. As regards the consumers' union, incomes are so low and badly distributed that the membership would be the oligarchs themselves. Also, at such levels of misery, raising production is a main goal, and the question of despoiling the environment does not arise. (Although it should. Why repeat the mistakes of the now-developed countries?)

Most crucially, though, the authors really have no idea of what is happening in the less developed areas. They do see and empathize with many of the symptoms, such as poverty, inadequate housing and malnutrition. However, they do not locate the major source of the une -- the socio-economic structure -- and therefore they do not produce a framework that will guide inquiry and policy in trying to overcome situations of extreme oppression.

ERIC R. WEISS-ALTNER

* * * * *

LETTERS TO CONCERNED DEMOGRAPHY

Since one of the primary goals of Concerned Demography is to serve as a forum, we include the two letters we received. We repeat, together with the first year's staff, that "we encourage those with differing viewpoints to send letters to the editors."

WHITEP CONCERNED DEMOGRAPHY?

Brothers and Sisters

My concern is that Concerned Demography is becoming less concerned!! The stretch of the establishment was evident in the last issue.

Why do we exist? I thought that the main purpose of this newsletter was to offer opportunities for the expression of alternative views to those read in the academic journals. ODD and RF can and have espoused the principal arguments presented in Concerned Demography, Vol. 2, no. 2, December 1970 on several occasions. Other less well known authors with less popular views do not and have not had the same opportunity.

If the trend continues I fear that the immediate past executive editor will hold in pain at the increasing intrusion of the elite and the increasing exclusion of the proletariat.

Let's go back to the people!

Right on.

NORMA NAGER (alias Bessie Oblivion)

DUNCAN ON POPULATION

To the Editors:

Otis Dudley Duncan's article in the last issue of Concerned Demography, entitled "Observations on Population," raises some interesting questions about the connections between demographic and socio-economic analysis of what we call the real world.

Duncan's presentation of what he apparently perceives as ineluctable fact seems to me to leave some substantial gaps in reasoning. On the one hand, he argues there is no possible argument "against a policy tending to reduce [population] growth to zero as quickly as it may be [feasible to do so] except that it may be "easier" for this generation to defer the dirty work to the next generation. He rejects this legitimation as "unworthy" (Duncan, p. 27, paragraph number 3). Yet, on the other hand, he argues that "Americans easily see how rapid population growth threatens the political stability, economic growth, and sheer survival of vast numbers in the so-called developing nations" (Duncan, p. 24, paragraph number 12).

Well, what of those of us who see "the political stability" of many of the "developing nations" as a virtually unmitigated evil? If, in fact, population growth leads to political instability, and, if one does not particularly approve of some brands of political stability, then it seems one might have a cogent rationale for encouraging population growth. Certainly many "responsible" demographers, one hopes, thoroughly disapprove of the political organization of many "developing nations" not to mention "developed" ones. Military dictatorships, maldistribution of land ownership, intense concentration of corporate wealth and the like are issues around which attempts at political change are focussed. If some or all of these "bad" nations can be eventually eliminated through the mechanism of political instability leading to eventual reform and a return to stability around values and social structures deemed more appropriate, then perhaps population growth is to be encouraged.

Yet, all of this is hypothetical, to say the least. We do not really know under what conditions, or even whether, population growth leads to political instability. We certainly have little information on the intervening conditions necessary for political instability to lead to a "reformed" stability some would like to see.

Therefore, it seems to me Duncan should be somewhat less carefree in asserting population growth has no legitimate justification. We are usefully ignorant of the interconnections between changes in population size and the socio-political-economic organization, disorganization and reorganization of societies. And even the minuscule evidence we seem to have begins to gently suggest some "positive" functions of population growth in some societies.

JOSEPH G. CONDRAT
Department of Sociology
Temple University
Philadelphia, Pa. 19122

CONCERNED DEMOGRAPHY

a publication of
Concerned Demographers

SPECIAL ISSUE

--SOCIAL CHANGE

--POPULATION POLICY MAKING

Concerned Demography is a periodic publication of Concerned Demographers, a nonprofit national organization of scholars interested in relating demographic research and training to the larger society. Correspondence and manuscripts from all points of view are welcomed. Discussion and rebuttals of articles appearing in CD are encouraged. The business office of Concerned Demography is at the Center for Demography and Ecology, 3224 Social Science Building, University of Wisconsin, Madison, Wisconsin 53706. Subscriptions are available at \$2 per year. This issue has been compiled by Concerned Demographers at the Population Council, 245 Park Avenue, New York, New York 10017. Concerned Demography has no official ties with the Population Council or the Center for Demography and Ecology at the University of Wisconsin. The editors of this issue are David L. Sills and William Seltzer. B. Maxwell Stamper is the production editor.

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CONTRIBUTORS

Daniel Callahan, formerly a staff associate in the Demographic Division of the Population Council, is now director of the Institute of Society, Ethics and the Life Sciences in Hastings-on-Hudson, New York.

James T. Fawcett is a staff associate in the Demographic Division of the Population Council. He previously served as the Council's representative in Bangkok, Thailand.

Donald P. Hnigel is the Population Council's Regional Director for Sub-Saharan Africa and an associate professor in the Department of Sociology at Rutgers University.

Hugo Hoogenboom is the Population Council's Regional Director for East and South Asia and a staff associate in law in the Demographic Division.

Robert J. Lapham is a staff associate in the Research and Evaluation Unit of the Technical Assistance Division of the Population Council. He previously served on the Council's staff in North Africa.

Pamela Ledbetter is a research assistant in the Demographic Division of the Population Council.

Emily C. Moore is a staff associate in the Demographic Division of the Population Council.

William Seltzer is a staff associate in the Demographic Division of the Population Council.

David L. Sills is the director of the Demographic Division of the Population Council.

B. Maxwell Stamper is a research assistant in the Demographic Division of the Population Council.

J. Mayone Stycos is the director of the International Population Program at Cornell University and a consultant to the Population Council on Latin America.

INTRODUCTION

-- William Seltzer and David L. Sills, editors

The organization known as Concerned Demographers does not, as far as we are aware, have a charter, a statement of principles, or an announced program of any kind. Rather, it is a very loose fellowship of population students and scientists who feel that they are more than students and scientists, that they are also citizens concerned with population developments throughout the world.

Speaking for ourselves as editors, our concern has two aspects. First, we feel, as demographers throughout the world feel, that population-related problems are a cause of much human suffering. As citizens and scientists we would like to be sure that the knowledge and techniques of our profession are being properly and effectively applied to the solution of these problems. Second, we are equally concerned that the methods used to solve population problems do not themselves become the source of even greater evils and more suffering.

Accordingly, we welcome this opportunity to examine explicitly the "ends and means" of population policies and programs. To be sure, discussions of these issues antedated the first issue of Concerned Demography by many years. However, as greater emphasis is placed on population, both as a source of societal problems and as a proper objective of social planning, there is a real need for the continuous examination of the ethics of plans and actions in the population field. We, as editors, feel strongly that the open and informed discussion of these matters by all is the best device we have for protecting both our subject matter and our profession from possible misuse by a few. We hope that Concerned Demography will continue to provide a forum for such discussions.

In this issue we have asked our colleagues to write on a wide variety of topics. The table of contents speaks for itself. We have particularly not focussed the issue on the activities and country programs of the Population Council. The articles all relate in one way or another to the phenomenon of rapid social change in both the developed and the developing countries, and the dilemmas and opportunities that social change poses for demographers and other social scientists. They reflect the wide diversity of views held by our colleagues and -- by extension -- the field as a whole.

The authors and the editors of this issue have done their writing and editing solely in their private capacity; the issue is neither an official nor an unofficial activity of the Population Council. As editors, we would like to take this opportunity to thank the contributors for their cooperation and support.

WHAT DOES BEING MODERN MEAN?

-- James T. Fawcett

Modernization, in its various manifestations, is a goal toward which both governments and individuals strive. Only a few national governments, such as in Burma and Haiti, have seemingly rejected the Western version of the goal of modernization. As for individuals, where there is awareness of the modern world, aspirations seem to follow. People, particularly young people, want to be modern. Why should this be?

The individual motivational forces related to modernity are obscure, but some of the main social forces can readily be identified. Education and literacy are critical elements, presumably because they open up new vistas; not only is awareness of a wider world with its diverse roles and opportunities created by schooling, but also greater ability to cope with the world, through knowledge, skills, and self-confidence. Exposure to mass media can substitute to some extent for education and can also increase the effects of earlier education.

If one thinks of individual motivation in terms of incentives and rewards, perhaps the word "emancipation" can be used to describe a major incentive for becoming modern. Those who are more modern are emancipated from the bonds of ignorance and the weight of tradition, including family obligations and role restrictions, particularly as they affect women. For many, the impetus for modernization is related to the lure of greater personal freedom.

Another incentive, a powerful one, is the possibility of obtaining the "things" of modern life. Transistor radios, Hondas, clothes in the Western style -- all of these are very visible and very obviously desired by those who do not have them.

The "advantages" of modern life -- personal freedom, diversity, material possessions, excitement -- are readily perceived by the aspirant while the "disadvantages" -- the narrowing of close affectional ties, the loss of security and sense of community -- are more subtle. On balance, social forces and individual aspirations seem to lead inexorably toward modernization in the agrarian, traditional societies. It is only in societies much higher on the development scale, such as the U. S., where a reversion may occur in reaction against the excesses of materialism and the impersonality of social and organizational structures.

The components of individual modernity

What does being modern mean in terms of the "inner person"? Alex Inkeles has said that "it is only when a man has undergone a change in spirit - has acquired new ways in thinking, feeling and acting - that we can consider him truly modern." What do we know about these new ways of thinking, feeling, and acting? Relatively little is known, but converging lines of inquiry suggest the beginnings of a portrait.

Described below are some dimensions of personality and behavior for which differences have been shown in comparisons of individuals classified as modern and traditional, e.g., comparisons between urban factory workers and rural farm workers in developing countries. Not enough comparative research of this kind has been done to assess with confidence the effects of intervening variables or to determine the direction of causal relationships, but existing data permit identification of dimensions where measurable differences exist. Recognition of these differences provides a starting point for a more thorough understanding. The dimensions are phrased so that a modern person will score toward the high end on a scale measuring component variables:

1. A feeling of subjective efficacy; a belief in the ability significantly to control one's own life, rather than life being determined by fate or chance.
2. Willingness to take risks and innovate; self-confidence; independence from authority of traditional figures; judgment of one's own performance against a standard of excellence.
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7. Self-exposure to outside news; interest in national affairs; active participation in civic affairs and the political process.

This listing is obviously incomplete, the dimensions within it overlap, and some aspects are more strongly supported by evidence than others. But it provides, I hope, an emphasis on the personal or subjective qualities of modernity. The modernization process is not just the growth of GNP and other societal-level indices; it involves significant changes in people, both purposely and inadvertently. For instance, the educational system is a purposive attempt to change people (although important values and behaviors may be taught in school inadvertently); the factory is also a school for modernity, as Inkeles has pointed out, but it is not usually thought of in those terms. Emerging knowledge about the components of individual

modernity has significant theoretical, practical, and humanistic implications for programs that aim to bring about social change, including population programs.

Family planning and fertility rates have been viewed as important aspects of modernization. Depending upon the analytic perspective, fertility rates may be taken as contributing to the pace of modernization, as resulting from the modernization process, or as being an essential part of the definition of modernization. One can look at the list of modern personality and behavioral characteristics given above and ask whether they should facilitate or hamper reduction of fertility levels. On common sense grounds, the answer would seem to be that these characteristics are weighted in favor of a desire for small families and effective practice of contraception. That conclusion is in fact supported by a good bit of empirical evidence. Needless to say, this correlation also supports theoretical approaches to fertility change; the characteristics given may be viewed as personality variables that intervene between modernization and fertility reduction in the demographic transition. Research on the psychological components of modernity can provide useful data for the formulation and evaluation of theories of population change.

Such research may also be relevant to the practical issue of how to move social systems toward population stabilization, i.e., greater understanding of individual modernity may suggest specific social measures to accelerate reductions in fertility. Information about changing goals and values, particularly in relation to children and family life, should have direct application in the formulation of population policies. Consider, for example, the following research question: As parents become more modern through education and as women increasingly participate in nonfamilial roles, what changes occur in the way children are valued in relation to alternative sources of satisfaction? The answer to this question, or even a partial answer, would be helpful in determining the kinds of social rewards and opportunities that are likely to compete effectively with childbearing.

Finally, it should be noted that there is a great need for knowledge about causal relationships in the other direction, i.e., the effects of fertility and fertility-related behavior on individual modernity and resulting social patterns. Does adoption of contraception result in an increased feeling of personal efficacy and thus enhance the likelihood of adopting other innovations? Does the small-family environment, with greater parental attention, produce children who are better able to benefit from available educational opportunities? Is a reduction in childbearing accompanied by an increase in other kinds of behaviors that may be socially undesirable, such as greater emphasis on materialistic gratifications? The consequences for the individual and the society of modern fertility patterns need to be more fully explored.

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--Emily C. Moore

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Determinants

Not all the evidence is yet in, of course, but it may not be premature to suggest that until and unless women have opportunities for roles alternative or supplemental to that of motherhood, efforts to curtail fertility drastically will meet with stubborn resistance. (Many women will enthusiastically welcome the means by which to reduce their family size from 8 to 4 children, but further reduction may have to await meaningful opportunities for the childless or the woman whose two children have grown and left home by the time she's 40.)

At the risk of being labeled a "gradualist," I wish to suggest some measures that a) should advance the status of women, b) might possibly have an important or significant effect on lowering fertility, and c) are in the realm of immediate implementation in some areas of the world. I will leave for the utopians the Day When Sex Roles Are Obliterated, the Day When the Nuclear Family is Destroyed, and the Day When Women and Men All Find Fulfillment in Meaningful Work and Leisure.

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Prolonged education for women is also usually associated with lower fertility, again with important exceptions. (When one encounters a study which finds that "highly educated women in Pakistan do not obtain employment thereafter consonant with their preparation," and the author's conclusion is that women should be discouraged from seeking higher education, and not that work opportunities should be enlarged, one cannot help but be discouraged.)

Liberalization of abortion laws can and undoubtedly will have significant effects on fertility, particularly in situations where contraception is not yet widely practiced efficiently.

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Implementing all of the foregoing and administering a humane and effective family planning program can presumably all be accomplished by men alone in positions of decision making. I would posit that they can be done that much better, and with more appropriate consideration given to the special needs and desires of women, by the inclusion of significant (not token) numbers of women at all levels of policy formation and implementation.

Consequences

Take away a man's job and he receives unemployment insurance payments; they may be grossly inadequate, but they represent at least a token societal recognition of his loss. Mounting rolls of the unemployed are cause for great concern, both sympathetic and fearful. If the idle worker happens to be young and male, society will "understand," if not condone, should he engage in anti-social behavior.

What can we expect if, by whatever means, a family planning program happens to be enormously successful and fertility is drastically curtailed? Picture, if you will, roving gangs of 45-year-old "unemployed" women, deprived of their primary role and source of self-esteem, posing a threat to the serenity of the community. Not a likely outcome, we may all agree, and thus the Empty Nest Unemployed are seldom regarded as in any way comparable to the factory worker laid off, the instructor who failed to obtain tenure, or the returning Viet Nam veteran unable to find a job.

Although the woman in both the developing and the developed world whose primary task and responsibility has been or soon will be greatly diminished is seldom compensated for this loss, we now advocate even smaller families so that her task will be still further reduced, or removed altogether.

Thus, when we advocate "modernization" and assume that a positive concomitant of the process will be significant fertility reduction, we must also ask "modernization for whom?" The effects will not be felt evenly by both sexes. The sex which has borne the brunt of preserving the species in the past by being compelled or encouraged through social, religious, and political institutions to be fruitful and multiply cannot now be expected to pay the price unequally of a reversal in these institutions.

Anticipating the difficulties on the part of women who must adapt to a life style with fewer children and shorter years of childbearing, the society would do well to begin a program of supplying alternative sources of satisfaction that can substitute for those previously derived from the motherhood role -- status, prestige, self-esteem, accomplishment -- to women. Not only will these measures avert the spectre of roving bands of dissatisfied housewives; it might even accelerate the desired reduction in fertility!

Discussion of women and their "place" in modern society usually focusses upon women's roles, as if they could be played in isolation from the roles of NON-women (men!). However, we cannot describe the role of one participant without reference to the roles of the other players. It makes no difference how brilliantly I can play Peter Pan if the other players are performing Julius Caesar; I may have a clear idea of the role I would like to play as a modern American woman, and I may proudly announce that I will not permit others to oppress me, but unless the others are willing to adapt to my new role and to change their life style as well, there remain constraints on

the acting out of my chosen role. That is, some choices are mine to make, but some opportunities for new roles are still determined by The Other. Let us strive to examine more closely the implications for men -- their potential gains as well as their losses -- in new sex roles for women.

Into the continuing dialogue between those who advocate family planning programs as the first (if not the best) means to achieve widespread fertility control and those who argue that only basic structural changes in society such as land reform, distribution of wealth, improved education for women, etc. will bring about the desired end, I would like to inject the following Thought for the Day from a woman and a feminist. Basic societal changes will undoubtedly bring about important changes in desires regarding family size; as the society urbanizes, industrializes, and modernizes, family size ideals will be scaled downwards. Reference is frequently made to Western Europe where small family size was achieved in the absence of modern methods of contraception. I submit, however, that even Western Europeans did not achieve low fertility on will power and motivation alone; that desire had to be translated into means of some kind -- and in the absence of a family planning program, or widespread access of modern means of fertility control, those means can only be abstinence, coitus interruptus, condoms, and abortion -- not one of which particularly enhances the pleasure or the status of women.

If I am a female peasant in a developing society and if I am offered a good education -- or at least the means to become literate -- I will learn the advantages of a small family and become "motivated" to practice fertility control. If I am not simultaneously provided with facilities in which to obtain the means, I must persuade my husband to abstain, or to practice coitus interruptus, or I must obtain repeated abortions. On the other hand, if I am fitted with an IUD, but there is no change in my educational or occupational opportunities, I may find myself with fewer children than my mother and grandmother had, probably also with a longer life span, and now more time than I know how to use -- plus a distinctly lowered self-esteem in a society which has assigned my sex status largely by the act of Procreation.

As not only a concerned demographer, but a concerned feminist and woman as well, I would like to argue vigorously for energetic attention being given to the spread of modern means of contraception as well as to basic structural changes designed to bring about greater motivation for reduction in fertility.

I would, in reference to the suggestion that women be included in policy-making and implementing positions (particularly in family planning decisions and programs) suggest that organizations from the developed world that send family planning missions to the developing world, missions which include no women -- or a token female (provided she's a physician) -- ought first to set their own house in order.

Finally, to those who do not agree that the assumption made in my first paragraph is correct -- that indeed, for certain minorities an increase or at least maintenance of present level of fertility is the desired goal -- I would ask only that those who are expected to provide incubation for the replacement generation be offered the choice of whether or not to select "occupation: breed sow."

ABORTION AS SOCIAL POLICY IN THE DEVELOPING WORLD

--Patricia J. LeChatter

I. The current situation

Induced abortion in the developing nations is, generally speaking, illegal. In most of those countries where therapeutic abortion is allowed, it is only in order to save the life or the physical health (as opposed to the mental health) of the pregnant woman. A number of Latin American countries also tolerate therapeutic abortion for eugenic (i.e., fetal deformity including hereditary disease and intra-uterine damage) and ethical/humanitarian (i.e., rape and incest) indications. Almost no Asian or African country allows any indication but strictly interpreted medical reasons (life only or, occasionally, physical health). In those few countries where the laws appear to be more lenient, the "law" may in fact be court interpretations or only mitigating circumstances. In some countries, abortions performed to save the honor of the pregnant woman (or more specifically the honor of her family) or abortions induced by the pregnant woman herself are tolerated with little or no punishment.

There is no doubt that abortion is widely used in the developing world. In fact, it appears that in many areas abortion is the primary, if not the only, method of birth control used by women. Since these abortions are usually not performed by qualified people, the resulting mortality and morbidity are high. As a consequence, women who are the victims of bungled abortions place a heavy demand on health services.^{2/}

Not all the religions of the developing nations absolutely oppose the use of induced abortion. In some cases, early abortions are tolerated but not openly advocated. The strongest formal opposition to abortion comes from the Roman Catholic Church. Even the Church, however, has apparently not been able to implement its population policy effectively. Illegal abortions in Latin America, for example, can be attributed to the fact that many would-be users of contraception rely on abortion because it is the only method of contraception available to them. In other words, if contraception were available it would be used in place of abortion. This is perhaps part of the reason the Church supported the National Health Service (which in turn supported birth control in Chile). It would seem that the Church, when making the choice between tacit acceptance of contraception (the express purpose of which is reduction in abortions) or outspoken opposition to contraception (which would increase morbidity and mortality due to the increase in illegal abortions) would opt for

^{1/}A detailed study, done by this author, of all information on the legal status of abortion for all countries where available appears in *ibid.*, 1971 (forthcoming).

^{2/}For example, in Chile's National Health Service hospitals in 1958-60, abortion patients accounted for 3.1% of all admissions; 41.6% of all emergency admissions; 26.7% of total blood transfusions. It has been estimated that the cost of a single survivor was approximately \$3,000 in 1960 (Armijo and Requena, 1966).

tacit acceptance.

The developing nations are in a state of social and economic change. As these changes take place, they will have a direct bearing on the status of abortion and contraception (particularly family planning programs). One aspect of this is psychological. That is, psychological motivation for large families, which has existed in rural areas in the past, will be altered as the socio-economic changes associated with "modernization" and "development" take place. Becoming "modern" means, among other things, becoming urbanized. In an urban setting it is less necessary and less convenient to have a large family. Modernization/urbanization are accompanied by better health care which means that each child has a greater chance of reaching maturity. Also, desires to get ahead, raise one's standard of living and have more education make it preferable to have fewer children so that each child can be given a better chance in life. More education has many effects. It provides new alternatives to women besides early marriage and child-bearing for one thing. These are just a few of the reasons for which as time passes the women in the developing nations will be increasingly desirous of methods of limiting their family size. This is not to say that urban life, modern economy and getting ahead are necessarily good. However, this does seem to be the direction in which the developing nations are moving and the effects of these changes over time have to be considered.

II. Abortion policy options for the future

Abortion policies do not exist in the abstract; they must be formulated and assessed in terms of how well they accomplish a given set of objectives in terms of national priorities and the goals of individual women. On the national level let us assume that the major objectives are:

reducing fertility,
reducing abortions,
reducing abortion mortality and morbidity.

Since the first two of these objectives actually amount to reducing unwanted pregnancies and the third is largely dependent on reducing the number of abortions, one of the best ways to achieve all of these goals is to:

increase the use of contraceptives (that is reliable methods).

At the same time, there are objectives on the level of the individual woman to be considered such as:

insuring good across-the-board health care,
maximizing individual choice,
minimizing the discrimination that has existed
in this area for lower socio-economic classes.^{3/}

^{3/}As is true in most societies and for most issues, the wealthy can generally find someone to provide the service they need while the poor have little money to buy alternatives.

ABORTION AS SOCIAL POLICY IN THE DEVELOPING WORLD

-Pamela J. Ledbetter

I. The current situation

Induced abortion in the developing nations is, generally speaking, illegal. In most of those countries where therapeutic abortion is allowed, it is only in order to save the life or the physical health (as opposed to the mental health) of the pregnant woman. A number of Latin American countries also tolerate therapeutic abortion for eugenic (i.e., fetal deformity including hereditary disease and intra-uterine damage) and ethical/humanitarian (i.e., rape and incest) indications. Almost no Asian or African country allows any indication but strictly interpreted medical reasons (life only or, occasionally, physical health). In those few countries where the laws appear to be more lenient, the "law" may in fact be court interpretations or only mitigating circumstances. In some countries, abortions performed to save the honor of the pregnant woman (or more specifically the honor of her family) or abortions induced by the pregnant woman herself are tolerated with little or no punishment.^{1/}

There is no doubt that abortion is widely used in the developing world. In fact, it appears that in many areas abortion is the primary, if not the only, method of birth control used by women. Since these abortions are usually not performed by qualified people, the resulting mortality and morbidity are high. As a consequence, women who are the victims of bungled abortions place a heavy demand on health services.^{2/}

Not all the religions of the developing nations absolutely oppose the use of induced abortion. In some cases, early abortions are tolerated but not openly advocated. The strongest formal opposition to abortion comes from the Roman Catholic Church. Even the Church, however, has apparently not been able to implement its population policy effectively. Illegal abortions in Latin America, for example, can be attributed to the fact that many would-be users of contraception rely on abortion because it is the only method of contraception available to them. In other words, if contraception were available it would be used in place of abortion. This is perhaps part of the reason the Church supported the National Health Service (which in turn supported birth control in Chile). It would seem that the Church, when making the choice between tacit acceptance of contraception (the express purpose of which is reduction in abortions) or outspoken opposition to contraception (which would increase morbidity and mortality due to the increase in illegal abortions) would opt for

^{1/}A detailed study, done by this author, of all information on the legal status of abortion for all countries where available appears in March 1971 (forthcoming).

^{2/}For example, in Chile's National Health Service Hospitals in 1958-60, abortion patients accounted for 8.1% of all admissions; 41.6% of all emergency admissions; 26.7% of total blood transfusions. It has been estimated that the cost of a single survivor was approximately \$1,000 in 1960 (Armijo and Requena, 1960).

tacit acceptance.

The developing nations are in a state of social and economic change. As these changes take place, they will have a direct bearing on the status of abortion and contraception (particularly family planning programs). One aspect of this is psychological. That is, psychological motivation for large families, which has existed in rural areas in the past, will be altered as the socio-economic changes associated with "modernization" and "development" take place. Becoming "modern" means, among other things, becoming urbanized. In an urban setting it is less necessary and less convenient to have a large family. Modernization/urbanization are accompanied by better health care which means that each child has a greater chance of reaching maturity. Also, desires to get ahead, raise one's standard of living and have more education make it preferable to have fewer children so that each child can be given a better chance in life. More education has many effects. It provides new alternatives to women besides early marriage and child-bearing for one thing. These are just a few of the reasons for which as time passes the women in the developing nations will be increasingly desirous of methods of limiting their family size. This is not to say that urban life, modern economy and getting ahead are necessarily good. However, this does seem to be the direction in which the developing nations are moving and the effects of these changes over time have to be considered.

II. Abortion policy options for the future

Abortion policies do not exist in the abstract; they must be formulated and assessed in terms of how well they accomplish a given set of objectives in terms of national priorities and the goals of individual women. On the national level let us assume that the major objectives are:

reducing fertility,
reducing abortions,
reducing abortion mortality and morbidity.

Since the first two of these objectives actually amount to reducing unwanted pregnancies and the third is largely dependent on reducing the number of abortions, one of the best ways to achieve all of these goals is to:

increase the use of contraceptives (that is reliable methods).

At the same time, there are objectives on the level of the individual woman to be considered such as:

insuring good across-the-board health care,
maximizing individual choice,
minimizing the discrimination that has existed
in this area for lower socio-economic classes.^{3/}

^{3/}As is true in most societies and for most issues, the wealthy can generally find someone to provide the service they need while the poor have little money to buy alternatives.

The next question is how to achieve all of these objectives in the most efficient manner.

I have outlined some possible approaches that developing nations could take to achieve these goals in Table 1. The discussion that follows explains each of these approaches (hereafter called options) in greater detail and expands on the effectiveness of each option in achieving the objectives over time.

OPTION A

- (1) Limited family planning services available
- (2) Minimal efforts made to educate the public about contraceptives
- (3) Government gives little or no support
- (4) Abortion is illegal

OPTION B

- (1) Family planning services extended
- (2) Broadened efforts made to educate the public about contraceptives
- (3) Government gives limited support but no official policy statement is made
- (4) Abortion is illegal

OPTION C

- (1) Family planning services extended
- (2) Broadened efforts made to educate the public about contraceptives
- (3) Government gives limited support but no official policy statement is made
- (4) Abortion is legal

OPTION D

- (1) Family planning services widely available
- (2) Intensive efforts made to educate the public about contraceptives
- (3) Government gives active support including an official policy statement
- (4) Abortion is illegal

OPTION E

- (1) Family planning widely available
- (2) Intensive efforts made to educate the public about contraceptives
- (3) Government gives active support including an official policy statement
- (4) Abortion is legal

Option A does, in fact, illustrate the present situation in most of the developing world. As can be seen from the table, illegal abortions, maternal mortality and fertility will continue at a high level just as they are doing presently. Since there are no changes

in the contraceptives available; steps taken to educate the public to contraceptive use; degree of support given by the government; and in the legal status of abortion -- there is little chance for positive change. More women will become aware of the prospect of limiting births over some period of time. Knowledge does spread, albeit slowly sometimes, especially when more women find themselves living in close proximity to each other in an urban setting. Surely some of these women will attempt to use contraceptive techniques that are available (all too often what is available is less than reliable) but this will probably make little difference in the overall picture since the population at risk will be growing as fast as the spread of knowledge about limiting it. Maternal mortality rises corresponding to the number of illegal abortions. However, there is a possibility that emphasis might be put on better health care at some time so that more facilities would be available to treat women who undergo poorly done illegal abortions. Furthermore, the illegal abortionists might improve at their trade with more experience.

The effects of Option B appear to be the same as those for Option A. However, I believe that the rise in illegal abortions and the accompanying maternal mortality would be immediately much greater than in Option A. This would occur because in a slightly more lenient environment (i.e., a more relaxed attitude toward contraception) more women become immediately aware of family planning. Unfortunately, many of these women still cannot avail themselves of the services and therefore resort to abortion. Over time, illegal abortions and maternal mortality may drop below that in Option A. This drop is insignificant however. Maternal mortality should be affected by the same influences mentioned under Option A. Fertility too would not be reduced under Option B. In fact as in Option A it gradually rises over time.

Option C is the same as Option B with one major difference -- abortion is legal. It is highly unlikely that Option C would ever be adopted but it is interesting to examine what the effects would be. The immediate result would be very high levels of legal abortions, illegal abortions and maternal deaths plus some evidence of a somewhat smaller rise in fertility (as compared to Option B). The high level of legal abortions is due to an immediate shift of many of the women who would have resorted to illegal abortions. Note that this would be the case only if the administrative procedures for obtaining the legal abortion provide maximum speed and privacy. Many women who make the decision to abort will resort to an illegal abortion if the provisions for obtaining the legal abortion surround the procedure with red tape and guilt (this is particularly true in the initial phase). In addition, it is doubtful that even with plenty of advanced notice, the developing nations could organize health systems that could handle the number of legal abortions that would need to be performed right away. Therefore, women would be forced to find illegal abortionists or to have their babies until the health facilities could handle the load. Though many women would seek the legal means of securing an abortion, some would still be too far from a facility, some would still be too poor (unless the financial aspect is remedied), some would not understand the need to get their abortion early in the pregnancy, and some would end up relying on the advice of friends or relatives who have used the "old way". Thus, illegal abortions, while not as numerous as in Options A and B, would still be very much in evidence. The number of illegal abortions would probably climb for some time but then drop as facilities for and knowledge of legal abortions improve.

