POPULATION AND THE AMERICAN FUTURE

THE REPORT OF
THE COMMISSION ON
POPULATION GROWTH AND
THE AMERICAN FUTURE

Population And The American Future

The Report of
The Commission on
Population Growth and
the American Future

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price $3.10

One of the most serious challenges to human destiny in the last third of this century will be the growth of the population. Whether man's response to that challenge will be a cause for pride or for despair in the year 2000 will depend very much on what we do today. If we now begin our work in an appropriate manner, and if we continue to devote a considerable amount of attention and energy to this problem, then mankind will be able to surmount this challenge as it has surmounted so many during the long march of civilization.

Richard Nixon
July 18, 1969

Commission on Population Growth
and the American Future
726 Jackson Place, N. W.
Washington, D. C. 20506

March 27, 1972

To the President and Congress of the United States:

I have the honor to transmit for your consideration the Final Report, containing the findings and recommendations, of the Commission on Population Growth and the American Future, pursuant to Sec. 8, PL 91-213.

After two years of concentrated effort, we have concluded that, in the long run, no substantial benefits will result from further growth of the Nation's population, rather that the gradual stabilization of our population through voluntary means would contribute significantly to the Nation's ability to solve its problems. We have looked for, and have not found, any convincing economic argument for continued population growth. The health of our country does not depend on it, nor does the vitality of business nor the welfare of the average person.

The recommendations offered by this Commission are directed towards increasing public knowledge of the causes and consequences of population change, facilitating and guiding the processes of population movement, maximizing information about human reproduction and its consequences for the family, and enabling individuals to avoid unwanted fertility.

To these ends we offer this report in the hope that our findings and recommendations will stimulate serious consideration of an issue that is of great consequence to present and future generations.

Respectfully submitted for the Commission,

John D. Rockefeller 3rd
Chairman

The President
The President of the Senate
The Speaker of the House of Representatives

The Commission

Chairman
John D. Rockefeller 3rd

Vice Chairman
Grace Olivarez
Executive Director
Food for All, Inc.

Vice Chairman
Christian N. Ramsey, Jr., M.D.
President
The Institute for the Study of Health and Society

Joseph D. Beasley, M.D.
The Edward Wisner Professor of Public Health
Tulane University Medical Center

David E. Bell
Executive Vice President
The Ford Foundation

Bernard Berelson
President
The Population Council

Arnita Young Boswell
Associate Field Work Professor
School of Social Service Administration
University of Chicago

Margaret Bright
Professor
Dept. of Behavioral Sciences and Dept. of Epidemiology
School of Hygiene and Public Health
The Johns Hopkins University

Marilyn Brant Chandler
Housewife, Volunteer, Student

Paul B. Cornely, M.D.
Professor
Dept. of Community Health Practice, College of Medicine
Howard University
Assistant to the Executive Medical Officer
Welfare and Retirement Fund
United Mine Workers of America

Alan Cranston
United States Senator
California

Lawrence A. Davis
President
Arkansas Agricultural, Mechanical & Normal College

Otis Dudley Duncan
Professor of Sociology
University of Michigan

John N. Erlenborn
United States Representative
14th C. District of Illinois

Joan F. Flint
Housewife, Volunteer

R. V. Hansberger
Chairman and President
Boise Cascade Corporation

D. Gale Johnson
Chairman
Department of Economics
University of Chicago

John R. Meyer
President
National Bureau of Economic Research
Professor of Economics
Yale University

Bob Packwood
United States Senator
Oregon

James S. Rummonds
Student
Stanford School of Law

Stephen L. Salyer
Student
Davidson College

Howard D. Samuel
Vice President
Amalgamated Clothing Workers of America

James H. Scheuer
United States Representative
22nd C. District of New York

George D. Woods
Director and Consultant
The First Boston Corporation

This report represents the official views of the Commission, particularly as to the listed recommendations. Clearly, in the case of a Commission with such diverse membership, not every Commissioner subscribes in detail to every suggestion or statement of policy.

Commission Staff

Executive Director
Charles F. Westoff

Deputy Director
Robert Parke, Jr.

Directors of Research
Sara Mills Mazie
Elliott R. Morss
A. E. Keir Nash
Ritchie H. Reed*
Dianne Miller Wolman

Director of Policy Coordination
Carol Tucker Foreman

Assistant to the Chairman
David K. Lelewer

Director of Public Information
Gerald Lipson

General Counsel
Ben C. Fisher

Administrative Officer
Lois A. Brooks

Editorial Coordinator
Carol F. Donnelly

Press Officer
Rochelle Kutcher Green

Composition
Lloyd Boucree

Production Coordination
W. S. Pickens

Professional Staff
Gail K. Auslander
Phyllis Coghlan
Florence F. Einhorn
Duane S. Elgin
Dorothy Mann
Susan McIntosh
Steve W. Rawlings

Special Consultants
Daniel Callahan
Lenora T. Cartright
Robert F. Drury
Edgar M. Hoover
Frederick S. Jaffe
Peter A. Morrison
Ronald G. Ridker
Norman B. Ryder
Irene B. Taeuber

Support Staff
Marilyn L. Cleek
Mary Ann Ferguson
Mildred G. Herald
Kathryn E. Herron
Mac Arthur C. Jones
Kituria D. Littlejohn
Betty Marshall
Pearl R. Phillips
Diane O. Sergeant
Judith M. Stock
Mary C. Wilcher

Production Staff
Bea Garcia
Eugenia Harrison
Bea Rodgers
James Sumiel
Margell Yep

**Deceased*

Because he deepened our conviction that each individual has a unique contribution to make to the dignity and worth of all mankind, the Commission and staff dedicate this report to the memory of our colleague, staff member, and friend

Ritchie H. Reed
1941-1971

Preface

For the first time in the history of our country, the President and the Congress have established a Commission to examine the growth of our population and the impact it will have upon the American future. In proposing this Commission in July 1969, President Nixon said: "One of the most serious challenges to human destiny in the last third of this century will be the growth of the population. Whether man's response to that challenge will be a cause for pride or for despair in the year 2000 will depend very much on what we do today." The Commission was asked to examine the probable extent of population growth and internal migration in the United States between now and the end of this century, to assess the impact that population change will have upon government services, our economy, and our resources and environment, and to make recommendations on how the nation can best cope with that impact.

In our Interim Report a year ago, the Commission defined the scope of our mandate: ". . . to formulate policy for the future"—policy designed to deal with "the pervasive impact of population growth on every facet of American life." We said that population growth of the magnitude we have experienced since World War II has multiplied and intensified many of our domestic problems and made their solution more difficult. We called upon the American people to begin considering the meaning and consequences of population growth and internal migration and the desirability of formulating a national policy on the question.

Since then, the Commission and staff have conducted an extensive inquiry. We have enlisted many of the nation's leading scientists in more than 100 research projects. We have heard from more than 100 witnesses in public hearings across the country and have met with experts in many days of executive meetings. And we are aware that population has become an active subject of consideration in a number of states in our country concerned about their future. We have come to recognize that the racial and ethnic diversity of this Commission gives us confidence that our recommendations—the consensus of our members—do indeed point the way in which this nation should move in solving its problems. Because of the importance of this matter, the Commission recommends that future federal commissions include a substantial representation of minorities, youth, poor citizens, and women among their members, including congressional representatives, and the commission staffs and consultants include significant numbers of minorities, youth, and women.

We offer this report in the hope that our viewpoints and recommendations will stimulate serious consideration and response by the citizens of this nation and of nations throughout the world to an issue of great consequence to present and future generations.

Table of Contents

Tables

Figures

Chapter 1: Perspective on Population

In the brief history of this nation, we have always assumed that progress and "the good life" are connected with population growth. In fact, population growth has frequently been regarded as a measure of our progress. If that were ever the case, it is not now. There is hardly any social problem confronting this nation whose solution would be easier if our population were larger. Even now, the dreams of too many Americans are not being realized; others are being fulfilled at too high a cost. Accordingly, this Commission has concluded that our country can no longer afford the uncritical acceptance of the population growth ethic that "more is better." And beyond that, after two years of concentrated effort, we have concluded that no substantial benefits would result from continued growth of the nation's population.

The "population problem" is long run and requires long-run responses. It is not a simple problem. It cannot be encompassed by the slogans of either of the prevalent extremes: the "more" or the "bigger the better" attitude on the one hand, or the emergency-crisis response on the other. Neither extreme is accurate nor even helpful.

It is a problem which can be interpreted in many ways. It is the pressure of population reaching out to occupy open spaces and bringing with it a deterioration of the environment. It can be viewed as the effect on natural resources of increased numbers of people in search of a higher standard of living. It is the impact of population fluctuations in both growth and distribution upon the orderly provision of public services. It can be seen as the concentration of people in metropolitan areas and depopulation elsewhere, with all that implies for the quality of life in both places. It is the instability over time of proportions of the young, the elderly, and the productive. For the family and the individual, it is the control over one's life with respect to the reproduction of new life—the formal and informal pronatalist pressures of an outmoded tradition, and the disadvantages of and to the children involved.

Unlike other great public issues in the United States, population lacks the dramatic event—the war, the riot, the calamity—that galvanizes attention and action. It is easily overlooked and neglected. Yet the number of children born now will seriously affect our lives in future decades. This produces a powerful effect in a double sense: Its fluctuations can be strong and not easily changed; and its consequences are important for the welfare of future generations.

There is scarcely a facet of American life that is not involved with the rise and fall of our birth and death rates: the economy, environment, education, health, family life and sexual practices, urban and rural life, governmental effectiveness and political freedoms, religious norms, and secular life styles. If this country is in a crisis of spirit—environmental deterioration, racial antagonisms, the plight of the cities, the international situation—then population is part of that crisis.

Although population change touches all of these areas of our national life and intensifies our problems, such problems will not be solved by demographic means alone. Population policy is no substitute for social, economic, and environmental policy. Successfully addressing population requires that we also address our problems of poverty, of minority and sex discrimination, of careless exploitation of resources, of environmental deterioration, and of spreading suburbs, decaying cities, and wasted countrysides. By the same token, because population is so tightly interwoven with all of these concerns, whatever success we have in resolving these problems will contribute to easing the complex system of pressures that impel population growth.

Consideration of the population issue raises profound questions of what people want, what they need—indeed, what they are for. What does this nation

stand for and where is it going? At some point in the future, the finite earth will not satisfactorily accommodate more human beings—nor will the United States. How is a judgment to be made about when that point will be reached? Our answer is that now is the time to confront the question: "Why more people?" The answer must be given, we believe, in qualitative not quantitative terms.

The United States today is characterized by low population density, considerable open space, a declining birthrate, movement out of the central cities—but that does not eliminate the concern about population. This country, or any country, always has a "population problem," in the sense of achieving a proper balance between size, growth, and distribution on the one hand, and, on the other, the quality of life to which every person in this country aspires.

Nor is this country alone in the world, demographically or in any other way. Many other nations are beginning to recognize the importance of population questions. We need to act prudently, understanding that today's decisions on population have effects for generations ahead. Similarly, we need to act responsibly toward other people in the world: This country's needs and wants, given its wealth, may impinge upon the patrimony of other, less fortunate peoples in the decades ahead. The "population problem" of the developing countries may be more pressing at this time, but in the longer perspective, it is both proper and in our best interest to participate fully in the worldwide search for the good life, which must include the eventual stabilization of our numbers.

A Diversity of Views

Ultimately, then, we are concerned not with demographic trends alone, but with the effect of these trends on the realization of the values and goals cherished as part of the American tradition and sought after by minorities who also "want in."

One of the basic themes underlying our analysis and policy recommendations is the substitution of quality for quantity; that is, we should concern ourselves with improving the quality of life for all Americans rather than merely adding more Americans. And unfortunately, for many of our citizens that quality of life is still defined only as enough food, clothing, and shelter. All human beings need a sense of their own dignity and worth, a sense of belonging and sharing, and the opportunity to develop their individual potentialities.

But it is far easier to achieve agreement on abstract values than on their meaning or on the strategy to achieve them. Like the American people generally, this Commission has not been able to reach full agreement on the relative importance of different values or on the analysis of how the "population problem" reflects other conditions and directions of American society.

Three distinct though overlapping approaches have been distinguished. These views differ in their analysis of the nature of the problem and the general priorities of tasks to be accomplished. But, despite the different perspectives from which population is viewed, all of the population policies we shall recommend are consistent with all three positions.

The first perspective acknowledges the benefits to be gained by slowing growth, but regards our population problem today primarily as a result of large numbers of people being unable to control an important part of their lives—the number of children they have. The persistence of this problem reflects an effective denial of freedom of choice and equality of access to the means of fertility control. In this view, the population problem is regarded more as the sum of such individual problems than as a societal problem transcending the interests of individuals; the welfare of individuals and that of the general society are seen as congruent, at least at this point in history. The potential conflict between these two levels is mitigated by the knowledge that freedom from unwanted childbearing would contribute significantly to the stabilization of population.

Reproductive decisions should be freely made in a social context without pronatalist pressures—the heritage of a past when the survival of societies with high mortality required high fertility. The proper mission for government in this matter is to ensure the fullest opportunity for people to decide their own future in this regard, based on the best available knowledge; then the demographic outcome becomes the democratic solution.

Beyond these goals, this approach depends on the processes of education, research, and national debate to illuminate the existence of any serious population "problem" that transcends individual welfare. The aim would be to achieve the best collective decision about population issues based on knowledge of the tradeoffs between demographic choices and the "quality of life," however defined. This position ultimately seeks to optimize the individual and the collective decisions and

then accepts the aggregate outcome—with the understanding that the situation will be reconsidered from time to time.

The second view does not deny the need for education and knowledge, but stresses the crucial gaps between what we claim as national values and the reality experienced by certain groups in our society. Many of the traditional American values, such as freedom and justice, are not yet experienced by some minorities. Racial discrimination continues to mean that equal access to opportunities afforded those in the mainstream of American society is denied to millions of people. Overt and subtle discrimination against women has meant undue pressure toward childbearing and child-rearing. Equality is denied when inadequate income, education, or racial and sexual stereotypes persist, and shape available options. Freedom is denied when governmental steps are not taken to assure the fullest possible access to methods of controlling reproduction or to educational, job, and residential opportunities. In addition, the freedom of future generations may be compromised by a denial of freedom to the present generation. Finally, extending freedom and equality—which is nothing more than making the American system live up to its stated values—would go far beyond affecting the growth rate. Full equality both for women and for racial minorities is a value in its own right. In this view, the "population problem" is seen as only one facet, and not even a major one, of the restriction of full opportunity in American life.

The third position deals with the population problem in an ecological framework, one whose primary axiom asserts the functional interdependence of man and his environment. It calls for a far more fundamental shift in the operative values of modern society. The need for more education and knowledge and the need to eliminate poverty and racism are important, but not enough. For the population problem, and the growth ethic with which it is intimately connected, reflect deeper external conditions and more fundamental political, economic, and philosophical values. Consequently, to improve the quality of our existence while slowing growth, will require nothing less than a basic recasting of American values.

The numbers of people and the material conditions of human existence are limited by the external environment. Human life, like all forms of life on earth, is supported by intricate ecological systems that are limited in their ability to adapt to and tolerate changing conditions. Human culture, particularly science and technology, has given man an extraordinary power to alter and manipulate his environment. At the same time, he has also achieved the capacity virtually to destroy life on earth. Sadly, in the rush to produce, consume, and discard, he has too often chosen to plunder and destroy rather than to conserve and create. Not only have the land, air, and water, the flora and fauna suffered, but also the individual, the family, and the human community.

This position holds that the present pattern of urban industrial organization, far from promoting the realization of the individual as a uniquely valuable experience, serves primarily to perpetuate its own values. Mass urban industrialism is based on science and technology, efficiency, acquisition, and domination through rationality. The exercise of these same values now contains the potential for the destruction of our humanity. Man is losing that balance with nature which is an essential condition of human existence. With that loss has come a loss of harmony with other human beings. The population problem is a concrete symptom of this change, and a fundamental cause of present human conditions.

It is comfortable to believe that changes in values or in the political system are unnecessary, and that measures such as population education and better fertility control information and services will solve our population problem. They will not, however, for such solutions do not go to the heart of man's relationship with nature, himself, and society. According to this view, nothing less than a different set of values toward nature, the transcendence of a laissez-faire market system, a redefinition of human identity in terms other than consumerism, and a radical change if not abandonment of the growth ethic, will suffice. A new vision is needed—a vision that recognizes man's unity with nature, that transcends a simple economic definition of man's identity, and that seeks to promote the realization of the highest potential of our individual humanity.

The Immediate Goal

These three views reflect different evaluations of the nature of the population problem, different assessments of the viability of the American political process, and different perceptions of the critical values at stake.

Given the diversity of goals to be addressed and the manifold ramifications of population change throughout society, how are specific population policies to be selected?

As a Commission and as a people, we need not agree on all the priorities if we can identify acceptable policies that speak in greater or lesser degree to all of them. By and large, in our judgment, the policy findings and recommendations of this Report meet that requirement. Whatever the primary needs of our society, the policies recommended here all lead in right directions for this nation, and generally at low costs.*

Our immediate goal is to modernize demographic behavior in this country: to encourage the American people to make population choices, both in the individual family and society at large, on the basis of greater rationality rather than tradition or custom, ignorance or chance. This country has already moved some distance down this road; it should now complete the journey. The time has come to challenge the tradition that population growth is desirable: What was unintended may turn out to be unwanted, in the society as in the family.

In any case, more rational attitudes are now forced upon us by the revolutionary increase in average length of life within the past century, which has placed modern man in a completely different, historically unique, demographic situation. The social institutions and customs that have shaped reproductive behavior in the past are no longer appropriate in the modern world, and need reshaping to suit the new situation. Moreover, the instruments of population policy are now more readily available—fuller knowledge of demographic impacts, better information on demographic trends, improved means by which individuals may control their own fertility.

As a Commission, we have come to appreciate the delicate complexities of the subject and the difficulty, even the impossibility, of solving the problem, however defined, in its entirety and all at once. But this is certainly the time to begin: The 1970's may not be simply another decade in the demographic transition but a critical one, involving changes in family life and the role of women, dynamics of the metropolitan process, the depopulation of rural areas, the movement and the needs of disadvantaged minorities, the era of the young adults produced by the baby boom, and the attendant question of what their own fertility will be—baby boom or baby bust.

Finally, we agree that population policy goals must be sought in full consonance with the fundamental values of American life: respect for human freedom, human dignity, and individual fulfillment; and concern for social justice and social welfare. To "solve" population problems at the cost of such values would be a Pyrrhic victory indeed. The issues are ethical in character, and their proper solution requires a deep sense of moral responsibility on the part of both the individual family and the national community: the former in considering another birth, the latter in considering appropriate policies to guide population growth into the American future.

For our part, it is enough to make population, and all that it means, explicit on the national agenda, to signal its impact on our national life, to sort out the issues, and to propose how to start toward a better state of affairs. By its very nature, population is a continuing concern and should receive continuing attention. Later generations, and later commissions, will be able to see the right path further into the future. In any case, no generation needs to know the ultimate goal or the final means, only the direction in which they will be found.

A separate statement by Commissioner James S. Rummonds appears on page 164.

Chapter 2: Population Growth

The tremendous growth in the world's population is a recent development in the history of mankind. In pre-industrial times, birthrates were high; but hunger, ignorance, and disease combined to stack the odds against an infant surviving to the age of parenthood. Societies required high birthrates simply to keep themselves going.

In modern times, the reductions in mortality have given the average person a longer, healthier life and have inaugurated a phase of rapid population growth. The world's population grew from one-half billion around 1650, to about 1½ billion by 1900, to 2½ billion in 1950, and had already surpassed 3½ billion by 1970. The world's total has doubled during the last 50 years.

From the beginning of the Christian era to 1650, mankind increased by an average of 150,000 persons a year. Today, the world total is increasing by about 78 million persons annually. If current rates of growth continue for another 50 years, the world's population will number some 10 billion.

The same civilization that achieved a lengthening of life in Europe and America also evolved an urban way of life in which the institutional supports to high fertility were gradually eroded, and developed a technology that reduced the role of ignorance and error in reproduction. The technology of mortality control was exported to the rest of the world. There was far less exporting of the underlying social and economic changes which gave rise to this technology, and only recently have efforts been made to export reproduction control.

Because of declining birthrates, the advanced nations have been narrowing the gap between birthrates and death rates in the 20th century. These nations have been approaching a stabilized population—one in which births and deaths have come into balance. The historical transition has been from a stabilized population maintained by high birthrates, high and erratic death rates, and short lifetimes, toward a stabilized population characterized by low birthrates, low death rates, and long lifetimes. When birthrates once again equal death rates, these nations will have completed the demographic transition.

Ultimately, this transition must be completed. Population growth at our current rate of about one percent per year would double the population every 70 years. Such growth leads to "standing room only" if continued indefinitely. By one means or another, such an impossible result will be avoided. An average of zero growth over the long term—a stabilized population—must and inevitably will be reestablished.[1] The question is when it will happen, and how. In this, we in the United States may exercise choice.

The United States

No country has completed the demographic transition, and the United States will probably not be the first to do so. A discussion of our prospects for completing it requires some appreciation of the dynamics of our population during the first 70 years of the 20th century.

Even a cursory examination of the data reveals that, since 1900, the United States has undergone something of a demographic revolution. In terms of total numbers, our population has increased from about 76 million in 1900 to almost 205 million in 1970. This represents an additional 129 million people that our society has been called upon to accommodate over the past 70 years. By mid-1972, our country will have about 209 million people.

The growth of population is sustained only as long as the yearly number of new entrants (births and immigrants) exceeds the number required to replace those who die or emigrate. Although the United States has always been a growing population, the rapid growth rates characterizing our early years began to taper off in the 19th century.

In the 20th century, we have seen substantial changes in all three components of population growth—fertility, mortality, and migration. First, consider the birthrate. It is important to understand that this measure simply indicates the average level of yearly births in the population. Although it obscures a considerable amount of variation associated with such factors as age and socioeconomic status, it is nevertheless a useful measure of the contribution of births to population growth. The birthrate was about 32 births per 1,000 population in 1900, and declined fairly steadily to about 18 per 1,000 in the depths of the Depression. Just when the experts had become convinced—some even concerned—that our level of fertility would soon dip below the level required for replacement of the population, couples began increasing their rates of childbearing. This aberration in the history of American fertility, of which we will have more to say shortly, came to be called the "baby boom." By 1947, the birthrate stood at 27 per 1,000, and it remained at around 25 per 1,000 for a decade before resuming its long-term decline. By the early 1960's, the boom had run its course, and our birthrate today is below pre-World War II levels.[2]

A second basic determinant of how fast a nation

Table 2.1
Demographic Perspective of 20th Century United States

	Around 1900	*Around 1970*
Population	76 million	205 million
Life expectancy	47 years	70 years
Median age	23 years	28 years
Births per 1000 population	32	18
Deaths per 1000 population	17	9
Immigrants per 1000 population	8	2
Annual growth	1¾	2½
Growth rate	2.3 percent	1.1 percent

Sources: U.S. Bureau of the Census, Historical Statistics of the United States, Colonial Times to 1957, *1961. U.S. National Center for Health Statistics,* Vital Statistics of the United States, *Volume II, Section 5,* Life Tables, *1968. Irene B. Taeuber, "Growth of the Population of the United States in the Twentieth Century" (prepared for the Commission, 1972).*

grows is the degree to which it succeeds in preserving and extending the lives of its people. We have seen dramatic progress toward reducing the threat of early death. The death rate has fallen from about 17 per 1,000 population at the turn of the century, to its present level of about nine per 1,000. The average life expectancy today is about 70 years,[3] or 23 years longer than in 1900. Most of these declines in mortality were achieved prior to 1960, and all segments of our population have gained some, though not equal, benefits in terms of increased longevity.

In the United States, mortality during the early years of life is already so low that any substantial further improvements in life expectancy will have to come primarily among persons over the age of 50. Since this segment of the population is generally beyond childbearing, the extension of their life span would not result in any significant increase in births. Consequently, further additions to the duration of life in this country would simply result in somewhat larger numbers of people at the older ages, where they still can be quite productive members of society.

The third factor associated with growth is, of course, immigration. Only the Indians, who numbered less than one million[4] when the first English colonists settled in Massachusetts and Virginia, can rightfully claim original status. Our population is comprised primarily of immigrants and their descendants. Since 1900 alone, 20 million more people have moved into this country than out of it. Approximately 40 percent of the population growth in the first decade of this century was attributable to immigration. During the 1930's, the number of immigrants was slightly lower than the number of people leaving the country. Immigration once again increased following World War II, and during the 1960's, it accounted for about 16 percent of our national growth.[5]

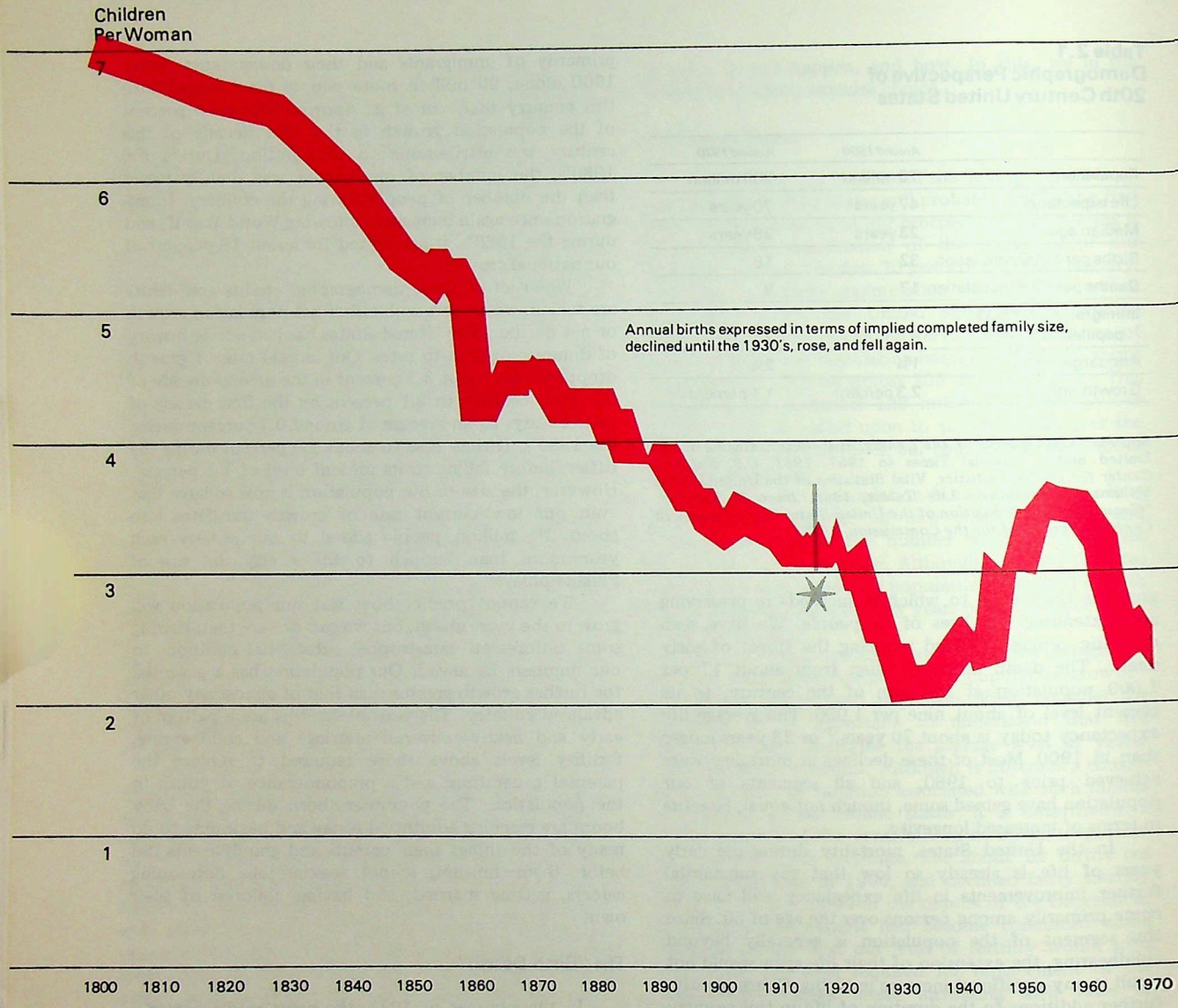
When all of these demographic credits and debits are tallied, we are left with either net population growth or net decline. The United States has had a long history of diminishing growth rates. Our annual rate of growth dropped from about 3.3 percent in the second decade of the 19th century to 2.1 percent by the first decade of this century, to an average of around 0.7 percent during the 1930's. It then rose to about 1.9 percent during the fifties, before falling to its present level of 1.1 percent. However, the size of our population is now so large that even our low current rate of growth translates into about 2¼ million people added to our society each year—more than enough to fill a city the size of Philadelphia.

We cannot predict how fast our population will grow in the years ahead, but we can be sure that, barring some unforeseen catastrophe, substantial additions to our numbers lie ahead. Our population has a potential for further growth greater than that of almost any other advanced country. The reasons for this are a pattern of early and nearly universal marriage and childbearing, fertility levels above those required to replace the parental generation, and a preponderance of youth in the population. The youngsters born during the baby boom are reaching adulthood today and beginning to do many of the things their parents and grandparents did before them—finishing school, seeking jobs, developing careers, getting married, and having children of their own.

The "Birth Dearth"

In the summer of 1971, the news media spread a report that, because women were having fewer babies than had been expected, we were in the midst of a "baby bust." That story was based on data for the first six months of 1971, which showed a drop in birthrates at a time when most of the experts had expected them to rise again as the baby-boom generation reached adulthood. These expectations seemed to be realized when the birthrate, after reaching a new low of 17.5 in

Figure 2.1 Total Fertility Rate



**Prior to 1917, data available only for white population; after 1917, for total population.*

Sources: Prior to 1917—Ansley Coale and Melvin Zelnik, New Estimates of Fertility and Population in the United States *(Princeton: Princeton University Press, 1963). 1917 to 1968—U.S. National Center for Health Statistics,* Natality Statistics Analysis, *Series 21, Number 19, 1970. 1969 to 1971—U.S. Bureau of the Census,* Current Population Reports, *Series P-23, No. 36, "Fertility Indicators: 1970," 1971. The figure for 1971 is based on an unpublished Census staff estimate.*

1968, moved up to about 18.2 in 1970.[6] But, instead of continuing upward in 1971, the rate dropped back to about 17.3, and so was born the idea of the "birth dearth."

This phenomenon is notable because birthrates are showing declines at a time when everyone was expecting them to increase. It had long been assumed that birthrates would rise during the 1970's as potential parents who were born during the baby-boom years came of age. If general fertility (the rate of childbearing among women aged 15 to 44) remained constant, there would be an unavoidable "echo boom" in the birthrate of the total population, as larger and larger numbers of potential parents reached childbearing age. The increase in the number of people entering the childbearing ages is, however, presently being offset by a decline in the level of general fertility.

Two factors seem to account for this recent decline. One is temporary; the other may or may not be permanent. The first element arises from the fact that we are now in a period of gradually rising age at childbearing. This means that, in any given year, some fraction of the births is, in effect, postponed to a later year. The effect is temporary because the age at childbearing will not rise indefinitely; when it stabilizes, the postponement will stop and the birthrate will rise again.

The other and more important element is that today's young people expect to have far fewer children than people a few years their senior. On the average, women now in their late thirties already have more than three children. According to a 1971 Census Bureau survey, married women 18 to 24 say that they expect to have an average of 2.4 children before they complete their families.[7] Not everyone will marry, so the total for this generation could ultimately be lower. On the other hand, experience with similar surveys in the past indicates that women usually end up having more children than they estimated when they were young. The baby-bust phenomenon is significant and somewhat surprising, but it would be premature to say that we are on the verge of a fertility level that would ultimately stabilize the population.

The baby-bust psychology may give rise to unwarranted complacency born of the notion that all of the problems associated with population growth are somehow behind us. Our population growth has developed its own momentum which makes it very difficult to stop, no matter how hard the brakes are applied. Even if immigration from abroad ceased and couples had only two children on the average—just enough to replace themselves—our population would continue to grow for about 70 years. Our past rapid growth has given us so many young couples that, to bring population growth to an immediate halt, the birthrate would have to drop by almost 50 percent, and today's young generation of parents would have to limit themselves to an average of about one child.[8] That is just not going to happen.

The Boom Generation

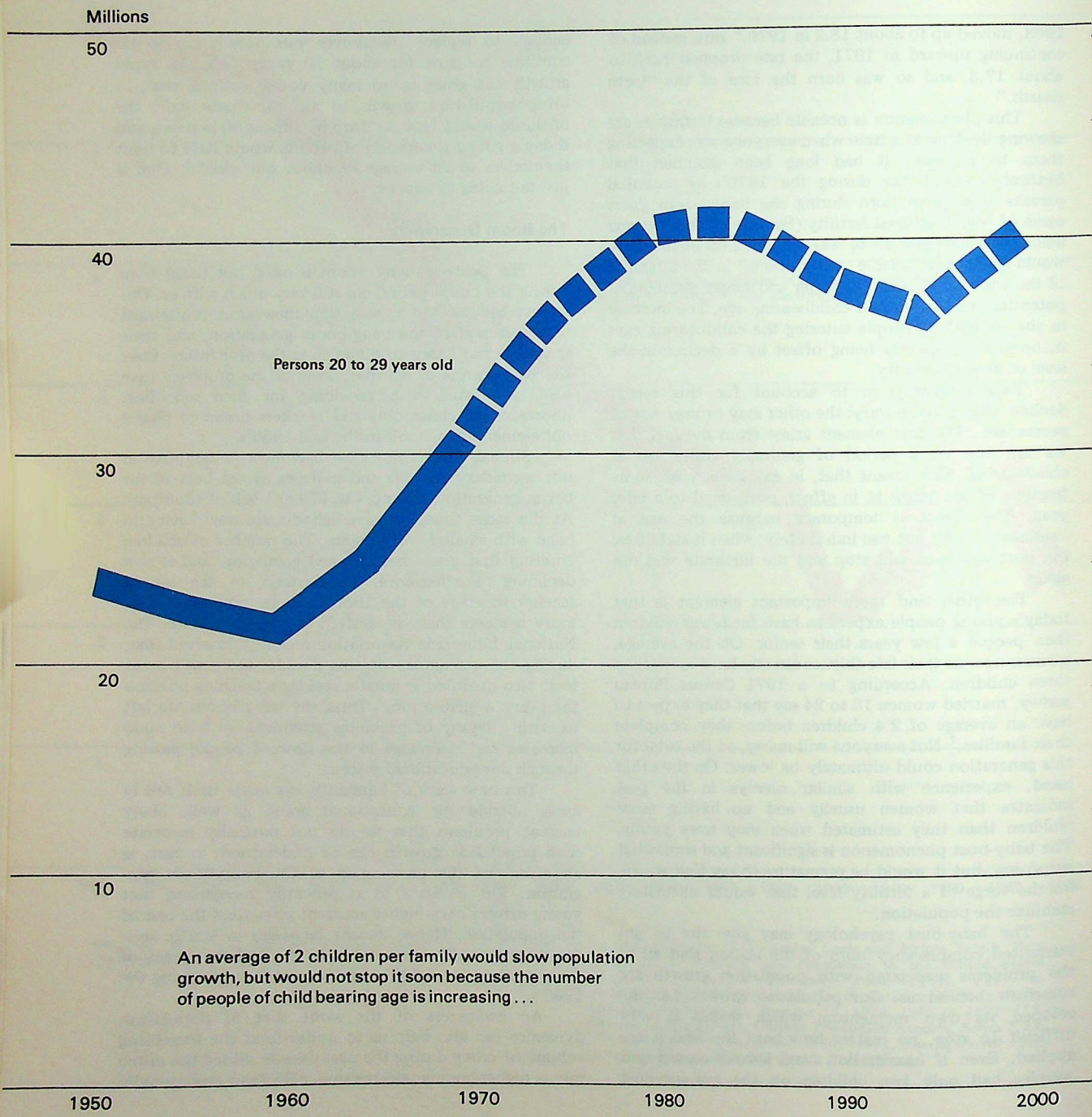
The postwar baby boom is over, but those born during the boom period are still very much with us. Our society has not had an easy time thus far in its attempts to accommodate the baby-boom generation, and their impact is not likely to diminish in the near future. Over the past couple of decades, most of the problems have been associated with providing for their schooling. Shortages of classrooms and teachers began to plague our elementary schools in the mid-1950's.

Similar difficulties have become commonplace in our secondary schools and colleges as the bulk of the boom generation advances to higher levels of education. At the same time, primary schools are now having to cope with smaller enrollments. The number of children entering first grade has stopped escalating, and is now declining. Furthermore, in contrast to the serious teacher shortage of the 1950's, we are now faced with more teachers than the system can readily absorb. The National Education Association recently observed that, during the remainder of this decade, there will be at least two qualified graduates seeking a teaching position for every available job.[9] Thus, the baby boom has left us with a legacy of problems attendant on both rapid increases and decreases in the flow of people passing through our educational system.

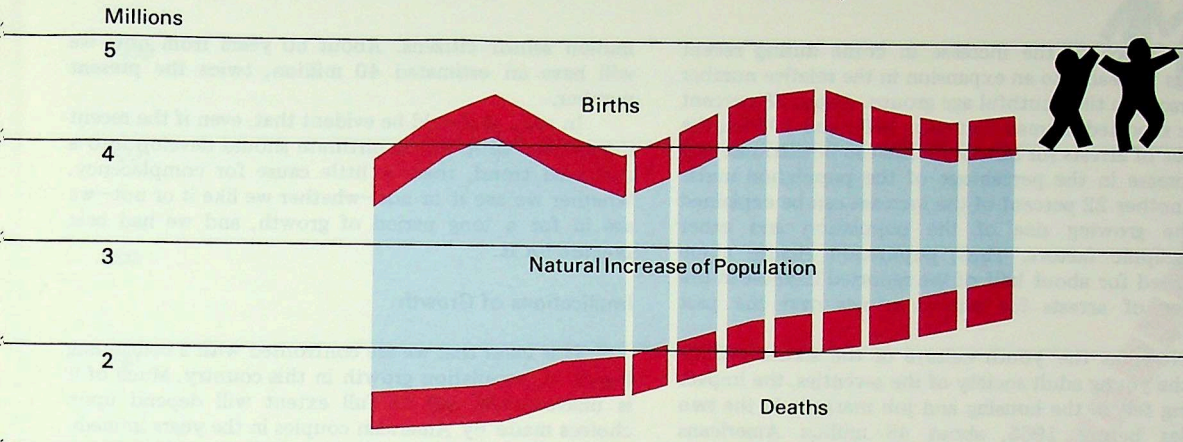
This new wave of humanity has made itself felt in areas outside the educational arena as well. Many current problems that we do not normally associate with population growth can be understood, in part, as an effect of the growing-up of the baby-boom generation. For instance, it is generally recognized that young drivers have higher accident rates than the rest of the population. Hence, recent increases in traffic accidents are partially attributable to the fact that many of those born in the baby boom became drivers during the 1960's.

An awareness of the same sort of population dynamics can also help us to understand the increasing volume of crime during the past decade. Since the crime rate is higher among persons under 25 than among older

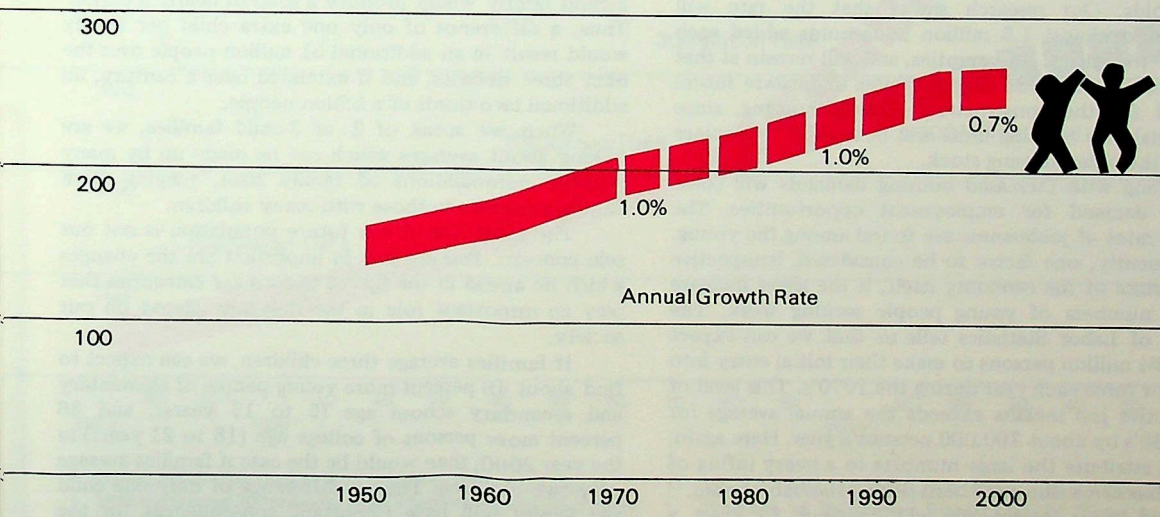
Figure 2.2 The Momentum of Population Growth



So, even if family size drops to a 2-child average, the resulting births will continue to exceed deaths for the rest of this century . . .



So the population will still be growing in the year 2000, but at a decreasing rate.



Source: U.S. Bureau of the Census, Current Population Reports, *Series P-25. Projections assume small future reductions in mortality, and assume future immigration at present levels.*

people, much of the increase in crime during recent years is traceable to an expansion in the relative number of persons in the youthful age groups. About 28 percent of the reported increase between 1960 and 1970 in the number of arrests for serious crimes can be attributed to an increase in the percentage of the population under 25. Another 22 percent of the increase can be explained by the growing size of the population and other demographic factors. Thus, population change alone accounted for about half of the reported increase in the number of arrests for serious crimes over the past decade.[10]

Now, as the youth culture of the sixties evolves into the young adult society of the seventies, the impact is being felt in the housing and job markets. In the two decades before 1965, about 48 million Americans reached the age of 20. Between 1965 and 1985, over 78 million will cross this important threshold.

As those born during the baby boom move off the campus or leave their parents' homes, we can expect a 33-percent jump in annual household formation by the end of this decade. Between 1950 and 1966, the number of households grew at a relatively steady rate of around 900,000 per year. After that, the rate began to climb, and last year we added well over one million households. Our research shows that the rate will increase to almost 1.5 million households added each year by the end of the seventies, and will remain at that level until about 1985. These figures understate future demand for the construction of new housing, since additional new housing units will be required to replace part of the older housing stock.

Along with increased housing demands will come greater demand for employment opportunities. The highest rates of joblessness are found among the young. Consequently, one factor to be considered, irrespective of the state of the economy itself, is the sheer increase in the numbers of young people seeking work. The Bureau of Labor Statistics tells us that we can expect about 3½ million persons to make their initial entry into the labor force each year during the 1970's. This level of prospective job seekers exceeds the annual average for the 1960's by about 700,000 persons a year. Here again, we can attribute the large numbers to a heavy influx of new job-seekers who were born during the baby boom.[11]

The boom generation will continue to exert a heavy impact on our society as they move up the age ladder. Eventually, they will reach retirement age; at that point, we can expect added pressure on retirement systems as the proportion of beneficiaries in the population increases. Today, we have an estimated 20 million senior citizens. About 50 years from now we will have an estimated 40 million, twice the present number.

In sum, it should be evident that, even if the recent unexpected drop in the birthrate should develop into a sustained trend, there is little cause for complacency. Whether we see it or not—whether we like it or not—we are in for a long period of growth, and we had best prepare for it.

Implications of Growth

It is clear that we are confronted with a continuing legacy of population growth in this country. Much of it is unavoidable, but its full extent will depend upon choices made by American couples in the years immediately ahead.

If families in the United States have only two children on the average and immigration continues at current levels, our population would grow to 271 million by the end of the century. If, however, families should have an average of three children, the population would reach 322 million by the year 2000. One hundred years from now, the 2-child family would result in a population of about 350 million persons, whereas, the 3-child family would produce a total of nearly a billion. Thus, a difference of only one extra child per family would result in an additional 51 million people over the next three decades, and if extended over a century, an additional two-thirds of a billion people.

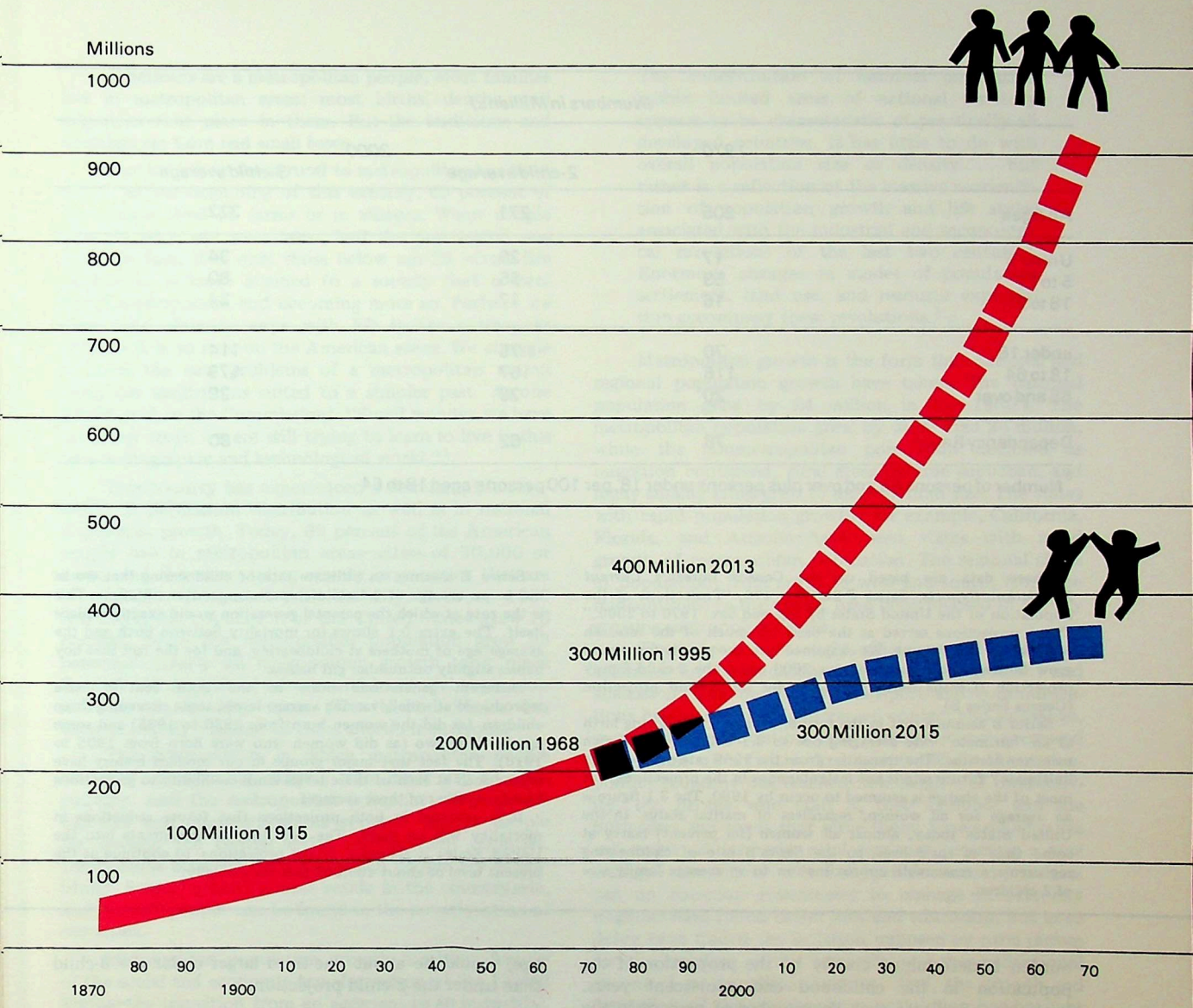
When we speak of 2- or 3-child families, we are talking about averages which can be made up by many possible combinations of family sizes, ranging from childless couples to those with many children.

The total size of our future population is not our sole concern. Perhaps just as important are the changes which lie ahead in the size of various age categories that play an important role in the demands placed on our society.

If families average three children, we can expect to find about 46 percent more young people of elementary and secondary school age (5 to 17 years), and 36 percent more persons of college age (18 to 21 years) in the year 2000, than would be the case if families average only two children. Thus, a difference of only one child per family will have important consequences for the magnitude of the load on our educational system.

The burden placed on those in the economically active segment of the population, traditionally considered to be those aged 18 to 64, will also be influenced by future family size. The dependency

Figure 2.3 U.S. Population: 2 vs. 3-Child Family



The population of the United States passed the 100-million mark in 1915 and reached 200 million in 1968. If families average two children in the future, growth rates will slow, and the population will reach 300 million in the year 2015. At the 3-child rate, the population would reach 300 million in this century and 400 million in the year 2013. (Projections assume small future reductions in mortality, and assume future immigration at present levels.)

Sources: Prior to 1900—U.S. Bureau of the Census. Historical Statistics of the United States, Colonial Times to 1957, *1961. 1900 to 2020—U.S. Bureau of the Census.* Current Population Reports, *Series P-25. 2021 to 2050—unpublished Census Bureau projections. Beyond 2050—extrapolation.*

United States Population, 1970 and 2000

	(Numbers in Millions)		
	1970	2000	
		2-child average	3-child average
All Ages	205	271	322
Under 5	17	20	34
5 to 17	53	55	80
18 to 21	15	17	24
under 18	70	75	114
18 to 64	115	167	179
65 and over	20	29	29
Dependency Ratio[a]	78	62	80

[a] Number of persons 65 and over plus persons under 18, per 100 persons aged 18 to 64

These data are based on the Census Bureau's *Current Population Reports*, Series P-25, No. 470, "Projections of the Population of the United States by Age and Sex: 1970 to 2000." These projections served as the basis for much of the research reported in this volume. We examined how the population would grow between now and the year 2000 under the 2-child family projection (Census Series E) and under the 3-child projection (Census Series B).

Series B assumes that in the future, women will be giving birth at an "ultimate" rate averaging out to 3.1 children per woman over her lifetime. The transition from the 1969 rate of 2.4 to the "ultimate" future rate is not instantaneous in the projections, but most of the change is assumed to occur by 1980. The 3.1 figure is an average for all women, regardless of marital status. In the United States today, almost all women (95 percent) marry at some time in their lives, so the Series B rate of childbearing represents a reasonable approximation to an average family size of 3 children.

Series E assumes an ultimate rate of childbearing that works out to an average of 2.1 children per woman over a lifetime. This is the rate at which the parental generation would exactly replace itself. The extra 0.1 allows for mortality between birth and the average age of mothers at childbearing, and for the fact that boy babies slightly outnumber girl babies.

Different generations born in the 20th century have reproduced at widely varying average levels, some exceeding three children (as did the women born from 1930 to 1935) and some approaching two (as did women who were born from 1905 to 1910). The fact that major groups in our modern history have reproduced at each of these levels lends credibility to projections based on either of these averages.

It is assumed in both projections that future reductions in mortality will be slight. The net flow of immigrants into the United States is assumed, in the projections, to continue at the present level of about 400,000 persons annually.

burden is determined chiefly by the proportion of the population in the childhood and adolescent years. Projections indicate that the number of persons in the dependent ages under 18 in the year 2000 would be 52 percent greater if families average three children than if the 2-child average prevails. The size of the population 65 and over in the year 2000 would be unaffected by changes in the average number of children, since everyone who will be over the age of 30 at the end of this century is already born. Consequently, the numbers in the dependent ages, relative to persons of working age, would be about one-third larger under the 3-child than under the 2-child projection.

To understand the importance of these prospects, we need first to see how the social and economic transformation of the United States has altered the geographic distribution of population and to assess the likely effect of alternative population futures on our economy, resources, environment, government, and social conditions. We turn to these in the following chapters.

Chapter 3: Population Distribution

Americans are a metropolitan people. Most families live in metropolitan areas; most births, deaths, and migration take place in them. But the traditions and nostalgia are farm and small town.

Our transition from rural to metropolitan has been rapid. At the beginning of this century, 60 percent of the people lived on farms or in villages. When people now 50 years old were born, half the population was rural. In fact, it is only those below age 25 whose life experience is more attuned to a society that is two-thirds metropolitan and becoming more so. Perhaps we have been slow to cope with life in the metropolis because it is so new on the American scene. We struggle to solve the new problems of a metropolitan nation using old institutions suited to a simpler past. As one expert said to the Commission: "Small wonder we have an urban crisis; we are still trying to learn to live in this new demographic and technological world."[1]

This country has experienced a demographic revolution in population distribution as well as in national population growth. Today, 69 percent of the American people live in metropolitan areas—cities of 50,000 or more, and the surrounding county or counties that are economically integrated with the city. Between 1960 and 1970, the population of the United States grew 13 percent, while the metropolitan population grew 23 percent.[2] Nearly all metropolitan growth took place through the growth of suburbs and territorial expansion into previously rural areas. The United States has become mainly a nation of cities and their environs.

The surroundings in which metropolitan people live vary considerably, ranging from inner city to open country. And the metropolitan influence, through the highway and communications systems, affects people far beyond the central cities and adjacent counties. Distinctions between rural and urban people are diminishing. Some "urban" people reside in the countryside, and "rural" people can be found in the poverty areas of our cities.

Metropolitan population growth is a basic feature of the social and economic transformation of the United States—the transition from an agrarian, to an industrial, and now to a service-oriented economy. Metropolitan growth is the geographical dimension of these changes. Reflected in this process are increases in the productivity of agriculture, and the new dominance of commercial, professional, and industrial activities that thrive where people, equipment, money, and know-how are concentrated in space. It is a universal experience. As one of our consultants observed:

> The concentration of national population within limited areas of national territory appears to be characteristic of practically all developed countries. It has little to do with overall population size or density . . . but rather is a reflection of the massive reorientation of population growth and life styles associated with the industrial and technological revolutions of the last two centuries. Enormous changes in modes of population settlement, land use, and resource exploitation accompany these revolutions.[3]

Metropolitan growth is the form that national and regional population growth have taken. The national population grew by 24 million in the 1960's. The metropolitan population grew by more than 26 million, while the nonmetropolitan population declined as migration continued, rural areas became suburban, and many smaller cities grew to metropolitan size. The states with rapid population growth—for example, California, Florida, and Arizona—have been states with rapid growth of metropolitan population. The regional shifts in population, from north to west and south, from the midcontinent to the coasts, have been focused in rapidly growing metropolitan areas.