Fertility would not necessarily decline, though it may hold steady through the combined effect of legal and illegal abortions plus a small increase in contraceptors. Over time the legal abortions climb then probably stabilize at a high level. Evidence from Eastern Europe and Japan suggest that once women resort to abortion as the primary means for limiting births it takes an intensive campaign to switch them to contraception. They know that there is a method of limitation available and if the contraceptives are either not readily available, expensive or unreliable they continue to abort. Maternal deaths drop more rapidly than in Options A and B as legal abortions bring the risk of mortality and morbidity down.

Under Option D the illegal abortion figures would reflect an immediate rise (more than that reflected in Options A, B or C). Most of the upper and middle-class women would be eager contraceptive acceptors because their motivation and access to contraceptives would be the highest. However, the lower class women who have the desire to limit their families and an increasing awareness of methods available but who have limited access (distance, etc.) would still find the solution to their unwanted pregnancies in illegal abortions. In addition, as the government changes its position on family planning there may well be an implicit slackening on the position toward abortion. If this slackening on the position toward abortion is not in fact true, it may well appear to be true to some women. As time passes and motivation increases, and supplies and accessibility to them improves a transition from abortion to contraception would take place. The illegal abortions would begin a decline that would continue steadily though there may always be some illegal abortions performed. Maternal deaths would follow a similar course, although, as mentioned before, mortality may drop off more rapidly as medical services make it possible to save more of those women who reach health facilities. A drop in fertility would not be seen for some time though eventually it may begin to decline slowly under the long range impact of widespread contraception and illegal abortion.

Option E is identical to Option D except that abortion is legal. The legal abortion level would be quite high (particularly if administrative procedures do not deter women from the legal processes as noted in Option C). The number of legal abortions under this option would be greater than under Option C where abortion was also legal because of the intensive education campaign that would be occurring. This campaign would be pro-contraception/anti-abortion but at the same time would inform people of how and where abortions could be obtained. The education campaign plays a major role and it is important that it is done effectively. The campaign must reach the right people, create the right attitude (pro-contraception), and provide them with ample information and choices. For those concerned individuals who worry most about the high numbers of illegal abortions, this option affords the best method of reducing illegal abortions, in time, because women who go to hospitals or special clinics for legal abortions can be given contraceptives and instruction as to their use at that location. Whereas aborters were returned to the population at risk (in Options A, B, C and D) to have more abortions because there was no way to reach them, they can now be reached when they come for their abortions. If contraceptives are provided free or at minimal cost and if provisions are made for women to receive more supplies when necessary, the aborters will become contraceptors in a shorter span of time than was possible before. Illegal abortions would rise immediately for the same reasons described in Option C. The same is true for maternal mortality (though not necessarily the rate). Fertility, which would not be immediately affected, begins to drop because of the sharp rise in abortions, legal and illegal.

Over time Option E brings the steadiest decline in illegal abortions, legal abortions, maternal mortality and morbidity, and fertility. The great emphasis put on contraceptives would bring this about. This is by no means a small undertaking -- it requires concentrated manpower and funds. Developing nations will have to support family planning programs at the same time they will be providing facilities and personnel for abortions. This is a many-fold task any aspect of which seems almost impossible. Para-medical personnel will have to be trained in order to fill the great gap between supply and demand. Facilities which are inadequate now must not only be improved but expanded to meet the needs of tomorrow. All religions will have to take a step forward on the issue of contraception if they want to help turn women from abortion (legal and illegal).

Option E is the only option that maximizes the interests of both those who want to reduce the number of illegal abortions and those who want to lower fertility. In addition, it allows the individual woman and her family to decide the manner in which they will control their family size if they choose to do so. And, they will be assured that they can get convenience and safety (at least to the degree that this is ever possible). While it will not immediately eliminate the discrimination that lower socio-economic classes face when seeking ways to limit their family size, it will be a far more equitable approach than is advanced in any of the other options discussed in this paper.

This discussion has been in terms of policy. It is important to remember that there is a clear distinction between policy in action and policy on paper. For example, if Option E is adopted but administrative procedures and/or inadequate facilities and/or insufficient personnel make legal abortions difficult to get, the effect will be that of Option D. Or, if Option D is adopted but the educational campaign and wide distribution of contraceptives is not as intensive and extensive as proposed on paper, the effect would be that of Option B. In other words, the effects shown in Table 1 refer to the actual policy implementation in all its areas not to the declared policy. Of course a policy declaration can be a meaningful and useful step toward policy implementation but in and of itself it is never enough.

It is clear from the high number of illegal abortions that the women of the developing world are already seeking ways to limit their births and that nothing will stop them. The most realistic option for people concerned with health, prosperity, individual choice, quality of life, and life itself is to choose to provide contraceptive services extensively, educate the population as to their use, and legalize abortion as a back-up method.

Armijo, Rolando and Mariann Requena (1966). "Epidemiological Aspects of Abortion." Paper presented at the 94th Annual Meeting of the American Public Health Association, San Francisco, October 1966.

Moore, Emily C. (1971 forthcoming). Induced Abortion: An Inventory of Information. New York: The Population Council.

TABLE 1. Some Effects of Alternative Abortion Policies Over Time in Developing Nations

(For full description and discussion, see text.)

OPTION AND TIME SPAN	ILLEGAL ABORTIONS	LEGAL ABORTIONS	NUMBER OF MATERNAL DEATHS	FERTILITY
OPTION A (limited f.p.; ab. illegal) short-term intermediate long-term	rising rising rising	no change no change no change	rising rising rising	rising rising rising
OPTION B (f.p. extended; ab. illegal) short-term intermediate long-term	rising rising rising	no change no change no change	rising rising rising	rising rising rising
OPTION C (t.p. extended; ab. legal) short-term intermediate long-term	rising rising decline	sharp rise sharp rise rising/steady	rising slight rise decline	slight rise no change no change
OPTION D (f.p. widely available; ab. illegal) short-term intermediate long-term	sharp rise rising steady decline	no change no change no change	sharp rise slight rise decline	no change no change slight decline
OPTION E (f.p. widely available; ab. legal) short-term intermediate long-term	sharp rise decline decline	sharp rise decline decline	sharp rise decline decline	no change slight decline decline

LATIN AMERICA: PROGRAMS, POLITICS, AND THE UNIVERSITIES

--J. Mayone Sívicos

In 1960, no one would have predicted that within the decade organized family planning activities would be introduced in all Latin American countries, and that most Latin American governments would be actively or tacitly collaborating in such activities. Indeed, the questions for the 1970s refer not to whether there will be family planning programs but in what degree they will affect birth rates. To a considerable extent, this will depend on how seriously such programs are taken by governments. Many government officials regard them as a necessary evil, as a way of shoring up general programs of maternal and child health in an era of dwindling foreign assistance for health activities. Others sincerely believe that family planning programs produce modest improvements in the health of mothers and children, but assign them the lowest priorities in programs still struggling with the control of infectious diseases. While the doctors are becoming convinced that family planning is merely a complex antidote to the spread of induced abortions, the economists and planners are still debating the question of whether or not their nations have a population problem. In short, the intellectual stimulation for family planning programs is weak.

The Latin American university, which combines a tradition of political autonomy with an emphasis on engagement with the real world (via the professional schools), might be expected to play a major role in developing the scientific background for controversial new subject matter such as demography or family planning. This proved to be the case in the early and mid-1960s when outstanding physicians in a number of the leading Latin American medical schools pioneered with research, service and training programs. The social sciences however, did not follow suit. An empirical orientation was the exception, and demography virtually unknown. Moreover, unlike the medical schools, social science departments were dominated by professors who harbored vestiges of Marxist antagonism toward the Malthusians. Neither their professional training nor their interpretation of Marx were well adapted for embracing a discipline such as demography, or a "solution" such as family planning. On the other hand, to side with the Catholic Church on the issue was distinctly embarrassing--a fact which initially may have helped to neutralize their opposition. However, toward the mid-1960s two significant changes occurred--the Church softened its position and seemed to be moving to a pro-family planning position. Even more important, the United States began to espouse the family planning position, and targets as visible and valuable as Lyndon Johnson and Robert McNamara began to take a hard line on population control. Thus, not only did the left's initial embarrassment disappear, but they were handed an attractive issue on a platter of Yankee gold.²

The net impact in the late 1960s was a toning down of Catholic opposition to family planning, and a stepping up of leftist opposition, largely concentrated among students and professors of the social sciences. The influence spread to the medical schools, especially to students and younger faculty. In those universities where the center of power has shifted left, the consequences have been serious for academic programs involving demography or family planning.

²In concentrating on political motivations, this brief paper ignores leftist ideological issues, more fully treated in the author's Ideology, Faith and Family Planning in Latin America (N.Y.: McGraw-Hill, 1971).

Examples from two countries recently visited by the author should give the flavor of the situation. Quotes are from transcripts of recorded interviews.

Country A. Professor X, Medical School:

"We have suspended all activity in demography in the university... Further, the head of the Department of Preventive Medicine has been replaced, and forbidden not only to cease any demographic activities within the university, but outside it as well. It is a topic which cannot be discussed...they consider it a North American program which should be fought with every means possible, without consideration of the substance of these programs. Within their own families, these professionals practice birth control, but they are against the provision of facilities for the lower class and country people."

Country B. Professor Y, Medical School:

"We used to teach contraceptive methods and family planning but not any more. They even view Biology of Reproduction as a smokescreen for family planning. We would also have liked to have added demography to the curriculum, but that is no longer possible...There is no faculty of the university where the problem can openly be discussed."

Country B. Ex-professor of Sociology:

"In my post-graduate work I became interested in family planning and began to do research on it. I then joined the faculty of the University, introduced Sociology of the Family, and encouraged the students to do small research projects in the structure of the family in lower income groups, including family planning. The leftist students began to protest, not only on the usual anti-family planning grounds, but on the grounds that my work was too "empirical," insisting that the Social Sciences should be almost exclusively theoretical in character. They argued that research used Yankee imperialist techniques and tended to hypertrophize the students' minds. The attacks intensified when I participated in conferences on family planning sponsored by the Private Associations. Leaflets were circulated calling such programs genocidal and citing Fidel Castro. The university administration finally asked another professor and me to continue teaching but to cease all family planning activities. This seemed to violate our professional ethics and we felt obliged to resign...In this country there are only four others who have our professional qualifications, and two of them are foreigners."

When socialist governments come to power, as in Cuba and Chile, there is little doubt that they will responsibly provide family planning services, possibly including abortions, and can be expected soon thereafter to be less defensive about demography. But socialists will not win everywhere. In such places they face a real dilemma. Should they give up the seemingly attractive political issue of demography and family planning in order to shape the inevitable national family planning programs somewhat more to their tastes? To this an even more basic question must be added: Can a rational and just choice be made if discussion is stifled in the universities?

SOME DEMOGRAPHIC CONSEQUENCES OF THE CUBAN REVOLUTION

--B. Maxwell Stamper

The preliminary report of the Cuban census of 1970 has supported the hypothesis that there has been a significant decrease in the birth rate in Cuba since 1965. Since so little is known about Cuban demographic statistics, few conclusive evaluations can be stated with confidence; however, this apparent decrease does raise provocative questions about the population policies of the Cuban government and the impact of the social changes bringing about and accompanying it. Presented here are several statements of population policy by the Cuban government, information about the distribution of contraceptives, and a discussion of two social programs that are likely to have been important factors in the recent fertility decline: social development in the rural areas and an increase in the opportunity structure for women.

Table 1, which was published in the preliminary report of the 1970 census, presents Cuba's population by age.^{1/} There are substantial increases in the size of each age group, beginning with 189,000 ten-year olds and reaching a peak of 256,000 five-year olds. This agrees with the hypothesis that the number of births substantially increased following the revolution in 1959 and continued until 1965.^{2/} For those born after 1965, the size of each age group begins to decrease at a fairly steady rate and reaches a low of 214,000 children under one-year old. Of course, this may be in part a reflection of the underenumeration of infants, but the proportion of the total population under five is less than those aged five to nine; whereas in the 1953 census the proportion under five is slightly greater than the five to nine age group. In part, this might be accounted for by the reporting of infants as five-years old, but there is little or no evidence of age heaping at age 10, age 15, nor on the even ages.

Table 1. Cuban population by age, from the preliminary report of the September, 1970 Census

<u>Age (in years)</u>	<u>Number (in thousands)</u>
Total	8,553
Under 1	214
1	219
2	232
3	241
4	248
5	256
6	249
7	240
8	227
9	200
10	185
11	161
12	159
13	142
14	154
15	152
16	151
17-64	6,617
65 and over	493

Source: "Creating a Statistical Base for Development," Granma Weekly Review (English ed.), January 10, 1971.

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15	152
16	151
17-64	4,617
65 and over	495

Source: "Creating a Statistical base for Development," Granma Weekly Review (English ed.), January 10, 1971.

It is interesting to compare the proportion of children under five with the projected proportions of the U.S. Bureau of the Census, which used the cohort component method that takes into account changes in the age-sex distribution and the out-migration of about 50,000 Cubans each year. The 1970 census reported 13.5 per cent of the population as being under five-years old while the projections for 1970, made in 1968 and utilizing four different fertility assumptions, were all higher: 13.9, 14.1, 14.6, and 14.9 per cent respectively.^{1/}

Policy statements

Without the official intention of reducing fertility rates, but for reasons of maternal health and in order to encourage women to move into the labor force,^{2/} the Cuban Government has made contraceptives and abortions widely available, indeed, perhaps more widely available than in almost any other Latin American country.

Castro has suggested, however, that the most serious population problems within Cuba were solved with the revolution: by replacing chronic high levels of unemployment and poverty with full employment and an equitable distribution of the wealth.^{3/} There are two types of population problems that are now recognized in Cuba: the burden of high dependency ratios and the need for additional capital investment to provide for a larger population.^{4/} In a speech in 1968 at the University of Havana, Castro discussed both of these problems:

According to projections for 1970 there will be 3,255,000 persons under 15--that is, 39 percent of the total population of Cuba. Think how much production will need to be increased, milk production, food production, the production of everything, for a population whose youth sector is increasing. Just to offset the population increase alone no less than 12 percent of the available gross national product must be invested to compensate for such growth.^{5/}

Thus, increased productivity is seen as the primary solution while fertility rates are regarded as fixed variables, something that cannot be planned, only planned for.

With regard to population problems in other countries, Castro on several occasions has called attention to the seriousness of world population growth. In a 1968 speech he discussed the severity of the population problems facing Latin America:

Population is one of the world's greatest problems...and one of the greatest problems to be faced by this continent in the coming decades and, in fact, even before, because the people are already suffering from unbearable poverty. There is no solution in sight.^{6/}

Despite this recognition of the problem, and the wide support given to contraceptive programs throughout Cuba, Castro has not given an explicit statement supporting fertility reduction programs designed for population control. He has rejected any notion that fertility control, rather than revolution, is the major solution to the problems facing the Third World, but has neither stated nor denied that both could be mutually inclusive. This perhaps is in part because he has been reacting against family planning programs when they were supported by United States foreign policy, and has also doubted the acceptability of family planning programs in the rural areas, as is evidenced by his following statement:

I don't think / Latin Americans / will pay much attention to Johnson and Company when they speak of birth control and family planning...the whole thing is ridiculous. You know our countryside and our farmers: can you imagine what would happen if they came to them with such foolishness? They'd tell the planners to go to hell. Really, this is something you cannot plan.^{7/}

Contraceptive distribution

While there is no "family planning campaign" as such, health information which is broadcast on radio and television includes information on birth control.^{10/} There is not a great emphasis placed on this, however, either by the mass media or by the medical clinics, and contraceptive distribution is regarded as merely a part of the general health services.

Cuba has about 300 public health clinics throughout the island, all of which supply contraceptives upon request.^{11/} All clinics are staffed by gynecologists or other physicians trained for IUD insertions. In 1966, about 8,000 IUD's were inserted while the estimate for 1967 was 30,000. It has been estimated that by 1968 over 50,000 had been inserted.^{12/} Cuba makes its own IUD; a type of Zipper Ring. Condoms and diaphragms are also distributed, bought from Eastern European countries.^{13/} Oral contraceptives were not used at first because of the questions raised about their safety; now, however, they are being considered.^{14/} Contraceptive supplies and IUD insertions are provided free, as are all other medical services, and are given upon request or are recommended by physicians following abortions.

The distribution of contraceptives is in part a response to high abortion rates and the resulting morbidity and mortality to women.^{15/} Also, it allows for the freeing of women from household work into more economically productive employment while promoting the goals of women's liberation in general.^{16/} Although abortions are permitted for medical and social reasons, illegal abortions are common and are an important cause of death for Cuban women.^{17/} In 1968, 13,000 abortions were registered in Havana compared with 30,000 births.^{18/}

The rural areas

Since the beginning of the socialist revolution in 1959, almost every aspect of Cuban life has been altered, but the greatest changes have occurred in the countryside. The mobilization of large groups of urban residents to spend time in the rural areas during the educational campaigns and the sugar harvests has introduced a greater use of contraceptive practices, new attitudes about family size, and examples of nonfamilial roles for women.^{19/} Further, such influences have been brought about by the building of road systems; by the distribution of newspapers; by the development of more sophisticated radio, television, and telephone communications; and by the free distribution of contraceptives.^{20/}

Additionally, the rural areas have undergone pervasive social changes as the result of the development of 300 free medical clinics, the building of new schools, an extensive adult education program, technical training programs, new rent-free housing, new political organizations, and the increases in rural job opportunities arising from these governmental programs.

It is likely that these programs have had a profound social and psychological impact on rural peasants; although they might still be very poor, their new feelings of power have delivered them from the "culture of poverty" to a revolutionary ideology, with greater feelings of personal and political efficacy.^{21/} The exact impact of these changes on fertility is not known but needs to be investigated because it is likely to be of increasing importance to other Third World countries.

Prior to the revolution, it was often to a small farmer's personal advantage to have many children in order to utilize them for working in his fields. Now, however, seventy per cent of Cuba's arable land has been nationalized into large cooperatives and state farms, worked by adults and utilizing modern farming techniques. Food is distributed through state facilities according to need.^{22/} Thus, while in one respect the revolution has alleviated the liability of large families, it also has alleviated their necessity.

A recent study by Juan Pérez de la Riva and Blanca A. Morejón S. indicates a significant reduction of the birth rate in the rural areas, and suggests that social changes may have produced the unusual situation in which the "reduction of births works from the rural areas to the cities."^{23/} It is difficult to measure the extent of the fertility decline in the rural areas however until more complete investigations have been made.

New opportunity structures for women

"The Cuban woman is now being trained for productive work. This is a completely new situation,"^{24/} stated Fidel Castro in an interview with Lee Lockwood. Indeed, Cuba has radically altered its opportunity structure for women, partly because of its ideological goals of women's liberation, but also because of labor shortages. In 1965, 90,000 women were engaged in nonagricultural jobs; by 1968, the number had increased to 170,000, and by 1975 the Cuban Government plans to have one million women working in nonagricultural jobs.^{25/} In 1968, after nationalizing over 55,000 small, private businesses, "new managers, most of them housewives, were selected"^{26/} to take over their operation. Along with job opportunities, women's education and training has been vastly increased to the point where about half of all medical students are women.^{27/}

Juan Pérez de la Riva has explained how rural women have used past occupational discrimination to their advantage:

Another phenomenon which is typical of the Cuban population is that the very discrimination which in the past made women the victim of employment opportunities has caused her to acquire a greater educational development than men. It is easy to observe how in the old rural family the young girls went to school more regularly and finished at a higher grade level than the boys, who were requested at a very early age to work in the fields.

This better qualification of the rural woman has been put to good advantage by the Revolution by means of incorporating her into a better position in work and in community life. This has undoubtedly had repercussions to her fertility, although it may only be during the transition period which we now face.^{28/}

This might, of course, be a temporary development resulting from transitional circumstances. For example, it might be the scarcity of consumer goods that is forcing women to seek work and when real income and available goods increase, women might not be so apt to seek nonfamilial roles.

Concluding thoughts

Many of the egalitarian social policies of the Cuban Government have pronatal aspects. Although social security has been provided by the state, and theoretically has reduced the need to have children to provide for old age support, the liability of raising children is decreased by free food, clothing, rent, medical services, housing, and child care centers. Of course, all of these provisions are worthwhile welfare benefits in themselves.

It is difficult to attribute Cuba's fertility decline to general increases in economic growth^{29/} since there have not been substantial increases in GNP, industrial productivity, and other traditional measures. A reduction of consumer goods has probably been a major factor in limiting fertility, at least in the urban areas. Juan Pérez de la Riva suggested that the increase in births during the early sixties was in part a result of increased real wages and employment. Since then the availability of consumer goods has decreased and along with it the number of births, although the nature and extent of this relationship has not been evaluated.

It seems likely however, that many of the factors affecting this decline have resulted from specific governmental programs carried out in the context of a socialist revolution. These programs were not carried out with any intention of influencing fertility and thus the decline was an unintended side effect, that appears not even to have been recognized in Cuba as being beneficial. Such has been the case in many socialist countries which, even when they have had pronatalist policies, have hastened a fertility decline by the unintended consequences of other programs.^{30/} This does not imply that socialism will intrinsically reduce fertility or that fertility decreases are not possible in nonsocialist countries, but it does suggest that countries which control the means of production can more easily increase the opportunity structure for women and mobilize resources toward rural development and, of course, carry out many other social and population policies.

What is certain about Cuba is that there have been profound social changes undertaken and little is known about their demographic consequences. Further research in this area could open important new directions in dealing with population growth in the context of social and economic development.

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29. Of course, the failure to achieve economic growth does not necessarily mean a lack of economic development. See A.G. Frank, Capitalism and Underdevelopment in Latin America (New York: Monthly Review Press, 1969).
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POPULATION POLICY AS A RESPONSE TO
INTERNAL SOCIAL PRESSURES: THE CASE OF THAILAND
-- James T. Pawcett

The development of a population policy can be viewed as an example of governmental legitimization of social change. A population policy, including a family planning policy, implies in most cases a government's decision to take actions that will significantly change the lives of individual citizens and the course of the society as a whole. Such decisions are not made lightly and, when they are made, they are likely to reflect a compromise between pressures for change and the more comfortable and politically safe position of maintaining the status quo.

Among the countries that have developed population policies in the past decade is Thailand, an agricultural nation with a generally conservative social and political structure. The annual population growth rate in Thailand is high, about 3.2 per cent, but economic growth has been strong, the land is not densely settled, the ecological setting is benign, and the typical Thai citizen has not felt deprived of life's amenities. In such a situation, the need for a population policy is not readily apparent. Yet, a policy evolved over the course of a time period that must in historical perspective be considered very short.

An antinatalist policy was first recommended to the Thai Government by a World Bank economic survey team in 1959. In the following decade, the population policy issue was discussed at the Cabinet level on at least twelve separate occasions, usually in connection with reports sent to the Cabinet by Thai Government agencies or committees. These discussions were accompanied by a gradual loosening of restrictions on Government family planning efforts, but an affirmative public policy statement was not issued by the Cabinet until April, 1970. At that time, a Government policy in support of voluntary family planning as a means "to resolve various problems concerned with the very high rate of population increase which will constitute an important obstacle to the economic and social development of the nation," was announced and a high-level national committee to implement and coordinate Government activities in population was established.

Perhaps it would be useful for one foreign observer of that evolution to describe some of the social pressures toward a population policy that seemed to be operating within Thailand and to comment on the role of external influences. A brief report cannot of course do justice to the complexity of the policy development process or describe fully the substantive issues around which the policy debate revolved. With respect to the latter, I will only note that objections to an antinatalist policy reflected wide range of concerns. These included the political-military equation between the number of people and national power and prestige; concern about changes in internal population composition, i.e., proportional increases of ethnic minorities and the "lower class"; effects of contraceptive availability on the morals of youth; religious objections, particularly from those who equated contraception with abortion; and the feeling that family planning was among the modern innovations that would undermine traditional Thai values and family structure.

Most of these issues, it will be noted, reflect a genuine concern about the future well-being of the nation. It is not surprising that such concerns were deeply felt by some governmental leaders, among them a few of the most powerful men in the nation. Other leaders, however, regarded some of the issues as spurious, resulting from misinformation, and other issues as relatively unimportant in relation to the social gains that would result from a reduction in population growth rates. The general context, then, was a policy conflict between two groups within the Government, with each attempting over the years to gain adherents for its position and to weaken the arguments of the opposition. In retrospect, the process seems to have worked well and fairly, with each group respecting the other and those working for change doing so within limits regarded as legitimate within the Thai social system. The result, in terms of current population policy in Thailand, can be viewed as a compromise between the two groups: a commitment to change, but not to drastic or forced change. Described below are some of the internal social forces that seem to have contributed significantly to this governmental decision in favor of social change.

The scientific community played a key role in providing a data base for a policy decision. Over the course of the decade, a mass of population data was compiled, ranging from KAP surveys through detailed population growth estimates and projections. Particularly influential were three national population seminars, at which research data were presented and recommendations were prepared for submission to the Cabinet. Research input came from the universities and from Government agencies and ministries representing diverse interests, e.g., the National Research Council, the National Economic Development Board, the National Statistical Office, the Department of Labor and the Ministries of Agriculture, Education, and Health. The preponderance of evidence from these sources supported the need for governmental action to reduce population growth rates, although some dissenting opinions were heard. Much of the social science research was supported by foreign sources and probably would not have been carried out without such support. With few exceptions, however, the analyses and interpretations presented to the Government came from Thai scholars and officials.

The medical and health professions provided the important practical demonstration that family planning was acceptable to the people and, indeed, highly desired by many. A few pilot projects and model clinics, competently run by dedicated medical staff, were influential to a remarkable degree. The political role of the medical profession was less clearcut, perhaps reflecting the fact that nearly all doctors were Government employees and the Government had not yet determined its policy. It seems fair to say, however, that the medical and health professions were cautiously supportive of family planning programs, with a few outspoken advocates and no strong opponents. In the medical field many local programs were also supported by foreign sources, but there is reason to believe that much would have happened without such support. (Many clinics began without outside assistance and the commercial sector was, and is, very strong.) In several instances, clinical programs were

buttressed by social scientific analyses that provided important documentation for the acceptability and impact of the programs.

Other significant sources of influence will be mentioned here very briefly. Social welfare organizations, both private and governmental, played a supportive role in emphasizing the need for birth limitation among the poor. In this area, several prominent Thai women exerted influence and leadership. The mass media might also be described as supportive, since newspapers particularly gave extensive coverage to population issues in Thailand and in the world. Editorially, many newspapers argued in favor of a population policy, although a few were in opposition. Several newspapers, among them the most prestigious one in Thailand, shifted their editorial position from con to pro on the basis of accumulating research evidence. The religious factor was never very significant in the population debate. One prominent Buddhist lay leader was consistently and vocally opposed to birth control, but her influence seemed to be counterbalanced by statements by other leaders that Buddhism was neutral toward contraception (but not abortion) and favorable toward family planning, because it enhanced family welfare.

The national elite, including the Royal family, military leaders, political figures, and respected private citizens, were instrumental in the eventual endorsement of a population policy. This is true almost by definition, since this group largely controlled the political decision-making process, but the critical issue is how the decision came about. The details necessarily remain murky, since the process is not a matter of public record and conflicting speculations abound. To an outside observer, perhaps the most interesting fact was the extent of real debate on population issues among the elite. Important individuals did speak out publicly from time to time, both for and against population limitation, and it was widely recognized that population policy was a "sensitive" issue among the national leadership. To some extent positions were aligned with the traditional-progressive orientations of individuals, but there was also evident an attitude of seeking for information on which to base a decision. That attitude was all-important because it encouraged the research and clinical activities (and permitted the foreign support for them) that seem to have been a major factor in the government's eventual policy decision.

Finally, a word should be said about the international development community, in its manifestations through the UN and its specialized agencies, bi-lateral aid-giving organizations, private foundations, and so on. Thailand receives financial and advisory assistance from many sources, including prominently USAID, The World Bank, UNICEF, ILO, WHO, UNDP, ECAFE, the Ford and Rockefeller Foundations, the Population Council, and a few European Governments. Thailand is also a member of several regional development organizations. This immense network, entailing as it does contacts with virtually all departments of the Thai Government at both upper and lower echelons, has surely had a significant impact on the development of a population policy in Thailand. The effects are both indirect and direct. Indirect in the sense that hundreds, perhaps thousands, of Thai officials have been sensitized to population issues through their participation in

international conferences, observation tours, and training programs, as well as through exposure to various technical publications and mass media reports. In the past decade, the topic of population could hardly be avoided by anyone with governmental responsibilities in a developing country, whether he be an educator, a public health worker, an agriculturist, or a provincial administrator. In this respect, the entire international development system has facilitated the formulation of Thailand's policy. Not least important has been the development of population policies and programs in other countries, especially in Asia, as models with which Thailand could identify.

The direct effects of the international development community have come through programs of agencies specifically concerned with population matters, such as the Population Council, AID, ECAFE and the Ford Foundation. Their influence has clearly been substantial. In general, direct assistance has meant giving support to local institutions doing relevant research or operating demonstration projects, and helping Government family planning programs develop more quickly and effectively than they could otherwise. This "direct" assistance might be considered indirect with respect to influencing population policies, since policy-makers are not the target of the assistance but of the information that will be derived from the projects assisted. Is it proper for an outside agency to provide this kind of program support in a country where there exists both opposition and support for population programs within the Government leadership? I think so, if the assistance is openly announced, the biases of the donor agency are known, the recipient agency has local legitimacy and the results of projects carried out are disseminated fully and honestly. These conditions have usually been met in the past, I believe, in Thailand and elsewhere.

There is of course a fine line between advice and persuasion, or between economic assistance and economic leverage. The danger of coercion exists when powerful donor agencies look toward population control programs as a precondition for general development assistance. A legitimate connection exists between population growth and the effective utilization of development resources, and that should not be ignored, but it must also be recognized that the need for assistance of all kinds is perhaps greatest in those countries where cultural or political factors preclude immediately effective programs in the population sphere. It is important that the criteria for assistance include humanistic as well as practical concerns, and that specific programs be evaluated carefully in relation to ethical and cultural acceptability in each country or community. If the factual arguments for population limitation are as persuasive at national and personal levels as some of us believe them to be, then we can be confident that each nation will in time find its own path to an effective population policy. I believe there are reasonable justifications for assistance programs that aim to speed up the process of decision-making with respect to population policy, as in Thailand, but the means of doing so need to be constantly monitored.