The process has brought efficiency and confusion, affluence and degradation, individual advancement and alienation. The buildup of transport and communications has made possible increased contact and exchange, increased concentration and dispersal, and increased segregation of activities and people. While the metropolitan economy has reached new heights of productivity, the people who staff it, their families, and the businesses and roads that serve them, have settled miles and miles of formerly rural territory, creating a new enlarged community—a real city with common problems but no common government to manage it. Minority migrants have found better jobs and education, but in so doing have traded the isolation imposed by rural racism for the isolation of the inner city and the institutional racism of metropolitan America. And, the growth and dispersion of the metropolitan population has brought wholly new problems of environmental management as well as social organization.

Population growth *is* metropolitan growth in the contemporary United States, and it means different things to different people.

To the man in Los Angeles, it means rapid growth throughout Southern California. The outcome is often unplanned and haphazard development that falls far

short of realizing the full aesthetic potential of the climate and natural surroundings. Tract housing developments are marked off by smoggy and noisy expressways. It is the "good life" colliding with a fragile environment under palm trees.

To a housewife in Nebraska, it means the loss of population in her small farming town—it reached its peak population in 1920. Family, friends, and neighbors, particularly the young and better trained, have moved away. Tax revenues are shrinking and essential public services are becoming more limited. She and her husband can remain where they are, but only at the cost of a difficult and uncertain livelihood.

To a black person in Harlem, the process of metropolitan growth means discrimination that keeps him in a ghetto area with crumbling old apartments and abandoned houses. And, it means that it is harder than ever to reach the jobs opening up in the suburbs as companies shift their operations outward.

Each of these problems relates to a different part of the country and a different set of circumstances. All are related to the evolution of a metropolitan America.

Metropolitan Growth[4]

In its geographical dimension, population growth has been a dual process of concentration on a national scale and dispersion and expansion at the local level. More and more of our people live in metropolitan areas. At the same time, the largest central cities have been losing population, and the territory of metropolitan settlement has expanded even faster than population. Consequently, average metropolitan densities have declined somewhat.

The older industrial areas of the north were the first to develop a high degree of metropolitan concentration. Two-thirds of the northeast was urban in 1900; by 1970, this proportion was four-fifths, and more than one of every two Americans residing in a metropolitan area lived in the north. Recently, however, the north has lost much of its magnetism. Instead, the most rapid growth has been in the south and west where migration, supplementing growth from natural increase, has produced high metropolitan and regional growth rates.

In 1900, more than four-fifths of the south was rural. By 1970, over half was metropolitan. The Atlanta area grew 37 percent during the 1960's. In Texas, the metropolitan population grew 24 percent from 1960 to 1970 and accounted for virtually all of the state's growth. At the end of the decade, three-fourths of the state population was metropolitan. In the west, the Arizona metropolitan population grew 42 percent from 1960 to 1970. Migration contributed as much to Arizona's growth as did natural increase—the balance of births over deaths. Over 80 percent of the growth was concentrated in the state's two metropolitan areas—Phoenix and Tucson—so that in 1970 three-fourths of the population was metropolitan. Migration accounted for half of California's growth in the 1960's; but, by the end of the decade, there were signs that the annual net migration from other states was very low if not zero. Still, because past migrants included so many young adults at the beginning of their childbearing years, state growth remained high. The degree of metropolitan concentration in California was also high. In 1970, it was the highest in the nation at 93 percent.

The most rapid growth in the past decade occurred in metropolitan areas with populations of one to two million. As a class, these areas grew an average of 27 percent, twice the rate for the total population of the United States. Thirteen of the 21 areas in this size class are in the south and west, and all areas of this size that grew *more* than 27 percent are in the south and west.

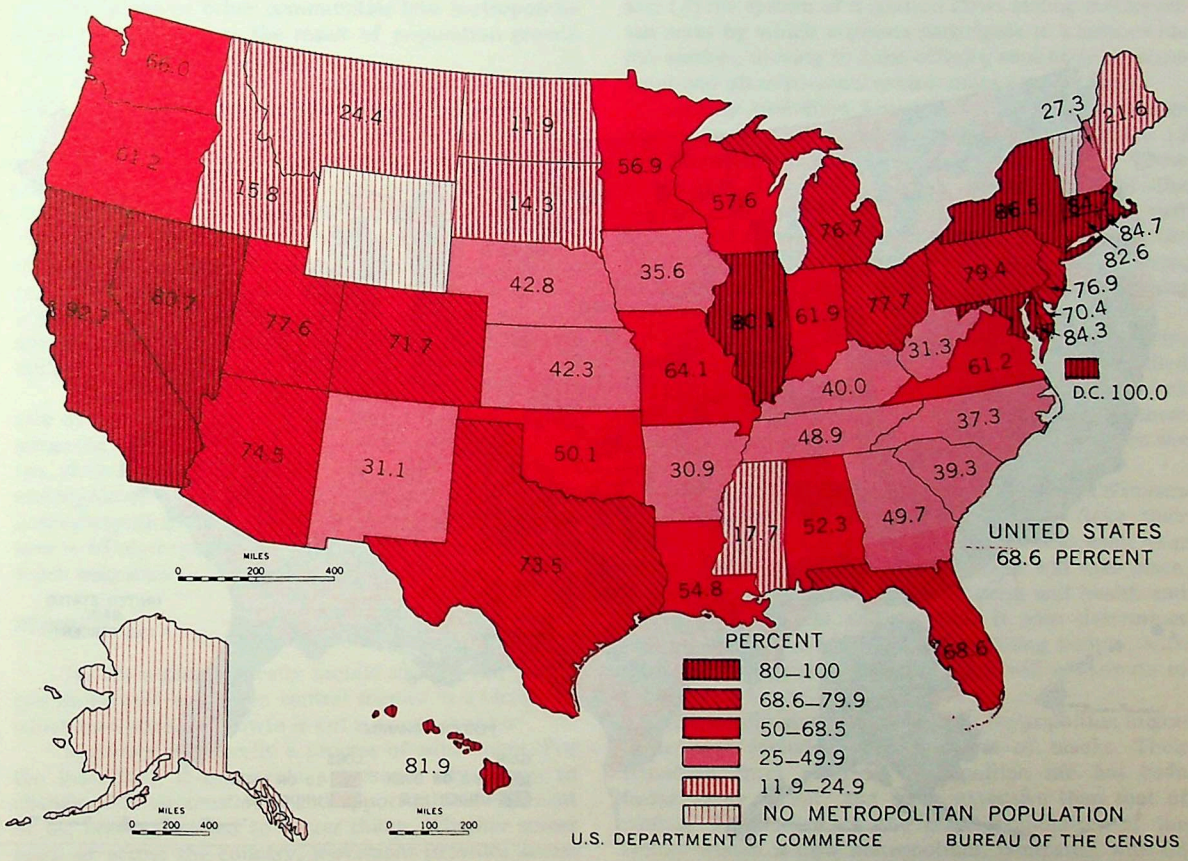
The 12 areas having more than two million people grew at an average rate of 12 percent, slightly under the

Table 3.1
Metropolitan Population by Size Class, 1970

Metropolitan Area Population, 1970	*Number of Areas 1970*	*Population in 1970 (millions)*	*Population Increase, 1960 to 1970 (in 1970 boundaries)*	
			Number (millions)	*Percent Increase*
All Areas	243	139	20	14
2,000,000 or more	12	52	6	12
1,000,000 to 2,000,000	21	28	6	27
500,000 to 1,000,000	32	22	3	18.
250,000 to 500,000	60	20	3	16
Under 250,000	118	17	2	14

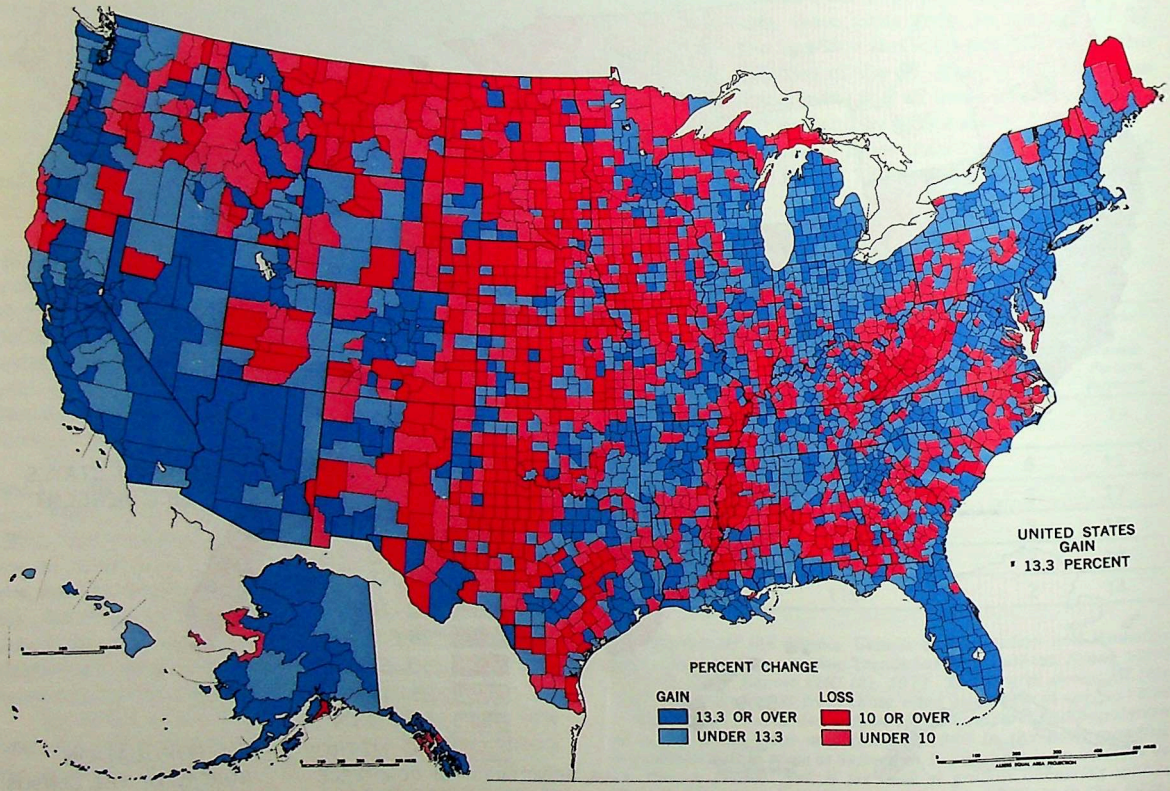
U.S. Bureau of the Census, Census of Population and Housing: 1970, General Demographic Trends for Metropolitan Areas, 1960 to 1970, *Final Report PHC (2), 1971. The figures shown in this table differ somewhat from those cited elsewhere in the text due to differences in area definitions. If one compares the population of metropolitan areas as defined in 1960 to the corresponding population within areas as defined in 1970, there is an increase of 26 million people. But, if we look at growth occurring within fixed metropolitan boundaries as defined in 1970, as in this table, there is an increase of 20 million. The latter figure does not reflect increases due to territorial extension of 1960 areas or the growth of additional areas to metropolitan status between 1960 and 1970.*

Figure 3.1 Percent of Population in Standard Metropolitan Statistical Areas by States: 1970



Source: U.S. Bureau of the Census, Census of Population and Housing: 1970, United States Summary.

Figure 3.2 Percent of Change in Total Population by Counties: 1960 to 1970



Source: U.S. Bureau of the Census, Census of Population and Housing: 1970, United States Summary.

rate for the total population of the United States. As a class, they grew just enough to retain their natural increase. Because they are so large, their slow growth rate nonetheless resulted in the addition of six million people. These large areas are mainly the old urban centers of the north. Of the 12 areas in this class, only Los Angeles and San Francisco are in the west, and only Baltimore and Washington are in the south.

Sources of Metropolitan Growth[5]

The total metropolitan population grew by 26 million in the 1960's. About one-third of this growth was from territorial expansion of existing centers and the emergence of other communities into metropolitan status; two-thirds was the result of population growth within constant boundaries.

Within metropolitan boundaries as defined in 1960, 74 percent of growth was natural increase—the excess of births over deaths—and 26 percent was net migration, consisting of immigrants as well as migrants from nonmetropolitan areas of the United States. As the nonmetropolitan population becomes a smaller fraction of the nation's total, its relative importance as a source of migration declines. If current trends continue, other parts of the United States will contribute four million migrants to the metropolitan population between now and the year 2000, while immigrants will add about 10 million.[6]

The dominance of natural increase and the smaller role of migration show how far metropolitan growth has advanced. When two-thirds of the people are metropolitan, their fertility has a greater effect on the growth of metropolitan population than does migration from nonmetropolitan areas. Natural increase is the dominant source of metropolitan growth because we have had so much migration to metropolitan areas in the past.

Migration

We are a geographically mobile society. Expansion and movement have been central themes in a history in which metropolitan growth is but a recent chapter.

Migration is basically a process of adjustment. For the individual, it represents a personal adjustment to changing life circumstances and opportunities. For most of us, moving has led to better things. Whether across town or across the country, movement provides access to areas of greater opportunity. Immobility of people often reflects their isolation from opportunities available in the mainstream of society—social, economic, and political.

For the nation as a whole, migration helps achieve a balance between social and economic activities on the one hand and population numbers on the other. As we move about the country, our actions create broad social, economic, and political realignments, as well as adjustments in our personal lives. Balance is achieved through three broad types of movement: (1) the shift from economically depressed regions, often rural, to areas of expanding employment and higher wages, usually metropolitan; (2) the movement of the population within metropolitan areas—the flight from the central city to the suburbs—historically an adjustment to changing housing needs and a desire for more space; and (3) the system of migration flows among metropolitan areas by which migrants participate in a nationwide job market, moving to areas offering economic advancement and often personal environmental preferences.

Nearly 40 million Americans, or one in five, change homes each year. Roughly one in 15—a total of 13 million people—migrates across a county line.[7] These rates have remained virtually unchanged over the quarter century for which data are available. In part because of the relative decline in rural population, the majority of people moving to metropolitan areas, especially those moving long distances, are now coming from other urban areas.

Whether it is a short or a long haul, those who move are typically the better educated, more skilled young adults, seeking a better life. Nearly a third of all migrants are in their twenties, and they bring with them young children: A tenth of all migrants are between the ages of one and four.

Migration, then, represents more than the numbers suggest. Where five million young adults take their young children and reproductive potential each year affects where future population growth will take place, and where heavy demands for housing and health and educational services will be felt. It also determines where some of our most capable young people, with most of their productive lives ahead, will contribute to the nation's future.

Especially since World War II, metropolitan migrations have included large numbers of blacks. Their transition from rural to metropolitan life has been faster, more recent, and more extensive than that of whites; 74 percent of the black population of the United States is now metropolitan, compared with 68 percent of whites. Blacks, more than whites, tend to live in the larger metropolitan areas, and four-fifths of them live in the central cities.[8]

Recent streams of migration among regions also have varied substantially by race. In the 1960's, there was a net movement of whites out of the north, to the west and south. Blacks moved from the south to the north and west. The net effect was an exchange of population between the north and south, with the west experiencing net in-migration of both whites and blacks. In the south, it was the nonmetropolitan areas that experienced the heaviest outmigration of blacks. The main areas receiving white in-migrants were Florida, the Washington-Baltimore area, and large metropolitan areas in Texas.[9]

Local Variations

Differences in migration produce large differences in the rates at which individual metropolitan areas grow. The Washington, D.C. area, for example, grew 39 percent in the 1960's, but Pittsburgh's population declined. Although the total metropolitan population of Texas grew 24 percent, three-fifths of its metropolitan areas grew slowly or not at all.[10]

Most migrants to an individual area come from other metropolitan areas. What is happening is that a small number of areas are attracting a disproportionate number of people moving from one metropolitan area to another. Between 1960 and 1965, some 60 metropolitan areas, accounting for 25 percent of all the metropolitan population, drew migrants at a rate at least twice that for the total system of metropolitan centers, and absorbed nearly half of all metropolitan growth. In this same period, 82 other metropolitan areas had more people leaving than arriving. The population size of the fastest growing areas ranged from small to very large, but the lion's share of metropolitan growth was taken by the larger of these fast-growing areas.[11]

With the drying up of nonmetropolitan sources of migration and a general decline in the rate of natural increase, migration among metropolitan centers might result in some 60 to 80 metropolitan areas actually losing population by 1980. Many others would simply not grow. We indicate later in this report why we believe that the usual apprehensions over this prospect are ill-founded. But we also believe that far more research is needed to understand the potential consequences of such trends.

Rural Areas and Small Towns

Over the decades, there has been an immense transfer of population and reproductive potential through migration from town and countryside to urban areas. The total rural population in 1900 was 46 million, or 60 percent of the population of the United States. Seventy years later, rural population had risen by only eight million to a total of 54 million, while the total national population had nearly tripled. By 1970, the rural population was only 26 percent of the total.[12]

High fertility rates in rural areas would have produced pressures for outmigration in any event. But the mechanization of agriculture made a small number of workers very productive, reduced the job market, and added to migration pressures. Since 1940, the farm population has dropped from 32 million to less than 10 million. Today, farmers, farm workers, and their families are only five percent of the nation's population.[13]

Early in the century, those who moved were mainly white—the children of rural immigrants of the late 19th century, and people from Appalachia, the Ozarks, and other depressed rural areas. More recently, there was the great movement of rural blacks from the south to the largest cities of the north and west.

Most migrants, regardless of race, bettered themselves economically, and in terms of their standard of living. In a recent government survey, most said their move was a success: They were better off financially, and were happier as a result of the move.

Here is Mrs. Mariah Gilmore, aged 60, who lived in the tiny hamlet of DeValls Bluff, 30 miles from Little Rock until her husband died in 1967:

> I was without an income. After his death, I looked for work, but was unable to find anything other than ironing, which didn't pay enough money to maintain a house and buy groceries, too.
> There were months that I might pick or chop cotton, but due to this being seasonal work, I couldn't make a living . . . I had to come to Little Rock to see about finding a job because I didn't have nothing to live on.[14]

Mrs. Gilmore found a job as a maid in a hotel for $35 a week. She also found her way into a federally funded work-training program operated by Pulaski County. She was eventually able to take a better position at the University of Arkansas Medical Center in Little Rock. Although she improved her economic status, Mrs. Gilmore confesses she would really prefer to live in DeValls Bluff, if she could have the same job. DeValls Bluff is still home to her.

The migration from rural areas has been such that

in the past decade nearly half of all counties lost population. These losses occurred in a belt from Canada to the Rio Grande between the Mississippi River and the Rockies, in the deep south, and in the Appalachian Mountains. For example, four-fifths of the counties in West Virginia declined in population in the 1960's, with virtually all counties losing population through net outmigration. West Virginia lost one-third of its people in their twenties by migration during the decade.

The territory involved in this rural exodus is immense; but, relative to the national population, the number of people leaving is small. The growth of the nation has been so great that even if all rural counties were repopulated to their historical maximum, they would absorb a population equivalent to no more than five years of national growth.[15]

Nationally, decline in the farm population has been offset by growth in the nonfarm rural population, made possible by growth in nonfarm employment. These people now outnumber the farm population by five to one. If this employment trend should spread, rural population may begin to stabilize in some areas where depopulation has been the rule. Such signs are already apparent, as in the recent reversal of the trend in Arkansas.

Paralleling the decline in the rural percentage of population has been a decline in the proportion of the population located in towns and cities of less than 50,000. Population growth has pushed many of these places into the metropolitan category, but others have lost population. Such is the history of many small towns in Iowa and the Dakotas. In such towns, population decline reflects a national system that increasingly requires critical minimum concentrations of economic activities in one location. Lacking adequate roads, power lines, sewers, proximity to large urban centers, and other advantages that would attract new kinds of economic activity and revive growth, they suffer from chronic high-level unemployment and a shrinking economic base. This triggers outmigration, mainly of the young and better educated, and leaves behind an older population that is disadvantaged in terms of education and training and less likely to depart, even in the face of economic hardship. In this case, migration removes surplus population, but it also tends to weaken further the town's competitive position. The future of these places and, more important, the future of the people who live in them, present problems that need continued government attention.

Yet this decline is far from universal. More than half of all nonmetropolitan municipalities grew during each of the last three decades. Between 1940 and 1970, the number of nonmetropolitan places increased from 12,800 to 13,800 and their total population grew from 23 to 33 million. An increasing percentage of this population is in places over 10,000. The places closest to metropolitan areas were more likely to grow than those situated in remote locations.[16]

Nor is it clear that population growth is good for all small towns or cities any more than for all metropolitan areas. For some types of activities, recreation for example, many rural areas may already have more people than desirable, even though density and population size are well below urban levels. The typical small college town, which has experienced rapid growth in the last decade, might well benefit from stabilization of its population as college enrollment levels off.

The continued growth of some small towns and cities, and the vitality of others whose populations are not growing, challenge the popular notion that small town life is disappearing. On the other hand, the association between growth and proximity to a metropolitan center indicates that many of the small towns are growing because they are part of an extensive metropolitan area whose influence goes beyond the census-defined boundaries. Although rural in physical setting, the life style is urban. Many of these areas have become part of the process of metropolitan growth and dispersal.

Metropolitan Dispersal

The territory of metropolitan America has expanded even faster than its population. Roads and communications extend the reach of today's metropolitan areas deep into their hinterland. Villages and towns become part of the city-system, grow, and the metropolis expands. At the same time, internal changes sharpen differences within areas. Major variations in ethnic diversity, environmental hazard, socioeconomic status, and income, as well as in fertility and mortality exist within rather than between metropolitan areas. Moreover, the most extensive depopulation in the contemporary United States is occurring in the central cities of metropolitan areas.

Fifteen of the 21 central cities with a 1960 population of one-half million or more had lost population by 1970.[17] In fact, declining central cities lost more people in the 1960's than were lost by declining rural counties. Over half the 1970 metropolitan population lived outside the central city, and suburban areas captured almost all the metropolitan growth during the

decade. Continuing dispersal and expansion means that the density of the central cities and of the great metropolitan areas as a whole is falling slightly as the border gets pushed further and further outward.

The territorial expansion of metropolitan areas has resulted from the movement of business and the more affluent and white population out of the central city, and from a shift in the locus of new growth—residential, industrial, commercial—to the expanding periphery. These changes have been so pervasive that many suburban areas now provide all the basic services and facilities generally found in the city—shopping, jobs, and entertainment, as well as residences. The suburban resident has a decreasing need to come into the city. Many work at industries along the beltways circling many cities. Others, particularly white-collar workers, commute daily to the city, but otherwise live essentially a suburban life.

Simultaneous with this dispersal has been the concentration of the black population in the central city, entrenching the already established pattern of racial separation. Even among relatively affluent blacks, the proportion living in the suburbs is low compared to their white counterparts. In the 1960's, the black population increased by a third. By 1970, 41 percent of metropolitan whites and 78 percent of metropolitan blacks lived in central cities. Suburbs continued to be almost totally white. Six central cities were over 50 percent black, and this number is expected to increase over the next decade.[18]

Outside the central city there is an extensive sorting-out process. Suburban communities typically are internally homogeneous, but differ from one another along social and economic lines, with the rich in some, the less affluent in others. Variations among suburbs are becoming as important as those between the central city and suburbs as a whole.

These processes—expansion and differentiation—pose critical problems for the contemporary United States. They do so in part because of the multiplicity of governmental jurisdictions encompassed and created by the expanding metropolis, and because of the ease with which the city line becomes the border between "them" and "us."

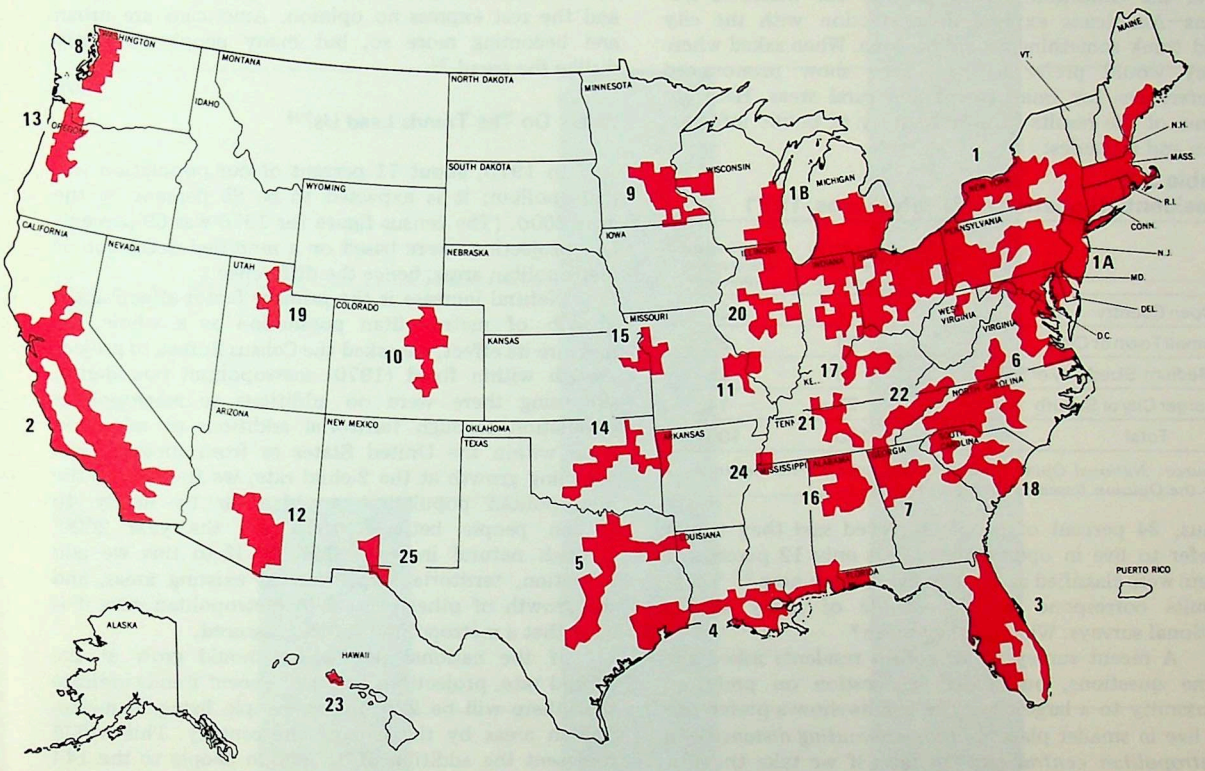
The first problem is racial and economic separation—blacks and the poor in the inner city, whites and the better off in the suburbs. While job opportunities have been moving to suburban areas, the disadvantaged remain locked in declining areas of the central city. These areas have many of the same characteristics as the depopulating rural areas: a population with low skills and inadequate education, deteriorating and abandoned housing, poor public facilities. Conditions are aggravated by selective outmigration. Those who can, leave. Those unable to cope with the problems of social and economic isolation remain.