THE EMERGENCE OF POPULATION POLICIES IN SUB-SAHARAN AFRICA --D. F. Heisel

Social change is occurring so rapidly and so unevenly in Sub-Saharan Africa that knowledge of the historical background is especially useful for an understanding of the emergence of population policies. Unfortunately, knowledge of pre-colonial societies is still too limited (and too distorted by the colonial experience) to support any but the most superficial generalizations. For a broad survey such as here offered, there is no choice but to begin with the colonial period.

During that time, population policies were developed essentially to support the goals of the whole colonial enterprise. There were a few dedicated pioneers of family planning, very much in the 19th century European style. However, their impact outside the very tiny expatriate elite and the even tinier local elite was virtually nil. Much more commonly, family planning was viewed as a threat to the adequate supply of cheap labor and was severely discouraged. In a similar vein, family planning was sometimes opposed by Europeans associated with the colonial undertaking on the grounds that it was contrary to the "African way of life" and would lead to detribalization and decadence. Missionaries were often resolutely opposed on religious grounds to the introduction of family planning.

In general, the opposition to family planning was most extensive and articulate in the Francophone and Portuguese areas. Roman Catholic ideology was one but by no means the only issue involved. The Anglophone areas tended to adopt a more laissez-faire approach. In effect, however, virtually nothing of modern contraceptive technology reached the entire African peasantry during the period.

Migration policy generally favored free movement of labor across territorial borders. Where the volume of migration was particularly large, however, as in South Africa, international agreements were worked out to ensure an adequate supply of labor and to regulate the flow. Internally, policies designed to discourage or prohibit permanent residence in urban areas by Africans were common in a number of regions. The goal of the policy was chiefly to assure the supply of unskilled labor at minimum cost.

In the area of mortality control, financial support was never adequate but positive steps were taken -- especially in public health measures and preventive medicine. A start was made in the process of reducing mortality nearly everywhere in the region.

It would be overly simple to see in these efforts toward mortality control during the colonial period no more than good husbandry for the pool of workers. That was patently the goal in some territories -- nothing else can explain the lavish detail in which reports of the physical health of men are given in some censuses of the later colonial period. However, dedicated efforts were made by some colonial administrators and private groups to improve health for humanitarian and social reasons alone.

In contemporary Sub-Saharan Africa, demographic information continues to be grossly inadequate but it is gradually improving. It is, at least, sufficient to give a picture in which one can have confidence

in broad patterns if not in narrow details.

Despite setbacks such as the current cholera outbreak, mortality appears to be on a slow but reasonably steady downward course. Major diseases such as smallpox, yaws, and sleeping sickness are being controlled or eliminated through mass programs. Dire predictions that all health services would collapse with the departure of colonial administrations have proven unfounded. Improved social conditions and more widespread formal education help to reduce avoidable disease and malnutrition.

On the other hand, the existence of the trend toward declining mortality should not obscure the fact that it remains high in most areas and that the trend is relatively recent and not yet sharply marked. As a result, fears of dangerously high mortality remain an important factor in general thinking about population policy.

With the exception of some comparatively small pockets of subfecundity, fertility levels in Sub-Saharan Africa are among the highest in the world. Estimates of crude birth rates typically run in the region of 45 to 50. Moreover, there is growing evidence which suggests that if there is any trend at all, it is in the direction of a rise in fertility. Only in Mauritius, a small, culturally distinct island country in the Indian Ocean, is there convincing evidence of a decline in fertility during recent years.

National populations, thus, tend to be growing in the region of 2 to 3 per cent annually in Eastern and Western Africa -- and only a little less rapidly, perhaps, in the Central Equatorial region. Moreover, it is a fair generalization that the more recent and accurate the demographic data for a given country, the greater the tendency to raise the estimate of the rate of population growth.

On the whole, Africa is the least urbanized of the major regions of the world. However, this too is rapidly changing. Rates of population growth for urban areas reflect heavy immigration from rural areas. They are typically twice the rates for the total national population.

Population policies in contemporary Sub-Saharan Africa which refer to mortality control and to migration tend to be comparatively consistent from one country to the next. The policies referring to fertility vary much more widely within the region.

On the matter of mortality control, there is little disagreement over the goal to prolong life as much as possible. However, the vigor and the means by which such a program is to be pursued differ considerably. Typically ministries of health provide virtually all of the medical care made available to all but a small elite within the society. Thus, although ministries of health are nowhere provided the amounts of financial or political support required to bring about the decline in mortality that would be possible given existing medical technology, the potentiality for planning medical services on a national scale exists widely. Moreover, there is a broad and increasingly articulate debate taking place in Sub-Saharan Africa concerning the optimum mix of curative as opposed to preventive medical programs.

It is very likely that mortality will continue to be brought under more effective control and it is more than just possible that, as

various countries experiment with the provision of medical services through institutional arrangements other than those developed in Western countries during the past 50 years, an accelerated mortality decline might occur. Among the most interesting of the various medical-institutional experiments are those which involve the extensive use of medical assistants and auxiliaries in very much more responsible roles than usually given to them. Other experiments deal with the delivery to patients of medical services in social contexts quite different from the conventional one-to-one doctor-patient relationship.

Policies concerned with international migration in Sub-Saharan Africa tend to be in the direction of a restriction of movement. The relatively free flow of population across territorial borders characteristic of the colonial period is being brought to a halt. Two forms of such control are evident. First, racial minorities find it increasingly difficult to enter or remain in many of the countries in Sub-Saharan Africa. For example, the Lebanese traders in a number of West African countries and the Asians in East Africa are encountering conditions which make it less and less possible for them to continue to function. Second, a number of countries have taken steps to sharply curtail the flow of workers from other African countries. Upper Volta has recently had to reabsorb a very substantial number (in the hundreds of thousands) of emigrant workers who had been repatriated from Ghana and Ivory Coast. Kenya has also recently received, although in smaller numbers, emigrants who were obliged to return from both Tanzania and Uganda. On purely racialistic grounds, South Africa has encouraged the immigration of whites from selected countries to try to offset natural increase among the Blacks. At the same time, the large scale flow of workers (numbering annually in the hundreds of thousands) to South Africa and Rhodesia continues to be strictly regulated so that permanent settlement of the immigrants does not occur.

A number of factors make it appear likely that international population movements will continue to be less and less important in Sub-Saharan Africa. The transfer of political power from the colonial regime to the politically independent national governments means that local needs become of greater importance. In the face of rising unemployment within a country, many governments see no alternative to expelling foreign workers. Furthermore, racial minorities become an easy target when there is an attempt to dispel social and political discontent. In the case of the racial minorities, their tendency to occupy the role of merchant middle men makes them particularly popular candidates for expulsion. Finally, controls over international migration are particularly attractive from a political and administrative point of view, in that they can be easily imposed forms of population policies. Migration controls can be imposed by policemen and immigration officers. They are thus more quick and predictably effective forms of population policy than attempts to influence levels of fertility -- which must normally be much more difficult in that they require alterations of basic human institutions and values and which require the activities of highly trained and expensive professionals such as physicians.

Policies concerned with internal migration sometimes show a striking contrast between aspirations and reality. The low densities of population found in many areas in Sub-Saharan Africa make the ideal of rural-rural planned peasant resettlement schemes, sometimes

linked with irrigation projects and occasionally even with new town developments, an extremely attractive project. Some of the schemes have achieved a measurable degree of success, but the attempts have often proven to be much more expensive and difficult than anticipated.

In some countries there is also a policy of attempting to divert new industries away from already comparatively developed areas, where it is economically reasonable to do so. The goal is chiefly to avoid undue concentration of urban-industrial growth, but the effects on migration patterns of industrial job-seekers is obvious. The effectiveness of such policies is often hampered by political competition between tribes or clans, with their highly localized constituencies.

A harsher policy is too often enforced in attempt to control the heavy flow of rural-to-urban migrants. Measures range from exhortations to remain on the farm, to compulsory repatriation of urban unemployed to their rural villages, to bulldozing and burning urban squatter settlements. The extreme case is found in South Africa with the enforcement of the apartheid laws and the development of the so-calledbantustans.

Among the 40 countries and colonial territories of Sub-Saharan Africa, just three nations have government programs aimed at reduction of the rate of natural increase by means of family planning: Kenya, Ghana, and Mauritius, in the order in which the programs were announced. In these three, government funds and personnel are specifically devoted to the task of making contraceptives available to the population. Between them, they comprise less than 10 per cent of the total population of the region.

In a number of other countries, the national governments permit the provision of family planning by agencies such as municipal or local governments, medical service institutions, or most commonly by voluntary associations. Countries in this category include Senegal, Sierra Leone, Liberia, Nigeria, Uganda, Tanzania, Ethiopia, Burundi, and Botswana. Naturally, there is a considerable range in the amount of enthusiasm with which the various central governments view family planning. In some, a national family planning program exists in all but an openly stated policy; in others, it is a matter of no more than bare government tolerance for voluntary association activities.

There is also a set of countries in which there is no official position concerning family planning but where the importation of contraceptives is difficult and where they are available only through private physicians. Of course, this means that contraceptives are quite inaccessible to the rural peasantry and the urban poor and even middle classes. Many of the Francophone countries fall in this category.

There are a few countries where family planning is actively banned. These include Cameroon and Malawi.

South Africa appears to be moving toward an essentially racialistic policy: pronatalist for white and antinatalist for Blacks. Evidence suggests that neither component of the policy has had very much effect. In particular, there is nothing to indicate that South African whites are having additional children in response to exhortations by some of their leaders.

In general, it is important to observe that policy positions on the matter of family planning and fertility control in Sub-Saharan Africa are in a generally fluid state. With the exception of the few countries with articulated policies there is a good deal of shifting in position from one time to another. This often is a reflection of internal personal or political competitions which have little or nothing to do with demographic issues as such.

Moreover, there does not appear to be any special connection of a country's position regarding family planning and its ideological or policy position on other issues. There is probably a small trend in favor of more countries adopting a favorable attitude toward family planning but it is still rather slight.

The most important stimulus to the acceptance of population policies referring to fertility in Sub-Saharan Africa appears to be the evaluation of the implications of a reasonably accurate census. The experience of discovering that the population is growing at a rate much higher than anticipated, followed by a careful analysis of demographic trends, has been a primary factor in inducing countries to develop population policies which include fertility control or which lead to far greater sympathy for the activities of voluntary associations.

A better understanding of national demographic conditions has almost certainly been of greater importance in the development of population policies in Sub-Saharan African countries than the advice and exhortations of various external agencies. Such external agencies have certainly had some influence in the area. In particular, the Secretariat of the United Nations Economic Commission for Africa has encouraged countries to develop population policies including family planning programs. In addition, almost all of the multi-lateral and bi-lateral, governmental and non-governmental and private and public agencies active elsewhere in the world are trying to find a role in Sub-Saharan Africa.

Nevertheless, it must also be recognized that none of the policies in Africa appears to be having very much influence on fertility levels at this time. Those family planning programs that exist are new and relatively small and have yet to have a perceptible demographic impact. The most active program in the region is that of Kenya, where the number of new acceptors of contraception is in the region of 3,000 per month and rising very slowly. A chief difficulty is, of course, the weakness of the medical institutions. There simply are not enough doctors and auxiliary medical personnel who can be released from other medical duties to have an impact. The shortage of medical personnel also implies that methods other than use of pills, IUDs, and conventional contraceptives are pretty much out of the question. Nowhere in the region has serious attention been given to the possibility of a widespread program of making abortion or sterilization both legal and available.

The availability of personnel to staff a program is an extremely important matter; surveys in a number of countries throughout Sub-Saharan Africa have indicated that the rural peasantry and the urban poor have very little knowledge even of the existence of adequately safe and effective means of controlling fertility. The methods known tend to be dangerous or ineffective or both. This means that unless modern contraceptive technology is actively delivered, it will not reach these groups in any reasonably near future.

On the other hand, there is virtually no country in the region where the urban elite does not have access to and use modern contraceptives. At this time, therefore, the debate concerning population policies which deal with fertility is essentially whether the peasants should or should not be permitted to know about contraceptives.

Growing demographic pressures and improved demographic data make it appear most probable that the present state of fluidity in population policy will draw to a close in Sub-Saharan Africa during the next few years. Policies will almost certainly be more clearly articulated in reference to mortality, migration, and fertility. Better demographic data and better understanding of their implications are obviously essential as a basis for the development of the policies.

Suggestions for Further Reading

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POPULATION POLICIES IN THE MAGHREB

-- Robert J. Lapham

Last spring one of the Moroccan Arabic-language opposition newspapers denounced family planning as contrary to Islam, not really helpful to economic development, medically dangerous to users, and ineffective as well. The editorial went on to suggest that with proper economic development, Morocco could support a population of 40 million persons,-- and in so doing, it indirectly raised very interesting and crucial issues regarding population policy for Morocco, and perhaps for Algeria and Tunisia as well. There are indications, for example, that similar population expansionist statements have been made privately in Algeria. (I do not doubt that both Morocco and Algeria "could" support populations of 40 million or so each, given the natural resources of these two countries, plus rapid, real, and sustained economic development achievements, but this belief does not answer questions regarding either the nature of population policies in North Africa, or what the governments of these countries think their population policies ought to be).

Morocco, Algeria, and Tunisia have populations which currently total close to 35 million persons: about 13.5 million in Morocco, 14.2 million in Algeria, and 5.2 million in Tunisia, with current growth rates over 3 per cent in the two larger nations, and probably 2.7 per cent in Tunisia. That these Maghrebian countries (I exclude the fourth country of the Maghreb--Libya--from this discussion) will one day contain 100 million inhabitants is an assumption I find easy to make. (As one example, for Morocco to stabilize its population at 50 million persons-- in the middle of the next century, a two child family average must be attained around 2000, which would involve a most substantial set of social changes in the next 30 years, i.e., such as are implicit in a drop from the present estimated net reproduction rate of 2.6 down to an NRR of 1.0.) Starting with this assumption, therefore, two of the more pertinent demographic questions arise: 1) when might the Maghreb pass the 100 million population mark, and even more importantly, 2) what will the age structure of these populations be when this mark is reached? Will the Maghreb total 100 million inhabitants 50 years from now? Or in 75 years? And will the demographic characteristics, especially age structure and fertility, then be such that continued population growth for another period after that will be almost certain?

Economic planners in all three countries are concerned to varying degrees with such questions and, to an extent, although certainly not totally, the population policy of each country reflects some of the concerns and questions brought forth by economic/demographic interrelationships. But the actual population policies in the Maghreb differ rather strikingly from one another, and in addition, the population policies published for public consumption are not necessarily the "real" policies. Also, not surprisingly, existing thinking on population policies is not consistent among all groups of persons within each country.

If we consider that the reduction of population growth rates in the Maghreb is a long-term eventuality (as in the world as a whole), and perhaps also a worthwhile, meaningful goal in the short run, a goal which forms one--although by no means the only--link in a long chain leading to economic development and improved living standards among people in this area, then two underlying questions should be kept in mind in any review of population policy: 1) the extent to which existing family planning programs can contribute (if at all) to the achievement of this goal, and 2) what serious evaluation efforts are being attempted to try

to assess the positive or negative role of organized family planning programs in the area? It is one thing to study family planning targets, examine acceptors and acceptor rates, or calculate retention rates and possible numbers of "averted" births, but it is entirely different--and I think extremely important--type of problem to raise questions about whether the net effect of any existing family planning program is to contribute to or subtract from steps leading to the goal of reduced population growth rates.

In addition, and in a more general sense, it may be worth reviewing the population policies of these North African countries with the following research problems in mind:

- 1) At what point, if any, in the change and development of population policies is it appropriate for a government to introduce an organized family planning program?
- 2) How and to what extent can or should contraceptive services and supplies be made available to various or all segments of a country's population; how can or should this relate to an organized family planning program; and to what extent does the availability of contraception relate to fertility reduction by comparison with social factors such as status of women or changes in marriage age?
- 3) What is the utility or disutility of outside "intervention" (by governments or by external agencies) in the process of fertility reduction?

Tunisia

Tunisia was the first country in the Maghreb to launch an official family planning program, in 1964. Since then, there have been ups and downs with both this program and with the extent of outright support from President Bourguiba, but the general trend over the last six and one-half years has been the development of a strengthened program apparatus. Although substantive results in terms of acceptors and users have not kept pace with increased personnel and financial inputs,² however, as for overall population policy, explicitly or implicitly oriented to the goal of lower population growth rates, Tunisia is way ahead of her two neighbors to the west, and several of these policy steps considerably predate the family planning program. President Bourguiba has upgraded the status of women, for example, by abolishing polygamy (the first law he signed after independence in 1956), by abolishing (1956) the traditional Islamic right of a husband to terminate a marriage (divorce can now only be granted by a court after careful review), by encouraging women to participate in the labor force, in politics, and in local organizations, by encouraging girls to go to school, by aiding the establishment of a strong national women's union (the UNT, i.e., Union National des Femmes Tunisiennes), and by raising the legal age of marriage-- to seventeen for girls, twenty for men (1964). This last came after age at marriage among women was already rising fairly rapidly and may be an illustration of President Bourguiba's political acumen (bring the law into line with clear social trends) rather than an attempt to legislate major social change with laws

that might be circumvented fairly easily. In 1956, 40% of the 15-19 year old women were married; by 1966 only 18% of the women then 15-19 years old were married, which is rather striking evidence of social change underway in Tunisia before the initiation of an organized family planning program.

Other population policy changes include ending (1961) the restrictions of a 1920 French-based law on the importation, advertising, and sales of contraceptives, and the limitation of child allowances to the first four children of workers covered under Social Security Act (1961). Additional policies in more recent years include legalization of abortion in 1965 (albeit restricted to women with a minimum of five living children or to women whose health is endangered), and the administrative approval to include female sterilization as part of the organized family planning program.

On the demographic/economic planning side, Tunisia's current Four Year Plan, 1969-1972, includes three alternative projections (no fertility decline, slow fertility decline, and more rapid fertility decline) and urges the development of a widespread family planning program aimed at reducing the crude birth rate to 34 by 1975.

In all-too-brief sum, therefore, Tunisia represents an interesting example of a country in which substantial population policy groundwork was laid, and where legal decisions were both made and openly supported by the highest levels of government, prior to the establishment of an organized family planning program. It is a country which attempts to understand the impact of demographic growth on economic development and then incorporates this analysis into its economic planning efforts, and also a country which has increasingly in the past year discussed publicly some of the economic implications of population growth. President Bourguiba, for example, has referred to "galloping demography" (unchecked population growth), and one sees many references to population problems in newspaper reporting of speeches by ministers and other government officials. The direct observable effects, i.e., acceptors, etc., of the family planning program are not large; yet one can demonstrate that the crude birth rate is almost certainly falling, and recent analyses of vital statistics data suggest that in the period 1965-1970 fertility is probably falling as well. One important research question here is why? What is behind the crude birth rate decline? (One analysis concludes that perhaps at least one-third of the crude birth rate decline through 1965 may be due to family planning efforts, with the other two-thirds accounted for by increased age at marriage and by the effects on the age structure.)³ An even more important and difficult research question is to ascertain what effects the social and legal policies of the nearly fifteen years since independence have had on fertility and family formation.

Because of its population policy background, and considering the estimated continued decline in the crude birth rate (I base this statement on preliminary analysis of 1970 birth registration data) in the face of a program which actually is not reaching large numbers of acceptors (at least by Korea-Taiwan standards, i.e., in 1969 about 2.7 per cent of the estimated 732,000 Tunisian married women under age 50 accepted a contraceptive method), Tunisia represents a North African country for which population policies and processes undoubtedly warrant careful study over time.

Morocco

For rather different reasons, the development of population policies in Morocco also merits attention, at least in the North African context. Morocco is ruled by King Hassan II, who espouses many traditional practices, while at the same time encouraging some modern developments. He also maintains careful control over his opposition.

The government of Morocco established a family planning program in 1966, following economic/demographic studies by the Moroccan Planning and Statistical Agencies, and missions by outside experts on the role an organized family planning program might play in reducing Morocco's population growth rate. There is also some indication that a late-1965 official visit to King Hassan II by President Bourguiba may have included a discussion of the family planning program then already underway in Tunisia. But the kinds of pre-program population policies adopted in Tunisia were not in evidence in Morocco; in fact, some of the seemingly "structural necessities" did not come until after the program began. For example, the official ruling (dahir) that abrogated the old French-based law barring the sale and distribution of contraceptives was not signed by the King and thus made into law until July, 1967, about one and one-half years after the initial family planning program efforts.

The population policies exhibited by and in Morocco are mixed. Numerous small steps have been taken in recent months and years, e.g., seminars on family planning, creation of a Moroccan Family Planning Association, publication of articles on family planning in the first issue of a journal put out by the Moroccan Women's Association (AICHA), an announcement by the Moroccan Minister of Finance at a World Bank meeting in Paris, December, 1970, that there will be an expansion of the Moroccan Family Planning Program, etc. On the other hand, some bigger steps have not been taken, such as strong and open discussion of population growth patterns and problems by the King, who commands considerable respect and favor among large segments of the population, especially in rural areas. Hassan II did sign the United Nations World Leaders Declaration on Population in 1965, but this fact has never been published, or even reported by the press (government or opposition) or by other media within Morocco.

One family planning program administrative policy is in rather clear evidence in Morocco--the concept of complete "integration" of family planning into the existing health structure. Although many family planning programs around the world are organized with separate departments, usually but not always located in ministries of health, the Moroccans have a policy of "integration," meaning the absence of any separate large-scale family planning department, and the inclusion of family planning services as part of the total health-care package available to Moroccan citizens. In essence, this policy calls for the furtherance of family planning information and services by all health personnel, but some detractors of such a policy claim that this leads to situations in which no one feels responsible and hence in which not much happens. (There are hypotheses here in need of research and testing.) This policy has not always been explicit in Morocco. When the current Five Year Plan (1968-1972) was made, the section on family planning included a plan for training and developing a cadre of 200 full-time, specially-trained, family planning field workers, at the rate of 120 per year during the Five Year Plan. This group of workers was to form the main thrust of educational and information efforts aimed at bringing about another element of the Plan's 1968-72 program, a reduction in the crude birth rate from 50 to 45 via the re-

enrollment of 500,000 IUD acceptors during the five years. In 1968 a group of 35 health workers were trained to do family planning information and education work and these workers did begin their activities in various parts of Morocco. However, no additional groups were trained, and early in 1970 the Ministry of Health disbanded this small cadre of family planning workers, returning them to their former duties.

There are a few data available on Moroccan fertility patterns. Surveys provide some insights, but the vital statistics system is quite new and cannot yet provide meaningful birth registration data. Also, the scheduled 1970 census, which could at least have permitted comparison with the 1960 age structure, was cancelled at the very last moment (literally--the evening before the census was to begin, by which time all preparations were complete and thousands of workers and supervisors had been trained and were in place around the country) by the King who decided to hold a referendum on a new constitution three weeks from that date and then hold elections for a parliament right after that. This sudden announcement took the Moroccan Census Bureau completely by surprise, and it also caught the political opposition completely off-guard.

Most estimates, including a late 1970 estimate by Moroccan Division of Statistics, place the crude birth rate in the country at about 50, and probably not changing very much. Survey data indicate that age at marriage among women is still very low, as is the ideal age at marriage.⁴ The Family Planning Program had less than one per cent of the married women of reproductive age accept contraception during 1969, and the level of acceptance just barely approached one per cent of the same group in 1970. An interesting note here is that the 20,239 acceptors in 1969, and the approximately 25,000 in 1970, can be compared with net gains of about 55,000 women per year added to the group of women of reproductive age (15-49).

Thus, one might characterize Morocco as a country with some population policies oriented to reducing the rate of population growth, and with slowly increasing activity in this realm, but a country which at heart has a cautious "go-slow" attitude toward population control plus, of course, the definite policy of economic development that is expected to contribute over time to a lower population growth rate. As outsiders, and as population students not really certain or sure about what the most effective population policy for a traditional Islamic country should be, international, multilateral, and bilateral organizations should probably exercise considerable caution with regard to what is suggested to the Moroccans concerning population goals to strive for, and concerning population policies and activities necessary to achieve any population goals perceived and adopted by the Moroccans. This is not to suggest that information and research activities by outsiders cannot contribute to the understanding of population processes in Morocco; rather, it is meant to suggest that outsiders may bring more minus than pluses into the picture.

Algeria

Although a few, limited, family planning services are available in Algeria, there is neither an official government nor a private family planning program. At the highest levels of the government there is a population policy to allow economic development to take care of population growth and population control. When President Boumedienne opened the Annaba Steel Complex in June of 1969

he said, "Our goal...over the next twenty years consists of assuring that our people, who will number 25 million souls, will have a standard of living which will be among the highest of the modern peoples of the world of tomorrow. I take this opportunity to say--concerning that which is (called) 'galloping demography'--that we are not partisans to false solutions such as the limitation of births."⁵ Some persons say that President Boumedienne used the words "family planning", but the newspaper report quotes him as saying "limitation of births". In either case, the policy is fairly clear, as it was to the members of a WHO mission who were in Algeria at the time at the request of the government to assess the possibilities for a national family planning program. The mission abruptly terminated its task the day after President Boumedienne spoke.

President Boumedienne further spelled out his thinking on population policy a year later in an interview with a French journalist. In response to a question about the lack of a demographic policy in Algeria (a false question in one sense, since there is a policy), President Boumedienne replied:

I thought it was accepted by all the experts that there is definitely only one way to limit births and that is by raising the standard of living. The technical methods that you advocate in Europe have failed in all of the poor countries as you know. Obviously, one could say that it is a vicious circle and that a higher birth rate or galloping demography is what prevents the standard of living from rising. This is only partially true. Here again one must be modest and take risks. For our parts, we are betting that we will win the race between development and demography. Look at the map of our huge country: you can see the extensive lands that we can bring under crops by modern techniques; you can imagine the important resources that may be found under the ground and that we are beginning to discover by systematic prospecting in all of the country. I think there is room in Algeria not only for 15 million (estimated population 1972), but for many more Algerians. For that we must work hard and make sacrifices; since there is no other choice, we will do it.⁶

In this 1970 statement, President Boumedienne implies that he is not necessarily opposed to birth limitation, i.e., he is not urging a population expansionist policy, but the policy is to bank on vigorous economic development (and presumably the modernization that goes with this) to bring about reduced fertility. Of interest is the negative reference in both the 1969 speech and the 1970 interview to the term "galloping demography". It would be interesting to know for sure if these references represent clear rejection of President Bourguiba's use of this term in support of family planning activities in Tunisia.

Other spokesmen for Algeria have also stated the anti-family planning policy. In a paper presented at an OECD meeting of experts on "Family Planning and Population Policies in Africa", April, 1970, the Algerian representative, Mr. Remili, said that Algeria wants to respond to the challenge posed by its 3.1 annual growth rate by searching for positive, dynamic and progressive solutions, and not by an alternative which diverts attention and the mobilization of the people and governments of Africa.⁷ He made clear that the "alternative" referred to here is family planning, and added that family planning results from economic development, and cannot take off on a large-scale because it interferes artificially given existing human and socio-economic conditions. Mr. Remili stressed that real assistance (by outside donors and organizations) consists of help with study and scientific research of the problem and of training of personnel. In Algeria, for the moment, said Remili, "priority is given to studies, to demographic, economic, and social research projects, to experiments with family planning, and to constructive and mobilizing dynamism over 'catastrophism'".⁸

These last remarks constitute exactly what Algeria is doing, and doing very seriously. A national KAP (Knowledge, Attitudes, and Practices) study was undertaken in 1967-68, and a 126-page preliminary report was published only eight months after the completion of field work, which is a considerable accomplishment, especially since all tabulations, analysis, and writing were done in Algeria.⁹ The Planning and Statistics Sections of the government are examining in detail the likely relationships between economic development and demographic growth patterns over the coming years. The field phase of a large national demographic survey to obtain estimates of fertility, mortality, and migration patterns has just been completed (February 1971) with analysis of data already started.

Thus, the current population policy of Algeria appears to include the following elements: a searching for information on demographic problems in the country; observing what is happening elsewhere, especially in the immediately neighboring countries; allowing very limited family planning activities (reaching some hundreds of women each year); strong reliance on economic development to bring about reduced fertility; and a cautious appraisal and rejection of large-scale national family planning programs.

Observations

The population policies of the three North African countries reviewed here are quite different: Tunisia--considerable social progress for women plus a vigorous and open concern with population growth and a definite and expanding family planning program; Morocco--a Plan policy to reduce population growth via family planning but weak efforts to fulfill this policy; Algeria--research and study to obtain more and better data on population growth and related subjects plus an avowed policy of economic development as the solution to lower fertility. There are some similarities among the three countries, e.g., none of them proclaims a policy that it does not have enough people and should seek to increase fertility or in-migration, but the differences lead to additional interesting research questions. For example, in the last third of the twentieth century can economic development in a developing nation lead to lower fertility without the explicit provision of family planning services? What is lost or gained if

large scale public or private family planning programs are included as small parts, say one or two up to a maximum of five per cent of development programs and budgets? (I exclude categorically the notion that family planning is or might be the sole solution to development problems.) This research question should also be turned around: What is lost or gained if large scale public or private family planning programs are not included as small parts of development programs and budgets?

The basic question raised earlier concerning the extent to which family planning programs bring about more "pluses" than "minuses" in the development process (if that hypothesis can be substantiated) might be formulated as follows: Given a series of actions which seem to be part of a population policy geared to reducing population growth rates, at what point in the process is it most propitious for the emergence of a strong family planning effort? The sooner the better? Only after certain policies regarding a wider role for women in society become established? Only when the popular demand for family planning services is so great that it would be politically unwise for a government to refuse to initiate a program or openly support private efforts?

Students of family planning and population policy might do well to tackle research questions like these, and the Maghreb may offer interesting opportunities for research in this realm. My own tentative and largely subjective reading of family planning in the Maghreb is that the organized family planning effort began in Tunisia at about the right point of time. Morocco, however, may have started its family planning program too early, with the result that not only is there very slow program development, but maybe the long-term goal of reduced fertility is pushed a bit further into the future by what might be termed a semi-false start. As for Algeria, fully realizing the pitfalls inherent in offering interpretations, I suggest that it would be unwise for the Algerian government to begin an organized family planning program now and even more unwise for outside agencies and organizations to urge it to do so.