The demography of racial separation is grim. Blacks and other nonwhites, now 22 percent of central-city populations, are projected to comprise about 40 percent by the year 2000.[19] Long before this average is reached by all cities, it will have been surpassed by many. At least in a geographical sense, the "two societies" envisioned by the Kerner Commission are emerging.

A second problem is the relationship of the "real city"—the functionally integrated metropolitan area—to the legal entities that are supposed to govern it. Since the turn of the century, the legal boundaries of the central city have remained relatively fixed, while the functional city has expanded to include many suburban jurisdictions as well. The Secretary of the Department of Housing and Urban Development recently referred to this problem, pointing to the need to deal with problems of transportation, housing, and location of jobs in relation to other daily activities at the metropolitan level.[20] Instead, we are trying to cope with the problems arising from a new form of collective living—metropolitan—with a fragmented political structure suited to the needs of an earlier era. Disparities exist between the resources and responsibilities of different units of local government. Core cities with limited and sometimes shrinking tax bases are still responsible for needy elements of the population—the elderly, poor, unemployed, and nonwhite—left behind by the suburban exodus.

A third problem lies in the expanding periphery of metropolitan areas. During the rapid expansion of suburban areas since World War II, we failed to plan for anticipated growth; instead, we allowed it to spread at will. Whether or not we are past a population explosion, it is clear that the land-use explosion of "spread city" is currently in full bloom. In the 1970's and 1980's, the baby-boom generation will marry, have children, and set up house in the suburbs, creating a tremendous demand for the conversion of rural land to urban use. Without proper efforts to plan where and how future urban growth should occur, and without strong governmental leadership to implement the plans, the problems of sprawl, congestion, inadequate open space, and environmental deterioration will grow on an ever-increasing scale.

Figure 3.3 Urban Regions: Year 2000



1. Metropolitan Belt
   1.a. Atlantic Seabord
   1.b. Lower Great Lakes
2. California Region
3. Florida Peninsula
4. Gulf Coast
5. East Central Texas—Red River
6. Southern Piedmont
7. North Georgia—South East Tennessee
8. Puget Sound
9. Twin Cities Region
10. Colorado Piedmont
11. Saint Louis
12. Metropolitan Arizona
13. Willamette Valley
14. Central Oklahoma—Arkansas Valley
15. Missouri—Kaw Valley
16. North Alabama
17. Blue Grass
18. Southern Coastal Plain
19. Salt Lake Valley
20. Central Illinois
21. Nashville Region
22. East Tennessee
23. Oahu Island
24. Memphis
25. El Paso—Ciudad Juarez

Based on 2-child family projection

Source: Jerome P. Pickard, "U.S. Metropolitan Growth and Expansion, 1970-2000, with Population Projections" (prepared for the Commission, 1972).

Public Attitudes

Partly because of the problems of urban living, partly as an expression of nostalgia for what is perceived as the "good old days," and perhaps partly in anguish over the condition of modern life—for whatever reasons—Americans express dissatisfaction with the city and think something should be done. When asked where they would prefer to live, they show pronounced preferences for small towns and rural areas. Here are some of the results from our survey of public information and attitudes:

Table 3.2
Residential Location and Preferences, 1971

	Where do you live now? (Percent)	*Where would you prefer to live? (Percent)*
Open Country	12	34
Small Town or City	33	30
Medium-Sized City or Suburb	28	22
Larger City or Suburb	27	14
Total	100	100

Source: National Opinion Survey conducted for the Commission by the Opinion Research Corporation, 1971.

Thus, 34 percent of people surveyed said they would prefer to live in open country, but only 12 percent of them were classified as actually living there now.[21] These results correspond to the results of many similar national surveys. What do they mean?

A recent survey of Wisconsin residents asked the same questions, but added a question on preferred proximity to a large city. The results show a preference to live in smaller places *within commuting distance of a metropolitan central city*. In fact, if we take them at their word, 70 percent of the Wisconsin survey respondents would prefer to live near a metropolitan area, whereas only 54 percent now do.[22]

We do not know if the results of the Wisconsin survey reflect national attitudes. If they do, it means people want the best of both worlds—the serene and clean environment of rural areas and the opportunity and excitement of the metropolis. Perhaps it is not accidental that much metropolitan growth in fact occurs in peripheral areas with a semi-rural environment. Ironically, people moving to such areas typically find that they soon lose their more desirable aspects—semi-rural areas rapidly become suburban.

Even if current trends should prove to reflect majority preferences, about one-fourth of the population in medium- and large-sized metropolitan areas think that the place where they live is too big. Over half of the population feel that the federal government should "discourage further growth of large metropolitan areas" or should "try to encourage people and industry to move to smaller cities and towns." One-third disagree, and the rest express no opinion. Americans are urban and becoming more so, but many people evidently dislike the trend.[23]

Where Do The Trends Lead Us?[24]

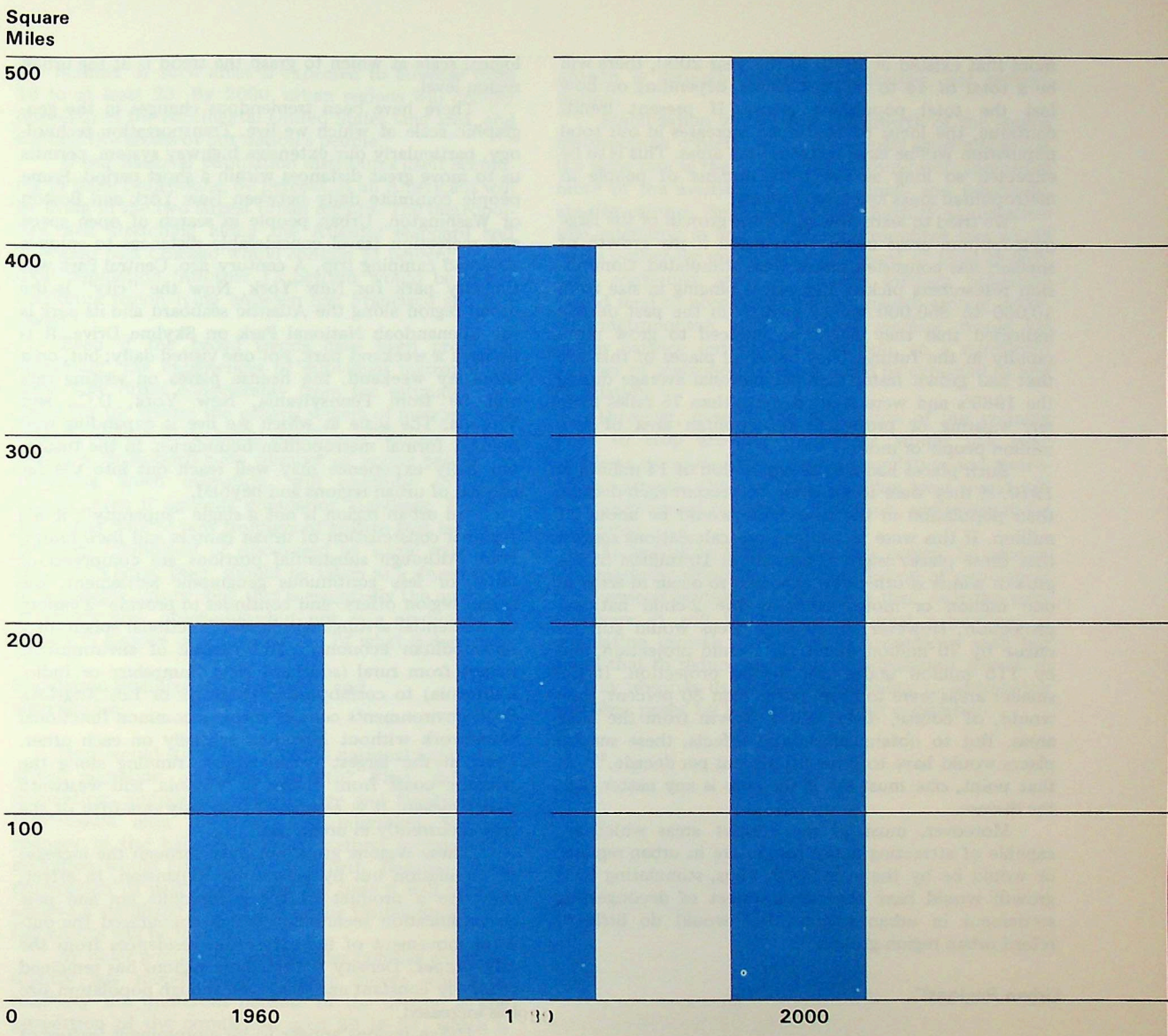
In 1970, about 71 percent of our population was metropolitan; it is expected to be 85 percent by the year 2000. (The census figure for 1970 was 69 percent. Our projections were based on a modified definition of metropolitan areas; hence the difference.)

Natural increase is the primary factor affecting the growth of metropolitan population as a whole. To measure its effect, we asked the Census Bureau to project growth within fixed (1970) metropolitan boundaries, supposing there were no additions to metropolitan population through territorial additions or migration from within the United States or from abroad. Even assuming growth at the 2-child rate, we found that the metropolitan population would grow by nearly 40 million people between 1970 and the year 2000, through natural increase alone.[25] If to this we add migration, territorial expansion of existing areas, and the growth of other centers to metropolitan size, it is clear that a metropolitan future is assured.

If the national population should grow at the 2-child rate, projections based on recent trends indicate that there will be 225 million people living in metropolitan areas by the end of the century. This would represent the addition of 81 million people to the 144 million persons who comprised our metropolitan population in 1970. An average of three children per family would cause our metropolitan population to swell to a total of 273 million by the year 2000, an increase of 129 million over the 1970 figure. Thus, our metropolitan population at the end of the century will be nearly 50 million greater if American families average three rather than two children.

Where will these people live? In 1970, more than four out of every 10 Americans were living in a metropolitan area comprised of one million or more people. By the year 2000, the projections indicate that more than six of every 10 persons are likely to be living in these large areas. Not all of the additional people will be added to the 29 metropolitan areas of one million or

Figure 3.4 The Expanding Area of Urban Regions



The territory of urban regions is doubling in the period 1960 to 1980. By the year 2000, urban regions will encompass one-sixth of the United States land area (excl. Alaska and Hawaii).

Source: Jerome P. Pickard, "U.S. Metropolitan Growth and Expansion, 1970-2000, with Population Projections" (prepared for the Commission, 1972).

more that existed in 1970. In the year 2000, there will be a total of 44 to 50 such places, depending on how fast the total population grows. If present trends continue, the locus of continued increases in our total population will be large metropolitan areas. This is to be expected so long as the total number of people in metropolitan areas keeps on growing.

We tried to learn how much the growth of the large metropolitan areas might be reduced if the growth of smaller, less congested places were stimulated. Commission researchers picked 121 places ranging in size from 10,000 to 350,000 whose growth in the past decade indicated that they might be induced to grow more rapidly in the future. They listed all places of this size that had grown faster than the national average during the 1960's and were located more than 75 miles from any existing or projected metropolitan area of two million people or more.

Such places had a total population of 14 million in 1970. If they were to grow by 30 percent each decade, their population in the year 2000 would be about 31 million. If this were to happen, our calculations suggest that these places might absorb about 10 million of the growth which is otherwise expected to occur in areas of one million or more, assuming the 2-child national projection. However, these large areas would still increase by 70 million under the 2-child projection, and by 115 million under the 3-child projection. If the smaller areas were to grow faster than 30 percent, they would, of course, divert more growth from the large areas. But to obtain substantial effects, these smaller places would have to grow 50 percent per decade.[26] At that point, one must ask if the cure is any better than the disease.

Moreover, most of the smaller areas which are capable of attracting many people are in urban regions, or would be by the year 2000. Thus, stimulating their growth would have the useful effect of decongesting settlement in urban regions, but would do little to retard urban region growth.

Urban Regions[27]

The evolution of urban communities has proceeded from farm, to small town, to city, to large metropolitan area. It is now proceeding to the urban region—areas of one million people or more comprised of a continuous zone of metropolitan areas and intervening counties within which one is never far from a city. The reach of the urban economy has so increased that the most logical scale at which to grasp the trend is at the urban region level.

There have been tremendous changes in the geographic scale at which we live. Transportation technology, particularly our extensive highway system, permits us to move great distances within a short period. Some people commute daily between New York and Boston or Washington. Urban people in search of open space and recreation travel considerable distances to enjoy a weekend camping trip. A century ago, Central Park was the city park for New York. Now the "city" is the urban region along the Atlantic seaboard and its park is the Shenandoah National Park on Skyline Drive. It is perhaps a weekend park, not one visited daily; but, on a three-day weekend, the license plates on visiting cars will be from Pennsylvania, New York, D.C., and Virginia. The scale at which we live is expanding well beyond formal metropolitan boundaries. In the future, our daily experience may well reach out into the far corners of urban regions and beyond.

An urban region is not a single "supercity"; it is a regional constellation of urban centers and their hinterland. Although substantial portions are comprised of more or less continuous geographic settlement, the urban region offers—and continues to provide—a variety of residential settings within the functional sphere of a metropolitan economy. This mosaic of environments ranges from rural (southern New Hampshire or Indio, California) to cosmopolitan (Chicago or Los Angeles). Such environments coexist within a common functional framework without intruding spatially on each other. Even in the largest urban region, running along the Atlantic coast from Maine to Virginia, and westward past Chicago, it is estimated that only one-fifth of the area is currently in urban use.

These regions grow not only through the increase of population but by geographic expansion. In effect, they are a product of the automobile era and new communication technology which encouraged the outward movement of industries and residences from the city proper. Density within these regions has remained relatively constant and low, even though population size has increased.

Urban regions appear to be a prominent feature of the demographic future of this country. In 1920, there were 10 urban regions with over one-third of the total population. By 1970, about three-fourths of the population of the United States lived in the urban regions which already exist or are expected to develop by 2000.

The total land area encompassed by urban regions is estimated to double in the period 1960 to 1980, while

the number of such areas is expected to increase from 16 to at least 23. By 2000, urban regions will occupy one-sixth of the continental United States land area, and contain five-sixths of our nation's people.

If our national population distributes itself according to these projections, 54 percent of all Americans will be living in the two largest urban regions. The metropolitan belt stretching along the Atlantic seaboard and westward past Chicago would contain 41 percent of our total population. Another 13 percent would be in the California region lying between San Francisco and San Diego.

Even if the broad trends have been projected accurately, the experiences of individual metropolitan areas may differ considerably from the estimates prepared for us. Within the general system of metropolitan centers, some will probably stabilize or decline; others, having a disproportionate number of young people, or attracting much migration, will continue to grow rapidly, even if national population stabilizes. Finally, there may well be new frontiers of growth that have not yet been established or discovered by social scientists. Our projections, then, should be taken as a description of a possible future—one that is essentially the outcome of trends now observable—but not as a prediction of what will happen or a prescription of what is desirable.

Population Stabilization, Migration, and Distribution

How would stabilization of the national population affect migration and local growth? First, shifts in population composition—chiefly age and family structure—would alter the tempo of migration. Second, changes in the balance between natural increase and migration would influence local growth. Because of the momentum of past growth and the time it will take to achieve a stabilized population in the United States, the full effects will be long range.

An older population with smaller families would be slightly less mobile. Long-distance moves would be relatively less numerous because of the decline in the proportion of the population aged 20 to 24, which is most apt to move. Smaller families would reduce the need of repeated residential moves, since such moves are often an adjustment to changing housing needs.

Perhaps the most significant effect of population stabilization on the distribution of population is the most obvious: Zero growth for the nation will mean an average of zero growth for local areas. It may be that the most effective long-term strategy for stabilizing local growth is through national stabilization, not redistribution.

Stabilization would slow the growth of the largest metropolitan centers, which are already growing only at the same rate as the nation, and it would shift somewhat more of the available growth to small- and intermediate-size centers. Replacement-level fertility would mean that migration in and out of a metropolitan area would be an extremely important component of local growth; and continued selective growth through migration would tend to accentuate uneven growth among different metropolitan areas. Natural increase would no longer balance out net outmigration, so a significant number of metropolitan areas could be expected to lose population.

However, even if the population of our country were to stop growing today, we would still have problems associated with rural depopulation and metropolitan growth. Our large metropolitan areas would still have problems of congestion, pollution, and severe racial separation.

According to the Commission's survey, 54 percent of Americans think that the distribution of population is a "serious problem"; half believe that, over the next 30 years, it will be at least as great a problem as population growth.[28] This is in accordance with our belief that to reduce problems of population growth in no way absolves us of the responsibility to address the problems posed by the distribution of population.

Chapter 4: The Economy

Does a healthy economy require a growing population? Would slower population growth hurt business or threaten workers' jobs? Would it help? How would the average person fare in economic terms if the rate of population growth approached zero?*

We have conducted research to determine what effects different rates of population growth are likely to have on the economic well-being of the nation. We compared the effects of the 2-child population projection with the effects of the 3-child projection. Our overall conclusions from this research are:

1. Major economic changes are on the horizon regardless of future changes in population growth rates.
2. The nation has nothing to fear from a gradual approach to population stabilization.
3. From an economic point of view, a reduction in the rate of population growth would bring important benefits, especially if the United States develops policies to take advantage of the opportunities for social and economic improvement that slower population growth would provide.

Income

Between now and the year 2000, increases in the productivity of workers are likely to result in such a large rise in average income that styles of life in the year 2000 will be qualitatively different from what they are today. It is expected that by the year 2000 average family income, now about $12,000, will exceed $21,000, in terms of today's dollars.[1] This is the projection, even if the work week were reduced to 30 hours, and even if the population grew at the 3-child rate.

The average individual's consumption is expected to be more than twice what it is today, whether the population grows at the 2-child or the 3-child rate. As income increases, people show an increased preference for services, such as education and health services, as compared with manufactured goods. So, the population of the year 2000 will boost its consumption of services faster than its consumption of manufactured goods.

The rate of population growth will have a significant effect on per capita income. Our research indicates that in the year 2000, per capita income may be as much as 15 percent higher under the 2-child than under the 3-child population growth rate. The main reason for the higher per capita income under the 2-child projection is the shift in the age composition resulting from slower population growth; as we saw earlier, people of working age will constitute a larger fraction of the total population under conditions of slower population growth. A secondary reason is that with lower birthrates the percentage of women in the labor force is expected to rise somewhat faster than it would otherwise. Taken together, these trends mean relatively more workers and earners, and relatively fewer mouths to feed.

The age effect arises from the fact that population replaces itself from the bottom up; and, if it is growing, it is adding more and more at the base of the age pyramid. However, growth in the population of working age is drawn from the smaller numbers of births that occurred 15 to 20 years earlier. When growth slows, it slows first at the base, and before long we see a narrowing of the difference between the number of births and the numbers annually entering the working ages. The ratio of workers to youthful dependents rises, the income they produce is spread among fewer people, and the average income available per person in the population consequently increases.

Of course, the same process eventually causes a rise in the percentage of old people in the population—those who have passed working age. But because of higher death rates at these ages, the increase in aged dependency offsets only part of the decline in youth dependency, and the overall result is still a major drop in total dependency and an increase in income available per person in the population.

Economic Growth and the Quality of Life

The use of income or output per capita as an indicator of the quality of life has been criticized on a number of grounds. One such criticism is made by people who are concerned about environmental deterioration. They maintain that higher output levels for the economy *as a whole* will cause a greater drain on natural resources and more pollution.

Accordingly, we examined the effects that the 2- and 3-child growth rates would have on GNP—the gross national product—which measures the total volume of goods and services produced. GNP is expected to more than double by the year 2000, whether the population grows rapidly or slowly.[2] This is the prospect implied by the projected increases in per capita income and the further growth of population resulting from the baby boom.

However, if families average three children in the future, GNP will grow far more than if they average two

**Separate statements by Commissioners Otis Dudley Duncan, with Paul B. Cornely, M.D. concurring (p. 153), John R. Meyer (p. 159) and James S. Rummonds (p. 167) appear on the indicated pages.*

children. In the year 2000, the difference in GNP resulting from different population assumptions amounts to as much as one-fourth of the total GNP today. Rapid population growth will cause more rapid growth in the size of the economy, and correspondingly greater demands on resources and the environment. People will not be better off economically with more rapid population growth—we have already seen that income per person is higher under the slower population growth assumption. Rather, increases in the number of people simply multiply the volume of goods and services produced and consumed. In the next chapter, we examine the meaning of these trends for resource consumption and deterioration of the environment.

Poverty

Income or output per capita is an average, and it conceals some gross disparities. We need to be concerned with these, especially at the lower end of the income scale—the people in poverty.

We have estimated the effects that slower population growth would have on poverty in the United States in the year 2000. We have found that the general improvement in average income associated with slower population growth would assist in reducing poverty, but would not eliminate it. This is not good enough.

There are today, by official estimate, 26 million Americans living in poverty conditions.[3] This is 13 percent of our population. Improvements in the average income of the population do something for these groups, but not enough. Their problem is that too many of them are not part of the system that generates and distributes income.

Over six million poor people are working adults who simply do not make enough money to meet even the minimal official income standard. Over three million of the poor are persons aged 14 to 64 who are sick or disabled, in school, or unable to find work. Nearly five million are over age 65, and over eight million are children. Finally, more than two million are female heads of family whose responsibilities at home keep them from taking jobs.

What this adds up to is that more than nine out of 10 poor people are excluded—because of age, incapacity, poor training, family responsibilities, fiscal disincentives, or discrimination in the labor market—from the system that produces and distributes income and the things income buys. Real improvements in their lot will be reflected in a changing distribution of income. But, while average income has risen dramatically and the number of poor has declined as a result, the relative distribution of income has changed little in the 25 years the Census Bureau has been measuring it.

In a country as wealthy and resourceful as ours, there is no excuse for permitting deprivation. For the working poor and those who cannot find work, the solution is to eliminate racial and sex discrimination in employment, and to improve education and training. Beyond this, we need a serious reexamination of the status of the aged. Old people are healthier and better educated than ever before. They are often forced to stop working far before the end of their productive lives, because of outright discrimination and outdated restrictions against older workers, and because of fiscal disincentives against work built into our social security laws and other pension arrangements.

Nevertheless, the country still has a number of people who cannot be helped by better access to the labor market. For these, the answer should be an increased public responsibility for maintaining a decent standard of living.

Measures to achieve an improved distribution of income should be beneficial demographically as well as socially. Evidence indicates that levels of childbearing—both wanted and unwanted—decline as income rises.

Labor Force Growth

Thirty-five million new workers will be seeking their first job in the decade of the 1970's.[4] That is seven million more than in the 1960's. This is one of the legacies of the baby boom. As that generation comes of age, swelling numbers of job applicants put an extra burden on full employment policy.

The pressure should be off in the 1980's. The number of new entrants to the labor force will probably be close to the figure for the 1970's, due to declining birthrates in the past decade. Once all the new entrants and women resuming work after their children are grown are balanced out against withdrawals through retirement and death, the labor force in 1990 should number some 114 million, or 28 million more than the 1970 figure.

What happens thereafter depends mainly on the number of births in the 1970's. If fertility should follow the 2-child projection, the number of people looking for their first job in the 1990's should be about the same as in the 1980's. However, if fertility follows the 3-child projection, the number of job seekers in the 1990's will jump 10 million, to a total of around 44 million; and by the year 2000, the total labor force will number some

136 million. Beyond 2000, the difference in labor force growth between the two projections becomes immense.

It seems clear that labor-force trends under the 3-child projection can be expected to generate greater pressure for increased production, employment, and consumption, and correspondingly greater problems associated with the social and environmental consequences of such increases. The 2-child projection does not imply that these problems can be avoided, only that they will be less pressing. It implies not only smaller numbers to be accommodated, but also a context in which the urgency of competing priorities will be muted.

We have seen that slower population growth causes a gradual increase in the percentage of old people and a decline in the percentage of youth—hence, a rising average age of the population. The same process also causes the labor force to age.

Concerns have been expressed that an older labor force will lack the energy, flexibility, and imagination of a younger one. Despite the absence of evidence for these concerns, their existence is further reason to support programs desirable on other grounds, such as the provision of continuing education to our labor force. Indeed, in light of the rapid changes occurring in all aspects of life, the idea that education should be completed by the age of 18, 22, or even 30, is clearly out of date.

Business

Will a slower rate of population growth hurt specific industries, particularly those which cater to young people? Does it threaten jobs?

While it is certainly true that there would be a faster increase in the sales of certain products, for example baby foods and milk, under conditions of higher population growth, it is also true that other products and services, for example convenience foods and airline travel, would be relatively favored by the faster rise in per capita income associated with slower population growth rates. More important, it does not appear, for several reasons, that a lower population growth rate will cause serious problems for any industry or its employees.[5]

First, regardless of the rate of population growth, total income, and hence demand, will rise.

Second, slower population growth will actually cause total as well as per capita income to be higher over the next 10 to 15 years than would a more rapid population growth rate. In other words, during the next 10 to 15 years total GNP in the 2-child projection would probably be slightly larger than in the 3-child case.

Third, it is important to note that under the 2-child family projection, there is no year in which there would be fewer births than there were in 1971. In other words, a gradual approach to population stabilization would not reduce demand from current levels for any industry we studied. (We studied the effect of the 2-child and 3-child population projections on demand for housing starts, mobile homes, domestic cars, imported cars, men's suits, frozen foods, power boats, credit, furniture and household equipment, food and beverages, beer, clothing and shoes, steel, dishwashers, railroad travel, and airline travel.)

Beyond the next 10 to 15 years, the adjustments businesses must make to changes in consumer tastes and technological developments should far exceed the problems of adjusting to a lower population growth rate. The loom tender in the diaper factory is hurt more by the competition from synthetic disposables than by the recent decline in births. Large fluctuations in birthrates will require larger adjustments by business than will small ones; still, we can have fluctuations around a 3-child as well as a 2-child growth rate. In declining communities, small businesses will not do as well economically as they would if there were more people around—some adjustments will be required. But other changes that are unpredictable today will require far more important adjustments by individuals, as well as by entire industries.

Past experience should lead to confidence that such adjustments can be made. Here is the Board Chairman of Atlantic-Richfield, testifying at our public hearing in New York:

> There is a habit of thinking in some segments of the business community, of course, that population increase is somehow essential to the maintenance of vigorous demand and economic growth, just as there is an instinctive reaction against any important new cost factors being added to the processes of production and distribution. But our economy has already, and in many ways, shown its tremendous adaptability to new social demands and necessities. I have not the slightest doubt that it can meet this new challenge.[6]

The Growth Mystique

In short, we find no convincing economic argu-

ment for continued national population growth. On the contrary, most of the plusses are on the side of slower growth. This finding is at variance with much opinion, especially in the business community and among many civic leaders. We have sought to find the reason for this seeming contradiction.