These interpretations and discussion leave unanswered the knotty issue of how external agencies, e.g., the United Nations, World Bank, etc., can refuse population program assistance once a government decides that it wants a program for its people. That is, an external agency may decide (objectively as it sees the question) that a country is not ready to benefit from an organized family planning program, but that country may itself have decided that it is ready and does want support for an organized family planning program. What and whose criteria are to be utilized in such cases? This last mentioned does not arise in the Maghreb--the two countries with organized family planning programs want them, and the one country without does not want one--but the "who judges when" question should be included in general discussions of population policy.

Footnotes

1. Al Alam (Arabic-language newspaper-Morocco), April 17, 1970.
2. For information on program development and results, see G.W. Brown, "Moroccan Family Planning Program--Progress and Problems," Demography, Vol. 5, No. 2, 1968, pp. 627-631; W.C. Povey and George Brown, "Tunisia's Experience in Family Planning", Demography, Vol. 5, No. 2, 1968, pp. 620-626; J. Vallin, "Le programme tunisien du planning familial," Servir, No. 5, 1969, pp. 18-31; and R. Latham, "Family Planning and Fertility in Tunisia," Demography, Vol. 7, No. 2, 1970, pp. 241-253.
3. Latham, op. cit.
4. Division of Statistics, Secretariat of State for Planning, Government of Morocco. "Morocco: Family Planning Knowledge, Attitudes, and Practices in Rural Areas" and "Morocco: Family Planning and an Attitude Survey in the Urban Areas", Studies in Family Planning, No. 58, Oct., 1970, pp. 1-11.
5. El Moudjahid (Algiers), June 20, 1969. (Translated from the French original).
6. Nouvel Observateur (Paris), June 1, 1970. (Translated from the French original).
7. Abderrahmane Remili, "Les Responses au Defi Demographique: Le Refus Algerien de la Penurie Malthusienne," paper presented at OECD meeting of a group of experts on Family Planning and Population Policies in Africa, Paris, April 6-8, 1970.
8. Ibid., p. 3.
9. See AARDES (Association Algerienne pour la Recherche Demographique, Economique et Sociale). La Regulation des Naissances: opinions et attitudes des couples algeriens, Algiers, 1968.

ETHICAL ISSUES

--Daniel Callahan

Allow an ethicist an inmodest opening assertion: to conceive, shape, and implement a population policy is to make ethical choices, whether recognized or not. To make policy is de facto to decide what is good for human beings, what ought to be done by them, and what the right line of public action is. The words "good," "ought," and "right" have been, traditionally, understood as normative terms. I think on the whole that this is a good tradition, especially when one speaks of population policy. While it is possible and quite legitimate to cast policy questions in neutral language, whether legal, political, or sociological, a point will eventually be passed when to continue doing so will muddy the issues and create a false consciousness.

One has only to scratch around a bit under the surface of any existing or proposed policy to discover either manifest or latent value assumptions. Indeed, it seems impossible to even conceive of a policy which could be ethics-free. To decide that a country needs a population policy is, in the end, to decide that the welfare of a people, their human good, would be thus served. But that decision presumes that one (or someone) has some notion of what a good human life, individually or collectively, requires. To decide that a particular kind of policy is needed (e.g., a voluntarist family planning policy or a quasi-coercive population control policy) is to make certain judgments about the relative ranking of important values, as well as to say something about the means appropriate to achieve final ends. All those judgments, in turn, presume that one has decided which values and goods are relatively more or less important for the living of a decent human life.

Issues like this can be overlooked, or evaded; but that does not mean they are not present and active, though perhaps well below the surface. The problem I would pose as an ethicist is how they are to be brought to the surface and dealt with in a responsible, rational, and open way.

Let me try to look under the surface a bit. Consider a proposal that an underdeveloped nation institute a policy of denying welfare or other benefits to couples who produce more than, say, three children--one among the many proposals that go "beyond family planning," to use Herselson's phrase. One can guess that such a proposal would originate elsewhere than from "the people," i.e., from some government ministry or some expert planning group. Let us assume, however, that the proposal could be pushed through a legislature, that it could be deemed politically feasible. One can still ask some critical ethical questions. Would it be right to introduce such a proposal simply because it would be politically feasible? Would it be just to implement the proposal? Just to the couples who might be penalized? Just to the children who might be denied needed welfare benefits? Just to those couples who could not effectively practice contraception or who, out of conscientious objections, will not resort to abortion in the case of contraceptive failure? The answer in each case might be yes, or, more likely, it might be yes and no--just in some respects and unjust in others. Or it might be the case that while some injustice would result from such a policy some other equally important values might, in a compensating way, be served. One might, on balance, consider it an ethical policy in a given country at a given time.

The point is that one has to be prepared to ask questions of that kind and to grapple with them. From a purely pragmatic point of view, a policy that would lead to significant injustice for a sizeable portion of a populace could lead to great political turmoil in the long run. But from the more important ethical point of view, one can hardly claim to care about human welfare (and isn't that what a concern with population growth is all about?) if one is unwilling to wrestle with matters of right and of justice. Moreover, once one attempts to do so, the inadequacy of the most common popular ethical slogans will become evident. "The greatest good for the greatest number" is a fine ethical criterion--as long as one has determined what the "good" is, what "greatest good" means, and one has an ethical way of coping with the possibility that the greatest good for most people might entail the worst evil for some people.

In short, if a proposed population policy will have to be justified demographically, politically, and socially, it will also have to be justified ethically. And an "ethical justification" ought to be as systematic, nuanced, and sensitive as any other kind of justification. At the very least this requires asking how the different human values, goods, and welfare at stake are to be balanced and weighed. Unfortunately, if a cost-benefit analysis can be useful in economics, it rarely works in ethics: human values and aspirations, the validity of claims to freedom and justice, the rights of present generations over against the rights of future generations, do not lend themselves to quantification and numerical scaling. One cannot measure incommensurables, and most ethical values fall in that category. It is hard, for instance, for some whites to comprehend how in the world some blacks can see voluntary family planning programs as "genocidal." No one is forcing them to choose! Surveys show....! etc., etc. But it ought to be plain that the blacks in question may have a very different set of ethical priorities, which the "common-sense" rebuttals of whites simply do not touch. Voluntary family planning programs are fine; they can enable one to have the two-child family. But what if one is black and one wants as a modest demand the right to have more than two children and to be able to raise them decently--in a word, the same rights that middle-class whites now regularly and legally enjoy. Blacks are hardly going to consider it a significant advance in freedom if they are offered only half the rights enjoyed by whites, i.e., only that half which would allow them a maximum of two children.

Those last points touch on an essential part of the ethical equation. Ethical dilemmas arise not because a good is pitted against an evil; in that event there is no dilemma. They arise because two or more values or goods are pitted against each other; a claim to freedom is in conflict with a claim to justice, or a claim to justice competes against a claim to survival. For some blacks, at least, the demand for justice takes precedence over the demand for procreative freedom. A common argument these days, especially from the ZPG camp, is that the most important ethical issue is survival, either of the nation or of the species. From that perspective, rival claims to freedom, or to justice, take a secondary place. But it is clear that one value is being given precedence over another; and that is to make an ethical choice. It may be a good ethical choice--but that is a judgment which can only be reached after values are weighed, ends examined, and some concept of human good determined upon.

It is tempting to think that ethical questions can, in the end, be translated into political or sociological questions. Thus, it might be claimed that the only ethical problem of population policy is finding a way to take account of the values and interests of different groups, and framing policy accordingly. Surveys can be taken about what different segments of a population will accept in the way of policy and what they will reject. It is vital to have that kind of information. But no amount of such data will tell one, without remainder, what an ethical policy would be. Moreover, the data will in fact tell one little of anything unless there is a framework of evaluation and judgment for interpreting and using it. Such a framework will not miraculously spring forth from the data. Nor will it result from taking the attitudinal pulse of a people. The making of judgments about right and wrong, good and bad, just and unjust will have to involve a very different process of thinking and weighing.

If people are beginning to think and talk about law and population -- as distinct from the relationship of law to individuals -- the discussion presumably rests on the assumption that societies must begin to adopt and implement population policies regarded as desirable or essential for the society, and that without these policies the aggregate result of individual behavior will be undesirable or disastrous for the societies involved.

There are three kinds of problems confronting policy makers:

1. The best-known problem is rapid population growth in the developing world -- regarded by most (but not all) economists and demographers as inhibiting rational economic development.

2. Another widely-discussed problem is the relatively lower, but still significant, population growth in the developed world, which is thought to pose ecological threats, to accelerate resource depletion, and to aggravate social problems generally.

3. Third, and not as well-known, is the problem of too rapid a decline in fertility -- regarded as threatening a diminution of national power (economic and military) as well as causing social problems.

A fourth situation might be where there is no affirmative population policy but where policy is expressed by rejection of proposed laws that might influence fertility, for that very reason.

The kinds of laws that could be used to implement population policies to solve a population problem may be divided into three rough categories:

1. Laws directly affecting fertility by intervening at some point in the procreation process (through regulation of abortion, contraception, and sterilization).

2. Laws indirectly affecting fertility through regulation of social relationships related to fertility (marriage, descent and inheritance, sex status, etc.).

3. Laws indirectly affecting fertility through economic effects (tax, child allowances, maternity benefits).

Past experience may be a useful -- though by no means the only -- guide to what role law may play in the implementation of population policy.

Population policies before World War II were primarily pronatal. France, Germany, Italy, and Japan all attempted, by making fertility control difficult and by offering various kinds of incentives, to encourage people to marry and to have children. Typical measures included strict control of abortion and prohibitions against the sale, advertisement, and use of contraceptives on the one hand, and encouragement of fertility through child allowances, marriage loans, and other special incentives on the other. These policies were not very successful, if they were successful at all.

After World War II population policies were reversed, and so were the methods used to implement them. Contraception and sterilization were made freely

available and people were encouraged to use them. In Japan, abortion was made legal. Various economic incentives and disincentives were proposed.

The reversal of population policies after World War II was dramatically illustrated in Japan. Concerned by the return of millions of overseas Japanese, a rising birthrate, in the setting of a ruined economy, Japan reconsidered its laws and policies. Abortion was liberalized in 1948, and became effectively available on demand in 1951. At the same time, contraception was also liberalized and ultimately officially encouraged (as a way to reduce the number of abortions), and the same laws making abortion available also liberalized sterilization. However, abortion became far and away the principal method of fertility control in Japan. Other factors were economic incentives inadvertently arising out of "pronatalist" requirements that companies had to pay family allowances based on numbers of children. This gave employment preference to people with fewer or no children -- which may have had an anti-natalist effect -- and may also have been the reason abortion was included in employee medical insurance coverage. (The cost of paying for abortions apparently also induced companies to open contraceptive clinics.)

To come full circle, Japan is once again considering a pronatalist policy. The Government, because Japan's net reproduction rate has been below replacement for the last ten years, asked its Population Problems Council to study the situation. An interim report was issued in 1969 which recommended that the Government consider adopting measures to ease the economic burden of having children, so as to bring the net reproduction rates back to replacement. No action appears to have been taken to implement this recommendation.

At first glance, it would appear that Japan provides an excellent case history of the use of law in implementing a population control program. However, the declining birth rate of the 1960s was probably simply a continuation of a trend that began in the 1900s, which was merely interrupted in the 1940s.

Unfortunately, no other developed country has as yet adopted a deliberate antinatalist policy, so Japan stands as the sole example. Probably, without the change in the law, it would have taken far longer for the trend in birth rate decline to reassert itself, so that we may argue that, even if it is not possible to induce radical change in behavior by law, it is at least possible to encourage and accelerate trends that already exist or have just begun. Legalization of abortion did this in Japan.

Underdeveloped countries began to become concerned about their rates of growth some time after Japan. India (where in 1930 the world's first government birth control clinic was established) adopted a population policy in 1952.

In Taiwan, the Provincial Government included a "pre-pregnancy health program" in its health activities from 1959 to 1962, and in 1962 it supported an experimental family planning program which by 1964 had been expanded to cover the whole island. An official policy was not adopted by the Government until 1968 -- four years after the family planning program had become nationwide. Taiwan's annual population growth rate has fallen sharply and should reach 2.0% next year. Demographers argue whether this decline came about through the family planning program, because of economic and social development, or because of a high rate of (technically) illegal abortion. All three factors probably played a role. However, no legal changes were made in pursuit of either the tacit or the explicit policy. The major change that has been proposed -- but not yet enacted -- is a law that would liberalize abortion and make sterilization legal.

It might be argued that land reform in Taiwan contributed to changing attitudes (although the reform took place quite a while before the decline in growth began). Unfortunately, no research has been done on this point.

Korea (South) adopted an official population policy in 1961 which, through two successive Five Year Plans, looked towards achieving an annual population increase rate of 2.0% by 1971 -- a target which looks realistically achievable at this time. The one change made in Korean law in implementation of this policy was to repeal the old law prohibiting the importation of contraceptives. Korea now looks towards a third Five Year Plan (for the period 1972-1976) period during which a growth rate of 1.5% -- or possibly 1.3% -- will be the goal. Korea is generally regarded, together with Taiwan, as an exemplary case of a population policy implemented through a family planning program. Again, as with Taiwan, it can be argued that a large part of the decline in fertility Korea has experienced may well be attributable to economic development, social change (especially urbanization) and widely practiced though technically illegal abortion. Probably all factors contributed here.

The principal change in the law that has been proposed to date is a bill to liberalize abortion more or less on the Japanese model. The bill was introduced by the Korean Government last year, but was withdrawn in anticipation of this year's elections. The bill is expected to pass eventually, but no one seems willing to predict what effect it might have on fertility. The incidence of abortion in Korea is already extraordinarily high and seems to be rising, especially in rural areas. (For example, 20% of all 1969 pregnancies are estimated to have ended in abortion.)

As in Taiwan, there was a land reform, and it may be that this affected attitudes about the desirable number of children, but no research has been done on this point.

Thailand, which only last year adopted an official population policy supporting family planning as a means of combating the deleterious effects of rapid population growth, has already begun a nationwide family planning program providing contraceptive services and information through the existing health network. Even without public information campaigns or official funds, the program in Thailand has made considerable progress. There were 225,000 acceptors in 1970, compared to 122,000 in 1969. We expect numbers to go up again in 1971, and with the beginning of direct Government budgetary support in 1972 under the Five Year Plan, we expect the program to set growth rate targets, as happened in Taiwan and Korea. Thailand is unlike Korea and Taiwan since it is only on the verge of a successful implementation of its population policy. No laws needed to be changed to bring this situation about, and no changes have been proposed. Thailand does have a restrictive abortion law, but because of the Thai Buddhist ethic against taking life, it is more strictly interpreted by the medical profession than seems required. It is most unlikely that the law will be changed. Abortions are done illegally in Thailand by nonmedical personnel.

Minimal legal changes have been made in other countries: Tunisia, Morocco, and Turkey, for example, repealed their anticontraception laws; Tunisia also abolished polygamy (although it isn't clear what effect polygamy has on overall fertility), restricted children's allowances to the first four children, raised the age of marriage (to 17 for women and 20 for men), and permits abortion to requesting parents of five living children. Singapore has raised the price of delivery services in the Government-subsidized maternity hospital, has eliminated the requirement that all labor contracts provide for unlimited maternity leave (only three maternity leaves are required), and has stopped giving preference for public housing to families with children. India

has stopped giving income tax exemptions for children or for wives.

In the range of legal actions taken or proposed seriously in the developing world, the legalization of contraceptives is certainly the most obvious step, since the alternative to contraception is rhythm, not a notoriously successful method. The next most obvious step would appear to be legalization of abortion. So far, no underdeveloped country has taken this step (although from the election returns, it appears that India may be the first). Indirect laws, such as changing the age of marriage, could have a profound impact, if they are thoroughly applied and enforced. Unfortunately, most indirect laws of this kind require some form of positive or negative action by the state to enforce them, which is troublesome in developing societies where inability to completely translate policy into action is a common characteristic. Enforcement is even more of a problem where a legal change goes directly against established custom. The more easily enforced indirect laws -- the ones relating to taxation, child allowances, etc. -- usually do not reach very far into developed societies. The people affected are usually the salaried urban classes, who are probably already limiting their fertility in any case. The bulk of the people in the developing world are little affected by the monetary economy, which is where laws regulating maternity benefits, child allowances, and so forth have their main effect.

So it seems that the law has played a secondary, rather technical role in the population policies of the developing world. The main thrust has been to change the law directly related to fertility, and, as a practical matter, only laws containing various prohibitions against contraceptives have been changed or repealed. Liberalization of abortion law has been proposed, unsuccessfully so far. There have been some efforts to affect fertility indirectly, but with what appears to be negligible -- but certainly unmeasured -- effect. Perhaps laws relating to land tenure and descent have exerted some influence, but there are no data.

Population policies in the developed world, where they exist at all, tend to be pronatalist. In both Eastern and Western Europe the law exists in a state of tension between pronatalism on one side and individual freedom on the other. For example, in some Eastern European countries, the principle of freedom of abortion and contraception advocated by Lenin has been, to one degree or another, limited by official concern over declining growth rates, so that abortion is now severely restricted in Romania and limited in Bulgaria. Abortion was free in the Soviet Union after 1920, severely restricted again in 1936, and liberalized again in 1955. In France, despite the long-standing pronatalist policy, the law prohibiting contraceptives was substantially liberalized in 1968.

The United States has no articulated population policy, although the President's Commission on Population Growth and the American Future will presumably remedy that. (The United States did at one time have a clear population policy of unlimited immigration.) The laws regulating or prohibiting various methods of birth control were enacted, it seems, for reasons unrelated to population policy. Abortion was prohibited because it was medically unsafe, and contraception was outlawed as immoral. The struggle in the United States has been largely a jurisprudential one, seeking to establish individual freedom of control over procreation despite the law -- and it remains to be seen whether the courts or the legislatures are to play the major role in liberalizing abortion in the United States.

The laws that seem to have had the profoundest impact on birth rates appear to have been those directly affecting control of procreation. The most

dramatic cases are in abortion law. Japan, on the one hand, experienced a sharp decline in birth rates following abortion liberalization, and Romania, on the other, experienced a sharp rise in births following a shift from a liberal to a severely restrictive abortion policy.

Removal or relaxation of laws restricting contraception in the developing world has had some effect, as in Korea, where that nation's successful family planning program could not have been mounted without repealing the old law.

The record seems to show that so far, policy makers have had the greatest impact on birth rates by changing the laws directly related to births. From a policy point of view, then, it would seem that first priority ought to be given to those laws. People concerned with using law as an instrument in advancing a population policy (pro or antinatalist) should look first at the laws regulating the availability of contraceptives. Laws to be inspected should include, in addition to those directly affecting sale, manufacture, advertisement, and distribution, such things as customs provisions and tax preferences. Policy makers should also look at the laws regulating abortion and sterilization.

Laws indirectly affecting fertility would require a great deal of careful consideration before being proposed. Because they are indirect, the effect of these laws on fertility is uncertain. At the same time, these laws also will affect other areas of public interest. Clearly, caution is required to avoid a situation where an indirect law has an undesirable social result in a nonfertility area while yielding a negligible result in fertility reduction (for example, sharp restriction on children's allowances after a certain number).

Laws indirectly affecting fertility are probably not worth a great deal of priority attention in most developing countries because there seems to be a lack of willingness to commit enough financial resources to direct programs, or to pursue them with sufficient vigor. After the straightforward problems facing population programs are overcome, then it may be useful to talk about indirection.

ENVIRONMENTAL ISSUES

--William Seltzer

The question of how population policies may affect or be affected by environmental issues appears to have no clear answer. Of course, a number of people have answered these questions for us [Bajema, Cloud, Coale, Dubos, Ehrlich, Gardin, Hauser, Landsberg, Notestein, Taugher] but their answers differ.

On the one hand we are told that population growth is a major cause of environmental deterioration in the world generally, and in the United States in particular, and that if we want to protect ourselves from ecological catastrophes we must stop population growth now--by voluntary means if possible, by coercive means if necessary. On the other hand, we hear that population growth is low in the United States, and that the real cause of pollution is the failure to provide adequate social and economic deterrents to pollution. The debate often ends with the environmentalists asserting that demographers are too close to population to see the overriding issues, and the demographers replying that the environmentalists are so far from an accurate understanding of human population phenomena that their conclusions about population range from the unwarranted to the perniciously wrong.^{1/}

If population policies in this country, or for the rest of the world, are to be justified on the grounds of environmental protection, this divergence must be faced squarely. One purpose of this essay is to explore some of the reasons why this debate has remained unresolved. After all, the participants on each side are not all fools or devils, though some, at times, seem to be such. A second purpose is to examine one aspect of environmental policy--pollution control--as it might be viewed from Third World countries. The first involves putting our own house in order and the second the process of realizing that our neighbors may be both different from us and different from each other in their reaction to some environmental issues.

The great debate

Why do demographers and ecologists seem to differ so basically? Is it because they use the same words to mean different things and different words to mean the same things, as Gilbert White asked, quoting from Mark Twain? Certainly some of the differences are semantic. For example, to the demographer human fertility is seen primarily as the outcome of a number of interacting social forces; and although some of the social factors involved have biological antecedents, these antecedents operate in a social context. Thus, only a small proportion of the world's human population is now breeding at the biologically determined limit of female fecundity. Except for spontaneous abortions, still births, and primary and secondary sterility,^{2/} the substantial gap between potential and actual fertility among humans can be attributed to nonbiological factors.

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Not all demographers or environmentalists think alike, so that within each discipline there are a number of counter-examples to the characterizations made here.

2/

Even these factors have nonbiological components, as evidenced by socio-economic differences in their incidence.

On the other hand, the biologist tends to think more in terms of potential fertility (i.e., fecundity). Variations in population growth for a given animal species are viewed as largely dependent upon factors external to the species (e.g., food supply, predators, temperature), because "fertility" is considered to be a constant, species-specific force rather than a societally affected variable.

While the lack of a common dictionary is certainly one of the causes of the debate, a number of other factors are involved. These include a lack of consensus about unarticulated values and assumptions, about what facts are relevant to the issue in dispute, and about how any given set of facts should be interpreted.

Possibly because concepts like "environment" and "ecosystem" refer to a totality, rather than to a particular aspect of experience or knowledge, the boundaries of the subject matter have no clear limit. Since every human action has an environmental impact, all aspects of human behavior can be seen as relevant to the ecologist. The advantages of such breadth to a scientific discipline are obvious, but there are also limitations. One of these, of particular relevance to the present topic, is that it is extremely difficult to resolve many scientific discussions about environmental issues. This difficulty arises because the disputes are often really not about scientific issues (i.e., physical or social facts, their causes, effects, and their interrelationships) but about values and beliefs. Moreover, since the environmentalist claims, with some justification, that his specialty covers every human intervention in the ecosystem, he is certain to be bumping into many deeply-held convictions in any solid week of work. Needless to say, environmentalists and ecologists also have beliefs and values.

While values and beliefs are not self-evident they seem to be so to those who hold them; accordingly, they are often unarticulated. Furthermore, clearly labelled statements by scientists about personal beliefs are, by convention, excluded from most scientific presentations, since they are irrelevant to many kinds of scientific discussions.^{3/} Yet such values and beliefs largely determine how we, as individuals, perceive our environment, and how we respond to suggestions to change or preserve it.

One basic point of divergence between many economists on the one hand, and conservation-minded ecologists on the other, relates to the nature of the standard used to measure any given environmental development. Economists, in general, insist on valuing environmental damage in terms of its effect on humans and human institutions. They would include among the damages such direct costs to humans as pollution-related morbidity and mortality and the breakdown of the ecological systems which result in reduced agricultural or marine food production. Also included, at least in theory, would be such indirect costs as any psychological damage caused by the extinction of animal and plant species and the attendant loss in ecological diversity.

It is chiefly in respect to these indirect costs that the problem of unarticulated values arises. Economists tend to argue that while we as humans receive some benefits from the survival of exotic species, we also must pay some costs. The costs and benefits, however approximated, are measured in human coins and express the value to humankind, either individually or collectively, of the survival of birds, trees, and fish.

An alternate view is that nonhuman living beings and perhaps the ecosystem itself have an inherent value independent of the existence of man. Those speaking for this second viewpoint ask such questions as "what right has man to destroy the forests and plunder the sea?" Similarly, the basic justification of all human efforts to control and manipulate the environment is questioned.

^{3/} I exclude pro forma statements of political or religious orthodoxy required of scientists in various parts of the world, which may or may not reflect the real views of the person making them.

The contrast between these views is also seen in the alternatives of designing national parks as places of recreation for human tourists or places of refuge for nonhuman wildlife. The difference between these two views seems to be almost religious in nature, and thus, it is difficult to resolve by scientific arguments.

The ideal state of man is another example of the different values held by many ecologists and social scientists writing on environmental issues. In terms of the present controversy, the question becomes should individual nations strive to be self-sufficient in food and other resources or should production and consumption be optimized among nations on the basis of some mixture of efficiency and welfare? Here again, apparently scientific discussions become battlegrounds for values. In this case, the ecologist's "natural man" living a simple life with a few crops and fewer flocks does battle with the economist's "economic man" living a complex life of production, consumption, saving, and trading.

One reason why scientific discussions of environmental questions, such as population, are often little more than debates about intangibles is the absence of relevant (actual) data.^{4/} For example, to examine the question of the relative importance of such factors as high fertility, migration, per capita consumption, price structure, economic system, and environmental perception on the level of air pollution, one would need to have measurements of air pollution. Until recently we had no such data. Today, the situation appears not to be much better, at least from the point of view of resolving issues of environment-population interactions in the United States. Free from the restraints of relevant data, the issues are "resolved" in Science on the basis of piecemeal statistics of trivia, anecdotes, and speculations of doom or utopia.

If the future is to be less blind than the past, there is an urgent need for a systematic and extensive data collection on a wide range of environmental problems. Moreover, because these measurements will be used in the analysis of social issues and the determination of social policies, social and behavioral scientists should be among those involved in planning such measurement programs.

In the heat of the population-environment controversy one may forget that the long term goal of the population policies advocated by most participants on both sides are identical.^{5/} Both groups acknowledge as fact the inevitability of an average population growth rate for the world of zero and both groups advocate as policy that the inevitable should be achieved deliberately by a reduction in fertility rather than tragically by increases in mortality.

Nevertheless, a common policy goal does not imply an agreement either on the reasons for which a policy is adopted nor on the means by which it is achieved. The earlier discussion of values suggests that basic differences do exist with respect to the reasons for supporting population policies designed to encourage fertility reduction. These underlying motives, considered by themselves, are of little importance. In practice, however, the motivation behind a policy proposal often affects the means suggested for its implementation.

^{4/} Discussions about intangibles in their own right are important, stimulating, and time-consuming. However, such discussions might proceed with less heat, and more clarity, if the distinction between revealed truth and scientific hypothesis were more carefully noted.

^{5/} A major irony of the great debate is that demographers such as Malthus and Tauscher, who have long been associated with efforts to encourage rational thought and action about population (see, for example, Malthus, 1966 and Tauscher, 1954) are now accused of indifference or even hostility toward any attempt to deal with rapid population growth.

For example, one might suppose that those who advocate a policy of fertility reduction because they believe people, in general, to be pollutants in an otherwise pure ecosystem would tend to be indifferent to the adverse social, political, and economic side effects of the actions they propose. Similarly, it is reasonable to worry that those supporting fertility control for a specific race or class out of a belief that such people are "undesirables" or are "breeding like rats" will ignore reductions in individual human welfare that may be associated with proposals designed to achieve desired fertility levels by coercive means. Simply put, those who dislike Blacks, Jews, Arabs, Untouchables, Catholics, Bengalis, or people in general, will usually be more willing to achieve reduced fertility among these groups at the expense of their health, happiness, and freedom than those who do not. On the other hand, those who advocate fertility reduction as part of an effort to increase human opportunity, economic well-being, health, happiness, etc. are probably more alert to the range of possible adverse consequences of specific methods than those who do not.

There are three very important qualifications to these generalizations. First, "good" motives do not assure proper actions nor are "bad" motives proof of improper means. Nevertheless, the reasons advanced to support a population policy can give an initial clue to the likelihood that its implementation will be, on balance, liberating or repressive. Second, people in describing both their motives and their methods don't always mean what they say; but what people say can be evidence of how they plan to act. Third, I do not want to imply that ecologists as a group are indifferent to human welfare or that social scientists as a group are particularly well-motivated. Both groups, like the rest of humanity, are a mixed lot. For example, between two of the leading biologists currently writing on the population issue--Ehrlich and Hardin--there appears to be an evolving divergence in the parallel areas of motives and means. From Ehrlich we hear more about social concerns and less about coercive means, while Hardin, who seems to attribute U. S. population growth to governmental transfer payments to the poor, has shifted from the advocacy of abortion so that women can be freed from compulsory pregnancy / Hardin, 1968a / to recommending the compulsory sterilization of women in order to protect the quality of life / Hardin, 1970 /.

Population policies and pollution policies

Most of the debate about the extent and nature of population-environmental interactions has been in terms of the industrialized, low fertility countries, while most of the people on the planet live in the nonindustrialized nations of Africa, Asia, and Latin America.

It is clear that the cost of rapid population growth is high for nonindustrialized nations: a given effort at economic and social development is less effective and the problems involved in providing food, jobs, health services, and education become more acute. Faced with this reality nations have four kinds of policy choices. First, do nothing on the grounds that there is no population problem or that the problem will take care of itself, or that the time is wrong, or that doing anything explicit is ethically or ideologically incorrect. Second, explicitly provide services and means to eliminate unwanted fertility, and implicitly assume that modernization and economic

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It is likely that some of those who recommend strongly coercive means do so in an effort to dramatize the urgency of the problem of rapid population growth and not as a serious policy recommendation. In other words, they do not quite mean what they say. One problem with this type of setto voce advocacy is that it is not at all clear what is being recommended.

development will result in a decline in desired family size / Davis, 1951 and Notestein, 1960 /. Third, explicitly provide services and means to eliminate unwanted fertility and explicitly alter social factors so as to reduce family size / Notestein, 1944 and Davis, 1967 /. Fourth, achieve lowered fertility by explicit compulsion / Hardin, 1968b and 1970 /.

Whichever of the three activist policies is chosen, the questions of implementation remain. What is the most efficient and effective way of providing services? What social factors should you try to change and how do you bring about the desired change? How do you equitably administer a program of compulsory fertility reduction? These questions do not have simple answers. It seems clear, however, that unless the social costs of a particular policy and its implementation are very high (e.g., the enforcement machinery necessary to carry out a national compulsory sterilization law) it is in the national self-interest of high fertility countries to try to reduce their fertility.

While the motivation for the reduction of high fertility is spread fairly widely around the world (even if the achievement is not), the motivation for effective pollution control policies seems to be less uniform. In fact, concern with pollution control appears to be greatest among the industrially most-developed nations. This is fortunate since, today, these countries probably have the most serious environmental problems and can best afford the costs of pollution control.

I accept as correct the view that a necessary condition for pollution control, and thus for environmental protection, is that the price structure of goods and services somehow reflect the attendant costs of pollution. As Gertrude Stein might have put it, to do something about pollution you have to do something about pollution whether (says Ehrlich) or not (says Coase) you have to do something about population.^{8/} In particular, we must cease to treat air and water, and particularly their ability to absorb and disperse waste, as free commodities. A pollution control policy must therefore involve the establishment of the principle that the costs of pollution must be internalized into the economy, while its implementation must involve the establishment of effective methods for determining and assessing these costs.

Clearly, in the long-run interest of everyone on the planet, global monitoring and control of environmental pollution is necessary. Unfortunately, it is not at all clear that pollution control, now, is in the short-run interest of many developing nations.^{9/}

^{7/}The complementary shift by Notestein and Davis over the past 24 years in their assessment of what is the most effective way of achieving fertility reduction in high fertility countries is somewhat exaggerated by my citations. A substantial part of their apparent differences in both periods is due to their differing assessments about the feasibility and appropriateness of alternative policy recommendations for Third World countries. They share the common and unaltering view that changes in fertility behavior are related to both social change and the availability of effective methods of birth control.

^{8/}The reverse is also true--nations have to deal with rapid population growth--whether or not they deal with pollution. The point is pollution and population are distinct problems with largely distinct solutions.

^{9/}For these nations, mortality from infectious and parasitic diseases is clearly a more serious problem than mortality from industrial pollution. Major efforts to control industrial pollution would seem to be justified only as overall mortality is reduced and industrial activity increases.

The industrialized nations achieved their relatively affluent position without having to pay the costs of pollution control (one could say they received a subsidy from nature). If global pollution control, or its equivalent in rigid waste discharge standards, were suddenly introduced it would, in effect, raise the cost of industrialization for nearly all nonindustrialized nations.

A few developing nations have raw materials for export with low pollution characteristics (e.g., Nigeria with low sulfur fuel) and thus would not be adversely affected by pollution control efforts, but the vast majority of nonindustrialized nations would find themselves paying more for development. Some other nations which depend on the export of products with high pollution characteristics may well suffer economically from national pollution control activity within individual industrialized nations.

If global pollution control is to become a reality, a way must be found to implement control programs so that they are not at the expense of the nonindustrialized nations. One simple and direct approach is possible. Let the industrialized nations unilaterally adopt pollution control policies. In response to this action, environmental pollution in the industrialized nations will decline and the real costs of goods and services in these countries will rise. Over time, the technology of pollution control can be expected to improve markedly and its costs sharply decline. In the interim, environmental pollution in the developing nations will tend to rise stimulated by increased industrialization, perhaps partially attributable to a rise in the export of goods with undervalued pollution costs. Eventually increased local pollution within developing nations and reduced costs of pollution control will result in these countries also adopting effective pollution control policies.^{10/} In practice, the achievement of effective pollution control will not be quite this automatic. As in the case of population matters, how a policy is implemented is often as important as what policy is adopted. Nevertheless, policy decisions can have major consequences.

Alternative pollution policy choices are possible. One could insist that unless all nations make efforts to control pollution, the United States would not. Although such a policy might be of short-run benefit to the balance of trade, the other consequences of such a policy--dirtier air, rivers, and lakes--will probably become increasingly unacceptable to the American public. One could postpone attempts to deal with pollution control until zero population growth is achieved around the world. Such a policy would have two unfortunate consequences for the ecosystem. First, the development of efficient (i.e., cheaper for any fixed standard of cleanliness) pollution control technology would be postponed for at least another 50 years. Second, the industrialization and economic development that might accompany the achievement of reduced fertility levels in the developing world might place large additional burdens on the waste disposal capacity of the planet. However, such policies seem unrealistic; surely it makes more sense at present to concentrate on fertility reduction where fertility and population growth are relatively high and pollution reduction where economic wealth and environmental pollution are relatively high.

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Such an environmental policy may also have fertility effects. The economic incentive toward industrialization that such a policy would provide for the nonindustrialized nations may well foster conditions favorable for lower fertility. More speculatively, reductions in real income among the industrialized nations arising from effective pollution control might bind us at ZPG sooner than expected.

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UNANTICIPATED CONSEQUENCES OF POPULATION POLICIES

-- David L. Sills

The fairly explicit formulation of population policies has come to be accepted as an important function of government. This is true of such developed countries as Sweden, Japan, the United Kingdom, France, and (or so it would seem) the United States; it is also true of many countries in the developing world.

Counting countries that have adopted a population policy is fraught with uncertainties. In the 100-odd developing countries of Latin America, Africa, and Asia, some 30 had adopted an antinatalist population policy by the Spring of 1970, according to one United Nations estimate;^{1a} some 25 countries have both an antinatalist policy and a family planning program, according to a count made at the Population Council in mid-1970.² Additional evidence of this trend is the number of economic development or Five-Year Plans in the developing countries that include a section on population policy.³

Population policies are generally antinatalist in character; that is, they set forth reasons why the country would benefit from having a lower growth rate and list measures designed to bring this about. However, an unknown number of countries -- probably a majority -- should be classified as having pronatalist policies, if the effects of governmental actions upon fertility levels are considered to be evidence of de facto or unintended policies. Should they be?

This is a question on which there is little consensus. Hope Eldredge's standard definition states rather clearly that intent is a requirement of a population policy:

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1. A slightly different version of this paper was presented at the annual meeting of the Population Association of America, Washington, D.C., on April 24, 1971.
 - 1a. United Nations, Department of Economic and Social Affairs, Human Fertility and National Development: A Challenge to Science and Technology. New York, 1971, p. 29.
 2. Dorothy Nortman, "Population and Family Planning Programs: A Fact Book," Reports on Population/Family Planning (1970 edition). New York: The Population Council, July 1970. See also "Governmental Policy Statements on Population: An Inventory," Reports on Population/Family Planning. New York: The Population Council, February 1970.
 3. The Population Council is preparing an inventory and analysis of population policy statements included in the development plans of developing countries.

"Population policies may be defined as legislative measures, administrative programs, and other governmental action intended to alter or modify existing population trends in the interest of national survival and welfare."⁴

This definition was written in 1967, and published in 1968, just before the current revival of interest in the subject. After several years of active creation of and participation in this revival, Bernard Berelson has tried to enlarge the definition to include both the intentions and the consequences of governmental actions:

"Clearly some policies intended to have population effects do not do so and some policies adopted for other purposes do have population effects, though for some purposes and for a narrower definition the latter could be excluded or considered as 'hidden' policies."⁵

It is possible to go one step further, as Judith Blake has done, and define population policies so as to include all institutional control of reproduction. She states that

"these implicit policies exert their influence not through a state planning board but through the decentralized mechanism of family and kinship institutions -- mechanisms that lead individuals 'voluntarily' to behave in certain highly patterned and selected ways. These decentralized mechanisms of control operate in the sphere of reproduction in much the same way that the pricing mechanism operates in the economic sector of capitalist countries."^{6a}

There is of course no need to hammer out an acceptable definition of population policy that resolves the issue of unintended population policies. On the contrary, the very difficulty of arriving at a definition may be an advantage as far as scientific work in the field is concerned, since the existence of unintended policies reminds us that the examination of unanticipated consequences is one of the core tasks in the social sciences. For certain purposes it is clearly desirable to examine only the stated aims and the intended effects of governmental policies, as for example, if one wants to ascertain the motives or ideology or competence of governmental decision makers. But it would be an error

4. Hope Eldredge, "Population: Population Policies," in David L. Sills, editor, International Encyclopedia of the Social Sciences, Volume 12. New York: The Macmillan Company and the Free Press, 1968, p. 331.

5. Bernard Berelson, unpublished manuscript, 1971.

6a. Judith Blake, "Reproductive Motivation and Population Policy," BioScience, Volume 21, No. 5, March 1, 1971, pp. 215-220.

to limit the field of population policy analysis to the intentional aspects of governmental actions, since the actual determinants of population trends in society are largely unintended and since the consequences of the adoption of population policies are so largely unknown.

A goal of this paper is to focus attention upon the concept of unanticipated consequences in order to move it a little closer to the center of discussion and analysis. In order to do this, I will list a set of postulates that may be useful for analyzing problems in the field of population policy:

1. Changes in the frequency of population events (births, deaths, migrations) in a society occur largely as the result of changes that were themselves brought about with other ends in view. The decline in fertility that results from industrialization, urbanization, and modernization generally is one well-known example.
2. The historical record shows both that population policies often have little impact upon population trends and that those policies that have been successful have largely been those of developed countries. In those developing countries that have witnessed declining fertility in recent years -- Taiwan, Singapore, South Korea, for example -- the simultaneous high rate of economic growth makes it difficult, but probably not impossible, to attribute a portion of the decline to the country's antinatalist policies and programs.⁶
3. Although a population program may not achieve its stated ends, it will probably have other consequences. These may be anticipated (and beneficial), as in the obvious case of a family planning program leading to an improvement in levels of maternal health, or unintended (and harmful), as in the case of a financial incentives program resulting in an increase in corruption among civil servants.
4. Many governmental programs designed for other purposes will lead to changes in population variables. The liberalization of abortion legislation in Eastern Europe since 1955 was carried out for humanitarian and health reasons, but it has resulted in sharply reduced birth rates.⁷ The same is true of the postwar legalization of abortion in Japan.^{7a} The recent decline in the birth rate in Cuba seems to be the result of policies designed to raise the status of women, although it is claimed

6. Ronald Freedman at the University of Michigan is attempting to assess the role of family planning in fertility reduction on Taiwan, while Thomas K. Burch of the Population Council is directing a similar research project for South Korea.

7. Hope Eldredge, op. cit., p. 336.

7a. United Nations, Economic and Social Council, Population Commission, Fifteenth Session, Geneva, 3-14 November 1969, Measures, Policies and Programmes Affecting Fertility, With Particular Reference to National Family Planning Programmes. New York: United Nations, 17 September 1969, E/CN.9/252, p. 93.

that this was neither a goal nor a recognized benefit of these policies.⁸ And the current rapid rate of population growth in the developing world is an unanticipated consequence of lowered mortality that had much of its origin in governmental health programs undertaken to lower morbidity and death rates.

Consider now the situation faced by an international technical assistance organization in the population field. Asked by the government of a developing country for help in analyzing its population characteristics, in formulating population policies, and in carrying out measures designed to implement these policies, the advisor sent by the organization to the developing country faces formidable problems. Leaving aside language barriers and cultural hurdles, shortages of trained local personnel, and resistance to foreign aid and other outside influences by people on every level in the society, there are the vast difficulties of understanding and dealing with the complexities of an alien social system. These difficulties are compounded by the fact that the advisory organization is generally asked to advise on changing the behavior patterns of conservative peasant farmers in the sensitive areas of sex and family life, although the nature and the social ramifications of these behavior patterns are only imperfectly understood. It is difficult enough to examine even the direct effects of population programs;⁹ if a yellow flag marked "Watch out for unanticipated consequences" is flown, the difficulties are compounded.

Yet this flag has been flying for some time, and the field is not unaware of the dangers and the pitfalls involved in trying to change reproductive behavior. In his analysis of some 29 proposals for fertility reduction, "Beyond Family Planning," Berelson has identified some unintended or indirect consequences of many of them, particularly their political and ethical consequences.¹⁰ The U.S. Commission on Population Growth and the American Future has asked scholars to prepare a number of special reports to supplement its own research, including one by Theodore J. Lowi of the University of Chicago on "Guarding Against Unintended Consequences of Possible Population Policies."^{10a} There is certainly an increased awareness among specialists of the possible boomerang effects of population programs on the societal level.

There is also evidence of concern for potential unintended consequences on the individual and family level. For example, some consequences for parents and

children of a reduction in family size as the result of contraceptive practice have been described in detail in a recent paper by the social psychologists John A. Clausen and Suzanne B. Clausen.¹¹ The impact upon women of a reduction in fertility is speculated upon on all sides these days -- partly by advocates of women's liberation who envision women's status improved if their role as mother is diminished, partly by those (again including feminists) who fear that the combination of fewer children and a continued absence of career opportunities will lead to even greater frustration among women. Here is a fairly representative statement -- by Ruth B. Dixon -- of the problems that may arise and of the direction in which solutions for them may be found:

"Obviously this new freedom [from childbearing] cannot come without first providing women with alternative sources of financial support, recognition, companionship, security, sexual fulfillment and a sense of belonging, or without providing alternative outlets for creativity, ambition and love. New forms of work, new forms of communal living are needed if we are to break away from our dependence on the isolated nuclear family for emotional sustenance. Minor alterations of the present structure will not do the trick because we will still be left with our pervasive need for closeness -- a need that in the present system can be satisfied only in the private nests of our miniature and separate worlds. Thus we cannot expect that the high value now attached to family life and to children among all social classes will simply vanish as soon as other opportunities for women are available. The data on the family size desires of working women and highly educated women make this quite clear. Marriage and children satisfy special needs and provide special pleasures that are not offered in any other sphere. The way our society is now constituted."¹²

8. See B. Maxwell Stamper, "Some Demographic Consequences of the Cuban Revolution," Concerned Demography, Volume 2, Number 4, March 1971. For a report on contemporary Cuban women, see Virginia Olesen, "Leads on Old Questions from a New Revolution: Notes on Cuban Women, 1969," in Esther Milner, editor, "The Impact of Fertility Limitation on Women's Life-Career and Personality," New York Academy of Sciences, Annals, Volume 175, Article 3, pages 781-1065.

9. See Bernard Berelson, "The Present State of Family Planning Programs," Studies in Family Planning, 57, September, 1970.

10. Bernard Berelson, "Beyond Family Planning," Studies in Family Planning, 38, February, 1969.

10a. Commission on Population Growth and the American Future, Interim Report, Washington, D.C., 1971, p. 43.

11. John A. Clausen and Suzanne B. Clausen, "The Effects of Family Size on Parents and Children," in James T. Fawcett, editor, Psychological Aspects of Population (tentative title), forthcoming.

12. Ruth B. Dixon, "Hallelujah the Pill," Transaction, Volume 8, Number 1/2, November/December 1970, p. 92. See also the report of a workshop on this topic: Esther Milner, editor, "The Impact of Fertility Limitation on Women's Life-Career and Personality," New York Academy of Sciences, Annals, Volume 175, Article 3, pages 781-1065. Discussions on this topic are not confined to the literature of the woman's liberation movement. See, for example, United Nations, Economic and Social Council, Commission on the Status of Women, "Status of Women and Family Planning," 5 March 1970.

The population field -- particularly of course its social scientists -- is thus not unaware of the probability that unanticipated consequences, whether desirable or undesirable, may result from population policies and programs. But there is a shortage of personnel (and perhaps of will and imagination) trained to study them, let alone deal with them. Most of the research undertaken in the developing world in the population area has been by economists, demographers, and public health physicians. Fine, as far as it goes, since on one level these are economic, demographic, and public health problems.

But how much research relevant to population behavior in the field, for example, of the sociology of religion can foreign advisers draw upon? In Latin America, and elsewhere, the Roman Catholic church is generally a pronatalist influence. But it is also a church that is undergoing rapid change, that it is in many ways the organized instrumentality of change, through the range of groups characterized as "Christian revolutionaries."^{12a} Will these groups become antinatalist in the interests of human welfare? Can the criticism of family planning voiced by an Ivan Illich be used positively to improve programs?^{12b} These questions cannot be answered until research linking religion and population has been carried out. Much the same can be said about the role of the militarism that dominates many developing countries, of the socialism that is the official ideology in many countries -- including some of the militarist ones -- and of the traditionalism that dominates almost all peasant societies. Although these influences are logically pronatalist in their effect, it is difficult to muster the knowledge necessary to assess the nature and the strength of this effect.

It seems to me that the required knowledge can be obtained in three ways. First, the recent spilling over of interest in population matters to such fields as sociology, psychology, political science, law, and international relations should be encouraged. If the more rational and humane control of population trends requires (and entails) some form of social revolution in society -- and many believe that it may -- many more analysts of social change will be required. In our search for talent, we certainly must encourage more women to enter professional work in the population field.

Second, the activity known as technical assistance must be examined and probably restructured.¹³ I am not referring to the problem of foreign experts

12a. Ivan Vallicr, Catholicism, Social Control, and Modernization in Latin America. Englewood Cliffs, N.J.: Prentice-Hall, 1970, pages 79-81.

12b. See Thomas G. Sanders, "Opposition to Family Planning in Latin America: The Non-Marxist Left," Fieldstaff Reports, West Coast South America Series, Volume XVII, No. 5, pages 3-4. (Published by the American Universities Field Staff, Hanover, N.H.)

13. For a comprehensive state-of-the-art report as of 1967, see Francis X. Sutton, "Technical Assistance," in David L. Sills, editor, International Encyclopedia of the Social Sciences, Volume 15, pp. 565-576. New York: The Macmillan Company and the Free Press, 1968.

becoming increasingly unwelcome in some countries; this is a nearly inevitable extension of national pride and anticolonial feeling, and is presumably both anticipated by and solvable by the training of local personnel through fellowship programs and other means. Rather, it seems to me that the postulates listed in the early part of this paper suggest that a new specialty (almost a new sensibility, a new consciousness) of research and advisory assistance must be formed. This new specialty would be trained not only to be sensitive to local needs and feelings; it would also be able to anticipate unintended consequences of technical assistance programs; to analyze and solve the so-called second-generation problems of these programs, including problems stemming from the tendency, pointed out by Frank Notestein,¹⁴ for every policy to contain the seeds of its own reversal; and -- most important of all -- to develop ways of training local personnel in this new specialty. The new consciousness must be acquired and believed in locally, if it is to be effective.

Third, there is a need for more studies of population policy development in different countries. An important beginning has been made in the current research of John C. Caldwell,¹⁵ T. E. Smith,¹⁶ and Everett M. Rogers.¹⁷ This research, however, is focused upon countries that have been hosts to Western-oriented technical assistance organizations and have adopted more or less Western models of population programs. However, if we are to understand how technical assistance works, and why it doesn't work as well as it should, we need for comparative purposes more knowledge from countries that have not tried to adopt the Western model of development. These countries differ so much from each other that to label them as "socialist" and to attribute their mode of economic and social development to this attribute is probably an unfortunate short-cut to a genuine understanding of them. The use of the term "socialism"

14. Frank W. Notestein, "Zero Population Growth: What is It?," Family Planning Perspectives, Volume 2, Number 3, June 1970, p. 22.

15. Under a grant from the Population Council, Professor John C. Caldwell of the Australian National University is conducting an historical analysis of the origins of population policies in family planning programs in some ten countries of Asia.

16. Under grants from the Population Council and the (British) Social Science Research Council, Professor T. E. Smith of the Institute of Commonwealth Studies at the University of London is studying the relationship between policy, politics, and family planning programs in the Commonwealth countries.

17. Under a grant from the Ford Foundation, Professor Everett M. Rogers of Michigan State University is carrying out a study designed to discover quantitative variables that will predict the emergence of family planning and other population programs in developing countries.

in such phrases as "Arab socialism" and "African socialism" and to describe countries as diverse as Sweden, the Soviet Union, Israel, Burma,¹⁸ China, Algeria,¹⁹ Tanzania, and Cuba²⁰ as being "socialist" indicates the limitation of the concept as an explanatory variable.

If a broader definition of socialism is used, if following Marx, we define the final achievement of socialism as "a world in which a human being no longer feels 'divided' or alienated from what he believes his essence as a social being, as a person free to make his own future, can be,"²¹ we have a description of a society that would probably be characterized by low fertility. However, it is unclear, at this stage in history, just what kind of an economic and political order would be most likely to bring about such a flowering of human freedom. What is needed is more knowledge from the Third World countries of alternate modes of social and economic development in order to understand and improve our own.

China, Algeria, Tanzania, and Cuba are listed by Pierre Pradervand as countries that demonstrate that radical social and political change, rather than family planning, is inherent in population control.²² This may be the case, although much of the current wave of criticism of population programs on the grounds that they represent superficial changes seems to miss the point.²³ "Everyone knows" that economic and social development will ultimately bring about lowered growth rates; the trick is to lower them through population programs while simultaneously encouraging economic and social development.

18. See the forthcoming book by Stanley Johnson, tentatively entitled *The Road to Mandalay*, which describes in a favorable vein the non-Western approach to modernization that Burma has adopted.

19. The Population Council has had a demographer located in Algiers for the past four years. This experience of introducing demographic consideration into a national development plan is currently being analyzed and prepared for publication. See also Robert J. Lopham, "Population Policies in the Maghreb," *Concerned Demography*, Volume 2, Number 4, March 1971.

20. See B. Maxwell Stomper, *op. cit.*

21. Karl Marx, *Economic and Philosophic Manuscripts of 1844*. The quotation is a paraphrase of Marx from Daniel Bell, "Socialism," in David L. Sills, editor, *International Encyclopedia of the Social Sciences*, Volume 14. New York: The Macmillan Company and the Free Press, 1968, p. 532.

22. Pierre Pradervand, "International Aspects of Population Control," *Concerned Demography*, Volume 2, Number 2, December 1970, pp. 1-15.

23. See, for example, Pierre Pradervand, *op. cit.*; Harry M. Saulet, "Population Control in Developing Countries," *Demography*, Volume 7, Number 2, May 1970, pp. 211-234; and William Barclay, Joseph Sarigot, and Reid T. Reynolds, "Population Control in the Third World," *NACLA Newsletter*, Vol. 4, 8, December, 1970 (Published by the North American Congress on Latin America). For a description of population programs in socialist countries that differ quite markedly from the socialist countries of the developing world, see Henry P. David, *Family Planning and Abortion in the Socialist Countries of Central and Eastern Europe*. New York: The Population Council, 1970.

What, for example, has actually happened in China? According to some reports, any reduction in fertility that has taken place is the result of radical changes in the major social institutions, yet according to a recent United Nations report, China (along with three unlikely bedfellows, India, Pakistan, and the Republic of Korea) was one of the first countries in the world to adopt deliberate policies aimed at fertility reduction.²⁴ China would seem to be a country in which fertility reduction has come about by some combination of basic structural change, pressures on the young not to marry, and governmental support of family planning programs. What is the relative role of these influences? Even a preliminary interpretation will require visits by qualified demographers. Since I am told that the Chinese character for "ping" -- as in "Ping-Pong" -- means "peace," there may be opportunities to acquire some of this knowledge firsthand in the years immediately ahead.

24. United Nations, Department of Economic and Social Affairs, *A Concise Summary of the World Population Situation in 1970*, Population Studies, No. 48, New York, 1971, p. 30. For a contemporary report by a journalist, see Tillman Durdin, "China's Changing Society Seems to Cut Birth Rate," *New York Times*, April 21, 1971, pp. 1, 8.

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Concerned Demography is a periodic publication of Concerned Demographers, a non-profit national organization of scholars interested in relating demographic research and training to the larger society. All correspondence and manuscripts from all points of view are welcome. Discussion and rebuttals of articles appearing in Concerned Demography are encouraged. This issue has been compiled by Concerned Demographers at Brown University. Business office is at the Center for Demography and Ecology, 3224 Social Science Building, University of Wisconsin, Madison, Wisconsin, 53706. Subscriptions are available at \$2 per year. Concerned Demography has no official ties with the Brown University Population Studies and Training Center or with the Center for Demography and Ecology at the University of Wisconsin. Editor of this issue is Ernest B. Attah.

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PREFACE

This issue of Concerned Demography was advertised to "focus on urban social ecology," and so it does - in the first section. However, given the response from people with different interests, and to follow in the tradition of this publication to bring up topics surrounding the name, practice, etc., of the demographic profession for discussion, another section is included in which a variety of topics is considered.

The first two essays in the first section deal generally with the theory and practice of human ecology - Faber considers these issues in terms of more general, societal analysis with especial reference to the potential contribution of human ecology to the current discussion of the environmental crisis, and Attah concentrates on the specific context of the urban community. Then in what is actually a book review article (of Taeuber and Taeuber's Negroes in Cities), Fricksen raises some questions about the underlying orientations of the empirical work in human ecology. Powers' write-up from a colloquium (presented at Brown University) next explores some new directions for research, and the final essay of the section is a book review (of Banfield's The Unheavenly City) by Vanecko who, by the way, is strictly speaking an urban political sociologist.

The essays in the second section deal with a number of issues concerning the training and the practice in demography as a whole. Godfrey, first, discusses the preparation he received in graduate school in the light of the problems he has faced in his first year of teaching. Then Guest (another first-year-on-the-job type) reports on the experience he has had in experimenting with some new techniques for undergraduate instruction in demography. Bouvier next introduces another twist to the continuing discussion of zero population growth, and finally Weller makes some recommendations for improving the PAA meetings.

I had hoped, at this point, to say: "to follow also the tradition of this publication to encourage reactions to the items presented in it, a final section consisting of letters to the editor is included." Unfortunately, however, there have not been any letters to the editor recently. Vox populi, vox tacita?

Editor

COMING ISSUES

Volume II, Number 6

Bob Gardner, editor (Department of Demography, 1224 Wheeler Hall, University of California, Berkeley, California, 94720).

CAN HUMAN ECOLOGY SAVE US?

Bernard L. Faber, Department of Sociology, Brown University.

Twenty-four years ago George Lundberg posed a similar question when he asked Can Science Save Us? Lundberg, a noted positivist, saw science and its methods sweeping away prior thoughtways, ideologies and all the "myths" of a pre-scientific age. The saving force of science would not be effective at once, but even on the way to a futurist life, based on science, as prescribed by St. Simon, science could be used and applied to all problems, even those infecting "the routine grounds of every-day behavior." Lundberg's concern focused on a society which was attempting through Lilliputian efforts the solution of large-scale social problems. I wonder if Lundberg's concern sounds very different from that which many "responsible" or "conscientious" social scientists today express in private and to an increasing degree in public.

Since Time magazine has substantiated the self-fulfilling prophecy, ecology has become a "mass movement." Yet it is interesting to note that it is the biological ecologists who receive the affirmation of the scientific and journalistic community and thus in the wider society are confirmed and legitimated as the spokesmen whose efforts are germane for contemporary environmental problems. How striking to discover the following statement by Duncan (1961: 143-144): "There is abundant evidence in their own writing of the inadvisability of leaving to biological scientists the whole task of investigating the ecosystem and its human phases in particular ... Symptomatically even when discussing the ecology of man, the biologist's tendency is to deplore and to exhort, not to analyze and explain ... They evidently need the help of social scientists in order to make intelligible those human behaviors that seem to be ... merely irrational and short-sighted." Now, one might question the justice of this statement, particularly its latter points, but if there is any validity to Duncan's assertion, no one in human ecology has taken it seriously. How strange and disconcerting that a field known as HUMAN ECOLOGY is all but forgotten and left to pursue its ways among a few scholars with somewhat limited research interests. We must ask ourselves what is there about human ecology as it is practiced today which relegates it to a publicly unknown and unlikely, purely academic niche?

I suspect that the plight of human ecology would not be as objectionable if one could, with some degree of confidence, feel that an ultimate contribution might be made to knowledge of the sources and solutions of present environmental problems. I would suggest that it is the neglect of the environment as an interdependent variable to which we can attribute the neglect of human ecology today. Michelson (1970) in a useful essay

*Adjectives used to represent both ideological positions

entitled "What Human Ecology Left Behind in the Dust" makes a telling argument that the environment has been historically expurgated and treated as a medium rather than a variable. Even with Michelson's concern over what human ecology has left out, his attempt to incorporate values is not the only or the most fruitful way that the environment can be incorporated as a variable in ecological theory and research.

At the same time that we credit Michelson, we must stand aghast at the statement of Schmore (1958: 631): "As a result of its conceptual heritage from biology, human ecology has a rather full appreciation of the role of the physical environment as it affects social structures." The closest we have come to conceptually or empirically displaying an awareness of the environment is in the "ecological complex" as set out by Duncan (1959). His attempts to show the inter-relationship of environment as a variable in the description of smog in Los Angeles (Duncan 1961) and the efforts by Schmore (1958) in his explication of the process of differentiation in Durkheim are among the precious few considerations that human ecologists have given to the environment as a variable. Other than these efforts one searches in vain for other conceptual or empirical references.

Even Duncan's explication of the eco-system (1964) is a self-contained essay which, to my knowledge, has had no further import other than serving as an intellectual exercise. Yet Duncan (1961: 140-141) has written: "I believe that the real problems confronting man in the contemporary world can best be illuminated--insofar as the social sciences can illuminate them--by stating them and attacking them as ecological problems ... The concept of the eco-system has become increasingly prominent in ecological study since the introduction of the term a quarter-century ago by the botanist A.G. Tansley ... as 'the interacting environmental and biotic system.' "

Again, any search for evidence that human ecologists have accepted Duncan's statement, as other than a normative prescription, is in vain. This failure on our part is all the more striking today when one considers the theoretical and empirical import of this radical statement.

I believe that the major strain in human ecology which has militated against the pursuit of research which would enable it to deal with the environment as one of the "real problems confronting man in the contemporary world" is the tradition of urban ecology as developed at the University of Chicago. At Chicago the urban milieu was conceptualized as the grounds on which different ethnic, racial and economic groups competed for space. This view is an articulation of what one might call a neo-Marxist approach (see Hirschman 1970). The efforts to describe and analytically comprehend the process of competition obstructed a broader view of the interaction of man and his total natural environment. What we should keep in mind is that the environment is not merely the sum of functional space. The appearance of Barry Commoner and other biological ecologists as principal spokesmen for the field of ecology can be related

to their perspective of the holistic nature of ecological problems. This societal perspective is in sharp contrast to the differentiated environment of the human ecologists.

The complexity of environmental problems today demands the exacting skills developed in the field of human ecology. We have in mind the work of Hawley (1968), an incipient theoretical perspective that could be applied on a general level to total societies. We have failed to take ourselves seriously, we have limited our vision to the city and to competing interests within the city. More recently, Hawley, in the footsteps of McKenzie (1933) has helped us to expand our horizon to the metropolitan area but we have not dared look beyond to what we are phenomenologically discovering in our daily life. In part our failure is the result of a routinized acceptance of disciplinary boundaries and the exigencies of the empirical emphasis of ecological research. We have allowed the biologists to deal with the physical environment and the biotic capacities of man and have really only staked out for ourselves the variables of population and social organization. We have potentially the most fertile variables to begin with because man's biotic behavior is transmuted by his ability to create symbols and respond to them, but we have not progressed very far other than in our knowledge of population.