Periods of rapid population growth in this country have generally been periods of rapid economic expansion as well. It is not surprising, therefore, that we associate population growth with economic progress. However, the historical association of population growth with economic expansion would be an erroneous guide to the formulation of population policy for the future.

This connection reflects in large part the fact that periods of rapid economic expansion attracted immigrants to our shores and thus quickened population growth as a result. Additions to population through immigration are far more stimulating to economic growth than are additions by natural increase. This is because, while babies remain dependent for many years before beginning to contribute to output, many immigrants are of working age and thus become immediately productive. Immigration made a major contribution to rapid population growth up to World War I, but its effect since then has been much diminished. In the years 1861 to 1910, the average annual immigration rate per 1,000 Americans was 7.5; the rate for the period 1911 to 1970 dropped to 1.8. The rate for the recent period reflects a rise from the 1930's, when there was a net outflow of migrants, to the 1960's when the rate was 2.2.[7]

This answer may not satisfy the gas station owner, local food retailer, or banker, to whom it seems obvious that "more people" means more customers or more savings accounts. Once again, however, we need to examine the *kind* of growth that means more business, and its relationship to local economic expansion. The rapid local population growth that means more business results chiefly from more people moving in, not more people being born and raised. Adults moving in make ready customers and ready employees. They have grown up elsewhere, their education has been paid for elsewhere, and being young, they impose few of the demands of the dependent aged. Since mobile people are, on the average, better qualified than those who do not move, it is no surprise that they provide an extra boost to local establishments.

We have studied the effects of lower national population growth rates on the economic well-being of urban and rural areas within the nation. Is there reason to fear that the ills typical of areas of population decline today would become more serious or widespread if national population growth rates declined? We conclude that there is not; such fears are based on a mistaken belief that population decline causes economic decline. In reality, the chain of causation in distressed areas runs from (1) the decline of regional competitive capability to (2) unemployment to (3) net outmigration to (4) population loss.[8] Accordingly, there is little reason to suppose that local problems of unemployment or obsolescence of physical facilities would be more serious in a situation of zero or negative national population growth than they would be at any positive level of national population growth. In the future, as in the past, areas of relatively high unemployment will tend to be areas of relative population loss; but the relative population loss will be the consequence and not the cause of local unemployment.

The diminished burden of providing for dependents, and for the multiplication of facilities to keep up with expanding population, should make more of our national output available for many desirable purposes: new kinds of capital formation, including human resources investment; public expenditure involving qualitative improvement and modernization; and greater attention to environmental and amenity objectives. Thus, whatever the future problems of urban areas and regions may be, we should have more ample per capita resources to attack them in a situation with a lower rate of population growth than we would have with a higher rate.

Summary

We have looked for, and have not found, any convincing economic argument for continued national population growth. The health of our economy does not depend on it. The vitality of business does not depend on it. The welfare of the average person certainly does not depend on it.

In fact, the average person will be markedly better off in terms of traditional economic values if population growth follows the 2-child projection rather than the 3-child one. Slower growth will give us an older population, and this trend will require adjustments well within the ability of the nation to provide. Beyond this, however, we point out that the fruits of slower population growth will be denied to those most in need of them unless deliberate changes are made in distribution of income to those who lack it by reason of discrimination, incapacity, or age.

Chapter 5: Resources and the Environment

What are the likely future impacts of population growth on the demand for resources and on the environment in the United States? Here again, we have examined the consequences of the population growing according to the 2-child projection and the 3-child projection, and compared the results. For problems such as air pollution, where local concentrations are important, we have examined the implications of population growth in local areas as well as in the nation as a whole.[1]

For several resource and environmental topics, we have extended the analysis beyond the year 2000 to the year 2020; in so doing, we have identified some important effects that do not become particularly noticeable in the shorter period. Beyond the next 50 years, we do not know enough to make quantitative projections. Nonetheless, it is obvious that there are ultimate limits to growth. We live in a finite world. While its limits are unknown because technology keeps changing them, it is clear that the growth of population and the escalation of consumption must ultimately stop. The only questions are when, how, and at what level. The answers to these questions will largely be determined by the course of world population growth, including that of the United States.

Several general conclusions* emerge from our research:

1. Population growth is one of the major factors affecting the demand for resources and the deterioration of the environment in the United States. The further we look into the future, the more important population becomes.

2. From an environmental and resource point of view, there are no advantages from further growth of population beyond the level to which our past rapid growth has already committed us. Indeed, we would be considerably better off over the next 30 to 50 years if there were a prompt reduction in our population growth rate. This is especially true with regard to problems of water, agricultural land, and outdoor recreation.

3. While the nation can, if it has to, find ways to solve the problems growth creates, we will not like some of the solutions we will have to adopt. With continued growth, we commit ourselves to a particular set of problems: more rapid depletion of domestic and international resources, greater pressures on the environment, greater dependence on continued rapid technological development to solve these problems, and a more contrived and regulated society. So long as population growth continues, these problems will grow and will slowly, but irreversibly, force changes in our way of life. And there are further risks: Increasing numbers press us to adopt new technologies before we know what we are doing. The more of us there are, the greater is the temptation to introduce solutions before their side effects are known. With slower population growth leading to a stabilized population, we gain time to devise solutions, resources to implement them, and greater freedom of choice in deciding how we want to live in the future.

4. The American future cannot be isolated from what is happening in the rest of the world. There are serious problems right now in the distribution of resources, income, and wealth, among countries. World population growth is going to make these problems worse before they get better. The United States needs to undertake much greater efforts to understand these problems and develop international policies to deal with them.

A separate statement by Commissioner Alan Cranston appears on page 150.

How Population Affects Resources and the Environment

The pressure that this nation puts on resources and the environment during the next 30 to 50 years will depend on the size of the national population, the size of population in local areas, the amounts and types of goods and services the population consumes, and the ways in which these goods and services are produced, used, and disposed of. All these factors are important. Right now, because of our large population size and high economic productivity, the United States puts more pressure on resources and the environment than any other nation in the world.

We have attempted to separate these factors and estimate the impact of population on resources and the environment using a quantitative model which shows the demand for resources and the pollution levels associated with different rates of economic and population growth. The seriousness of the population-induced effects has then been assessed by evaluating the adequacy of resources to meet these requirements and the environmental impacts of pollution.

In discussing the economy, we indicated that under any set of economic projections, the total volume of goods and services produced in the United States —the gross national product—will be far larger than it is today. It is expected to be at least twice its present size by the year 2000, and in 50 years, with rapid population and economic growth, it could be seven times as large as it is now. Regardless of future population growth, the prospect is that increases in

output will cause tremendous increases in demand for resources and impact on the environment.

What happens to population growth will nevertheless make a big difference in the future size of the economy. In the year 2000, the difference in GNP resulting from the different population assumptions could amount to one-fourth of today's GNP. By the year 2020, this difference amounts to more than the total size of today's GNP.

In short, total GNP, which is the principal source of the demand for resources and the production of pollutants, will become much larger than it is now. But if population should grow at the 3-child rate, GNP will grow far more than it will at the 2-child rate.

Minerals

In our research, we examined the demand for 19 major nonfuel minerals: chromium, iron, nickel, potassium, cobalt, vanadium, magnesium, phosphorous, nitrogen, manganese, molybdenum, tungsten, aluminum, copper, lead, zinc, tin, titanium, and sulfur.

Resource consumption will rise more slowly if population grows more slowly. Our estimates indicate that the amount of minerals consumed in the year 2000 would average nine percent lower under the 2-child than under the 3-child population projection. The difference in annual consumption would be 17 percent in the year 2020, and would grow rapidly thereafter.

Population growth exerts an important effect on resource consumption compared with the effect of economic growth. Our research shows that in the year 2000, if GNP per capita were one percent less than projected, the consumption of most minerals would be 0.7 to 1.0 percent less; the consumption of four minerals--cobalt, magnesium, titanium, and sulfur—would be reduced relatively more. In the year 2000, if population were one percent less than projected, minerals consumption would be 0.5 to 0.7 percent less. The population effect, while substantial, is smaller because of an important offsetting effect. As we saw earlier, slower population growth induces higher output per person because of the favorable ratio of labor force to total population. This offsets somewhat the effect that smaller numbers have on the conservation of resources.

While there are clear resource savings from slower population growth, our research supports, with certain qualifications, the view that the United States would have no serious difficulty acquiring the supplies it needs for the next 50 years, even if the population were to grow at the 3-child rate. This is the prospect, even assuming, as we have done, that the resource demands of the rest of the world grow more rapidly than those of the United States, as has been the case in recent years. Although growing demand may pose some problems of adjustment, adequate supplies of all the minerals we studied can be achieved through tolerable price increases. Price increases will equalize supply and demand by stimulating exploration or imports (increased supply) and by stimulating recycling and the use of more plentiful substitutes (reduced demand). The earth's crust still contains immense quantities of lower grade minerals which can be called into production at levels of costs which we could afford to pay, even if the demands of the rest of the world should rise as projected and our population were to grow at the 3-child rate.

This expectation could be altered by several developments. First, prices could fail to anticipate impending shortages; that is, they might not rise long enough in advance to stimulate the changes necessary to avert shortages. Second, mining operations are heavy polluters, and mineral needs could conflict with environmental policy. Finally, and most serious, there are worldwide imbalances in access to resources. While the United States will remain among the "haves," relatively speaking, disparities between world regions may affect international power balances in ways that would involve us.

Energy

Energy makes the difference between poverty and affluence. The reason per capita income in the United States is so high is that the average American worker has at his command more energy, chiefly in the form of electricity, than any other worker in the world. With energy we refine aluminum, make rubber, shape steel, form new synthetic chemical compounds, propel automobiles, and heat our homes.

How much energy we have available depends on the availability of the necessary fuels and on our ability to convert the fuels to energy—the greatest advance in this regard was the development of inexpensive methods of electricity production. The technology of fuels acquisition and the technology of energy conversion are both critical. So is purchasing power—the ability to pay for domestic development of fuels or to import them. The original inhabitants of North America occupied a continent rich in energy fuels. But they neither knew how to get the fuels out of the ground nor how to convert them to energy. Some modern countries with advanced means of energy conversion lack their own

fuel supplies; they buy them from other countries.

The ability of the United States to meet its future energy needs will be determined chiefly by developments in technology—the technology of conversion and the technology of fuels acquisition. A major question will be whether we can find methods that are environmentally safe. Virtually every stage of energy use—fuel production, delivery, conversion, and consumption—has a significant environmental impact. For example, one-third of all coal is produced by strip mining, and the consequence is a scarred landscape and severe runoff into streams and rivers. Oil spills which contaminate the oceans and beaches may result from offshore drilling. Much airborne pollution comes from the use of such relatively dirty fuels as coal and oil. Some scientists are beginning to raise the possibility of thermal pollution resulting from concentrated use of energy in local areas. Nuclear power generation requires the disposal of radioactive atomic wastes. Because of these problems, the development of energy-production capacity could be impaired.

The increase in our energy needs will be immense under any projection, although not as large under the 2-child population projection as under the 3-child projection. The relative difference in energy demands under the different population projections is about the same as for minerals, and it becomes very large after the population with the lower rate of growth stabilizes. Whether population growth will strain fuel supplies, or cause serious environmental damage in the process of acquiring and using the necessary fuels, depends on future developments in technology.

With no major changes in technology, oil and gas supplies could become a problem for the United States by the year 2000—we would be importing more and paying higher prices; and supplies would certainly be a problem for some world regions. These problems could be averted if we found inexpensive means of using such potential sources as oil shale and tar sands, but using these sources is likely to have environmental consequences as serious as those from the strip-mining of coal. If we unlock the secrets of atomic fusion, we could have an environmentally clean way of generating electricity, with no fuel supply problem. The energy from converting the deuterium contained in 30 cubic kilometers of seawater would equal that of the earth's original supply of coal and petroleum.

Our review of the energy situation indicates that high priority ought to be given to research and development in clean sources of energy production. The faster population grows, the more urgent such breakthroughs become. We turn now to several areas where population growth dominates other considerations—where we cannot be hopeful about the ability of purchasing power and technical development to avert population problems.

Water

Water requirements already exceed available flow in the southwestern United States. Our research shows that growing population and economic activity will cause the area of water shortage to spread eastward and northward across the country in the decades ahead. Such deficits will spread faster if population growth follows the 3-child projection than if it follows the 2-child projection. This will occur despite large expenditures on water treatment, dams, and reservoirs during the next 50 years. Population growth will be more important than economic growth in causing these growing problems.

Our national abundance of water does not change this picture significantly. If water could be shipped across the country like oil, coal, or manufactured goods, there would be no problems of water shortage. But distances are so long and the amounts of water used so huge, that it would be prohibitively expensive to solve these regional problems by transfers of water from surplus to deficit areas. Nor is there scope for sufficiently large relocation of water users—people and industries—to regions where water is plentiful. An inexpensive method of taking the salt out of seawater could solve the problem, but such technology is not now available. Similarly, artificial control of rain is not advanced enough to be used to any significant extent. While little is known about the extent of groundwater reserves, most experts do not consider the mining of such reserves an adequate alternative.

On the other hand, there is wide scope for reducing use through rationing and the adoption of water-conserving technology. Even today, most water is used virtually free of cost or is distributed on a fee basis that provides no incentives for conservation; and free use of water bodies as waste dumping grounds is more the rule than the exception. If the cost of utilizing water for these purposes were raised to more appropriate levels, factories and power plants would install techniques of production that save water instead of wasting it; farmers would modify their irrigation practices or otherwise adjust by changing location or shifting to crops using less water; and households would eventually adjust by reducing lawns and shrubbery.

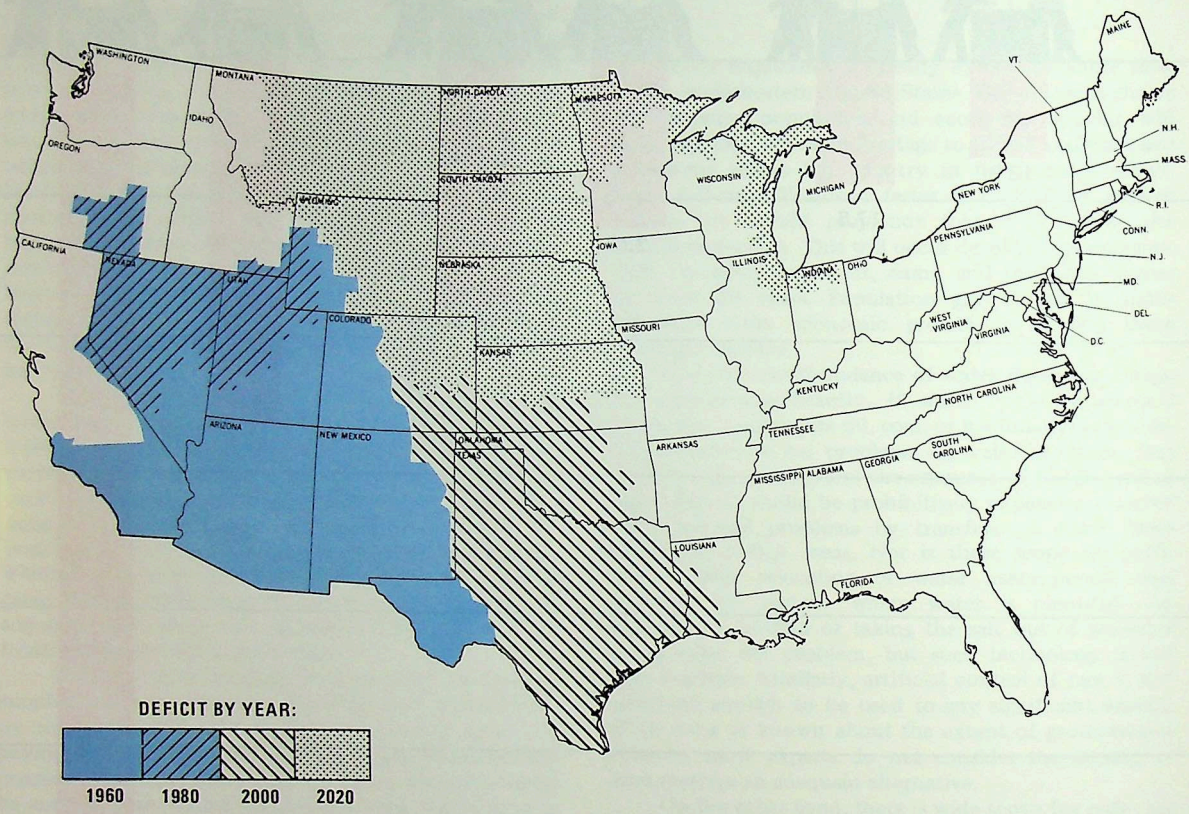
Figure 5.1 Regional Water Deficits: Billions of Gallons Per Day

Despite an abundance of water nationally, rapid population growth will cause the extent and severity of regional water deficits to spread more rapidly than they would with slower population growth. This is the case even assuming maximum development of water storage facilities and tertiary treatment of waste water.
Chart shows projected effects of growth at 2-child and 3-child rates.

Estimates assume rapid economic growth.

Source: Derived from Ronald G. Ridker, "Future Water Needs and Supplies, with a Note on Land Use" (prepared for the Commission, 1972).

Figure 5.2 Water Deficit Regions: 3-Child Family



:stimates assume rapid economic growth, maximum development of vater storage facilities, and tertiary treatment.

Alaska and Hawaii not shown: Commission's data did not include hese states.

Source: Ronald G. Ridker, "Future Water Needs and Supplies, with a Note on Land Use" (prepared for the Commission, 1972).

Sooner or later we will have to deal with water as a scarce resource. The sooner this is done, the fewer water crises will emerge in the years ahead. However, doing this will not be easy technically or politically—most water supplies are run by local governments. And few will like the austerity created by the need to conserve on something as fundamental as water. The rate of national population growth will largely determine how rapidly we must accomplish these changes.

Outdoor Recreation

On a recent holiday weekend, Yosemite National Park had a population of 50,000 people, according to a Park source. Since then, the number of campsites has been reduced and traffic has been restricted in order to reduce noise and pollution. Still, visitors are put on notice that the water in the river is undrinkable. Yellowstone, too, has far more applications than can be accommodated in the available campsites. Even so, population densities in the non-wilderness areas of the Park sometimes exceed densities in the suburbs of Dallas.

More and more Americans have the time, the money, and the inclination to enjoy the outdoors. Production of truck campers and camping trailers shot up from 62 thousand in 1961 to over one-half million in 1971. With better roads and easier travel, national parks have in effect become city parks for the residents of nearby metropolitan areas. In the past 10 years, visitors to all national park facilities more than doubled, while the area of the parks increased by only one-fifth. There are many areas to enjoy and more to be developed, but the enjoyment will depend largely on how fast the population grows.

By the year 2000, incomes will nearly double and hours of leisure will rise. More and more people will be inclined to get away and will be able to do so. However, our research on some 24 outdoor recreation activities and the facilities for these activities indicates that population growing at the 3-child rate will exert great pressure on outdoor recreation resources—so great that, rather than "getting away" to the outdoors, people will be applying for admission to it.

In the face of rising congestion, many people will substitute organized sports, sightseeing, foreign travel, and artistic and cultural activities, if they so desire. Rising incomes and the increase in man-made facilities will make these alternatives possible. For many, these will be adequate alternatives, but for others they will not.

The prospects for recreation with the 2-child projection are much different for two reasons. First, the population will not be as large as that resulting from the 3-child rate. More important, the percentage of people in the young ages that make especially heavy use of outdoor recreation facilities will be smaller. As a consequence, we estimate that, in the year 2000, the demand for recreational facilities could be as much as 30 percent less under the 2-child than under the 3-child rate of growth.

Either way, recreation will differ from what it is now. The style of life may change with the lower rate of growth as well, shifting from more active to more sedentary pursuits. But in this case it would be voluntary, determined by the individual needs and preferences of an older population, not imposed by the desire to avoid overcrowding.

Agricultural Land and Food Prices

At a time when the federal government pays farmers to hold land out of production, it seems absurd to be looking forward to a scarcity of good agricultural land and rising food prices. Yet these are the prospects indicated by our analysis of what rapid United States population growth implies.

This picture emerges when we combine the requirements for feeding a rapidly growing population with a sound environmental policy which restricts the use of pesticides and chemical fertilizers. There are a number of reasons for believing that the nation will wish to limit application of these chemicals. But to do so will retard improvements in per acre productivity. This means that, to produce a given quantity of food, more acres must be brought into production. It is likely that, with such restrictions, all the high quality land will have been returned to production by the year 2000. Consequently, the task of feeding the more rapidly growing population would force us to bring an additional 50 million acres of relatively low-quality land into production.

This is an expensive undertaking requiring heavy investment in equipment, fertilizer, and manpower, for which farmers must be compensated. The result is that 50 years from now the population resulting from the 3-child average could find itself having to pay farm food prices some 40 to 50 percent higher than they would be otherwise. The needs of the population at the lower growth rate could be met with practically no price increase.

The larger population could avoid the price rise by shifting away from consumption of animal livestock

towards vegetables and synthetic meats. Perhaps it would shift to a closed system of agriculture—food from factories. One way or another, a solution can be found. The problem for a growing population is to survey the possible solutions and select the ones it dislikes least.

Pollution

As the gross national product goes up, so does the production of pollutants. An irony of economic measurement is that the value of goods and services represented by GNP includes the cost of producing the pollutants as well as expenditures for cleaning up afterward. We may fill our tank with gasoline, but due to engine inefficiency, some portion of that ends up in the atmosphere as air pollution. Such pollutants are not free—we had to pay good money to put them in the air. Yet the cost of putting them there is included in our principal measure of national economic well-being.

If we clean up the pollutants, the cost of the cleanup effort is also added to GNP. But many of the costs, such as poorer health and deteriorated surroundings, are never counted at all. It is an indictment of our ignorance and indifference toward what we do to the environment, that in our national economic accounts we count so few of the "bads," and that even when we do count them, we count them as "goods."

To understand the contribution of population to pollution, we have to distinguish two broad classes of pollutants. The first class includes the major products of combustion—carbon monoxide, carbon dioxide, oxides of nitrogen, oxides of sulfur, hydrocarbons, and particulates—and several measures of water pollution, including biochemical demand for oxygen and suspended and dissolved solids. The pollutants in this group, once produced, endure in the environment for a relatively short time—short enough so that long-term accumulations are not a problem. This group contains the more massive and commonly discussed pollutants, and enough information exists about them so that we can link them to economic activity and population.

The second class of pollutants includes those which endure longer—radiation and pesticides, plus a wide variety of ever-changing chemicals emitted by our high technology industries. Most such chemicals are emitted in small, often highly poisonous amounts. For many of these pollutants, future developments depend more heavily on changes in technology than on changes in population and economic growth. In any case, they are very difficult to link to population and economic growth in a simple and quantitative fashion. For this reason, the results we present here are for the first class of pollutants, although this does not minimize the environmental damage done by the others.

In the next 30 years, most of these pollutants can be eliminated by enforcing treatment standards for pollution emissions. Slower population and economic growth would help; but over this period, by far the biggest reduction in pollution can be achieved by a head-on attack. This is illustrated in Figure 5.3 for hydrocarbons—a major component of auto exhaust and other combustion. In this example, the treatment standard is the Environmental Protection Agency's 1975 standard for emissions into the air. Even if this standard were not met on schedule, it certainly will be met by the year 2000; indeed, by that time, we are likely to have much tighter standards.

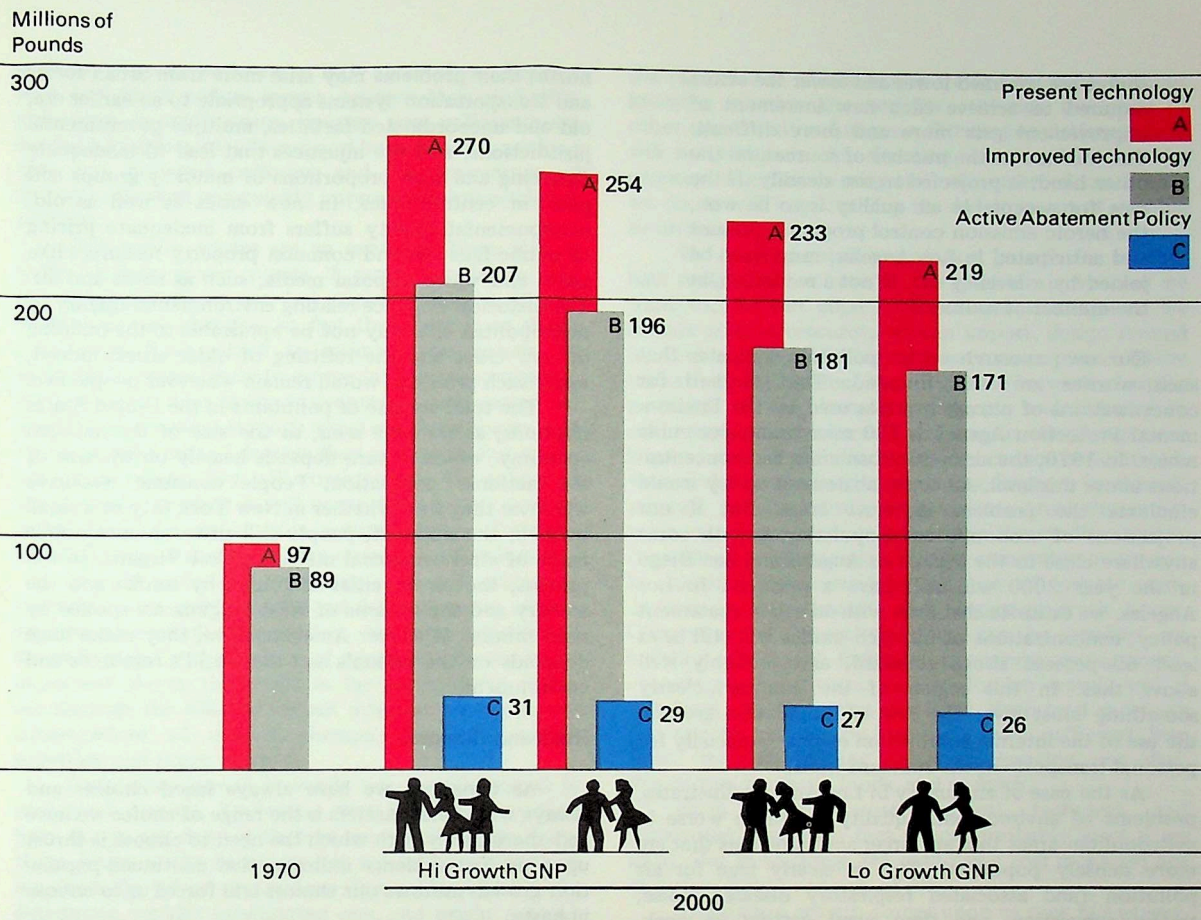
The relationships shown in Figure 5.3 hold generally for the other pollutants we examined. The reason for the spectacular results from enforcing standards is that we have imposed so little control in the past. The results do not assume any big new technological breakthroughs. It is just that we have only now begun to fight. Many of the required changes could be implemented today. Soap could be used instead of detergent; natural-colored paper could replace heavily bleached paper in many uses; returnable bottles could be used; the horsepower of auto engines could be reduced. It is not difficult to find answers when one begins to look.

Whatever we assume about future treatment policy, pollution emissions in the year 2000 would be less with the 2-child than with the 3-child rate of population growth—from five to 12 percent less, depending on the pollutant. If population were one percent less than projected in the year 2000, pollution emissions would be 0.3 to 0.6 percent less. If GNP per capita were one percent less than projected, emissions would be 0.2 to 0.9 percent less.

Once we achieve control over the emissions from each source, pollution will once again rise in response to economic and population growth. We can already see this process at work in rapidly growing parts of the country. At our Los Angeles public hearing, meteorologist James D. Edinger described the successful efforts in Los Angeles to control air pollution from stationary sources—power plants, heavy industry, home heating—and the beginnings of the program to control pollution from motor vehicles. But, he said, in recent years:

> . . . a close race has been run between increasing numbers of sources and decreasing emissions per source. But as emission levels per

Figure 5.3 Hydrocarbon Emissions



The generation and emission of hydrocarbon pollutants is shown under different assumptions about future population growth, economic growth, changes in technology, and pollution abatement policy.

The bars labeled A, shown for background purposes only, indicate the levels of hydrocarbon wastes that would be generated under present technology: These waste levels would be generated if there were no changes in technology between the 1967-1970 base period and the year 2000.

The bars labeled B show actual emissions of hydrocarbon pollutants in 1970 and expected emissions in the year 2000, assuming no change in pollution abatement policy. The difference between A and B shows the extent to which the introduction of more efficient, less wasteful technology between now and the year 2000 is expected to reduce the generation and emission of pollutants below the levels generated if technology remained unchanged. Such changes in technology are likely to come anyway; they do not depend on public pressure to reduce harmful residuals.

The B bars show that, even with improved technology, pollution levels would be much higher in the year 2000 than they are now. These levels would, however, be somewhat lower if population grew at the 2-child rate rather than the 3-child rate, and if the economy grew at a slower rate rather than a more rapid rate (lo-growth GNP vs. hi-growth GNP).

The bars labeled C show hydrocarbon emissions in the year 2000 assuming an active pollution-abatement policy. The assumed policy is the Environmental Protection Agency's 1975 standard for emissions into the air. The changes in production and waste treatment processes induced by this policy would have a greater effect than would any of the other changes shown—in technology, population growth, or economic growth.

Source: Ronald G. Ridker, "The Economy, Resource Requirements, and Pollution Levels" (prepared for the Commission, 1972).

> source are trimmed lower and lower the effort required to achieve each new increment of improvement gets more and more difficult. The increase in the number of sources, on the other hand, is projected to rise steadily. If the race for acceptable air quality is to be won, the heroic emission control programs, present and anticipated in Los Angeles, must soon be joined by a leveling off, if not a reduction, in the number of sources.[2]

Our own research on air pollution indicates that such worries are well founded. The standard for concentrations of nitrogen oxides used by the Environmental Protection Agency is 100 micrograms per cubic meter. In 1970, the air in 36 urban areas had concentrations above this level. An active abatement policy would eliminate the problem in most areas. But if our projections of economic and population growth come anywhere close to the truth, Los Angeles and San Diego in the year 2000 will still have a problem. In Los Angeles, we estimate that even with an active abatement policy, concentrations of nitrogen oxides will still be at least 50 percent above standard, and probably well above that. In this region of the country, clearly something must give: the rate of population growth, the use of the internal combustion engine—especially for personal transport—or the standard itself.

As the case of air quality in Los Angeles illustrates, problems of environmental quality are often worse in metropolitan areas that are larger and in regions that are more densely populated. This is clearly true for air pollution (and associated respiratory disease), noise, traffic congestion, and time spent getting to work. Other factors are less clear. Our research shows that sewage and water treatment costs per person decline as city size increases to about 100,000; above that, engineering data suggest that costs should be the same for conventional facilities, but the actual observed costs appear to rise. If large cities have to change their sewage facilities, costs per person will be much higher. Similarly, solid waste disposal costs either follow a U-shaped curve or increase with city size and density. There is also evidence that large cities change local climate—wind, cloudiness, temperature, and precipitation; we really do not know whether or not such changes are bad. The inner city has all these environmental problems but to a heightened degree.

Yet the underlying cause of poor environmental quality in the larger urban centers may often not be size. Most of our largest centers are the old cities of the north; their problems may arise more from urban forms and transportation systems appropriate to an earlier era, old and uncoordinated facilities, multiple governmental jurisdictions, and the injustices that lead to inadequate financing and high proportions of minority groups and poor in central cities. In new cities as well as old, environmental quality suffers from inadequate pricing of public facilities and common property resources like space and waste disposal media, such as rivers and air. The historical evidence relating environmental quality to metropolitan size may not be applicable to the building of new cities and the refitting of older cities; indeed, many such problems would remain wherever people live.

The total volume of pollutants in the United States responds, as we have seen, to the size of the national economy, which in turn depends heavily on the size of the national population. People consume resources wherever they live. Whether in New York City or a small town in the midwest, people still drive an automobile made of steel using coal mined in West Virginia. In the process, the air in cities is fouled by smoke and the scenery and the streams of West Virginia are spoiled by strip mining. Wherever Americans live, they make huge demands on the nation's and the world's resources and environment.

Risks and Choices

As a nation, we have always faced choices and always will. What matters is the range of choice we have and the urgency with which the need to choose is thrust upon us. The evidence indicates that continued population growth narrows our choices and forces us to choose in haste.

From the standpoint of resources and the environment, the United States can cope with rapid population growth for the next 30 to 50 years. But doing so will become an increasingly unpleasant and risky business—unpleasant because "coping" with growth means adopting solutions we don't like; risky because it means adopting solutions before we understand them. Within the United States, the risks are ecological and social. And, there are risks which involve our relationship with the rest of the world.

We in this country are tampering with the ecosystem in many ways, the consequences of which we do not begin to understand. The crude methods used to estimate the effect of emissions on air quality and the damages and costs of urban pollution illustrate our ignorance all too well. Worse yet is our understanding of the second class of pollutants, bypassed in our analysis

precisely because we know so little about them. Because such pollutants endure longer, because they are highly poisonous in small doses, because new pollutants are continually being introduced, and because there are long time lags between emissions and the appearance of damages, we shall not quickly improve our knowledge in this area.

Radioactive wastes are an example. There will be more nuclear power plants if rapid population and economic growth occurs, but nuclear management and technology are changing so fast that there is no stable benchmark from which to estimate the amount of radioactive wastes likely to escape into the environment. We know that, once in the environment, such wastes can travel long distances through space and food chains, and we know the kinds of damage they can cause. But we do not know where they will come to rest, the extent of the damage, or when it will occur. Clearly, we need to know far more about how natural systems function when forced to absorb greater quantities of pollutants.

Beyond pollution, there are profound ecological impacts:[3] the simplification and destabilization of ecosystems associated with modern one-crop agriculture; the reduction in the variety of gene pools in our most important plants; the threat to the productivity of the sea through the filling-in of salt marshes; the unknown consequences of climate changes caused by man's activities; and many more.

Population growth is clearly not the sole culprit in ecological damage. To believe that it is, is to confuse how things are done with how many people are doing them. Much of the damage we do results from efforts to satisfy fairly trivial preferences—for unblemished fruit, detergents, rapidly accelerating cars, and bright colored paper products. We can and should cut back on frivolous and extravagant consumption that pollutes. The way things are done can, to a significant degree, be changed regardless of how many people are doing them. But the overall effect is a product of numbers times styles of life taken together. One multiplies the other to produce the total impact.

The real risk lies in the fact that increasing numbers press us to adopt new technologies before we know what we are doing. The more of us there are the greater is the temptation to introduce solutions before their side effects are known. It might be far better environmentally to postpone the introduction of nuclear power plants until the inherently cleaner fusion reactors are developed. When one pesticide or food additive is found to be dangerous to man, it is replaced with another about which we know less. We undertake the expenditure of billions on water treatment, without knowing whether the benefits outweigh the costs of other opportunities foregone. Slower population growth will not eliminate this situation, but it will reduce the urgency, the "crash program" character of much that we do. It will buy time for the development of sensible solutions.

We can cope with population growth for another half century if we have to; the question is whether we want to. We can cope with resource shortages—if we cannot mine a resource, we can import, design around it, find a substitute, or reduce consumption. Where water deficits threaten, we can choose between charging more for its use, transferring people and industry to other parts of the country, and constructing longer and larger canals. If pollution emissions cannot be tolerated, we can change production processes, improve treatment, separate polluters from their victims, treat the symptoms, or simply produce less of the commodity causing the pollution. Congestion during commuter hours can be handled by restricting the use of private cars, developing mass transit, and staggering work hours. Congestion at recreation sites can be handled by building additional facilities, improving management, encouraging substitutes such as foreign travel, and if necessary, by staggering vacations. Even land shortages for agriculture can be handled, given sufficient lead time, through farming the sea, changing our diet, developing synthetic foods, and so forth.

Such changes pose physical, technical, and managerial challenges that we can probably meet if we must. But in so doing, we shall pay a cost reckoned not in dollars but in our way of life.

Population growth forces upon us slow but irreversible changes in life style. Imbedded in our traditions as to what constitutes the American way of life is freedom from public regulation—virtually free use of water; access to uncongested, unregulated roadways; freedom to do as we please with what we own; freedom from permits, licenses, fees, red tape, and bureaucrats; and freedom to fish, swim, and camp where and when we will. Clearly, we do not live this way now. Maybe we never did. But everything is relative. The population of 2020 may look back with envy on what, from their vantage point, appears to be our relatively unfettered way of life.

Conservation of water resources, restrictions on pollution emissions, limitations on fertilizer and pesticides, preservation of wilderness areas, and protection of animal life threatened by man—all require public regulation. Rules must be set and enforced, complaints

heard and adjudicated. Granted, the more we can find means of relying on the price system, the easier will be the bureaucratic task. Indeed, we ought to be experimenting right now with ways of making price incentives induce appropriate use of the environment and resources. At present, most monetary incentives work the wrong way, inducing waste and pollution rather than the opposite.

But even if effluent charges and user fees became universal, they will have to be set administratively; emissions and use will have to be metered, and fees collected. It appears inevitable that a larger portion of our lives will be devoted to filling out forms, arguing with the computer or its representatives, appealing decisions, waiting for our case to be handled, finding ways to evade or to move ahead in line. In many small ways, everyday life will become more contrived.

Many such changes will have to occur no matter which population projection occurs. But the difference, small at first, would grow with time until, a half century from now, the two societies may appear qualitatively different.

Another price we pay for having to cope with continued population growth is the pressure to keep on postponing the solution of social problems. While growth continues, top priority will be given to finding the necessary resources, controlling pollutants, correcting the damages they have done, and building ever larger water canals, highways, and mass transit systems. A large and perhaps growing fraction of our physical and intellectual capital is directly or indirectly devoted to these tasks—to finding ways to cope with the problems that continued growth generates. From past experience, we can predict with a fair degree of confidence that such priorities will continue to subordinate efforts devoted to resolving fundamental social problems. When something must give because the system is becoming overloaded, it is unlikely to be the building of another dam.

The point is that continued population growth limits our options. In the case of the larger population, with less land per person and more people to accommodate, there are fewer alternatives, less room for diversity, less room for error. To cope with continued growth, technology *must* advance; lifestyles *must* change. Slower population growth offers us the difference between choice and necessity, between prudence and living dangerously.

The United States and the World

The research done for the Commission showed that the United States will greatly enlarge its demands on world resources, especially minerals and petroleum, over the decades ahead. We will be requiring substantially larger imports of many minerals, such as chromium, vanadium, cobalt, and nickel, for which domestic supplies are not available or are available only at substantially higher costs.

The demand of other countries for minerals, petroleum, and other resources will certainly also rise sharply over the coming decades. This will result from rapid increases in output per person in other industrialized countries and from the rapid modernization of agriculture and industry in developing countries. The rates of increase in production in other parts of the world are likely to be higher than those of the United States. Their rates of increase in demand for mineral supplies are likely to rise even more sharply, because they are at an earlier stage of the industrialization process and because the composition of their GNP includes proportionately more goods and fewer services than does that of the United States.

Taking into account the huge increases in population which are in prospect, it seems clear that demands for natural resources in other parts of the world will rise more rapidly than demands in the United States; thus, the share of the United States in the use of world resources will steadily decline. For example, projections made for the Commission indicate that over the next 50 years the share of the United States in the world's use of aluminum may decline from 37 percent in 1968 to as low as nine percent by the year 2020. In the same time period, the share of the United States of total world copper requirements may drop from 22 percent to five percent.

While all such figures necessarily reflect uncertain assumptions about production, income, and technology, nevertheless they indicate the extremely important extent to which the United States is inextricably involved in the development and use of resources on a worldwide scale.

Our research also demonstrates that environmental issues will have to be faced increasingly on an international basis over the years ahead. There are already conspicuous cases of environmental damage and risk which cannot be solved on a national basis. The continuing problem of petroleum pollution in the oceans is such a case. Neither the oceans nor the atmosphere can be successfully dealt with if one looks only at the territory within a nation's boundary. And many additional issues of international ecological significance will be increasingly important—such as the

effects of enormous increases in world use of pesticides and chemical fertilizers, the environmental impact of multi-national corporations, and many more.

The Commission has been deeply impressed by the unprecedented size and significance of the looming problems of resources and environment on a world scale. We see the need for much greater efforts than are underway now to analyze and understand these problems, and to develop international policies and programs to deal with them. We foresee potentially grave issues of clashing interests among nations and world regions, which could have very serious effects on the United States.

Therefore, we believe strongly that, in its own interest, the United States should work positively and constructively with other countries and international organizations in analyzing and solving problems related to natural resources and the environment in the world. We have made no special study of the detailed policies and programs which the United States should pursue for these purposes. We do now emphatically urge, however, that the nation join vigorously and cooperatively in solving problems of international trade, assistance to less-developed countries, and other pressing issues which will affect so sharply not only the future well-being of others in the world but the direct prospects for a sensible and respectable future for ourselves. We should not approach such problems in a spirit of charity or largesse. Our own future depends heavily on the evolution of a sensible international economic order, capable of dealing with natural resources and environmental conditions on a world scale.

Long-Term Strategic Planning

Our consideration of the problems and prospects involved in this country's long-term future convinces us that an important dimension of policy formation is being overlooked. This dimension involves the identification, study, and initiation of actions with respect to future problems that may require lead times of decades rather than years to resolve. There is a need for continuous monitoring and evaluation of the long-term implications of demographic changes, of future resource demands and supplies, of possible pollution overload situations, and of the underlying trends in technology and patterns of social behavior that influence these factors.

Once future problems are identified, there is a need to undertake the necessary research and development and to formulate the policies to resolve them. We need to study our social, political, and economic institutions with a view towards recommending modifications that will reduce the discrepancy between the private and the public interest. Practical procedures for utilizing the effluent charge approach to environmental quality management and for initiating a rational system of land-use planning are important cases in point. We need to develop technologies that conserve particularly scarce physical and environmental resources. While appropriate effluent charges will encourage private business to move in this direction, government sponsorship of "yardstick" research on industrial technologies is necessary, particularly when our concern is with the problems farther in the future than private business can afford to look.

While parts of these tasks are being performed by isolated agencies, coordination and analytical assessment on a broad level are lacking. Private business firms and most government agencies are of necessity too present-oriented or mission-oriented to serve these functions adequately; nor can they be left to *ad hoc* commissions such as this one. On the other hand, we do feel that some group should be assigned central responsibility for such functions. Such a body would serve as a "lobby for the future" to identify potential population, resource, and environmental problems well in advance of their occurrence; to establish priorities and sponsor technical and social research directed towards their resolution; and where necessary to formulate and recommend policies to that end.

Chapter 6: Government

Can government adapt to the new realities and fragility of our existence as the pace of our lives accelerates, the world grows more crowded, technology multiplies life's complexities, and the environment is increasingly threatened?* Whether the economy thrives and environmental crises are avoided depend very much on government playing an active role—preparing for population change in advance of crises, and establishing and implementing appropriate policies. In fact, most of the recommendations we shall present imply government action.

We have examined the effect of different rates of population growth on the demand for key governmental services in the years ahead. The results of this research are presented below.

Beyond the question of costs, any concern with the effects of population on government requires us to raise broad questions of the relations between government and the size, characteristics, and distribution of the population it serves. These questions range from the essential characteristics of democratic government—citizen participation and representation, justice, and national security—to the adequacy and efficiency of ordinary, taken-for-granted service functions of government at all levels.

Government represents not only a universally and vitally important segment of our national life that is affected by population change; it also constitutes the channel through which a national concern with population must act to affect the causes and cope with the consequences of population growth and change. Can local, state, and federal governments cope adequately with the problems associated with population change through their traditional structure, means of financing, and allocation of responsibilities and jurisdictions? The fundamental questions we have raised transcend political party distinctions; they are concerned directly with people, how they live, and how they are governed.

Our examination of these questions gives us no cause for complacency or satisfaction. We are troubled by our assessment of the readiness and capability of government to deal with problems associated with population growth and change, as well as by the impacts of growth and change on our basic governmental institutions. The choices that face us are not easy ones, nor do we view population stabilization as any final solution to the problems raised.

**A separate statement by Commissioner James S. Rummonds* *appears on page 168.*

Public Service Costs

Regardless of how our population grows in the coming decades, we are going to spend more on public services, simply because of rising demands for new types of services and improved quality of existing services. Even if population were to remain at its current level, we would have to spend more just to satisfy present demands for better housing, education, transportation, health services, environmental improvements, and the elimination of hunger and poverty. Conversely, even if no new services or improvements in quality were demanded, costs would rise because, even at the slow growth rate, we will have a larger population requiring public services.

Different population growth rates will lead to different levels of demand for government services. The Commission has examined in detail three sectors in which government activities play a significant role—education, health, and welfare. Our studies were based on a comparison of the differences in expenditures required by different levels of demand resulting from population growth under the 2- and 3-child averages between now and the year 2000.[1]

Our projections of government expenditures for education in the year 2000 assume that a larger percentage of people will be enrolled, and allow for improvements in the quality of education. These quality improvements include more variety in teaching methods and greater use of paraprofessionals, technical equipment, and materials. In 1970, about 7.5 percent of GNP—some $74 billion—was spent on education. Our projections suggest that, in the year 2000, the faster-growing population would spend 13 percent of its GNP, or $400 billion, on education, compared to an expenditure level of 9.7 percent of GNP, or $276 billion, with slower population growth.

Another way of expressing the impact of the 2- versus the 3-child projections is in terms of the tradeoffs between the quality of education and the number of people to be educated. Assume that we will spend 10 percent of our GNP on education in the year 2000. What type of education would this buy under the two population projections? With the larger population, this expenditure would provide seven percent of the students with our assumed higher quality education, and 93 percent would receive education comparable to quality today. With the same proportion of the GNP spent on education under the 2-child projection, all students could receive a higher quality education.

While the effect of population on educational

services is large, this is not the case for expenditures in the health and welfare fields. In the health field, we looked at the demand for physician visits, dental visits, and hospital beds. We found that, for a given quality of health care, the more rapidly growing population would spend $20 billion more over the next three decades than would the slower growing population. This averages out to a difference in annual expenditure of less than $1 billion.

We examined the demand for welfare services using both today's definition of poverty and a definition that would increase at the same rate as per capita income. The evidence suggests that annual welfare expenditures, using either definition of poverty, would probably be slightly smaller under the 2-child population projection than under the 3-child projection; the difference would be no more than $2 billion and probably less. Relative to GNP in the year 2000, this amount would be insignificant.

Despite higher average incomes, a slower rate of population growth will not eliminate poverty. As we have pointed out, if poverty is to be eliminated by the year 2000, economic growth must be accompanied by policies that redistribute income.

There are additional sectors of the economy, such as housing, transportation, and energy production, in which government is involved heavily. While the Commission studied in detail only the government involvement in education, health, and welfare, a general conclusion that can be drawn is that the country will have to spend more in absolute terms to provide public services for a population growing at the 3-child rate than at the 2-child rate. Also, slower growth would produce a higher income per capita. Under our present tax systems, this would mean that per capita government revenues would be greater.

However, these benefits of slower growth will not automatically guarantee a higher quality of life. This will be achieved only if we deliberately choose to take advantage of the opportunities that slower growth presents. The wise use of these opportunities depends on public and private decisions yet to be made.

State and Local Resources and Requirements

As we have seen, with slower national population growth, the provision of public services would be less of a burden on the nation. What would that mean for the state and local levels of government? The day-to-day services of state and local governments—in such fields as education, welfare, health services, police and fire protection, highways, transportation facilities, sanitation, and waste disposal—are intimately tied to the number of persons they serve and to the demographic characteristics of that population. Changes in population can have a substantial impact on requirements for public services as well as on the availability of resources to meet them.

Even if national population stabilized, there would still be changes in population size and composition in states and localities as a result of variations in natural increase and migration within the United States and from abroad.

Because the more affluent states attract migrants, characteristically in the economically productive age groups, the strains on state government from growth through migration can be accommodated relatively easily. Natural increase, however, creates demands for services without providing the necessary economic resources for meeting them. In addition, some of the highest rates of natural increase are found in the poorest states. Thus, differences in the *way* in which state populations grow—whether primarily by migration or primarily by natural increase—may be as important as growth itself in affecting a state's ability to meet increased demands for public services. Federal policies which would have the effect of lowering the birthrate and national programs which would assume a larger share of financial support for public welfare, education, and health could help reduce some of the inequities among states.[2]

Among local jurisdictions, population change shows even wider variety than among states. Some rural communities, exhibiting a high rate of natural increase and a net population loss because of high outmigration, have heavy public burdens due to relatively large numbers of children and the elderly to serve. While metropolitan suburbs draw generally more affluent residents, the central cities attract poor rural migrants and recent foreign arrivals.[3] The unequal effect on demand for local government services is illustrated in Louisville, Kentucky, where the central city encompasses less than half the population of the metropolitan area, but has more than 90 percent of the area's public assistance recipients.

While local governments adjust their expenditure and employment levels to population changes, it is not easy. They struggle to eliminate the time lags between population change and the recognition of that change by appropriate agencies, the perception of its meaning for service demands, and the provision of services. We have also found that public demand for improvement

in the scope, intensity, and quality of government services has caused sharp nationwide expansions in the level of activity of local government, at a rate far exceeding the growth in national population.[4]

These matters are cause for concern, and we are by no means satisfied that the attempts of local government to adjust service levels to population changes and respond to public demand are adequate to meet the needs of the future. The findings of the Commission's national public opinion survey add to this concern. Only 10 percent of the general public rated the performance of local government "excellent," 43 percent thought its performance "good," 31 percent "fair," and 12 percent "poor." Nor are we satisfied that present services and the taxes supporting them are sufficient and equitably distributed.[5]

There are sharp disparities among communities' resources and revenue-raising efforts. These stem largely from the combination of an excessive reliance on the property tax and a fragmented structure of governments in metropolitan areas. The restriction of local government jurisdictions to political boundaries that cut across settlement patterns leaves many local units with more than their fair share of service demands and others with a free ticket to avoid some of local governments' most difficult tasks.[6]

The imbalance between resources and demands for services is especially acute in the contrast between suburban communities and the central cities of our large metropolitan areas. Because of the lower incomes of central city residents, their lower tax capacity, and greater demand for higher cost services, a greater tax effort is required of central city residents who, at the same time, often receive a poorer quality of service than their more affluent suburban neighbors. Older, built-up suburbs close to the central city and receiving its overflow of high cost residents are also at a disadvantage with a very limited tax capacity.

We are not satisfied that levels of basic public services should be dependent on the resources yielded by the local property tax—high in rich communities, low in needy communities—and feel that greater flexibility and imagination are needed to find other revenue sources.

In addition to the mismatch between resources and need, the ability of local governments to continue to cope is clearly threatened. Taxpayer revolts, the drive for federal revenue sharing, the fiscal anguish of cities—all testify to the precariousness of the process of providing public services at a satisfactory level of quantity and quality.

It is not enough to consider only whether local governments can adjust service levels to future population changes. Ways must be found for local governments to narrow the gap between their needs and their resources and for the tax burden to rest more heavily on those best able to pay. A geographical broadening of the local tax base, at least within metropolitan areas, could both encompass the effects of population change and help narrow the fiscal disparities, if revenues were raised on the basis of fiscal capacity and distributed on the basis of expenditure needs. The responsibility of state and federal governments to help bear part of the burden needs to be expanded.

Democratic Representation and Participation

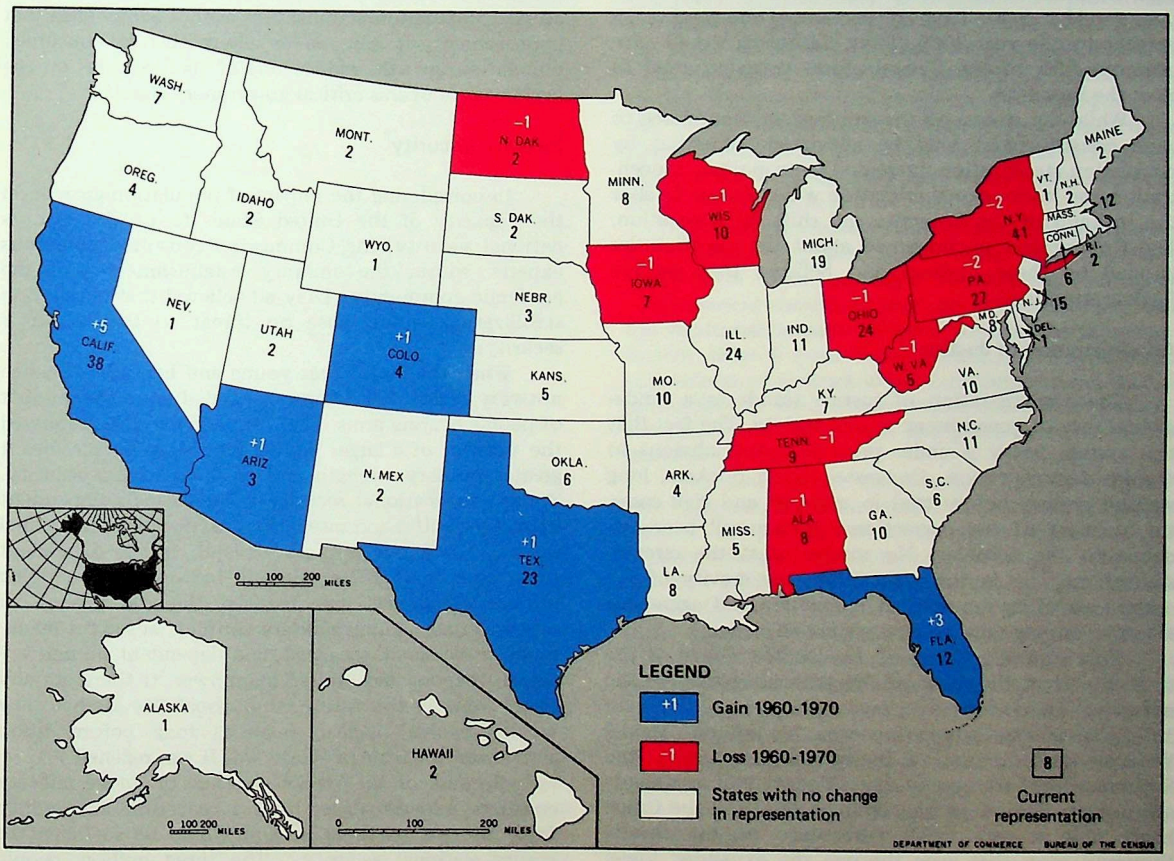
Our political institutions were designed originally to govern a much smaller society, organized and oriented differently from what we have today. These institutions have changed as the society has changed. They have demonstrated remarkable flexibility and adaptability, but they also have shown some serious inadequacies. Are they capable of accommodating still more population growth in the future?