Perhaps what is needed is an approach, which, because of false boundaries, would have to be called interdisciplinary and which would focus on "the ecological complex" in terms of society as a unit of analysis. In particular, the work of Lewis Mumford offers those who will take Duncan's dictum seriously, the chance to make the P O E T scheme more viable as a theoretical frame of reference for the study of man and his environment. It is particularly in the realm of the inter-relationship between environment and technology that Mumford's work could be of value to the human ecologist.

We have for too long been overly concerned with avoiding the dilemma of geographical determinism. Yet the work of the anthropologist Julian Steward amply demonstrates that this concern need not be the factor which strains the credibility of the social scientist interested in the environment. Steward's theoretical frame of reference (1968) offers insights into the inter-relationships of all four variables of the ecological complex. In particular his work also provides a way of conceptualizing their inter-relationship on the societal level; this could provide the needed link which will extend the interaction of population and environment beyond the boundaries of any localized area.

These last few paragraphs are merely suggestive of some possible ways of re-awakening what has been a moribund interest in human ecology, and are by no means exhaustive. The title of this brief paper poses a rhetorical question; one to which I believe there is an affirmative answer. However it will require a perspective which treats the environment as seriously as we have treated population. What the ultimate nature of this perspective will be is left to the readers of this journal, but it must be worked out at a holistic societal level of analysis.

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Ernest B. Acton, Population Studies and Training Center, Brown University

The bulk of the empirical work that has been done in "human ecology" by investigators with a sociological bent has been carried out in the context of the urban community. The theorizing, however, has been less focused. In his landmark exposition, Hawley (1950, p. 68) defines human ecology as "the study of the form and the development of the community in human population." But as Schnore (1970, p. 126) has noted, "the content of his treatise ... is itself heavily weighted with spatial studies and analysis." In an essay intended "to be regarded as primarily an extension of some of the elements in Hawley's work," (p. 78) Duncan (1964) speaks in more general "systems" terms, emphasizing the notion of flow cycles in discussion of the basic processes in ecosystems. In what may perhaps represent the most recent "statement" on human ecology, Hawley (1968) lists the "distinctive features" of human ecology as: first, "the broad, positional hypothesis ... that organization arises from the interaction of population and environment" (p. 330); "the emphasis on population as the point of reference" (p. 330), with the understanding that organization is a property of a population taken as a whole; "the treatment of organization as a more or less complete and self-sustaining whole" (p. 330), and "the central position given to an equilibrium assumption." (p. 331). In reading through the subsequent treatment of the "principles of ecological organization," and of propositions regarding social change, the feeling sometimes develops that the underlying orientation of the discussion is toward a general "systems" view, but again the realization soon prevails that the basic reference is to spatial analysis of human settlements. Indeed, the latter view is reinforced by the final focus of the discussion on the Burgess hypothesis of city growth as "a special case of the more general principle." (p. 336).

One may well take issue (as Faber does in his essay in this volume) with the way in which these general formulations have been understood and applied in the context of general, more holistic, societal analysis. In view of the primary emphasis in empirical work, however, and also of the recurrent theoretical return to the theme, this brief essay will instead raise some questions about the "theory" and "practice" of "human ecology" in the specific context of the urban community. Obviously, within the limited space available, little more can be done than to raise the critical questions, and perhaps suggest some directions in which improvements may be sought. The overall orientation of this paper will be to place discussion of the empirical work in the context of the body of theory surrounding it. Thus specific, independent discussion of the empirical literature will be limited.

The "empirical literature" as it is meant here refers to work done in this country, and this, almost as a matter of course, concentrates heavily on studies of the American urban community. And there, the orientation is heavily weighted toward problem-related investigations--racial residential segregation and succession, spatial distribution of

various urban phenomena, etc. The view, in short, is effectively of the urban community as an ecology of problems of various types--racial, economic, etc.

The larger proportion of the empirical literature is cast in the mold of "descriptive studies," generally describing and summarizing the patterns which have characterized the variables under study over some time--typically some intercensal period(s). And again there, the overbearing tendencies have been either towards broad, generalized "urban structure" analyses without much of an effort to relate different factors to one another, or towards fairly simple bivariate associations. There has not been much detailed explication of far-reaching factor-wise interrelations, nor, thereby, of etiological interconnections of any advanced theoretical sophistication or practical utility. As Tilly (1965, p. 5) has noted, for instance, "one can count on (the students of urban social structure) for an abundant supply of two-variable uniformities which may allow a limited sort of prediction or intervention, but one cannot count on them for anything as complicated as, say, predicting the effects of a heavy expenditure for metropolitan mass transit on the occupational composition of the central city's population."

Considering now the theoretical literature, Duncan (1964) has listed the variables that interplay in the "ecological complex"--population, organization, environment, and technology. How have these factors been developed and applied in the context of the urban community? First, population. Much of the empirical literature revolves around clearly noticeable differences between distinct sub-groupings of the population with respect to several patterns and processes in the urban community, and yet the theoretical statements have not included discussions of the importance of these basic distinctions which exist in the general population. The suggestion implied here that the theory should incorporate recognition of basic differences in the population is not an attempt at idle reductionism. Indeed, the definite impression given by the body of the empirical literature is that these distinctions do affect significantly the overall manifestations of the patterns under investigation in given circumstances, even when these patterns are considered in terms of the larger population aggregate as a unit.

There is another point to be made concerning the treatment of population. Hawley (1968), for instance, notes that the tendency to treat population as an independent variable in matters pertaining to organization probably results from the convenience of proceeding from the more concrete to the more ephemeral. He then goes on to say, however, that "population is for many purposes better regarded as the dependent variable, delimited and regulated by organization." (p. 330). The history of growth and development of the urban community calls this latter statement to question: one would be hard put to it to find a city in the process of growth and development of which this statement held true. This situation points up the need for further exposition of the attendant

conditions underlying general theoretical assertions in human ecology.

Consider now technology. Again a bifurcation in approach and focus appears. The empirical literature has generally considered matters pertaining to technology from the point of view of their effect on the spatial patterns, and on the growth and development, of the urban community. Thus discussions of technology have revolved around questions about transportation and communications, and about the articulation of production and distribution. The theoretical statements, however, have tended to place technology in the more generalized web of a "systems" approach, and a societal level of analysis. Thus the focus has been on considerations of the extractive capacity afforded by the technology, and on questions about control over the natural environment, re-cycling, etc.

The treatment of organization also evidences a similar split in level of relevance and pattern of applicability. When Hawley (1968, p. 330) notes, for instance, that organization is treated in human ecology "as a more or less complete and self-sustaining whole," it is not immediately clear whether this is intended for application at the local urban community level, or at a more general level of societal analysis. The conditions under which the general assertions are expected to hold need to be specified.

And arising from the notion of completeness is the equilibrium assumption, wherein morphological change is taken to represent a movement toward an equilibrium state. The idea of equilibrium here is not supposed to hold any teleological connotations, but it is rather supposed to imply that "as an organization attains completeness it acquires the capacity for controlling change and for retaining its form through time." (Hawley 1968, p. 331). Whereas this orientation might serve to illumine a general, holistic analysis at the societal level, its validity is seriously called to question in the context of structural change in the local community. The problems involved here are closely linked to the conceptualization of environment, which is discussed next.

Environment can be approached in terms of two dimensions. The first dimension concerns the distinction between the natural or physical environment and the social, and has been noted in the literature: "although every organized aggregate must contend with both, the relative importance of each may vary over a wide range." (Hawley 1969, p. 332). The situations in which much of the empirical work is done would seem to suggest a primarily social interpretation of environment in consideration of its effects on the processes involved.

A second dimension in terms of which environment may be approached concerns the understanding adopted as to its nature - is it assumed to be "limited," or "unlimited?" The sociological literature has failed to make this distinction, and that failure seems to have produced a basic schism in underlying orientations between the theorizing in human ecology, and the corresponding empirical work. Where the environment is

assumed to be "limited," for instance, the understanding might be that it places fairly definite constraints on the system of interrelationships that exists in the "community" in question. Where, on the other hand, the environment is assumed to be "unlimited," it might be conceptualized as lying "outside" of the essential web of interrelations within the community, and thus to be reached for and brought into use as the need is met with the technological capacity to do so.

The closed-systems implication of the limited-environment assumption compares to the notion of closure in ecosystems, which has been implied (Duncan 1964) or mentioned (Hawley 1968) in the theoretical literature, but has not been discussed in the terms of the kinds of questions raised here. The orientation fostered by the issues raised in this discussion might in fact lead to the interpretation that the notion of "completeness" of organization, and thereby the condition of the equilibrium assumption wherein the organization acquires the capacity for controlling change, and even also the condition where population is a dependent variable "delimited and regulated by organization," all fit best with the closed-systems view. Indeed, the bulk of the theoretical literature seems to lie in this direction, although that has not been explicitly recognized.

The unlimited-environment assumption, on the other hand, implies an open system. And it is this assumption that best fits the situations on which the empirical literature concentrates - i.e. growth and development, and the various corresponding spatial patterns, of human settlements. Real estate developers, for instance, can always extend the essential boundaries of the metropolis so long as they have a market willing to trade off the problems of transportation involved with the benefits of whatever amenities they wish to acquire by living far outside the center of the city.

Therein lies the basic schism in human ecology. Much of the theory is developed at the level of closed systems, suggesting a broad orientation toward societal-level analysis. Yet in the empirical literature, and even when the discussion has been concretized in the course of a single general statement, it has been focused on the growth and development of the urban community, which represents the unlimited-environment condition and the corresponding open-systems orientation. Thus there exists what could serve as a competent general theory of closed ecological systems. But in the context of growth and development of human settlements on which the empirical literature has focused, the idea of closed systems and their corresponding cycles breaks down. And this condition will continue to hold as long as an overall laissez-faire orientation to urban growth prevails in the general populace. Thus for most of the work actually being done in the field of human ecology, the conclusion would be that there is no theory at all.

But here a series of questions arises, relating to several aspects of the foregoing discussion: what is "theory," what rigidity is attached to the limited-unlimited environment dichotomy, and how does the latter articulate with the natural-social environment dichotomy? These issues will be discussed only very briefly.

First, what constitutes a "theory?" An answer might proceed as follows: given a listing of the relevant variables, there should then be a statement of the patterns of interrelationship and change in these variables, and some specification of the attendant conditions, which should show the boundaries within which these interrelations are expected to hold. Thus qualified predictions will be possible. Of course, these propositions should be phrased in terms that make for tests aimed at verifying their "truth value." In these terms, the primary problem--above all else--which human ecology faces is of the need for specification of the boundary conditions surrounding and underlying its theoretical assertions. And the most glaring area in which that need exists concerns the way in which the environment is viewed - as "limited," or as "unlimited."

But there a second question arises: is the distinction between a "limited" environment and an "unlimited" environment intended in a simple dichotomous sense? But the very asking of the question makes the answer obvious. Clearly an absolute dichotomy cannot long remain tenable. The opposite conditions of "limited" as against "unlimited" environment should be taken simply as ideal-typical poles for the purposes of discussion. And in the sense that "out there" somewhere there has to be a finite limit, the "unlimited"-environment condition may in fact more properly be looked at as a "fixed-unlimited" condition: fixed in an ultimate sense, but unlimited with respect to presently ongoing processes. Present patterns of metropolitan growth and development are based on the condition that there is always some space out there to which the metropolitan area can expand, but in the end, after the country has perhaps filled up as an urbanized mass, there will have to be a limit. It is interesting to note, by the way, that in an otherwise highly questionable model-building attempt by a non-sociologist (Forrester 1969), the unlimited-environment condition underlying urban growth has been entered explicitly as one of the assumptions for the model.

Well, how does the limited vs. unlimited view of environment fit with the dimension of a natural vs. social interpretation? It may be noted that the foregoing discussion has tacitly dealt with a primarily natural or physical interpretation of environment. But that only underscores another problem in human ecology: the treatment of environment has tacitly dealt with a primarily natural interpretation of environment. The essential point to note here is that human ecology really does not now have a theory of structure, process, or change in open or closed systems, which could fit with a social interpretation of environment. Yet it should seem quite possible for this to be developed, given the basic tools already available in the field. An attempt along those lines might begin with a simple four-fold classification of environment--natural-social, limited-unlimited--and on that basis reconsider the interrelationships in the ecological complex.

To link this discussion with the question raised above as to whether or not a body of theory exists for most of the work being done in the field of human ecology, the point should be made that some empirical generalizations

have been made. These generalizations, however, have suffered from two major defects. First, they have largely been made in forms the level of generality of which is far removed from the level of generality of the widely recognized "major theoretical statements." Secondly--and more seriously--the empirical generalizations have incurred the limitation of being cast really in the form of competent summaries of the historical experience in the development of the spatial patterns of the urban community. In effect, the makings of a categorized, competent summary of the history of urban growth and development abound in the literature; however, it is one thing to have a history, but quite another to have a theory - in the sense, at least, of generalized constructs possessing any appreciable predictive capacity. This shortcoming in human ecology seems to account for the kind of situation noted by Taenber (1970, p. 75), for instance, that "one cannot with confidence predict any remarkable patterns in the 1960-1970 segregation index changes (before publication of the 1970 census)." Perhaps the amelioration of this shortcoming may lie in the direction of more concerted attempts being made to place the empirical findings in the framework of some reformulation of the more general theoretical statements.

In the early period of human ecology, a number of efforts were undertaken to test empirically the assertions made in the theoretical literature, e.g. the testing and reformulation of the Burgess hypothesis, etc. More recently, however, there has been a definite gap in levels between the recognized "major theoretical statements" and the evolving empirical literature. A major reason for this gap seems to trace to the basic conceptual schism permeating the corpus of the received theoretical wisdom, i.e. the failure to distinguish between the unlimited-environment condition underlying the kinds of situations on which the empirical literature concentrates, and the closed-systems orientation underlying much of the actual discussion in the theoretical literature.

The overall suggestion, therefore, emerging from the present discussion is that if the basic variables in human ecology (POET) were interpreted appropriately to fit the outlines of the situations in which most of the work is done (the urban community), a better balance may then begin to develop in the articulation of the conceptual formulations with the attempts to understand empirical realities. This process cannot but enhance both strains of the literature. Following the clearly problem-oriented slant of much of the empirical work, the specific example to be used in illustration of this point is the issue of racial residential distribution in American cities, and its many correlates and concomitants. In terms of a physical interpretation of environment, a boundary condition that must be kept in mind concerning the processes involved is the fact of the size and nature of the available housing stock. The clear suggestion of the bulk of the empirical literature, however, is that the influence of the social environment far surpasses--and indeed often controls--the role played by the former interpretation of environment.

The supposition does not seem implausible that a wide variety of similar situations will continue to occupy the attention of much of the

empirical literature for some time. Much of what develops in the society at large as viable policy regarding the issues involved will probably also be guided by the generalized understandings that emerge from this literature. Perhaps it is time that efforts were undertaken to develop a sustaining theoretical framework for an urban social ecology.

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RESIDENTIAL SEGREGATION--CAUSE OR CONSEQUENCE OF RACIAL INEQUALITIES?

A Review of Negroes in Cities, by Karl E. and Alma F. Taenber (Aldine, Chicago, 1965).

Eugene P. Erickson, Department of Sociology, Temple University

The main objectives of the civil rights movement of the 1950s and early 1960s were the demolition of the various legal forms of segregation. The civil rights movement has achieved many of its objectives and it is now generally accepted that no one should be barred on the basis of race from doing such things as attending the public school in his neighborhood, riding in the front seat of a bus, voting, or choosing any vacant seat that pleases him in a movie theater or restaurant.

Few serious observers of the racial situation in the United States would now say, however, that the economic and social opportunities of blacks were equal to those of whites. Blacks have been deprived of opportunities in housing and employment for economic and cultural reasons as well as legal ones. Karl Taenber has pointed to the existence of residential segregation by race as a basic factor blocking the equal access of blacks and whites to economic and social opportunities even when legal barriers were absent. "Residential segregation of whites and nonwhites effects their separation in schools, hospitals, libraries, parks, stores, and institutions without legal or direct discrimination" (1).

There are two critical aspects of the phenomenon of residential segregation by race to be discussed. These are: (a) the existence of residential segregation and (b) its causes and consequences with respect to the maintenance or deterioration of racial inequities. Most sociologists, however, have accepted society's value judgment that segregation has harmful consequences without question and have on the basis of this gone on to concern themselves with demonstrating the existence and extent of segregation.

Perhaps the best known example of this is the book Negroes in Cities by Karl and Alma Taenber (2). This is perhaps the most ably documented demonstration of the existence and persistence of segregation. Its raison d'être is illustrated by statements to the effect that residential segregation persists as a major barrier to social and economic equality between the races.

Were this fact obvious, or at least as widely agreed to be true in 1971 as it may have been in 1965 there would be no problem in considering the demonstration of the existence of racial segregation and the illustration of the major demographic factors associated with it as a sufficient objective for social research. But recent critics of the social scene have indeed asked whether this is the case, so perhaps we would be well advised to ask ourselves in what ways the benefits of racial integration can be demonstrated. Perhaps the three most important possible areas are: (i) the effect of integrated neighborhoods on job

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There are two critical aspects of the phenomenon of residential segregation by race to be discussed. These are: (a) the existence of residential segregation and (b) its causes and consequences with respect to the maintenance or deterioration of racial inequities. Most sociologists, however, have accepted society's value judgment that segregation has harmful consequences without question and have on the basis of this gone on to concern themselves with demonstrating the existence and extent of segregation.

Perhaps the best known example of this is the book Negroes in Cities by Karl and Alma Taeuber (2). This is perhaps the most ably documented demonstration of the existence and persistence of segregation. Its raison d'être is illustrated by statements to the effect that residential segregation persists as a major barrier to social and economic equality between the races.

Were this fact obvious, or at least as widely agreed to be true in 1971 as it may have been in 1965 there would be no problem in considering the demonstration of the existence of racial segregation and the illustration of the major demographic factors associated with it as a sufficient objective for social research. But recent critics of the social scene have indeed asked whether this is the case, so perhaps we would be well advised to ask ourselves in what ways the benefits of racial integration can be demonstrated. Perhaps the three most important possible areas are: (1) the effect of integrated neighborhoods on job

opportunities, since a man's job is the most important determinant of both his income and his status; (ii) the effect of integrated neighborhoods on educational opportunity and achievement, since education is the most important (although not the only) determinant of job opportunities; and (iii) the effect of integrated neighborhoods on racial attitudes since these will determine the willingness of people to grant opportunities in the other two areas.

It is when we look closer at the effect of integration on these three areas that there arise serious questions about the accuracy of the assumption on which the Taubers based their in itself very competent research. It should be added that any present criticism is of the ex post facto variety since when the Taubers published their work in 1965 no one felt the need or desire to question the assumption of the necessary value of residential integration. It is admittedly easier to ask these questions after a decade of black militancy and black takeover of the civil rights movement. But it makes it no less necessary to ask these questions, particularly since Negroes in Cities is an important part of many reading lists currently used in courses in urban sociology.

Because of the de facto segregation of housing, black and white children usually attend separate schools, and the schools attended by blacks are generally not as good as those attended by whites. Job opportunities are presently expanding faster in the suburbs than they are in central cities and in some central cities the numbers of jobs are actually declining. Because black residential areas are usually restricted to certain areas of central cities, it can be argued that employment opportunities are less accessible to blacks, particularly poor blacks with limited means of transportation, than they are to whites. It is thus not difficult to see that residential segregation acts as a barrier to the socioeconomic advancement of blacks.

It is also clear, though, that there are other factors. Per-pupil expenditure and other educational resources are generally more available to the students in the predominantly white schools. It has been difficult for blacks to join labor unions and there are frequent charges made that employed blacks have been unfairly deprived of opportunities for advancement. While one may be certain that residential segregation is associated with the existence of racial inequities, it is not clear whether residential segregation is a necessary or sufficient condition for these inequities to exist, or whether this segregation is a cause or consequence of these inequities.

Is residential segregation a more important factor blocking equal employment than, say, the lack of educational qualifications by blacks or the racial policies of labor unions? Could these educational qualifications be raised by a compensatory program of education within a segregated school system such as now exists on a de facto basis in most of the United States? If blacks really could obtain the necessary educational qualifications in their neighborhood schools, and if the hiring

and advancement of employees really were made without regard to race, would the existence of residential segregation remain an effective barrier to the economic advancement of the black community? Or is it impossible for blacks to be educated properly in segregated schools and for discriminatory policies of employment and advancement to be done away with given the present separation of the black and white communities? These are important questions but unfortunately sociologists have had precious little to say demonstrating just how residential segregation deprives blacks of education and economic employment or how it "... effects their separation ... without legal or direct discrimination."

Hawley (3) saw residential segregation as "... a restriction of opportunity; it hampers the flow of knowledge and experience and thus impedes the diversification of interests and occupations." In an effort to substantiate the ecological hypothesis that spatial arrangements of social groups can significantly influence their characteristics and interrelationships, Lieberman (4) presented evidence assessing the impact of residential segregation on the assimilation of various ethnic European groups in the United States. He found that the degree of residential segregation affected the patterns of residential mobility in that "... if a foreign-born group (sic) is relatively similar to the residential distribution of the native-white population, then its second-generation members are apt to follow the general occupational pattern that would be expected on the basis of what their parents' occupations are. By contrast, a group that is highly deviant from the general intergenerational occupational pattern is also, as in the case of the Russians, a group whose foreign-born members are relatively highly segregated." (5).

Lieberman's data, though, did not make it clear whether residential segregation actually impeded mobility. The ethnic group cited by Lieberman as being most segregated, the Russians, had the highest mean occupational status in the first generation of all ethnic groups in 9 of the 10 cities studied and had the highest mean status in the second generation in all 10 cities. The mean occupational status rose in 7 of the 10 cities (6). The dynamics of segregated living do not appear to have hampered the Russians and it is not clear what the implications are for the relationship of segregated living arrangements and occupational advancement for blacks.

The effect of segregated schools on educational performance has been a controversial issue, particularly since the publication of the Coleman Report (7). Coleman found that black children attending integrated schools performed better and improved more than did black children attending nonintegrated schools. It is clear from the research of Coleman and from the research of others, such as Wilson (8) and Michael (9) that much of this effect is due to social class. Both children of low and high socioeconomic status have been found to perform better in schools where the student body was predominantly of higher socioeconomic status. Since the majority of black children come from homes of low socioeconomic status, the implications of this research finding are clearly that when black children are concentrated in segregated black schools, they are concentrated in schools with a lower status environment where they will

not perform as well as they might in a school with a higher status environment which would probably have white children in it.

The report of the U.S. Civil Rights Commission, in which a re-analysis of the data of the Coleman Report was made, included the finding that after both family and school social class had been controlled, black 12th grade students in classes that were more than half white performed better than other black students and that there was little difference between the performance of black students in integrated classes that were less than half white and in predominantly black classes (10). This can perhaps be taken as evidence that there is a racial component to be added to the social class component explaining the differences in achievement among black students between schools. However, the component of motivation, for instance, is neglected among these data. Those black students attending integrated schools may have come from homes where there was a greater commitment to educational achievement so that the parents were willing to make greater sacrifices to obtain educational benefits for their children. We have no assurance that the middle-class black children, for example, attending integrated schools are very similar to middle-class black children attending predominantly black schools in variables such as level of aspiration or achievement orientation. It may well be that many black parents with high hopes for their children define integrated education and for that matter living in an integrated neighborhood as a prerequisite for academic and occupational success. The problem is that of selection biases, a problem that cannot be circumvented by controlling for family and school social class in a regression analysis. Wilson, for example, found that sons of manual workers attending predominantly middle-class schools had higher educational aspirations than did sons of manual workers attending predominantly working-class schools (8). The unanswered question is whether it was the schools which produced the effect or whether the effect was the function of the characteristics of the manual workers sending their sons to the different schools. As Wilson himself says in a discussion of the findings of the Coleman Report (11), "... it remains true that the hypothesis of a contextual effect, where the relevant context is determined by aggregative characteristics of the members, is always vulnerable to the counter-hypothesis of self-selection. It is easy to suppose that parents with the strongest economic, social, and personal resources both place their children in schools of high reputation and influence their children's school performance in ways we have not adequately measured."

Finally, it is necessary to put the research issues aside and consider the worldly prospects of ever achieving integrated, stable, middle-class educational environments for the mass of black children. It should first be pointed out that this would not necessarily be achieved by an end to residential segregation. The racial composition of public schools is consistently more heavily black than the racial composition of the surrounding neighborhoods in cities. The persistence of many presently integrated neighborhoods in central cities can be attributed to the fact that many white parents have been able to send their children to parochial or other private schools which are predominantly white. Secondly, the Commission on Civil Rights found that the presence or absence of racial tension was an important intervening

variable in the performances of black students in integrated schools (12). Where there was racial tension, the achievement of black students suffered. Also, given the antagonism of many white parents to various plans for achieving integrated schools such as bussing, and the propensity of these white parents to send their children to nonpublic schools, it is difficult to see how the integrated, stable, middle-class educational environments can ever be produced on a grand scale, even if the indices of residential segregation cited by the Taeubers could be drastically reduced. Once this point is accepted, the issue of residential segregation becomes irrelevant to the issue of educational performance. The path to eliminating the educational deprivation of black children then lies in compensatory education.

Given the exodus of job opportunities to the suburbs, the most difficult feature of residential segregation to deal with may be the barriers it poses for blacks to compete for jobs. Morgan (13) has shown that journeys to and from work by public transportation are slower and that travel speeds in the congested areas of central cities are considerably less than they are in outlying areas. These features make it difficult for blacks to get to jobs where the workplaces have been decentralized, particularly when they don't own a car. These problems could be met, however, not necessarily by an end to residential segregation, but by making housing, either of the private or public variety, available to blacks in the suburbs. The creation of black "ghettos" in the suburbs may be a necessary step toward true equality of economic opportunity.

Much of the theory and research of human ecology with regard to racial issues has been based on the assumption that residential segregation was a barrier to the economic advancement of blacks and thus a cause of racial inequalities. It appears that a value judgment has been made, perhaps implicitly, by Hawley and Lieberman as well as the Taeubers, that there must be integration before there can be black progress. Given the absence of evidence, or even of argument on the part of the Taeubers, of just how residential segregation impedes black progress, one must question the value of further research of this type, regardless of its competence, unless it involves a more elaborate discussion of the consequences of residential segregation of the sort that has been briefly touched upon here.

There is convincing evidence that the quality of housing available to blacks is inferior to that available to whites (14). There also is evidence that both blacks and whites in integrated neighborhoods have more tolerant racial attitudes (15) but again it is not known if these are causes or consequences of the integrated living arrangements. Improvements in the stock of housing available to blacks and in the racial attitudes of blacks and whites, appealing features of an end to segregated living patterns, may have to wait until the necessary prior conditions occur. The assumption by blacks of greater political and economic power may first be necessary and it is conceivable that these could be better achieved through black institutions and social arrangements than

through integrated institutions and arrangements. It is paternalistic for white sociologists to assume that black progress must come through further integration with white society. It could be necessary for the white community to provide funds for programs of compensatory education and for white-run corporations to take steps to make jobs more accessible to blacks, but it may be that the socioeconomic advancement of blacks on a grand scale can only follow a heightening of black self-help and self-awareness, after which integration with the white community would follow.

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1. Karl Taeuber, "Negro Residential Segregation: Trends and Measurement," Paper No. 20 in the Series, Comparative Urban Research, issuing from the Population Research and Training Center, University of Chicago, 1962.
2. Karl E. and Alma F. Taeuber, Negroes in Cities, Aldine, Chicago, 1965.
3. Amos H. Hawley, "Dispersion Versus Segregation: Apropos of a Solution of Race Problems," Papers of the Michigan Academy of Science, Arts, and Letters, 30 (1944), p. 672.
4. Stanley Lieberson, Ethnic Patterns in American Cities, The Free Press of Glencoe, New York, 1963.
5. Ibid., p. 189.
6. Ibid., Table 57, pp. 174-175.
7. James S. Coleman et al., Equality of Educational Opportunity, U.S. Government Printing Office, Washington, 1966.
8. Alan B. Wilson, "Residential Segregation of Social Classes and Aspirations of High School Boys," American Sociological Review, XXXIV, December 1969. See also, Alan B. Wilson, "Social Class and Equal Educational Opportunity," Harvard Educational Review, Vol. 38, No. 1, Winter 1968.
9. John A. Michael, "High School: Climates and Plans for Entering College," Public Opinion Quarterly, XXV, 1961.
10. U.S. Commission on Civil Rights, Racial Isolation in the Public Schools, U.S. Government Printing Office, Washington, 1967, I, p. 90.
11. Alan B. Wilson, "Social Class and Equal Educational Opportunity," Harvard Educational Review, Vol. 38, No. 1, Winter 1968, p. 93.

12. U.S. Commission on Civil Rights, op. cit., pp. 157-158.
13. James N. Morgan, "A Note on the Time Spent on the Journey to Work," Demography, Vol. 4, No. 1, 1967.
14. See, for example, Housing and Home Finance Agency, Office of the Administrator, Our Nonwhite Population and Its Housing, The Changes Between 1950 and 1960, Washington, May, 1963.
15. U.S. Commission on Civil Rights, op. cit., pp. 97-103, 141.

INTERDISCIPLINARY RESEARCH IN AN URBAN NEIGHBORHOOD: PROSPECTS AND PROBLEMS FOR POPULATION STUDIES

Mary G. Powers, Department of Sociology and Anthropology, Fordham University

The specific interdisciplinary research to which the title of this colloquium refers and which stimulated some of the following thoughts and questions is a project on human communication titled, "Territoriality in Home and Urban Neighborhood." (1). It is concerned with the human use of space or the social space relationship, and the factors affecting it. Specifically, the study examines the way in which low income families of varying ethnic backgrounds utilize living space in the home and neighborhood. The major focus is to be on intensive case studies of volunteer families from the neighborhood by psychiatrists and ethnologists interested in non-verbal communication and territoriality. A household survey was designed to provide background information on the social and demographic characteristics of the neighborhood in which the families live. This latter part represents my involvement in the larger study and it is the perspective from which I see the opportunities and problems of interdisciplinary research at the neighborhood level.