The answer to this question depends in part on maintaining and improving citizen participation and representation.[7] Political activity and interest among urban people is as high as, if not higher than, that of rural people, according to the Commission's public opinion survey and other evidence. Still, the development of metropolitan political forms to deal with population change must include efforts to increase citizen representation and participation and the responsiveness of a larger bureaucracy.

Representation at the national level is diluted by population growth. The constituency of an individual congressman has grown enormously since the size of the House of Representatives was fixed at 435 members in 1910. Then, each congressman represented 211,000 citizens, on the average. In 1970, a congressional constituency averaged 470,000 citizens. By the year 2000, each congressman in a 435-seat House will represent 623,000 persons under the 2-child growth rate, or 741,000 persons in the 3-child case.

The size of the constituency is clearly not the sole factor determining excellence in government. Perhaps it may not even be very important, compared with the quality of the representatives, the size and professionalism of their staffs, the size of the governing body itself, and other factors. But, it cannot be denied that

Figure 6.1 Changes in Congressional Representation by States: 1960 to 1970



Source: *U.S. Bureau of the Census*, Census of Population and Housing: *1970, United States Summary.*

the individual constituent's voice will be diminished under such circumstances. And, no increase of Congress's ability to communicate with constituents by mass media can disguise or make up for that diminution.

Population growth at the national level is just one demographic element to be considered in the adaptation of our political system to the needs of the 21st century. Population redistribution, as well as population growth, will affect the congressional profile. Representation will follow the people to metropolitan areas, away from the rural areas—to growing states like California and other coastal regions, away from the midcontinent. For example, if California continues to grow as it has in the past, its share of the seats in the House of Representatives would increase from 10 percent of the total to 14 percent by the year 2000. Thus, California would have over one-fifth of the 270 electoral votes required to elect the President.

While the strains on the political system related to large constituencies may be alleviated somewhat by population stabilization, increased metropolitan concentration and interregional migration will continue to alter the makeup of the Congress and shift its orientation. The Commission is concerned about the uncertainties implied by these findings and believes they deserve further attention.

Administration of Justice

The administration of justice stands as a fundamental role of government in our society. The fact that this system today is under pressure is too obvious to require demonstration. Congested court dockets, long waiting periods before trial in criminal and civil cases, the torment of the correctional system—all bear evidence to the troubles. No matter what the circumstances may be in the year 2000, the gravity of the current situation requires an immediate and aggressive effort to improve the present system of justice.

The Supreme Court of the United States is the final arbiter at the apex of the judicial system. In the nature of things, we can have only one of these. In 1824, when our population was 11 million, Daniel Webster could argue an important case before the Supreme Court for several days. Today, oral arguments are usually limited to one hour or less, and the Court hears only a very small percentage of the several thousand cases that arise through the expanded lower court system and the increasingly popular appeals procedures. The same type of pressure extends to the single supreme court in many states.

Population growth is one of many contributing factors to the pressures on our system of justice. The evolution of metropolitan communities and the accompanying modern life styles are also related.[8] In urban areas, there is an increase in litigation and other legal actions, perhaps due to increasing numbers of impersonal contacts and frustrations. However, court congestion and legal delays reflect not only population change, but also, and perhaps more importantly, broadened concepts of the kinds of injustices amenable to adjudication and extension of the concepts of due process.

Improvement of our present system for administering justice must have a high priority on the nation's agenda. Population stabilization cannot accomplish that improvement. It can, as an alternative to continued population growth, reduce one of the pressures on the performance of this critical government function.

National Security

In considering the impact of population growth on the capacity of the United States to provide for its national security, the Commission consulted numerous experts within the military establishment and the academic community. They all believed that population stabilization would pose no threat to the country's security.

When the nation was young and her independence not very secure, her defense depended upon the number of people bearing arms. Then, experience clearly showed the wisdom of a larger population. More people meant greater military strength and greater national security. Today, our national security is increasingly dependent upon the skillful and intelligent practice of international relations, and our military strength is less dependent upon men and rifles. Recent technology, including nuclear weaponry, has reduced the significance of massive armies. Minor military conflicts in the future are likely to be small, localized, and dependent on conventional weapons and limited manpower. If there are any major wars in the future, the probability is that they would involve nuclear weapons long before troop activity on the scale of World War II was reached.

Because of the expected nature of future military conflicts, experts suggest that a peacetime active duty force of two to three million would be sufficient to ensure national security.[9] The three million people required by the military would be less than six percent of the male population 18 to 45 years old, even if the country's population growth followed the 2-child pro-

jection between now and the year 2000. An even smaller percentage of the population would be required if we had a volunteer army, because there would presumably be less turnover, greater skills, and more efficiency. For comparison, we should note that, since 1955, the Armed Services' demand for the nation's manpower resources has averaged nine to 10 percent of the male population 18 to 45 years old. Clearly, the future population would be more than adequate to supply the military with manpower. Thus, we can discern no threat to the nation's security from lesser future growth of total population.

If there is a change in population that would be important to national security, it would relate to the health, education, and productivity of people, not to the size of the population. The increasingly complex technology of war, and the growing reliance of the military on machines rather than on men, mean that military manpower must be better educated and skilled than in the past. Beyond this, we must consider what proportion of people are active in the social, political, and economic life of the nation. At present, this portion of the population in the United States does not include all adults—in particular, those who are poor, discriminated against, unemployed, unproductive, and counterproductive. The conversion of this fraction into a part of the fully active population would be significant for national security.[10]

The Effects of Government Programs on Population Distribution

Policies and programs designed to influence the migration and distribution of the population are not unknown in this country.[11] The Ordinance of 1785, which opened up the Ohio territories, and the Homestead Law of 1862 were part of a national policy to settle the western frontier. The Resettlement Administration during the Depression was an attempt to slow migration trends from farm areas.

At present, the United States has no explicit overall population distribution policy, nor does it have any programs whose primary intent is to influence major migration trends. However, many public programs, such as economic development of rural and depressed areas, urban renewal of central cities, and open space acquisition, have the modification of settlement trends as a secondary intent. Such programs have had relatively greater impact within metropolitan areas than between regions. Their indifferent success in affecting broad geographic distribution has been attributed to the fact that they were neither designed, administered, nor funded to counteract effectively the strong economic forces of the private sector which induce population distribution trends.

There is a virtually endless list of programs which have unintended consequences for the territorial arrangement of the population. The federal highway program, national parks system, minimum wage laws, import quota system, housing programs, and many others, all have distributional effects which are diverse and often conflicting.

Programs that have a particularly clear impact, stimulating the growth of many areas by attracting migration, are the Defense Department's procurement and research and development programs, which account for about 10 percent of total federal expenditures. The rapid growth of Texas and southern California reveals the significance of such programs. Other programs give rise to outmigration. For example, recent agricultural policies providing incentives to restrict acreage and increase productivity, may have been partly responsible for heavy migration off the farm.

Perhaps unintended demographic consequences are unavoidable if policy goals other than population distribution have priority. Nevertheless, unintended consequences should at least be anticipated. Although the territorial impact of some government programs is known, there is much to be learned. If the demographic side effects of policies were better understood, then the desirability of their consequences could be evaluated in the policy-making process and plans made to alleviate undesirable aspects.

This society has yet to adopt policies to plan for and influence the distribution of a significant proportion of the population according to any scheme that departs substantially from current trends. Although a majority of the public thinks the government should do something about national distribution patterns, there is little active public interest in or support for the formation of a national distribution policy. And, it may be difficult to persuade elected officials in districts or states that would lose population relative to other areas, that the national interest demands a planned reduction in the population of their constituency—and a consequent reduction in the number of representatives, political influence, and federal funds tied to population size criteria.

Fragmentation of Metropolitan Government

One of the major difficulties in guiding and

accommodating population growth is the fragmentation of government in metropolitan areas. Population movements are often unaffected by political boundaries and population-related problems extend across jurisdictions.

Local general-purpose governments—counties and municipalities—were created originally to serve all the people living in their territory. Special governments, such as sanitation districts, conservation districts, and port and transit authorities, were developed to perform limited specific services for special constituencies. As metropolitan growth fills in the countryside adjoining larger cities, not only do these local governments find themselves elbow to elbow, but they also become overlaid with a patchwork quilt of special governments with independent policy-making and revenue-raising powers. Missing is the effective force seeking comprehensive solutions to comprehensive problems from a metropolitan-wide perspective. This territorial and functional fragmentation of governmental responsibility could become an even more serious problem in the year 2000.

In 1967, there were about 16,000 nonschool local governments in metropolitan areas. If recent trends continue, by the year 2000 there are likely to be over 32,000 such governmental units in metropolitan areas.[12] The proliferation of specialized districts will account for half the increase. As metropolitan problems such as air pollution, inadequate housing, crime, and insufficient sewage treatment facilities spread across more and more political boundaries, it becomes increasingly urgent that cooperative metropolitan efforts replace jurisdictional jealousies and narrowly defined self-interests. Although this need for cooperation is gradually becoming recognized, the federal government should increase its efforts to help bring about public understanding of the issue and assist local governments in making the necessary adjustments.

Government Planning

The success of government in guiding and accommodating future population change hinges on its ability to plan effectively and comprehensively.[13] This means planning for land use, environmental quality, and the necessary public services. For example, a plan for a sewer line which will encourage residential construction should also be accompanied by plans for adequate sewage treatment, financing a new school, recreational and other community facilities. These plans should be coordinated with development in the neighboring communities.

The federal government has encouraged the development of a technical planning capacity at the local level, but the structure of local government often militates against its effective use. The fragmentation of metropolitan areas into many municipalities, each with power to zone its own land, and each relying on its property tax base for general revenues, effectively prevents the organization or coordination of local zoning changes to implement a strategy for population distribution or development on a metropolitan-wide basis.

Lawrence Christmas, Assistant Director of the Northeastern Illinois Planning Commission, told us that,

> The primary forces now shaping the [metropolitan] population distribution pattern are comprised of individual decisions by hundreds of suburban governmental units, individual decisions by private developers, and individual decisions by a few large, single-purpose regional and state agencies in Washington.[14]

Tom Bradley, a councilman in Los Angeles, testified that, ". . .cities have failed miserably to plan for orderly growth . . . the cities failed because into the planning vacuum which they left by their inaction, stepped the land developer, FHA, and the highway engineer."[15]

Although the analytical techniques and creative capacities for planning are available in many metropolitan areas today, the absence of adequate mechanisms for coordinating the planning efforts of individual political units means that the resources are rarely used. When they are used, it is to deal with short-term problems imposed by current pressures of population growth.

Conclusion

In this chapter, we have argued that slowing down the rate of population growth would ease the problems facing government in the years ahead: Potential demands for many governmental services would be smaller with lower population growth rates; and potential resources to finance governmental activities would be larger as a corollary of higher per capita income.

However, it would be a serious error to read these conclusions as comforting and reassuring. Under the most optimistic assumptions, at least 50 million more people will be added to our population before the end of the century. This growth will add to the demands on governmental services and to the complexity of achiev-

ing a participatory political process responsive to contemporary conditions.

More important, these added demands and complexities will fall on governmental structures and processes already heavily burdened—many of us would say overburdened—by the problems facing the nation. In a time of headlong technological change, economic growth, and continuously rising population, the ability of Americans to deal with environmental pollution, public safety, economic opportunity, racial and ethnic discrimination, and many other urgent issues, is far from assured. Different members of this Commission would assess the present inadequacies of federal, state, and local government in the United States with varying degrees of alarm, but we all agree that fundamental improvements are urgently needed in the effectiveness, speed, and equity with which our various governments deal with vital issues. These issues must be addressed directly, regardless of population change.

Rather than finding reassurance, therefore, in the prospects that lower population growth will ease future governmental problems, we emphasize our concern because even more burdens are going to be added to governments now functioning inadequately.

Two aspects of the matter are of special concern. The first is that the great bulk of the people who will be added to our population over the next few decades will live in metropolitan areas. Coupled with continuing migration from rural to urban areas, this means that the weight of population growth will fall unevenly on governmental units. This will require the greatest response from federal, state, and local governments in dealing with metropolitan problems.

But it is precisely in this field—establishing effective and democratic governmental systems in metropolitan areas—that our existing governments have been most deficient. Archaic governmental boundaries, incongruity between the location of many problems and the location of the financial resources to deal with them, and inequities in the distribution of public services, tax burdens, and the judicial system have been cited as problems. Also the need to accommodate both civil service protection and responsiveness to neighborhood and community demands and an ability to make and execute plans on a metropolitan scale—all these and many other difficulties of metropolitan government are with us now and will be exacerbated by the population growth to come.

The second aspect of government problems of special concern to this Commission is the substantial number of persons in our country who feel that government is not responsive to what they see as the real needs of modern society. Time and again in our public hearings, we were told that groups which feel deprived and discriminated against by current government policies will be skeptical and resistant to new governmental programs such as those needed in the population field. These groups, which feel they are not allowed to participate fairly in governmental processes, will be hard to persuade that the government speaks for them in proposing policies concerning population matters.

These views—which are felt strongly by ethnic and racial minorities but are by no means limited to those groups—were pressed forcefully and persuasively before the Commission not only in public hearings but also by other witnesses, members of the staff, and Commissioners. The Commission believes the conclusion is inescapable: The effectiveness of government in meeting urgent national needs, and in bringing a broader range of our citizens into political participation, will have much to do with the success of the policies and programs we recommend in connection with population.

Population problems cannot be dealt with in isolation. Their solution depends upon understanding and voluntary actions by many of our people, and neither will be forthcoming in adequate degree from those who believe that government does not speak for them and does not respond to their needs.

Chapter 7: Social Aspects

In this chapter, we review the relationships between population change and several key aspects of our society. A distinctive feature of a population that is not growing is its relative abundance of old people and its relative scarcity of youth. We explore what further shifts in this direction may imply for the society at large, and the kinds of issues that seem likely to arise with regard to the status of the aged.

Population changes take place through the family and in turn react upon it. As our basic institution, the family's durability may reflect its flexibility in response to transformations in the society around it. We examine recent changes in the family, looking at the connections between family behavior and population change, and what social changes may imply for the responsibilities of family members.

Many expressions of concern over the effects of population growth include references to a sense that life is becoming more crowded and congested. We therefore examine the concept of population density, and how density relates to other factors that influence the character of modern life.

Finally, we show how the status of the socially and economically excluded racial and ethnic minorities in our society is reflected in their fertility and their mortality; and how achieving the goals of social justice and total inclusion into the mainstream for these groups will enhance the American future and will serve the ends of positive population policy as well.

Age Structure

Because of a history of relatively high birthrates in the United States, our population has characteristically been "young" compared with that of many European countries. Over time, however, our population has been growing "older" because of the long-term downward trend of the birthrate. Although this trend was interrupted by the postwar baby boom, the decline in the birthrate since then has caused the proportion of the population in the childhood ages to become smaller again. As we have indicated, the effects of the baby boom will be apparent in our age structure throughout this century, as that generation moves into adulthood and the working ages, and in the next century when they join the ranks of the older citizens.

The future age structure of our population—the proportion of persons at each age—will be affected by future rates of fertility. The age structure that would result from the 2-child and 3-child levels of fertility can be seen in Table 7.1.

Table 7.1
Age Distributions, 1970 and 2000

	Median Age (Years)	Percent at Different Ages			
		Total	Under 18	18-64	65 & Over
1970	28	100	34	56	10
2000 2-child family	33	100	27	62	11
2000 3-child family	27	100	35	56	9
Stabilized Population	37	100	24	60	16

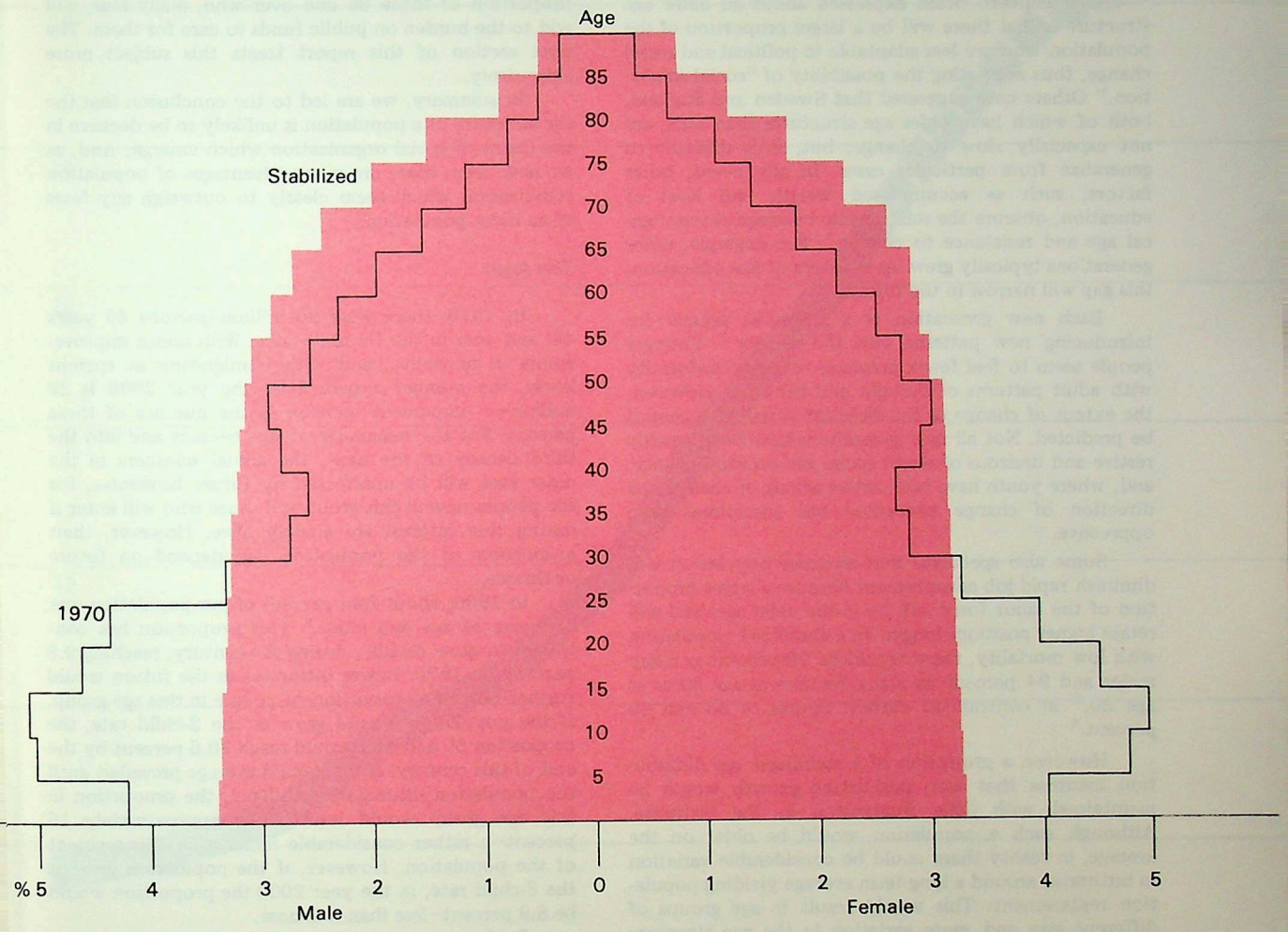
Source: U.S. Bureau of the Census, Current Population Reports, *Series P-25, No. 470, "Projections of the Population of the United States by Age and Sex: 1970 to 2000."*

With the 2-child rate of growth throughout the rest of this century, the age structure would show a consistent pattern of becoming older; with the 3-child rate, the age structure would become slightly younger. The age structure that would result from indefinite persistence of a 2-child average—a stabilized population—would have a median age of 37. In such a population, the number and percentage of persons in each group would be roughly the same from birth to age 50 or 60; there would be nearly as many 50-year-olds as five-year-olds. Above age 60, the numbers would taper off rapidly because of the high death rates at the older ages.

What are the implications of an older population? Will changes in our social organization be required? Will the rate of social and technological change diminish? What are the advantages and disadvantages of a population whose age composition is dispersed evenly through the different age levels?

How we define "old" and "young" is always an arbitrary matter determined in large part by custom. Only at the lower and upper age ranges are the functions which people are able to perform clearly related to biological age. For example, it could be argued that a more appropriate delineation of the working age population would be 21 to 70, rather than 18 to 64 years. This would permit a longer period of schooling and training appropriate to the economy's needs. Also, in a population with high longevity, health and vitality can be retained until older ages. Sweden, with an older age distribution than ours, places retirement at 70 rather than 65; India, with a much younger age structure, places it at 55.

Figure 7.1 Age Distribution



In a stabilized population with low death rates, equal numbers of births and deaths, and no immigration, the number of 50-year-olds would be nearly as large as the number of 5-year-olds.

Source: Ansley Coale, "Alternative Paths to a Stationary Population" (prepared for the Commission, 1972).

One concern often expressed about an older age structure is that there will be a larger proportion of the population who are less adaptable to political and social change, thus suggesting the possibility of "social stagnation." Others have suggested that Sweden and England, both of which have older age structures than ours, are not especially slow to change; but, it is difficult to generalize from particular cases. In any event, other factors, such as accumulated wealth and level of education, obscure the relationship between chronological age and resistance to change.[1] For example, older generations typically grew up in an era of less education; this gap will narrow in the future.

Each new generation is a potential vehicle for introducing new patterns into the society.[2] Younger people seem to feel fewer pressures towards conformity with adult patterns of thought and behavior. However, the extent of change or the direction it will take cannot be predicted. Not all new generations have been equally restive and desirous of major social and political change; and, where youth have been active agents of change, the direction of change advocated has sometimes been oppressive.

Some also speculate that an older population will diminish rapid job advancement because a larger proportion of the labor force will be in the older ages and will retain higher positions longer. In a stabilized population with low mortality, there would be 90 percent as many males and 94 percent as many females at age 50 as at age 20,[3] in contrast to current figures of 63 and 69 percent.[4]

However, a projection of a stabilized age distribution assumes that zero population growth would be maintained with little fluctuation in the birthrate. Although such a population would be older on the average, in reality there could be considerable variation in birthrates around a long-term average yielding population replacement. This would result in age groups of different size and more variation in the age structure than is usually assumed under zero population growth. Indeed, with increasing individual control over fertility, the swings in the annual number of births might well be considerable.

Whether opportunities for individual advancement will in fact diminish will depend obviously on many factors besides age structure.[5] And, in any event, whether a lower rate of occupational mobility is viewed with satisfaction or alarm is largely a matter of values.

Another concern with the changing age composition associated with lower birthrates is the rising proportion of those 65 and over who, many fear, will add to the burden on public funds to care for them. The next section of this report treats this subject more extensively.

In summary, we are led to the conclusion that the age structure of a population is unlikely to be decisive in the forms of social organization which emerge. And, as we have seen, there are many advantages of population stabilization which seem clearly to outweigh any fears of an older population.

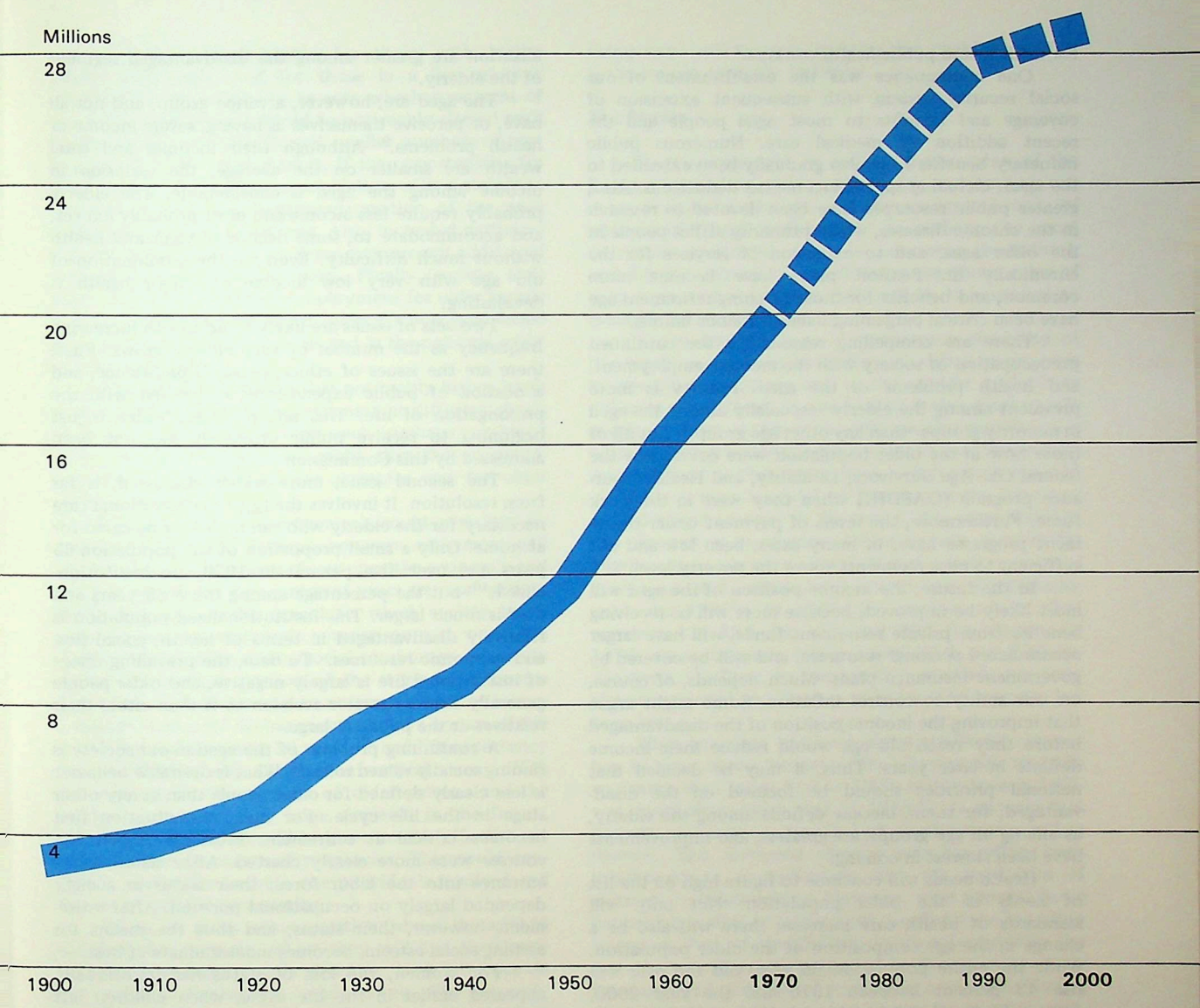
The Aged

In 1970, there were 20 million persons 65 years old and over in the United States. With minor improvements in mortality, and with immigration at current levels, the number expected by the year 2000 is 29 million—a 43-percent increase in the number of these persons. For the remainder of this century and into the third decade of the next, the actual *numbers* in the older ages will be unaffected by future birthrates, for the people now in this group and those who will enter it during this interval are already alive. However, their *proportion* of the population *will* depend on future birthrates.