Most studies of basic demographic processes, especially fertility and migration, are macro-level analyses of large scale census or survey data. The findings generally point to significant amounts of unexplained variation among the variables. Micro-level analyses of the operation of these processes at the neighborhood level might contribute to an increased understanding of them. Two questions may be raised: (a) to what extent are "known" relationships among demographic and social variables operative at the neighborhood level? and (b) how can the presence or absence of these relationships be explained? An interdisciplinary approach may be

through integrated institutions and arrangements. It is paternalistic for white sociologists to assure that black progress must occur through further integration with white society. It could be necessary for the white community to provide funds for programs of compensatory education and for white-run corporations to take steps to make jobs more accessible to blacks, but it may be that the socioeconomic advancement of blacks on a grand scale can only follow a heightening of black self-help and self-awareness, after which integration with the white community would follow.

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12. U.S. Commission on Civil Rights, op. cit., pp. 157-158.
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Most studies of basic demographic processes, especially fertility and migration, are macro-level analyses of large scale census or survey data. The findings generally point to significant amounts of unexplained variation among the variables. Micro-level analyses of the operation of these processes at the neighborhood level might contribute to an increased understanding of them. Two questions may be raised: (a) to what extent are "known" relationships among demographic and social variables operative at the neighborhood level? and (b) how can the presence or absence of these relationships be explained? An interdisciplinary approach may be

necessary to answer the second question.

Sociologists working on urban population studies must be concerned with the interrelatedness of social and cultural factors and population structure and process. This area of interest calls for a conceptual framework which incorporates both demographic and social variables in a single approach. Such a framework has been provided, in large part, by human ecology (2). The conceptual framework of human ecology remains useful because it has been elaborated by contributions from several disciplines. Among sociologists, human ecology traditionally has been concerned with the way in which socio-cultural phenomena are patterned in space. This approach to the urban community is now of interest to several other disciplines; "territoriality" is the object of study of regional science, geography, city planning, social anthropology and ethnology. The latter two disciplines are new on the urban scene. There appears to be a convergence of thinking in urban ecology and ethnology which is directly relevant for research on sub-areas of the urban community, such as neighborhoods (3).

In addition to the theoretical developments, the emphasis of recent ecological research has moved away from the macro-level analysis exemplified by the works of McKenzie, Hawley and Bogue, toward an analysis of smaller areal units such as neighborhoods. For example, Schore has emphasized the need for studies of sub-areas within metropolitan communities to link shifts in residential population with other processes such as the availability of housing.

Another way of looking at the neighborhood is in terms of its place in the life of different sub-groups of residents. In this context, neighborhood studies represent a significant approach to understanding behavior in the urban context. For, regardless of the extent to which urban residents move about within the urban community, they reside in one specific part of it. The effect this experience of living in local areas has on the lives of residents is not clearly understood, although it is generally assumed that activities within neighborhoods influence behavior. It has been suggested by Peter Mann that neighborhoods play a key role in the socialization and integration of the individual into his society at certain stages of the life cycle, notably childhood and old age (4). He found the local areas were least important in the lives of the employed and unmarried, but that they were critically important for young mothers, children and old people. The significance of the neighborhood varied also with the social class and income level of the residents, their sex, and the position of families in the life cycle.

This approach goes a long way toward clarifying the debate about the social function of neighborhood life. It focuses on the neighborhood as a social or cultural unit, as well as a physical entity. One cannot define this social unit as a group in any real sense; it may be defined more as a "social milieu," a concept which refers to conglomerations of human beings who do not necessarily constitute a group but who may have common

attitudes, relatively easy communication with one another and certain like forms of behavior (5). It has been suggested that in large cities the social milieu may substitute for more structured groups characterizing the life of closed societies. For some persons in urban society, the neighborhood represents a more important social milieu than for others. Therefore neighborhood may be viewed as a significant building block for understanding social behavior, including demographic behavior or processes. In this context, the relationship between mobility and fertility among wives in an urban neighborhood has been examined.

Before discussing the findings, however, I would like to mention some problems associated with this type of research. A most important one concerns communication among the investigators. Each contributor to such a project has research goals, ethical values and conceptual frameworks around which he works. These differ within the same discipline; the difference is accentuated across disciplines. To illustrate with one of the more mundane of these problems: the definition of "head of household." Demographers and sociologists using survey research techniques routinely utilize a definition similar to the census concept. We did so in the survey part of this study. However, the ethnologist had a quite different concept based on intricate kinship patterns, and the psychiatrist had still another concept based on concern with the individual's definition of the situation and resultant self-esteem in families in which the wife was the chief earner. In order to resolve the differences, it was necessary to reach an understanding of the limitations of the survey as a method of data collection. Another problem concerns integrating sometimes conflicting goals and methods of the various contributors to the enterprise. In the present study, for example, there was some question of whether the research objective could be met along with a social goal of using the research as a training vehicle for training residents of the community to be interviewers, clerks, etc. Again compromises had to be worked out. These represent but two of the problems raised in one cooperative project. It is quite likely that all of the issues have not even been recognized, and certainly not solved in the present study. Nonetheless some progress has been made in all phases of the project. The data discussed here come from a preliminary evaluation of the survey.

The survey of neighborhood residents provided an opportunity for a micro-level view of the relationship between mobility and fertility in a low income urban population. In the late nineteen-sixties, neighborhood residents were predominantly working class, and largely Puerto Rican, nonwhite or Italian with a small proportion of other ethnic groups. Several items on the interview schedule were designed to determine the mobility and migration status of the residents: a question on residence the previous year; one on length of time at the present address and address prior to move there; and a residence history question aimed at getting all places of residence during the past 10 years. Only the first two were used for this preliminary analysis along with the items on ethnicity, education, marital status and fertility. This analysis was also limited to wives of male heads of household, that is, to the "complete" households in the sample.

A considerable body of material analyzes the relationship between migration and other social factors such as fertility (6). In a recent contribution Macisco, Bouvier and Renzi cited a long list of studies, concerning the relationship between migration and fertility and indicated that a review article was forthcoming (7). In general existing evidence relating migration to fertility is based on the 5-year migration question in the census, and shows that migrants are extraordinarily fertile, primarily because of their youth and concentration in the childbearing years. The findings from census data are ambiguous, however (8).

Recently, increased attention has been paid to patterns of intra-urban mobility. Two variables which have been related to mobility in most demographic analyses are age and stage of the family life cycle. Age has been highly correlated with mobility with a peak mobility period occurring in the early twenties (9). Age has been further specified by relating it to stage in family life cycle (10). It has been suggested that, whereas economic or job-connected reasons may best explain inter-community moves, intra-community moves may be due to life cycle changes (11). A series of general but interrelated propositions suggest that residential mobility is most likely to occur during a period of change in family status or size (12).

The fertility of the wives in this sample varied by ethnic group with Puerto Rican wives reporting the highest fertility levels (Tables I and II). The differentials occurred largely among women 35 years old and over, or those with more or less completed fertility. Among younger wives, the range of variation of the average fertility measure was smaller among the three ethnic groups.

Among the women in this sample, movers were generally less fertile than long-term residents. That is, among the wives in each ethnic group, recent movers into the area reported lower fertility than those living there three years or longer (Table II). Exceptions to this generalization occurred among younger Puerto Rican wives where average fertility was similar for both recent and long-term residents, and among other white wives 35 years and over, for whom fertility was lower among long-term residents.

It was suspected that the fertility differentials by mobility might be explained by differences in the educational achievement of recent movers and long-term residents, with the latter having lower educational levels than movers. There was, however, no consistent difference in the educational level of the more recent and long-term residents. Among black wives, the recent movers were decidedly better educated. Differences were not so clear cut for the other ethnic groups. Among Puerto Rican wives, most had only an elementary education, but more long-term residents were high school graduates. Among other white wives the largest proportion had only an elementary education. This is especially so for recent residents.

A comparison of the average fertility of recent movers and long-term residents, with some control for education, showed that movers still had lower fertility. This was less apt to be true of wives 35 years and over, who were also more concentrated in the lowest educational levels, than of younger wives. That is, although the inverse relation between education and fertility holds for both recent movers and long-term residents, mobility tends to be associated with lower fertility at each education level, except for the small number of wives over 35 years with some high school.

Thus, in this low income urban neighborhood, variations in the fertility of married women by ethnic status are consistent with general ethnic patterns described in the 1960 census, with Puerto Rican wives having the highest fertility level. The relationship between mobility and fertility is not consistent with that suggested by census and survey data. The more recently mobile wives had lower fertility than long-term residents. This is current fertility, and among the younger women, at least, subject to change.

A number of plausible explanations occur to one. The findings are consistent with Bogue's theory of demographic regulation which views fertility as social artifact determined primarily by social and economic forces (13). At the micro-level of analysis represented by this study that theory suggests that fertility may represent an adjustment to the current life situation with respect to housing. The lower fertility of recent movers to the East Tremont area may be interpreted as an adjustment to the need to move at a time when a tight housing market results in high housing costs even in low income neighborhoods such as the study area. Leo Schnore has pointed to the availability of housing in the suburbs as one of the major factors explaining suburban growth, and especially the attraction for families with two or more children. The converse situation may exist in this low income city neighborhood for people who feel they cannot move because of cost, discrimination, etc. The survey data do not permit such a conclusion, but it is supported by discussions with the ethnologist who has closely observed a few families. Their concern with housing suggests it is a constant problem for these families.

It may be that some of the unexplained variation on the relationship between mobility and fertility based on data from national sample surveys is due to just such adjustments at the local level.

NOTES

1. The project is directed by Albert N. Schufeldt, M.D., Bronx State Hospital and supported by NDEH Grant No. 159-7702.
2. Human ecology as defined by Amos Hawley in *Human Ecology*, New York: The Ronald Press, 1950, pp. 66-79. More recent formulations appear

in O.D. Duncan, "Human Ecology and Population Studies," in The Study of Population, P.M. Hauser and O.D. Duncan, eds., 1959; and Leo F. Schnore, "The Myth of Human Ecology," Sociological Inquiry, 31, Spring 1961, p. 29.

3. See especially Leo Schnore, "Urban Form: The Case of the Metropolitan Community," in Werner Z. Hirsch, ed., Urban Life and Form, New York: Holt, Rinehart and Winston, 1963, pp. 169-200; and P.H. Chombart de Lauwe, "Field and Case Studies" in Philip M. Hauser, ed., Handbook for Social Research in Urban Areas, UNESCO, 1965, pp. 55-72.
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5. P.H. Chombart de Lauwe, op. cit., p. 66.
6. See for example, Henry S. Shryock, Jr., Population Mobility Within the United States (Chicago: University of Chicago Press, 1964).
7. John J. Macisco, Jr., Leon F. Bouvier and Martha J. Renzi, "Migration Status, Education and Fertility in Puerto Rico, 1960," Milbank Memorial Fund Quarterly, April 1969, pp. 167-187.
8. Donald J. Bogue, Principles of Demography (New York: John Wiley and Sons, 1969), p. 719.
9. Henry S. Shryock, Jr., op. cit.; Donald J. Bogue, "Internal Migration" in P.M. Hauser and O.D. Duncan, op. cit.
10. John B. Lansing and Leslie Kish, "Family Life Cycle as an Independent Variable," American Sociological Review, XXII, 1957, pp. 512-519; Peter Rossi, Why Families Move (New York: The Free Press, 1955), p. 178.
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12. Georges Sabagh, Maurice D. Van Arsdol, Jr., and Edgar M. Butler, "Some Determinants of Metropolitan Residential Mobility: Conceptual Considerations," Mimeographed Paper, 1968, p. 26.
13. Donald J. Bogue, op. cit., Ch. III and VII.

Table I. Average Fertility of Non-Migrant Wives by Ethnicity and Education, 1969

Years of School Completed	Total	White		Black
		Puerto Rican	Non Puerto Rican	
<u>All Wives</u>	249	111	104	34
Total	2.9	3.0	2.9	2.8
8 yrs. of school or less	3.6	3.7	3.4	4.2
1-3 yrs. of High School	2.9	2.8	2.7	
4 yrs. High School or more	2.3	2.0	2.6	2.3

Table II. Fertility of Wives by Ethnicity, Age and Length of Residence at the Same Address

Ethnicity and Age	Total	Length of Residence	
		Less Than Three Years	Three Years or More
<u>All Wives</u>	260	121	139
Total	2.9	2.5	3.2
Puerto Rican	3.0	2.7	3.5
Other White	2.9	2.6	3.0
Black	2.5	1.8	3.4
<u>Wives under 35</u>	142	92	50
Total	2.4	2.3	2.7
Puerto Rican	2.5	2.5	2.4
Other White	2.5	2.1	3.0
Black	2.3	1.9	2.9
<u>Wives 35 yrs. and over</u>	118	29	99
Total	3.5	3.3	3.5
Puerto Rican	3.9	3.2	4.5
Other White	3.2	3.9	3.1
Black	3.5	1.5	4.2

REPORT FROM IRON CITY:
A Review of Edward C. Banfield, The Unheavenly City
Boston: Little, Brown, & Co., 1968

James J. Vaneecko, Department of Sociology, Brown University

The first temptation is to take this book as an ingenious piece of satire - not unequal to the fabled Report From Iron Mountain. In fact, one recalls the wild range of speculation over the authorship of that volume, and one is tempted to resurrect the game with a new entry - Edward C. Banfield. One guesses that some clever editor probably vetoed the title suggested above for this particular piece because of its obvious parallel and the hasty conclusions that might have followed.

Alas, though, this book has already been reviewed as satire (see William Ryan, "Is Banfield Serious?" Social Policy, Nov.-Dec. 1970). Thus, it seems necessary to abandon that gleeful job and attempt to convince myself that Banfield is serious.

What is The Unheavenly City?

It is first and foremost a polemic! As such, I suspect Banfield consciously invites disagreement. One may perhaps be too cynical, but the urge is strong to suggest that Banfield is purposefully making himself the straw man for courses in urban sociology, urban politics, race relations, poverty, and many other areas. After all, straw men sell well!

As a polemic, the book is a masterpiece. So many of the arguments are greatly seductive, and one would be forced into intricately detailed refutations to combat them. The latter exercise is actually an enjoyable task which I shall leave for those really interested in reading the book; space does not allow a complete brief, and examples are too easily viewed as "out of context."

Unfortunately this book is not only a polemic - it is secondly a portrayal of social scientific "wisdom" on cities and their problems. All the trappings are there: voluminous footnotes, citations of authority for pivotal statements, presentations of supporting data for abstract arguments, and even an appendix concerning methodological questions. To the non-social scientist, Banfield communicates a simple stance: he is just summarizing social scientific facts. Those facts add up to a wisdom.

To the social scientist, however, Banfield shows biased selectivity in what he presents as social scientific "fact" and illogic in what he presents as social science "wisdom." This is what makes the book depressing. How many will read the book, blithely ignorant of social science and of all the conflicts within it?

Let us then briefly review this effort.

The first chapter of the book makes the argument--one has made many

times before--that the conventional wisdom concerning the existence of an "urban crisis" is simply wrong. There is no urban crisis. I don't find this a disturbing argument, except for two aspects of the particular way in which he makes it. First, he rather cavalierly uses the "things are getting better" argument without even considering the argument that things are not problems unless there is some expectation or possibility of solution. It seems to me that death is not a problem in this sense until we see the possibility of immortality. Similarly, as long as there is scarcity, income inequality is not a problem in the way it now is in our abundant economy. The reason there is an "urban crisis" is because the universe of politically legitimate issues has expanded and because potential solutions are in sight - as with the problem of income inequality and various proposals for a guaranteed income. For these reasons the "things are better than they used to be" argument is myopic.

The second argument which Banfield makes in Chapter 2 is that if all of these problems which comprise the "urban crisis" were really so great then we would just get together and solve them. He goes on to say that since we are unwilling to pay the price to solve them, they must not be serious. The question is fairly begged by Banfield here. In addition, this argument contradicts his own earlier work on city politics which suggests that the conflicting interests in city political systems are much more important than any general consensus possible around a given problem or the entire "crisis."

The second chapter is perhaps of the most interest to demographers: "The Logic of Metropolitan Growth." I think a fair summary of the argument is that there is no other way it could have happened, and that's the way it's going to continue - sprawling, segmented, and deteriorating at the center. Banfield's explanation is not nearly as general or as compelling as, say, "concentric zone" theory. I shall leave the tedious details up to those who wish to pursue them. The less inclined may find a less tedious example in the juggling of figures around the issues of urbanization, metropolitanization, concentration, and decentralization, at the top of page five. (This is Chapter I, but I don't want to spoil the fun for all the demographers).

The third chapter begins the main argument of the book. The argument is summarized on page 261 in the final chapter: "The import of what has been said in this book is that although there are many difficulties to be coped with, dilemmas to be faced, and afflictions to be endured, there are very few problems that can be solved; it is also that although much is seriously wrong with the city, no disaster impends unless it be one that results from public misconceptions that are in the nature of self-fulfilling prophecies." If we look the other way, they won't be crises - right? And if we call them crises, they will overwhelm us. It is not reality as such, or fear itself, that will overwhelm us, but whatever it is that we decide we are afraid of.

For anyone who mistakenly believes that income, education, and occupation--let alone something like class consciousness--are essential

to class structure, Professor Banfield sets the score straight. He tells us that "the one primary factor (is) the psychological orientation toward providing for the future." Culture is overwhelming and perverse. It is determined by social class and determines future social class. There are, we are told, four classes: upper, middle, working, and lower. We are told further that "... the 'true' present-orientedness of the lower class is both unrelieved and involuntary."

Professor Banfield is more clever than to say how many people are in the lower class, but the clear implication within the text and in his appendix on "size of the social classes" is that it is about 20% of the U.S. population. It is the effects of these folks' behavior that explains so much, if not all, of what is happening in our cities. The argument runs that anyone who is so "present-oriented" could not possibly hold a job for very long, learn anything in school, keep a house or neighborhood in order, resist the temptation to rob and riot, or do any better in the future. Thus, Professor Banfield argues that not only do "we" not have any problems, but whatever problems "we" have are only because "we" think "they"--the present-oriented lower class--have problems. Their problems are all of their own creation. By thinking about them or doing something about them, we might destroy ourselves.

Now, the reader can fill in the blanks and play "The Unheavenly City Game." It is simulation of the absurd.

THOSE FIRST-YEAR TEACHING BLUES

Eric P. Godfrey, Department of Sociology and Anthropology, University of Vermont

When the editor of this issue of Concerned Demography first suggested I prepare a short article linking my graduate training to my teaching experience in demography, I saw no special problems and quickly agreed. After all, we all gripe about graduate school and teaching conditions constantly. However, my graduate career, except for events immediately surrounding my dissertation (which is still painfully etched on my mind), has faded to a blur of forgettable colloquia followed by cocktail parties punctuated by scores of faceless graduate students economizing on their food and liquor budgets, mixed with equally unmemorable seminars the names of some of which escape me, and with numerous psychosomatic illnesses (especially as prelims approached), and spiced by those ubiquitous impedimenta of modern graduate school - parties, free trips to professional-association meetings, etc. And now I find myself hired (at far less than my intrinsic worth) to instill (distill?) these experiences in/for a covey of mostly apathetic young faces every Monday, Wednesday and Friday, punctually on the hour, twice a day, for a duration not to exceed 50 minutes, and at such other times as students, for reasons best known to themselves, choose to seek me out.

The subject of this short piece is the connection, or lack of it, between these two sequences of events. Now, as an evolutionary sociologist (among other things), I don't "believe" in discontinuous change. However, in the academic discipline of sociology, as among the societal phenomena which we study, discontinuities are miraculously created where only gradual development previously existed by subjecting the graduate student to rites of passage (prelims, brown bag presentations, "coming out" cocktail parties, and the like), which in turn mark off status differentials. The latter are fairly strictly enforced - nay, they form the backbone of our educational system (1). Though I may question the adequacy of some areas of my graduate training, and though some may question my abilities, I've sure got those status differentials down pat: On your knees, students! Yes, I'm a true professional.

That's the extreme picture. Of course we all know that turning into a pro demographer involves more than just appearances, and we must get some personal satisfaction out of it or we wouldn't be in this game. Certainly we couldn't be in it for the money, and I've yet to see a man turn a stable population into a stable polity (although the names of some of our bigger stars, such as Hanser and Tauber, do turn up occasionally in the New York Times). No, most of us are educators, and I suspect that most of us are also sociologists. Yet, according to the educational process we've all gone through, we've made that magical transition from graduate student to committee man ... or, sorry, I mean teacher, in just one year. As a raw recruit in the War on the Human Mind, I strongly sense that something is wrong with our educational system, though I have quite a bit of trouble trying to put my finger on it. In

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Let us then briefly review this effort.

The first chapter of the book makes the argument--one has made many

times before--that the conventional wisdom concerning the existence of an "urban crisis" is simply wrong. There is no urban crisis. I don't find this a disturbing argument, except for two aspects of the particular way in which he makes it. First, he rather cavalierly uses the "things are getting better" argument without even considering the argument that things are not problems unless there is some expectation or possibility of solution. It seems to me that death is not a problem in this sense until we see the possibility of immortality. Similarly, as long as there is scarcity, income inequality is not a problem in the way it now is in our abundant economy. The reason there is an "urban crisis" is because the universe of politically legitimate issues has expanded and because potential solutions are in sight - as with the problem of income inequality and various proposals for a guaranteed income. For these reasons the "things are better than they used to be" argument is myopic.

The second argument which Banfield makes in Chapter I is that if all of these problems which comprise the "urban crisis" were really so great then we would just get together and solve them. He goes on to say that since we are unwilling to pay the price to solve them, they must not be serious. The question is fairly begged by Banfield here. In addition, this argument contradicts his own earlier work on city politics which suggests that the conflicting interests in city political systems are much more important than any general consensus possible around a given problem or the entire "crisis."

The second chapter is perhaps of the most interest to demographers: "The Logic of Metropolitan Growth." I think a fair summary of the argument is that there is no other way it could have happened, and that's the way it's going to continue - sprawling, segregated, and deteriorating at the center. Banfield's explanation is not nearly as general or as compelling as, say, "concentric zone" theory. I shall leave the tedious details up to those who wish to pursue them. The less inclined may find a less tedious example in the juggling of figures around the issues of urbanization, metropolitanization, concentration, and decentralization, at the top of page five. (This is Chapter I, but I don't want to spoil the fun for all the demographers).

The third chapter begins the main argument of the book. The argument is summarized on page 261 in the final chapter: "The import of what has been said in this book is that although there are many difficulties to be coped with, dilemmas to be faced, and afflictions to be endured, there are very few problems that can be solved; it is also that although much is seriously wrong with the city, no disaster impends unless it be one that results from public misconceptions that are in the nature of self-fulfilling prophecies." If we look the other way, they won't be crises - right? And if we call them crises, they will overwhelm us. It is not reality as such, or fear itself, that will overwhelm us, but whatever it is that we decide we are afraid of.

For anyone who mistakenly believes that income, education, and occupation--let alone something like class consciousness--are essential

to class structure, Professor Banfield sets the score straight. He tells us that "the one primary factor (is) the psychological orientation toward providing for the future." Culture is overwhelming and perverse. It is determined by social class and determines future social class. There are, we are told, four classes: upper, middle, working, and lower. We are told further that "... the 'true' present-orientedness of the lower class is both unrelieved and involuntary."

Professor Banfield is more clever than to say how many people are in the lower class, but the clear implication within the text and in his appendix on "size of the social classes" is that it is about 20% of the U.S. population. It is the effects of these folks' behavior that explains so much, if not all, of what is happening in our cities. The argument runs that anyone who is so "present-oriented" could not possibly hold a job for very long, learn anything in school, keep a house or neighborhood in order, resist the temptation to rob and riot, or do any better in the future. Thus, Professor Banfield argues that not only do "we" not have any problems, but whatever problems "we" have are only because "we" think "they"--the present-oriented lower class--have problems. Their problems are all of their own creation. By thinking about them or doing something about them, we might destroy ourselves.

Now, the reader can fill in the blanks and play "The Unheavenly City Game." It is simulation of the absurd.

THOSE FIRST-YEAR TEACHING BLUES

Eric P. Godfrey, Department of Sociology and Anthropology, University of Vermont

When the editor of this issue of Concerned Demography first suggested I prepare a short article linking my graduate training to my teaching experience in demography, I saw no special problems and quickly agreed. After all, we all gripe about graduate school and teaching conditions constantly. However, my graduate career, except for events immediately surrounding my dissertation (which is still painfully etched on my mind), has faded to a blur of forgettable colloquia followed by cocktail parties peopled by scores of faceless graduate students economizing on their food and liquor budgets, mixed with equally unmemorable seminars the names of some of which escape me, and with numerous psychosomatic illnesses (especially as prelins approached), and spiced by those ubiquitous impedimenta of modern graduate school - parties, free trips to professional-association meetings, etc. And now I find myself hired (at far less than my intrinsic worth) to instill (distill?) these experiences in/for a covey of mostly apathetic young faces every Monday, Wednesday and Friday, punctually on the hour, twice a day, for a duration not to exceed 50 minutes, and at such other times as students, for reasons best known to themselves, choose to seek me out.

The subject of this short piece is the connection, or lack of it, between these two sequences of events. Now, as an evolutionary sociologist (among other things), I don't "believe" in discontinuous change. However, in the academic discipline of sociology, as among the societal phenomena which we study, discontinuities are miraculously created where only gradual development previously existed by subjecting the graduate student to rites of passage (prelins, brown bag presentations, "coming out" cocktail parties, and the like), which in turn mark off status differentials. The latter are fairly strictly enforced - nay, they form the backbone of our educational system (1). Though I may question the adequacy of some areas of my graduate training, and though some may question my abilities, I've sure got those status differentials down pat: On your knees, students! Yes, I'm a true professional.

That's the extreme picture. Of course we all know that turning into a pro demographer involves more than just appearances, and we must get some personal satisfaction out of it or we wouldn't be in this game. Certainly we couldn't be in it for the money, and I've yet to see a man turn a stable population into a stable polity (although the names of some of our bigger stars, such as Hauser and Taeuber, do turn up occasionally in the New York Times). No, most of us are educators, and I suspect that most of us are also sociologists. Yet, according to the educational process we've all gone through, we've made that magical transition from graduate student to committee man ... er, sorry, I mean teacher, in just one year. As a raw recruit in the War on the Human Mind, I strongly sense that something is wrong with our educational system, though I have quite a bit of trouble trying to put my finger on it. In

to class structure, Professor Banfield sets the score straight. He tells us that "the one primary factor (is) the psychological orientation toward providing for the future." Culture is overwhelming and perverse. It is determined by social class and determines future social class. There are, we are told, four classes: upper, middle, working, and lower. We are told further that "... the 'true' present-orientedness of the lower class is both unrelieved and involuntary."

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the remainder of this essay I want to talk briefly about the two ends of education with which I've been connected, and deliver myself of some opinions concerning the status of demography in this process.

The graduate department I was a part of* (and I suspect it isn't atypical) is blatantly structural-functional. This early in my career I've already concluded that the structural-functional approach to education is used to overcome the inability of educators to judge merit. Thus, I am now teaching at a school that purportedly puts some stress on teaching, at least for a state university. But who on earth knows how to evaluate teaching ability (and who would have the time to monitor it if they did know?); I like living in Vermont, and I'd better publish if I want to stay here. The formula seems to be: Publications+longevity+tenure. No mention of teaching, and community service can be introduced only as Finagle's Constant (2). The functions which the institution was created to perform are forgotten in the niceties of maintaining a bureaucracy to administer it.

Thus, too, we have the graduate seminar, an institution created to assure faculty that they are teaching, and that if students are not learning, at least they are at the appointed place and time where learning is to take place. Perhaps the reason for the precedence of form over content in both cases is a solution (I hope not "the" solution) to problems created by our society's commitment to mass higher education. However, a more devious explanation has recently been suggested. Compared with structure, function may be quite irrelevant, since the latter is not readily subject to manipulation (nobody really knows quite what it is or is supposed to be in graduate education), and therefore is not very satisfying to egos on either side of the academic barricades, faculty or students (3). Structural change becomes an institutionalized mechanism for relieving minor faculty neuroses about their lifetime accomplishments, and for "cooling out" student dissatisfaction which is built into the graduate educational system (4). This is not to say that changes in educational structures cannot accomplish desired reforms in education (desired by whom and for what purpose are two issues I will cavalierly discard here); however, that does not seem to me to be the main purpose that such change usually serves. Too often curricular changes involve a new form of "intellectual despotism." While, unlike one recent author (5), I did not encounter this problem in my daily graduate work, it can affect the lives of those students who have been socialized to believe that curricula form an outline of all desirable knowledge, that syllabi are handed down from on high, and that all assignments are to be rigidly followed and submitted on time.

* (Brown University - Ed.)

Clearly the problems alluded to above will depend upon the size of a department, the composition of its faculty, and the type of students admitted to the program. There are also many problems with which we cannot be concerned here (e.g. repeated close contact between students and faculty may not be consistent with the maintenance of high preliminary examination standards). The ones I want to deal with now specifically concern the fact that graduate education, at least the version I had, does not prepare one fully for the teaching career that follows for many of us. This would appear to be due in part to the schizophrenic nature of this career. I spend most of my time teaching (or preparing to teach), but was largely trained to do research and if I want to continue teaching I will have to do that research. And who wants to continue under these conditions? It becomes a vicious circle. Thus, curricula which promote concentration on one area of demography (or sociology) produce a mental straight-jacket when it comes to teaching undergraduates similar material - a limitation resulting both from narrow thinking (e.g. survey research is not the only method of social scientific investigation, nor need it be used as the cornerstone of a methods course) and from sheer ignorance of what is going on in other fields (an example is hardly needed here). Surely, in view of the interdependence of population and organizational problems, it seems foolish to me to insist on their separation in graduate curricula. If most sociologists I know are not interested in extending their contacts to the macrosociological perspective of demography, surely we demographers should not reciprocate such parochialism.

There are two remaining topics I wish to consider. The first is the actual preparation one gets as a graduate student for teaching, and the second is the content of what we teach. In the former case, I spent a year as a teaching assistant in statistics and research methods (I now teach the latter); such experience is typical of most students I know in departments of this size. Apparently, in larger departments more responsibility may be granted. In my case, I had the good fortune to assist a sociologist whom I greatly admire, and who was unstinting in his criticism, a necessary condition to improvement. Most of my friends were not as fortunate, and based on subsequent experience even I have found my training only minimally adequate. Standard syllabi proved inadequate for the sorts of courses I wished to teach, and I was forced to devise most of my own, purely on a trial and error basis (and in my on-the-job training I have made some rather big bloopers). The dangerous part here is that college teaching is largely unmonitored. Add to that the fact that teaching assistants are inadequately trained, and the quality of college teaching can't help but suffer. In my own experience, seminar presentations were much more closely related to subsequent teaching than was the teaching assistantship, though I am thankful for the little of both.

Quite a different problem, peculiar to demography, is that except for those of us who immediately begin teaching graduate seminars, chances are that we will get to do very little teaching in the areas of our specialty. Further, I have found that for most students I've run into

(with some notable and gratifying exceptions), the content of our specialty is "irrelevant." Thus, in my "Population Analysis" course last semester, highly simplified discussions of cohort fertility and life tables produced numerous drop slips, while course attendance was nearly perfect when I got around to talking about population and social problems in the latter third of the semester (though a mortality effect, if you'll pardon the pun, may be in operation here). To quote one partially disgruntled ZPG member, "I thought we were just going to sit around and talk about Armageddon all semester." Admittedly students up here do not match students at our more esteemed institutions when it comes to inquisitiveness and reading background, but I suspect the problem is larger than just prior level of achievement. Nor is it limited to population - I have encountered the same impatience with scholarly materials in all courses. I think that the demand for relevance can be solved by more extensive use of social policy examples within existing course structures, and by the creation of separate social and demographic policy courses or seminars on both the undergraduate and graduate levels. I have found very little in the graduate curriculum which I went through to prepare me for policy issues, and in fact have survived only because both my M.A. and Ph.D. theses have dealt explicitly with policy problems. To be sure, almost all of demography is fraught with implications for social policy, but as long as we are locked into the existing course structure (that word again!), why not make it an explicit concern of the curriculum?

In this short article I have tried to raise for public display (and hopefully for numerous arguments) some issues that have increasingly "bugged" me during my first year of full-time college teaching. One of the most important that must not be omitted is the extent to which we actually must be committed to encouraging learning in 50-minute, one-semester units. However, some promising breaks with tradition are being made with the introduction of self-design majors, and even more important for social scientists, experimentation with off-campus research semesters as a regular part of the undergraduate curriculum. As demographers we are a bit lucky at present in having our boat come in with the rising interest in environmental studies, but graduate curricula are at present not adequately preparing us to capitalize on this interest in our own fields of professional competence. I hate to say that if we are hired to teach, we "owe" undergraduates a high standard of teaching, but without it, it will continue to be difficult for us to recruit the better students into our discipline (6). Since the future of our profession lies in attracting such students, it would appear to be in our own self-interest, ethical and personal considerations aside, to improve the quality of undergraduate education in demography by altering the training we receive in graduate school. And having opened that can of worms, I will close by introducing one new issue and quickly ducking out: the performance in no role is independent of the abilities of its incumbent. No amount of curricular change can overcome the disabilities, bias, or even intellectual dishonesty of men and women who actually do the teaching and administer the programs. While bitter personal attacks may not be justified, it is still naive to believe that a change in form will necessarily produce a change in content.

FOOTNOTES

1. Jerry Farber, "The Student As Nigger," Los Angeles Free Press, (date unknown).
2. T. Sebastian Finagle, "Toward a General Theory of Status Advancement in the Academic Disciplines," American Journal of Status Retention, 1 (September, 1900): 1-99. An excruciatingly seminal article.
3. John D. McCarthy and Mayer N. Zald, "Toward a Permanent Revolution in the Graduate Curriculum," The American Sociologist, 6 (February 1971): 31-34. A pioneering application of computer simulation techniques to structural maintenance problems in a departmental setting.
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5. Richard N. Harris, "Intellectual Despotism in Graduate School," The American Sociologist, 6 (February 1971): 35-36.
6. Compare Fritz Machlup, "Are the Social Sciences Really Inferior?" The Southern Economic Journal, 27 (January 1961): 173-184.

TEACHING POPULATION STUDIES WITH NUMBERS

Avery M. Guest, Department of Sociology, Dartmouth College

Back in the good old days, from 1966 to 1970 at the University of Wisconsin, we graduate students were lucky to do one empirical paper a term in a course. A conscientious student would spend many hours gathering or organizing his data, combing errors out of his IBM cards, and attempting to run error-free computer programs. From all reports, graduate education will continue in this manner for some time, with much more effort devoted to the toil and sweat of getting ready to answer scholarly questions rather than actually answering them.

But up here in the North Woods of New Hampshire, Dartmouth undergraduate sociology students analyze three to four empirical studies a term in my urban sociology and introductory population courses. When we study the cross-cultural correlates of urbanization, each student actually examines questions such as the relationship between urbanization, economic development and literacy. When we talk about urbanism

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as a way of life, each student actually determines whether urban people live differently than rural people. When we investigate family size in underdeveloped countries, each student actually finds out whether fertility levels are affected by rural residence, education levels and income.

The reasons for the difference between Wisconsin and Dartmouth rest in the financial generosity of the Carnegie Corporation, the Alfred P. Sloan Foundation, and the National Science Foundation, and in the intellectual wizardry of fellow sociologist Edmund D. Meyers, Jr. The "thing" that actually causes the difference is Interdisciplinary Machine Processing for Research and Education in the Social Sciences, better known as PROJECT IMPRESS.

In a three to four year period, Meyers and a handful of students and professional assistants have managed to take some of America's best known and loved surveys, store them for computer retrieval, and most importantly develop self-teaching programs which permit rapid student analysis of data. Any student sitting at a console, with no computer time limit, can take the codebook of his favorite survey, dial into IMPRESS, call up his survey, define his most prized variables, tell the computer what machinations to perform, and get as output various goodies such as cross-tabulations, correlations and regression coefficients, rammas, and frequency distributions.

One of my urban sociology assignments, to determine the ecology of a city, namely Cleveland, probably took the average student about one half hour of work at the console. During this time, the student looked at five demographic correlates of neighborhood aging, at five correlates of neighborhood deterioration, and at the special differences between black and white communities. The data were in a special file created from the 1960 census tract report.

As noted, my population course this term is concerned with the correlates of family size in an underdeveloped country, namely Mexico, using the Almond and Verba "Civil Culture" study. The students are also using (a) George Murdock's cross-cultural ethnographic data to look at the validity of social and cultural evolutionary theory, (b) the Yale-Russell cross-national survey to investigate the modern societal correlates of high fertility, and (c) the 1968 Presidential Election Survey of the University of Michigan to determine the psychological and demographic characteristics of American Southern migrants.

IMPRESS already has 25 surveys on line, and another 50 or so should be ready within the next two years or so. For the demographer, there is the 1967 City-County Data Book, a study of Vermont low income housing, a fertility survey of mothers in the Dartmouth area, the Brookings economic time series data, and the 1966 and 1967 Surveys of Economic Opportunity.

While IMPRESS is designed for use in all social science departments, most of the true believers tend to be sociologists. To date, IMPRESS

has been a central focus for my courses, a political sociology course, a seminar on social stratification, a race relations course, and, of course, our department's research methods offering. By the way, this last course draws the department's largest enrollments, next to a course called Social Problems. IMPRESS has been less popular in other departments for several reasons, among them a clear--although not pervasive--faculty distaste for numbers, a general reluctance to accept the new, and a general feeling that it has few payoffs in better student enrollment numbers.

During the period in which sociologists have been gung ho on IMPRESS, our number of senior majors has increased only slightly to 40 or so out of an annual liberal arts graduating class of about 600. Our number of junior majors this year is sharply down. On the other hand, the academic caliber of our majors has noticeably improved. My guess would be that our majors have academic averages around A+, while the general Dartmouth student falls around B-.

Our failure to attract more students is probably a result of the negative or neutral impact of IMPRESS. First, taking an IMPRESS course generally requires a lot of work, perhaps because the teachers are gung ho slave drivers. While Dartmouth students are quite bright, they often shy away from intellectual activities. It is still possible to get a gentleman's B- in the government department by regurgitating what Tom Jefferson said 200 years ago. Furthermore, IMPRESS has not been very successful in attracting students because many undergraduates these days are quite suspicious of numbers as being irrelevant or perhaps anti-relevant to social change. Of course, this view is understandable given the misuse of science in the past few years. IMPRESS may also be partially a failure in sociology because most students are headed into traditional professions such as medicine, law and business where numerical social science has not made much headway.

In my urban sociology course of 22 students, just completed, I polled the 22 students on the course content and IMPRESS. Unless otherwise noted, 19 of them responded. Nine said the course was better than most at Dartmouth, while only one said it was worse. The course as a whole rated somewhat better than both the readings and lectures. Was the difference due to the use of IMPRESS? This was impossible to tell because students were not really asked to rate IMPRESS in relationship to the rest of the course, the lectures or the readings.

However, I do have information on various specific reactions to IMPRESS, suggesting some rather ambiguous feelings. Students were asked to provide a generally positive, neutral, or negative reaction to various statements about IMPRESS. On the most positive note, 12 of 18 students felt the assignments were more satisfactory than conventional exams, while only two said otherwise. Nine felt the assignments dealt with "important issues" while only three said a definite no. Eight were clearly positive on IMPRESS being "enjoyable" while nine felt it was definitely "uninteresting." Six said IMPRESS definitely contributed

to their education, while another six had a negative reaction. The most negative response came on whether IMPRESS was used too much or too little. Twelve said it had been used too much. This last response was difficult to interpret since the course work load had been heavy, the three IMPRESS assignments requiring perhaps 30 pages of types analysis. Students also had another assignment involving field interviews. The students could have been objecting to the work load, or they could have been saying in essence, "IMPRESS has its place; let's keep using it, but let's also have some of the more traditional assignments."

My general impression through informal contacts was this: a few of the 22, perhaps four or five, really enjoyed IMPRESS. They consistently went beyond the assignments, analyzing numerous relationships among variables. At the other extreme, two students had almost no feeling at all for abstract analysis and never quite mastered the construction of a two by two table. The rest of the class varied between mild interest to mild disinterest and distaste for IMPRESS. In a set-up which most graduate students would drool over, most Dartmouth undergraduates yawned.

I should note that my class consisted of an exceptionally able group of students. The average college board math score was above 700 on a 200 to 800 range, and several students approached a perfect score. Only about half had taken the research methods course, but this generally proved little hindrance, particularly to the very bright who quickly picked up the rudiments of data analysis. It is also worth reporting that the liveliest class discussions involved the results of graded IMPRESS assignments, but then class discussion of graded exams are often lively too.

In future courses, I plan continued use of IMPRESS but in more limited ways. Students should be provided more options in terms of grade requirements. Those not liking IMPRESS should be permitted the option of conventional library papers or in-class exams. However, those who enjoy IMPRESS--a small but fierce cohort--should continually be guided and stimulated to explore social relationships.

IMPRESS will probably continue to have a limited impact at Dartmouth. In fact, in this time of cost benefit analysis, the sociology department can probably expect to meet the wrath of higher-echelon bureaucrats. The traditional style of social science, as practiced by the government department, still seems to pay off in high numbers of majors per department and low faculty teaching costs.

The primary value of IMPRESS may be as a radical, if the term is appropriate, experiment in American higher education. Those of us who believe in IMPRESS have an excellent opportunity to observe its possibilities; we have the obligation to report our findings. The language of numbers is inevitably going to become a more important subset of the language of the world and of social science. It is much more precise than English. At Dartmouth, we feel a little like the biblical prophets - we may be scorned now, but the wave of the future is with us.

LET'S NOT WANDER NOT OVERDOING Z.P.C.

Leon F. Bouvier, Department of Sociology, University of Rhode Island

Within the past two years, there appears to have developed a tendency on the part of many to ignore or even denounce those who warn us of impending doom resulting from population growth. It can be expected that, at any moment, a new "anti-Paul Erlich" will arrive on the scene, perhaps write a best-selling paperback entitled: "There Is No Population Bomb," and appear on the Johnny Carson and David Frost shows. Increasingly the popular press is reporting of statements that the "so-called population bomb (is) being diffused ..." (1); or that the extreme positions being taken by zoologists Hardin and Ehrlich, among others, are merely scare tactics.

There are those, of course, who cannot conceive of a population problem and their views clearly antedate the so-called "explosionists." One has but to recall the pathetic plea of Paul VI at the United Nations: "You must strive to multiply broad so that it suffices for the tables of mankind and not rather favor an artificial control of birth which would be irrational, in order to diminish the number of guests at the banquet of life." More recently other non-professionals have joined in this movement to erase this social problem from the minds of people. Thomas Jerrold, an historian at Rockhurst College, received excellent coverage on the editorial page of the National Observer (July 17, 1969) with his article, "It's Time to Defuse Population 'Explosionists'." After a vague and somewhat distorted exercise in demographic technique, Professor Jerrold concludes: "It is time to deflate the 'population bomb' rhetoric so that we can have a clear view of the real problems." This position is not confined to conservative writers or theologians. Some branches of the extreme new left have also taken up the cause--for entirely different reasons. Nevertheless, their extremism sometimes results in the following, taken from an anonymous propaganda pamphlet recently distributed in this area. "The 'Overpopulation Scary' is a big lie. Overpopulation is not the cause of crowding, starvation ... and other problems like these." Quoting as dogmatic authority an economist not exactly famous for his radicalism, Colin Clark, it continues: "The world has plenty of food-land and living space--enough to feed, clothe and house everyone now in the world ... and enough to feed a population 19 times the size of the present population of the world at present U.S. nutritional standards." It finally makes the point: "Many of the loudest propagandists are from a group called ZPG. This group is the most vicious in its attack on people. They and their leader, a fascist named Paul Erlich who wrote The Population Bomb, openly talk about the need for compulsory sterilization and compulsory birth control programs." It is unfortunate that people from both the far right and far left, well intended though they may be, are so limited in their vision as not to see problems other than those with which they are immediately concerned.

No one denies the necessity of producing more food for the starving millions of this planet. But such a goal can best be achieved (if indeed it ever is) in a world having a drastically lower rate of population increase. Furthermore, the steadfast determination on the part

to their education, while another six had a negative reaction. The most negative response came on whether IMPRESS was used too much or too little. Twelve said it had been used too much. This last response was difficult to interpret since the course work load had been heavy, the three IMPRESS assignments requiring perhaps 30 pages of types analysis. Students also had another assignment involving field interviews. The students could have been objecting to the work load, or they could have been saying in essence, "IMPRESS has its place; let's keep using it, but let's also have some of the more traditional assignments."

My general impression through informal contacts was this: a few of the 22, perhaps four or five, really enjoyed IMPRESS. They consistently went beyond the assignments, analyzing numerous relationships among variables. At the other extreme, two students had almost no feeling at all for abstract analysis and never quite mastered the construction of a two by two table. The rest of the class varied between mild interest to mild disinterest and distaste for IMPRESS. In a set-up which most graduate students would drool over, most Dartmouth undergraduates yawned.

I should note that my class consisted of an exceptionally able group of students. The average college board math score was above 700 on a 200 to 800 range, and several students approached a perfect score. Only about half had taken the research methods course, but this generally proved little hindrance, particularly to the very bright who quickly picked up the rudiments of data analysis. It is also worth reporting that the liveliest class discussions involved the results of graded IMPRESS assignments, but then class discussion of graded exams are often lively too.

In future courses, I plan continued use of IMPRESS but in more limited ways. Students should be provided more options in terms of grade requirements. Those not liking IMPRESS should be permitted the option of conventional library papers or in-class exams. However, those who enjoy IMPRESS--a small but fierce cohort--should continually be guided and stimulated to explore social relationships.

IMPRESS will probably continue to have a limited impact at Dartmouth. In fact, in this time of cost benefit analysis, the sociology department can probably expect to meet the wrath of higher-echelon bureaucrats. The traditional style of social science, as practiced by the government department, still seems to pay off in high numbers of majors per department and low faculty teaching costs.

The primary value of IMPRESS may be as a radical, if the term is appropriate, experiment in American higher education. Those of us who believe in IMPRESS have an excellent opportunity to observe its possibilities; we have the obligation to report our findings. The language of numbers is inevitably going to become a more important subset of the language of the world and of social science. It is much more precise than English. At Dartmouth, we feel a little like the biblical prophets - we may be scorned now, but the wave of the future is with us.

LET'S NOT OVERDO NOT OVERDOING Z.P.G.

Leon F. Gouvier, Department of Sociology, University of Rhode Island

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of some of the leadership of the Roman Catholic church to force social reality to fit into its "theological framework" is sheer nonsense. Rather than weeping in Bombay and writing anti-birth control encyclicals, Pope Paul VI would be advised to study more objectively the global conditions and encourage the development of increased family limitation throughout the world.

The pro-natalist arguments of the left are somewhat more complicated. In developing countries, especially Latin America, if population control is utilized to guarantee stability--meaning the absence of social, political, and economic ferment--then certainly this is open to serious questioning (2). Such an approach to stability in developing nations is not to be desired. On the other hand, there is no concrete evidence that rapid population growth (and the accompanying large proportion of youth) will necessarily result in social revolution. Indeed, one could argue that social revolutions will come only after some progress has taken place--perhaps as a result of declining population growth. While our sympathies are with those advocating social revolution, the attainment of their goals does not necessarily require increased starvation and misery on the road to success.

The non-demographic views just discussed are perhaps excusable in light of the strong ideological positions held by both the right and the left. But it is unfortunate when competent demographers join these forces in an attempt to play down the publicity received by the so-called "explosionists." This movement probably started inadvertently with Donald Hogue's article, "The End of the Population Explosion" (3). He predicted that "it is probable that by the year 2000 each of the major world regions will have a population growth rate that either is zero or is easily within the capacity of its expanding economy to support." Based as it was on sparse findings from Taiwan and South Korea, this view was properly criticized by other equally respected demographers like Kingsley Davis and Philip Hauser (4). Somewhat later, taking a more formal demographic approach, Ansley Coale warned of the possible structural dangers inherent in immediate zero population growth--especially as related to the age distribution of such a population (5). The implication was that a society having a median age of about 35 years would undoubtedly be very conservative and not easily susceptible to change. Deborah Oakley, writing in Concerned Demography, has questioned such an implication citing such "old and conservative" countries as Sweden and Great Britain (6).

It should be emphasized that the papers by Hogue and Coale were not primarily concerned with being "anti-explosionist." Rather, they took a carefully thought-out position regarding future growth and some did not agree with their conclusions. Furthermore, their frame of reference was world-wide rather than being limited to the United States as is the present paper. It was at the P.A.A. convention of 1970 in Atlanta that one began to feel the hostility towards the ZPG people. One needed but to use the magic word "Ehrlich" in a prepared paper to receive knowing nods of agreement, together with occasional

smirks from the "sheep" in the audience.

The demographic branch of the "anti-explosionist movement" really went to work in the fall of 1970, utilizing the respectability of the Bureau of the Census as its offensive weapon. On October 7, Dr. George H. Brown, Director of the Bureau, made the statement quoted above (i.e., "the so-called population bomb is being diffused.") Using the latest Bureau of the Census population projections, he arrived at a very Nixonesque conclusion: "Everything I see indicates we are going into 1985 in a country that is basically people oriented, with strong individualism, a free market and a democratic society beset by many problems, but working them out in terms of human liberty and dignity." (7). Brown predicted a population of between 240 and 250 million by 1985. He, of course, also takes up the Coale cudgel in reference to possible zero population growth: "There is concern that an older stationary population would be more resistant to change." Finally, the demographic director of the Bureau of the Census, Conrad Taeuber, got into the act, recently arguing that the principal problem facing this nation is not population growth but rather the distribution of people. He did not, we should note, offer any suggestions as to how to convince people living in crowded urban areas to move to North Dakota or West Virginia.

Some of these statements are perhaps reactions to the relatively recent concern with overpopulation in this country as well as abroad, and the notoriety achieved by "alarmists" such as Ehrlich. It is not the present intent to defend the positions held by the zoologists. Perhaps they have been too pessimistic and are indeed "alarmists." Demographic sophistication is also lacking in their writings. Nevertheless, the continued attempt to allay the fears of the people--to try to convince them that the problem is solved (or worse, that there is no problem)--is a dangerous method of publicizing what are considered the "true" facts concerning population growth in the United States.

And what are these "true" facts? Much has been made of the fact that the United States rate of growth of about one per cent per year is the lowest ever recorded. Much has been made of the fact that 1968 saw the crude birth rate plummet to its lowest point ever. The latest population projections calculated by the Bureau of the Census are also being cited as evidence that the problem is being solved (8). Assuming no changes in either mortality or migration, this report calculates future populations based on Series B (3.1 children per future completed family); series C (2.78 children); Series D (2.45 children); Series E (2.11 children or ZPG). The projected population for the year 2000 under Series B would be about 321 million; the Series D projection results in 281 million, and the Series E (ZPG) possibility means a population of 266 million in the year 2000. When one considers that our present population is 205 million, who can deny that there is indeed a multifaceted problem facing American society in the near future?

It is interesting that while the so-called "explosionists" are

criticized for making projections based on present rates of growth, the "anti-explosionists" are doing exactly the same thing--selecting the projection that suits them best WITH NO EMPIRICAL DATA TO BACK THEIR CHOICE. For example, Brown assumes that future completed families will average about 2.5 children. Bogue thinks that future mothers will limit their fertility to close to two children. It appears that indeed, as the anti-explosionists argue, the problem can be solved (as opposed to is being solved) if THE PEOPLE BEGIN MOVING TOWARDS ZERO POPULATION GROWTH! However, it is their responsibility to cite evidence that this is actually taking place in this country.

The 1965 national fertility survey indicated that women 18-44 expected to have, on the average, 3.36 children (9). A random sample taken in 1969 of married women under 30 in the state of Rhode Island showed that they expect to have 3.1 offspring--no sign of a general decrease in family size among young married couples (10). But Bureau of the Census demographers need not leave their own offices to discover the family size expectations of young married women. A recent (January 1971) publication from the Bureau of the Census summarized the results of a national survey of family size expectations completed in 1967. Although their expectations are lower than in the past, YOUNG WIVES UNDER AGE 25 STILL EXPECT TO HAVE ALMOST 2.9 CHILDREN WHEN THEIR REPRODUCTIVE PERIOD IS COMPLETED (11). This is substantially higher than the family size "predicted" by Brown just a few months ago.

It would seem therefore that the most realistic, though optimistic, projection to follow from those calculated by the Bureau of the Census would be those from Series C (2.78 children). This would result in a population of just over 300 million in 19 years--an increase of 95 million over the present population. As Hauser commented following the Brown speech: "It remains utterly possible that we could still reach 300 million by the year 2000 though the odds against it have increased" (12). The problem facing this nation can perhaps be best expressed by using Census projections. Even if all future marriages resulted in but 2.1 children, the population would still increase by 60 million in the next 29 years.

It is quite possible that the Ehrlichs and the Hardins have been overpessimistic about the future. To their credit, however, they relate population growth to considerations of resources and pollution. There are others, of course, who increase the fears of the populace by suggesting mandatory sterilizations or the placing of chemicals in the drinking water. These should be severely criticized. It is equally possible that certain demographers, in their anxiety to counteract the so-called "alarmists" have also gone too far. There is a population problem in this country. If, as Tauber suggests, it is merely one of relocation, then the question must be asked: What is more repugnant to the people: being told to move to sparsely inhabited sections of the nation? If the argument is made that we can "support" 300 million people (as indeed we should be able to do), then the question must also be asked: How will this be possible under our present system of government? Finally, an

argument can easily be made that, of the two "evils," the "anti-explosionists" are causing more harm than the "alarmists." The latter, if successful, will contribute to a lowering of fertility in this country. Despite the warnings of Coale and Brown, this is not intrinsically a "bad thing." On the other hand, the recent publicity given the "anti-explosionists" may well result in an increase in fertility. People generally prefer not to be told of social problems. They want to be told by "experts" that a problem thought to exist does not in fact exist. "Middle America" would rather not discuss immoral wars in Southeast Asia, poverty in our slums and the implication of unrestricted growth. Their ensuing behavior would make a lie of the projections of the optimists. Isn't it therefore time for all of us to NOT overdo not overdoing zero population growth?

1. George H. Brown in the address given October 7, 1970 to the Downtown Economists Club, New York; reprinted in PRB Selection No. 34 (November, 1970).
2. For a stimulating discussion of this problem see the entire issue of Concerned Demography, 2, 3 (January, 1971).
3. Donald Bogue, "The End of the Population Explosion," Public Interest, 7, (Spring, 1967).
4. Kingsley Davis, "Population Policy: Will Current Programs Succeed?" Science, 158 (1967), 730-39; Philip Hauser, "Family Planning and Population Programs: A Book Review Article," Demography, 4, 1 (1967).
5. Ansley Coale, "Low U.S. Birth Rate Not Entirely Desirable," University: A Princeton Quarterly, 39 (Winter, 1968-69).
6. Deborah Oakley, "Is the Older Age Distribution of a Stationary Population Necessarily a 'Non-Negligible Cost'?" Concerned Demography, 2, 2 (December, 1970), pp. 21-26.
7. Brown, op. cit.
8. "Projections of the Population of the United States, by Age and Sex: 1970-2020," U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 448 (August 6, 1970).
9. N. Ryder and C. Westoff, "Relationship Among Intended, Expected, Desired and Ideal Family Size: United States, 1965," Center for Population Research (March, 1969).
10. Leon F. Bouvier, The Effect of Catholicism on the Fertility of Rhode Island Women: 1968-1969, unpublished Ph.D. Dissertation, Brown University, Providence, R.I., 1971.

11. "Previous and Prospective Fertility: 1967," U.S. Bureau of the Census, Current Population Reports, Series F-20, No. 211 (January 26, 1971).
12. As quoted in PBS Selection No. 34 (November, 1970).

PROPOSALS FOR IMPROVING THE ANNUAL MEETINGS OF THE POPULATION ASSOCIATION OF AMERICA

Robert H. Weller, Population Studies and Training Center, Brown University

The following proposals are based on three assumptions. One is that presenting a paper at professional meetings should be an honor and a mark of distinction. Another is that the decision on whether or not a particular paper is presented should be based on achieved rather than ascribed characteristics. Thus, a paper should be judged by its contents and its quality rather than by the characteristics of its author. The third criterion is that the annual professional meetings should be as intellectually stimulating and substantively informative as possible. It is the author's opinion that this has not always been the case in the past. Indeed, one can conjecture as to whether these criteria have even been the idealized norm.

To foster the incorporation of these principles into our professional meetings, I propose the following:

1. The elimination of invited papers. Instead, I propose that papers be judged in open competition. Such a practice has worked fairly well with our professional journals (although mistakes do occur occasionally), and there is no reason it cannot work well with our professional meetings. This would require:
 - A. Having the Program Chairman select the themes of sessions and session chairmen and publicize such selections well in advance of the meetings, in a manner similar to current procedures.
 - B. Having all papers submitted in completed form to the chairmen of the respective sessions by some convenient date, perhaps three months before the scheduled meetings.
 - C. Having the respective chairmen, perhaps in collaboration with a colleague, assess the merit of each paper submitted and select the best papers for inclusion in the session.

I believe this would have two functions. First, it would avoid situations in which people who are scheduled to present papers instead

state that their programmer has been very ill or that the data collection required a longer amount of time than anticipated and hence that they will only be able to present a review of the literature and a description of their research design. It would also avoid sloppy papers that are hastily thrown together en route to the meetings. Also, because all the papers included in a session would have been completed well in advance of the meetings, the discussant would have the opportunity of discussing them in a thoughtful and considered manner.

Moreover, the competitive feature would tend to result in the selection of the best papers. It would avoid the practice of extending invitations to give papers to friends, or senior (and hence influential) members of the profession. In the past such practices have often resulted in the presentation of nonpapers, e.g. reminiscences about the state of demographic research during the Great Depression, or descriptive papers which, although well constructed technically, are meaningless conceptually and substantively. By selecting only the best papers that are submitted for his session, the chairman could minimize the frequency of such papers. If the established (or senior) members of our profession have anything to offer to the rest of the profession (and I assume they do), then this should be reflected in their research and in their discussion of other persons' research. Because all papers would be judged on the basis of merit rather than the author's age, friends, institutional affiliation, professional seniority or parents' professional status, then all members, including senior members, would be equally able to contribute to the profession's advancement.

The net result of this first proposal should be to upgrade the quality of the papers selected for presentation, and in so doing improve the meetings themselves.

In addition to these improvements, altering the present format of the meetings could make the latter even more stimulating. Along this line, I make the following proposals:

2. A maximum of five papers in a session. This would allow a meaningful discussion of the papers and the issues they raise. Last year there were two seminars (which translates as the euphemism of "sessions for uninvited papers"), one with 11 papers and one with 13 papers. Given only 105-120 minutes per seminar, the inclusion of so many papers makes the session a waste of time for those foolish enough to attend, and also for those who present capsule summaries of their papers, by making virtually impossible any meaningful exchange of ideas.
3. Each discussant should be encouraged to be critical of the papers that are presented. Work should rise or fall on its content and merit. Instead, the prevailing ethos tends to be: "I'll be nice to you, and you be nice to me." The result is often tepid discussions of inadequate papers or--worse yet--a lackluster discussion of a brilliant paper.

Are we so "underdeveloped" as professionals that we cannot accept public criticism of work we choose to make public--or an alternative interpretation of our data--or cannot enter into a spirited exchange with a fellow professional, without pcevishly classifying the other party as an enemy?

4. Because each session is organized around a general theme, it is reasonable to assume that each participant has a great deal of knowledge about some of the research being conducted by the other participants. Hence, after the discussant makes his remarks, the participants should be given the opportunity (but not the obligation) to engage in a dialogue about their papers. After this, the audience could participate in the regular manner, with questions and comments. Of course the comments of the participants would be even more meaningful if they were given the opportunity to read each paper before coming to the meetings. As all the papers would have been completed some three months beforehand, this would not involve any logistical difficulties. As only the participants would have to receive the copies, this should not prove costly and could be coordinated by each session's chairman. Other persons who want copies could obtain them by writing directly to the respective authors.
5. Ours is a growing profession, both substantively and numerically. Unfortunately, the days when a small coterie of persons could get together for an informal weekend of discussions are in the past. There seem now to be three alternatives: 1) extending the length of the annual meetings to four or five days; 2) having the meetings more often; or 3) sponsoring a series of seminars on various topics during the year.

The first alternative is objectionable because of the cost and inconvenience involved in absenting oneself from one's institution for a week. The third would probably involve innumerable logistical difficulties, although the idea of small seminars during the year for those interested in a particular topic and who wish to get together to discuss their papers (again, selected on the basis of merit rather than by invitation), and to compare research, has great appeal. This leaves the second alternative, which I feel is presently the most viable. We could have our meetings in early November and late March for a maximum of three days each, and thereby avoid conflicts with such regional associations as the Eastern Sociological Society, etc. Moreover, these meetings could be held in different sections of the country, thereby making the possibility of participation even more universalistic.

In addition to providing greater opportunities to participate in the meetings, this change would also eliminate the condition whereby persons not completing their papers in time to be considered for one group of meetings have to wait a whole year before submitting their papers for consideration at the next meetings. This might also have the desirable function of reducing the number of persons attending the meetings at a given point in time, although Parkinson's law would indicate otherwise.

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