In 1900, about four percent of our population was 65 years of age and older.[6] This proportion has continued to grow steadily during the century, reaching 9.8 percent by 1970. Lower birthrates in the future would further raise the proportion of people in this age group. If the population should grow at the 2-child rate, the proportion 65 and over would reach 10.6 percent by the end of this century. If the 2-child average prevailed until the population ultimately stabilized, the proportion in this age group would level off at approximately 16 percent—a rather considerable increase in this segment of the population. However, if the population grew at the 3-child rate, in the year 2000 the proportion would be 8.9 percent—less than it is now.

Public concern for the aged has focused largely on problems of money and health. Attention was first drawn to the problems of older people during the 1920's and the early 1930's when it became apparent that families and private sources of charity no longer provided sufficient support for the growing numbers of dependent aged, and when the hardships of the economic depression of the 1930's fell disproportionately upon older workers. Similarly, concern with the health of older people gained momentum during this period, as increasing numbers of people reached the ages at which long-term illness is common, presenting new problems

Figure 7.2 Persons 65 and Over



For the remainder of this century, the number of persons age 65 and over will be unaffected by our rate of growth. However, their proportion of the population would be affected by how fast the population grows: In the year 2000, they would be 8.9 percent of the population under the 3-child average, and 10.6 percent of the population under the 2-child average.

Source: U.S. Bureau of the Census.

for medical and public health workers.[7]

One consequence was the establishment of our social security system with subsequent extension of coverage and benefits to most aged people and the recent addition of medical care. Numerous public monetary benefits have also gradually been extended to the aged, including special income tax deductions. Also, greater public resources have been devoted to research in the chronic diseases, which primarily afflict people in the older ages, and to extension of services for the chronically ill. Pension plans have become more common, and benefits for those reaching retirement age have been critical bargaining issues for labor unions.

There are compelling reasons for the continued preoccupation of society with the income, employment, and health problems of the aged. Poverty is more prevalent among the elderly—especially among the aged in minority groups—than any other age group.[8] Not all of those now in the older population were covered by the federal Old Age Survivors, Disability, and Health Insurance program (OASDHI) when they were in the work force. Furthermore, the levels of payment under retirement programs have, in many cases, been low and not sufficient to raise recipients above the poverty level.

In the future, the income position of the aged will most likely be improved, because more will be receiving benefits from private retirement funds, will have larger accumulated personal resources, and will be covered by government insurance plans. Much depends, of course, on our ability to control inflation. Some might argue that improving the income position of the disadvantaged before they reach old age would reduce their income deficits in later years. Thus, it may be decided that national priorities should be focused on the disadvantaged; for them, income deficits among the elderly, as among all age groups, are greatest, and improvements have been slowest in coming.

Health needs will continue to figure high on the list of needs of the older population: Not only will standards of health care increase; there will also be a change in the age composition of the older population. While the entire population 65 years old and over will rise 43 percent between 1970 and the year 2000, persons 75 to 84 will increase by 65 percent, and those 85 years and over by 52 percent. It is among these old people that chronic conditions (including impairments and disease) increase, limitations of activity become more prevalent, and institutionalized care is more often required. Females predominate, for their expectation of life exceeds that of males. As with income, the risks of poor health, limitation of activity, and institutionalization are greater among the disadvantaged segment of the elderly.

The aged are, however, a varied group, and not all have, or perceive themselves as having, severe income or health problems.[9] Although their incomes and total wealth are smaller on the average, the variation in income among the aged is considerable. The elderly probably require less income and most probably expect, and accommodate to, some decline in vigor and health without much difficulty. Even so, the combination of old age with very low income and poor health is devastating.

Two sets of issues are likely to arise with increasing frequency as the number of very elderly grows. First, there are the issues of ethics, personal preference, and allocation of public expenditures connected with the prolongation of life. This set of issues, which is just beginning to receive public attention, has not been addressed by this Commission.

The second issue, more widely discussed, is far from resolution. It involves the type of institutional care necessary for the elderly who can no longer be cared for at home. Only a small proportion of the population 65 years and over—five percent in 1970—are institutionalized,[10] but the percentage among those 85 years and over is much larger. This institutionalized population is relatively disadvantaged in terms of health, social ties, and economic resources. To date, the prevailing image of institutional life is largely negative, and older people generally express greater aversion to it than either their relatives or the public at large.

A continuing problem of the aged in our society is finding socially valued roles.[11] What is desirable behavior is less clearly defined for older people than at any other stage in the life cycle. For men, the situation first becomes critical at retirement. Previously, their life courses were more clearly charted. After school came entrance into the labor force; their status in society depended largely on occupational position. After retirement, however, their status, and thus the means for earning social esteem, becomes indeterminate at best.

For women, the loss of status has traditionally appeared earlier in the life cycle, when children left home and family functions diminished. However, a woman's status in society has depended largely on that of her husband, even though she may also have been in the work force for all or part of the time since marriage. Regardless of employment, she typically maintained household and family roles which forestalled her feeling of "uselessness."

Opportunities for the employment of men after

age 65 are more favorable for those with higher educational levels, and for those in a few selected occupations. It remains to be seen whether patterns of compulsory retirement would be noticeably altered with slower population growth and smaller numbers of new entrants into the labor market. If the opportunities for advancement diminish in a population with a stabilized age distribution, the bargaining position of the aged would not appear to be strong. Also, increased participation of women in the work force may present additional competition for older workers. Finally, society feels little obligation to provide employment for older people because of income and health supports now established in private retirement programs and in the national social security system.

It is possible, however, that noticeably higher levels of educational attainment, retraining at different stages of life, and a shortened work week (perhaps combined with educational programs) might alter the opportunities for employment—in the aggregate and for older workers as well.

Policies on age at retirement could certainly be made more flexible. Perhaps, however, retirement will be looked upon with more favor once the economic and social supports for the retirement years are more secure. Much depends on the extent to which society legitimates leisure-time activity in comparison with work. If a "leisure ethic" gains greater social acceptance, especially within the younger portion of the work force, people may come to look forward to retirement and the leisure it brings. A man of 65 has an average of 13 years of life remaining, and a woman 16 years,[12] and life expectancy may rise further with advances in medical science. With the increase in the number of older persons and the greater amount of their time available in the future, more consideration should be given to the effective use of volunteers in community agencies. This could contribute materially to both the individuals involved and the welfare of the community.

There are many other questions about the aged to consider—for example, where they will live, their position in the changing family structure, their influence on our political institutions, and so on. We can only speculate about such changes. All we know for certain is that, if the birthrate declines further, the proportion of older people will rise. However, as we have seen, total dependency—the proportion of aged and children together—will decline, because declines in the proportion of children will more than offset the rising proportion of aged. This change will take place gradually, permitting ample time for planning. We are not doing very well now in meeting the problems of the aged—we can certainly do better.

The Family

We recognize that in opening a discussion of the family we tread on sacred ground, for the family is our most revered institution. As the recognized unit of reproduction and child-rearing, as perhaps the most important socializing agent of oncoming generations, and for its importance in defining the social roles of both men and women in our society, it is central to most of our concerns.

The record attests to the enormous durability of the family as a valued institution, modified in response to changing conditions and to the choices available to different generations. In the United States, most people marry and they marry at an early age. Our population is unusual among industrialized nations in that the proportion ever marrying has always been high for both sexes.[13]

Our average age at first marriage is the lowest of any advanced country in the world. The great divide in the orientation to marriage seems to have come in the 1890's, when age at marriage started a long downward movement that lasted, with only minor fluctuations, until the 1960's. In 1959, the median age at first marriage was 22.5 for men and 20.2 for women; by 1970, these averages had reached 23.2 and 20.8 respectively.[14] Thus, in our society, marriage has been almost universal and the age at entry into marriage has been low.

While marriage has been almost universal, divorce has become more frequent. The divorce rate in 1935 was more than twice that in 1900, and the rate in 1970 was more than twice that in 1935.[15] It appears that perhaps as many as one-third of marriages now end in divorce. The increased divorce rate has often been interpreted as an indication that the institution of marriage is disintegrating. However, what appears to be happening is that unsatisfactory marriages are less often tolerated. Part of the increase in divorce is due to the fact that more couples now seek divorce when their marriages fail, instead of remaining separated. Marital dissolution does not mean rejection of the married state. The evidence for this is that, increasingly, the divorced marry again.[16]

Nearly universal marriage and early marriage in our society would possibly not be so prevalent had not circumstances made marriage less of an economic and social commitment and less of an irreversible step. Some evidence supports such a view.[17] Formerly it was

required that the man be able to provide adequate support for the family before marriage. Many men, therefore, had to delay marriage and some had to forego it altogether. Today, however, the proportion of women in the work force has increased markedly; and the willingness of women to work after marriage, with or without children, has encouraged many young people to decide that they could "afford" to marry. Another factor is that, while marriage once led automatically to children, it no longer needs to do so. The increased ease and respectability of divorce and remarriage has likewise reduced the obligation to remain in an unsatisfactory marriage. Finally, still other factors have encouraged earlier and more universal marriage—educational and housing benefits for veterans, federal subsidization of home ownership, college provision of housing services for married students, unemployment compensation, and last, but not least, parental willingness to continue supporting offspring after they are married.

It would appear that the result of these factors has been generally to provide a greater range of choice to men than to women. In quest of a stable relationship, the young woman often does more than perform her normal duties as wife. She often interrupts her own education and takes a dead-end job in order to support the young man while he pursues his education. Increasingly she works after marriage to improve the economic position of the family. It is the woman's responsibilities, and not the man's, which increase if the woman works, for she must carry family as well as job obligations. If divorce occurs, it is easier for the man to remarry, and the woman ordinarily is assigned responsibility for the continuous task of child-rearing, although she may receive financial assistance from the man. With contraception, the wife may have fewer children than before, and be fully occupied with their upbringing for a shorter time after marriage. Thereafter, however, she has the problem of coping with her time and "justifying" her relative inactivity if she does not work. Men, in general, do not face such major role conflicts until retirement.

While marriage is the common bond holding the family unit together, many families are maintained by one parent only, most often the mother. This may be the case for the woman who bears a child out of wedlock and does not put the child up for adoption, or for mothers whose marriages have been dissolved. In most such instances, however, being a single parent is a temporary state, for the person, especially if young, will usually marry or remarry.

Two developments are likely to have an impact on the family. One is the questioning of existing sex mores by young people and open violation of them by some. The other is the women's liberation movement which aims to improve the status of women and to change role relationships within the family.

Changes in sex mores have not occurred all at once; they have been changing for a long time. In many cases, the sex mores were violated by the parental generation, but not so openly. And, overt compliance was achieved at considerable cost, especially in the case of marriages occurring as a result of premarital pregnancy. This is less necessary now with the greater availability of contraception and abortion. Also, many adults are aware that their own uncertainty and ambivalence has been a factor in the open repudiation of sexual standards by youth.

Some believe that the "sexual rebellion" may be moving in the direction taken in Sweden, where a permissive attitude towards premarital sexual activity is combined with a late age at marriage. However, both these traits are traditional in Sweden; they are not traditional in the United States. Today, many young people live together informally and are experimenting with a greater range of relationships. Whether or not these relationships are enriching depends on the personal responsibility of individuals involved and the attitudes of our society toward these individuals and their life styles. The effects on marriage and family patterns cannot yet be foreseen, and much depends on how the present confusion with respect to premarital relationships gets resolved.

A significant feature of the women's liberation movement is that, although its demands have been made on the basis of equity for women, it has not usually been anti-marriage or anti-children. It has, however, been concerned with changing the role relationships within families and with extending services for children. Its most vocal demand, however, is for equality in the educational and occupational spheres outside the family.[18]

If the movement is successful, many of the role patterns will be dissolved or weakened. We can expect more conflict within marriage as to who will do what, but such conflict has already been apparent in many cases, and many believe that the quality of child-parent and of husband-wife relationships would be improved by more participation of the husband in family life. In those cases where the woman chooses or is required to work, the division of labor within the family will be based less on sex, for the husband also will be expected to assume responsibility for household chores, to share in the responsibility of caring for children, and to accommodate his occupational requirements to the

family roles, much as women do.

None of these changes dictates the direction which reproduction within families will take, or whether the responsibility for childbearing and child-rearing will be enhanced, or what will happen to the quality of family life. As more satisfactory alternatives to childbearing and child-rearing become available, that in itself is likely to enhance rational and responsible decisions about reproduction and parenthood.

Population Density and Population Size

More and more Americans live in urbanized areas at densities far exceeding those in rural areas, but urban densities are not increasing. In fact, average density is actually declining, because urban territory is expanding faster than urban population. In 1960, about 96 million people lived in urbanized areas at an average density of 3,800 people per square mile. By 1970, 118 million people lived in urbanized areas, but the density of urban areas had dropped to 3,400.[19]

It is important to distinguish between density and agglomeration. Density, defined as the number of people per unit of area, does not specify the total numbers of people involved. Population agglomeration refers to large collections of people at an unspecified density. A small town may have a high density if the lots are small and the buildings tall. Many suburban areas have a low density but contain a large population distributed over extensive areas.

We need to understand the effects of urban density itself and the effects of having such large proportions of our people living in areas that include millions of people. What can be said about "crowding" and its effects? To what extent can social problems—high crime rates, mental illness, mass violence—be attributed to density and to the scale at which we live in metropolitan areas? What will be the social effects of near-total urbanization?

What is the meaning, in terms of daily life, of urban densities which can reach as high as 67,000 people per square mile on Manhattan Island in New York City?[20] Without knowing the context in which it is experienced, the fact of high density tells us little about its importance or impact on human behavior.

High density does not necessarily imply crowding, since the type of activity a person is engaged in, its duration, and the person's attitude all shape perception of whether a particular situation is crowded. The high density at a movie theatre does not cause a crowded feeling as long as each person has a seat. The same density at an office where people are active would probably be unbearably crowded. And certainly where a family of eight lives in three or four rooms the situation is undesirably crowded. In this case, high density coupled with poor housing conditions and poor nutrition, can only aggravate an otherwise difficult situation and seriously hinder the development of children. We cannot, however, assume that all high density situations are either crowded or necessarily bad. Some are, some are not.

Other things being equal, we know that increases in density cause increases in air pollution as the natural recycling system is overloaded. Similarly, traffic and other forms of congestion grow with density, as growing numbers of people hinder each other's movement. But, other factors, such as population size, the layout of the city, and its type of transportation system, are also important.

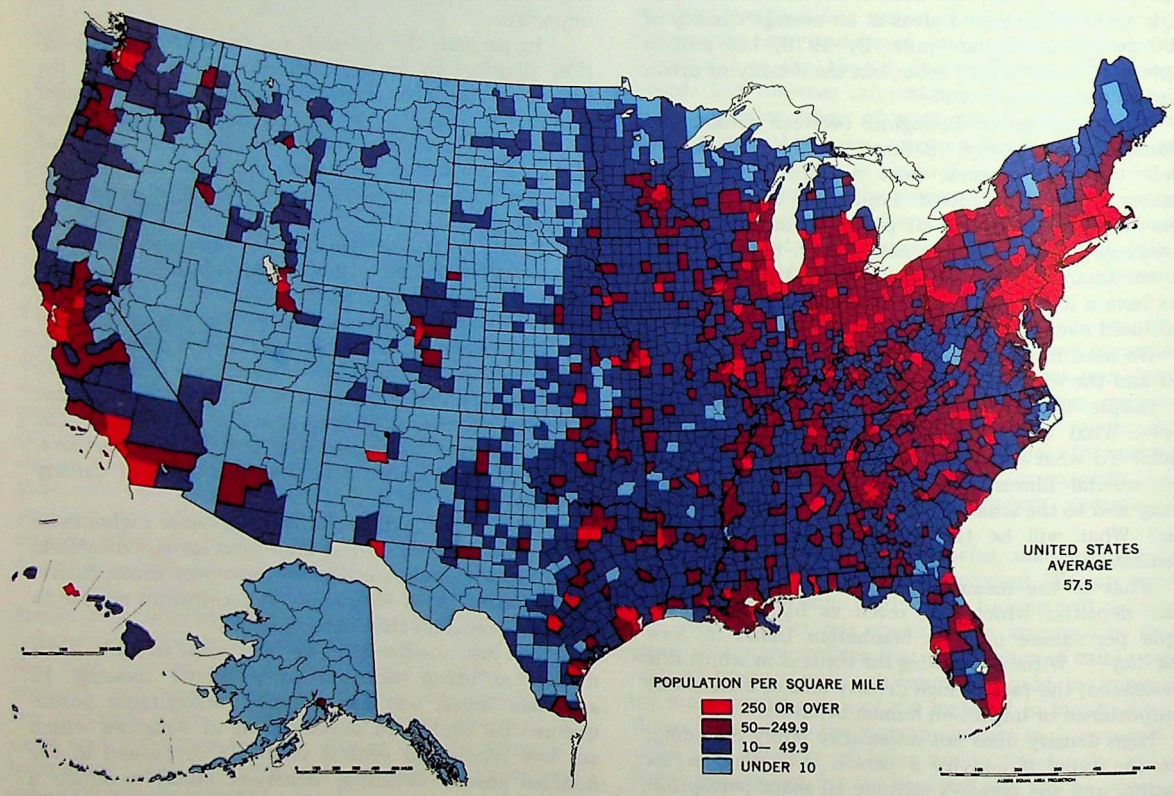
In general, the research on the effects of population density on human behavior is sparse and the findings either inconclusive or negative. Despite popular belief, the evidence is lacking to show that social pathology is associated with density itself. The most judicious conclusion we can reach is that little is known and that conventional measures of density are of little use as single indicators.[21]

Some intriguing research has been conducted on animals which indicates that certain kinds of anti-social behavior result from excessive crowding.[22] Attempts at similar research on humans have only begun, and the results are inconclusive. One study, which placed groups of individuals in rooms of different sizes, showed no effects on the performance of tasks. Men in such groups evidently became more aggressive and competitive, but women became more pleasant and less competitive. With men and women together, all effects of density disappeared.[23]

Urban areas and central cities do have higher rates of crime and mental illness than rural areas, but efforts to implicate population density have been inconclusive. Other factors, such as income and education appear to be more important than density itself.[24]

It is just possible that we may come to look at the decline in urban densities as a mixed blessing. In suburban areas, one can identify undesirable consequences of haphazard development at densities which are low relative to central cities. If continued in the decades ahead, declining densities could produce a serious reduction of available open space where we can occasionally escape from the pace of urban life. While our nation is thinly populated relative to many other

Figure 7.3 Population Density by Counties: 1970



Source: U.S. Bureau of the Census, Census of Population and Housing: 1970, United States Summary.

advanced countries—compare our average of 58 persons per square mile nationally with 590 persons per square mile in Great Britain—it does not follow from this that our population may keep on growing with impunity, or that continuing declines in urban density are beneficial. Such a conclusion fails to reckon with differences in the habitability of the land and differences in the degree to which dense population settlement is supported by international rather than domestic commerce. Furthermore, such a conclusion glosses over the question of whether we would be better off or worse off if our open spaces were filled up with people.

Many of the concerns about the possible effects of density—the differences in the quality of life in small towns versus large cities, the concern about the loss of a sense of community and individual identity, increasing alienation, and similar questions—are more properly matters of the scale of social organization rather than population density. For example, concerns about the individual's impact on political decisions more clearly involve population size and the nature of political organization than population density.

As the individual becomes a smaller fraction of the total aggregate, his identification and commitment to the whole may diminish. But the effect of increasing size on the individual's identity depends on many other factors such as the strength of family, neighborhood, ethnic, religious, and other organizations in the collection of communities comprising the metropolis.

Undoubtedly the description of big city life as impersonal has some validity. In the course of one day, people living in big cities have contact with many individuals, far too many to know or even recognize. Indeed, the opportunity for such contacts is one of the advantages of urban living, since it facilitates communication and exchange. Under these circumstances, anonymity and impersonality are necessary in order to get through a day's work.

In the space of a single lifetime, we have been transformed from a predominantly rural to a predominantly urban nation. The effects of living at high densities and in large population groups are only two demographic dimensions of this transformation. Others might come from the change in composition of urban population. In the past, our urban places have grown in part through an influx of people originating in rural areas. The differences in childhood experiences that rural people brought with them to the city probably exerted significant influence on our urban society. Today, as rural to urban migration diminishes, the influence of people of rural origin will soon come to an end. Future generations will be created from people who have been city-born and city-bred.

For better or for worse, we are becoming a nation of metropolitan dwellers. The essential point is that the consequences of this are not well known. We ought to be much more concerned than we seem to be about developing some reliable knowledge of the social and psychological consequences of urbanization, and the associated implications of urban densities and the increasing scale and complexity of social organization accompanying metropolitan agglomeration.

Racial and Ethnic Minorities

Any effort to grasp the dynamics of our population on a national scale must include a serious effort to understand what is happening among the socially and economically disadvantaged racial and ethnic minorities —blacks, Indians, Spanish-speaking groups, and others— who are struggling to break out of the backwaters of our society. We have met with social scientists, government officials, and spokesmen from these communities. At best, we have been able to develop only a broad outline of the intricate role population plays among the many pressures under which our deprived groups live. However, this much we can say: This nation cannot hope to successfully address the question of future population without also addressing the complex network of unemployment, poor housing, poor health services, and poor education, all of which combine to act upon, and react to, the pressures of population.

At the outset, we must recognize that our population problems cannot be resolved simply by inducing our "have-not" groups to limit the number of children they have. Although the fertility of minority groups is higher than that of the rest of the population, it is not they who bear the primary responsibility for population growth.

Despite their higher fertility rates, minorities—precisely because of their smaller numbers—contribute less to population growth than does the rest of the population. Among all women 35 to 44 years old in 1969, the Spanish-speaking, Indians, and blacks together contributed 30 percent of the childbearing in excess of replacement needs, while the non-Spanish-speaking white majority contributed 70 percent.[25] An estimate for 1967 indicates that well over half of all childbearing in excess of replacement needs was attributable to the nonpoor, non-Spanish, white majority.[26] Looking at it another way, if no babies had been born to black or Spanish-speaking parents throughout the decade of the

sixties, our population would be only four percent smaller than it is today. On the other hand, if there had been no births to non-Spanish-speaking whites, our present population would be 13 percent less.[27]

The idea that our population growth is primarily fueled by the poor and the minorities having lots of babies is a myth. There is nonetheless a strong relationship between high fertility and the economic and social problems that afflict the 13 percent of our people who are poor, and we must address it.

In the first place, the link between birthrates and poverty is so tight that family size in general is a good indicator of how far into the mainstream of American life a group has moved. The largest families are among our rural ethnic, low income, and cultural minorities, regardless of race. They include southern Appalachian whites, southern blacks, Mexican-Americans, American Indians, and other groups.

As these groups move into the mainstream, their family size diminishes. For example, blacks with high school diplomas have about the same number of children as their white counterparts; college-educated blacks have even fewer children, on the average, than their white counterparts.[28] Mexican-American fertility also declines in response to increased education.[29]

In the second place, the sordid history of race relations in our nation has left a widely felt legacy of fear and suspicion that will poison any population policy unless it is clear that such a policy is being developed to enhance the quality of life for all Americans, and not to restrict or curtail the gains made by minorities. As Dr. Eugene S. Callender, president of the New York Urban Coalition, told us:

> Minority groups must share the generally growing concern for the quality of life available to us as the population increases. However, it must also be kept in mind that minority groups have only recently been allowed to become participants in this system, to receive its benefits and to share in shaping its future. We are even more anxious about our position within the society, since our few gains are, even now, tenuous.[30]

The fragility of these gains, coupled with the record of white America in relation to nonwhite and Spanish-speaking minorities, practically assures, Dr. Callender added, that any governmental efforts in the field of "population" will be viewed with distrust if not outright alarm:

> Within this country, Blacks, Indians, Chicanos, Puerto Ricans, and Orientals feel that such [population] control is solely to the advantage of the majority population. Minority groups at this point in history do not feel that they can afford to trust that the "nobler instincts" of the white majority will prohibit the resurgence of subtle and overt forms of racism.

This wariness is reinforced by a belief that population is of particular interest to affluent whites, and is irrelevant to the everyday survival problems faced by blacks and other minority groups. A witness at our Washington hearings told us that many blacks believe that whites who once joined them in battles against discrimination did so more out of the excitement of joining a "cause" than because of opposition to racial and social injustice. As the battles grew more difficult, whites tired of the effort and now have turned to a new cause—ecology—which blacks consider a copout from the real problems blacks face. As one witness at our Washington hearings noted, "what few white liberals which were left after the 'backlash' have gone traipsing off after daisies and low-phosphate detergents." This witness added:

> If this [ecology] movement also talks about fewer people, the question of "who gets to survive" is raised. So, to us, it becomes "every man for himself" now, because we have no reason to expect that we won't get the worst of this one too.[31]

This feeling of powerlessness, of exclusion, has led some spokesmen to suggest that the only way to break into the "system" is by growing so large in numbers that they can no longer be ignored. As we learned from a Spanish-speaking witness at our hearings in Los Angeles, the apparent lack of majority responsiveness leads Spanish-speaking people to believe that, ". . . the only way we will get groups like yours to be responsive to our needs is through sheer weight of numbers." It may be, he added, that "what we must do is to encourage large Mexican-American families so that we will eventually be so numerous that the system will either respond or it will be overwhelmed."[32]

The Reverend Jesse Jackson reminded us in Chicago that the basic drives among all people are for food, clothing, shelter, recognition, and security. He added that:

> . . . You have to recognize that the American group that has been subjected to as much harassment as our community has is suspect of any programs that would have the effect of either reducing or levelling off our population growth. Virtually all the security we have is in the number of children we produce.[33]

The political success of blacks in Newark, New Jersey, Gary, Indiana, and elsewhere are cited by Jackson and others to indicate that continued growth in their communities is required to assure not only survival, but political leverage as well.

However, our public opinion survey revealed that most black people believe continued growth is a problem for this nation. Fifty-one percent said population growth is a serious problem, another 35 percent termed it a problem but not so serious, and 10 percent said it was no problem at all.[34]

While excess fertility among blacks and other minorities is not the main source of the problem of national population growth, nonetheless it is clear that many minority families regard excess fertility as a serious *personal* problem. The evidence for this is the response of minority families to family planning services when these are made available in an acceptable manner. Like other groups, minority members seek to limit their family size as a means of achieving a better quality of life for themselves and their children.

Americans, regardless of their racial or ethnic backgrounds, tend to have smaller families as their education, their jobs, and their incomes improve. However, those who have not been able to climb onto the socioeconomic escalator have also not adopted the pattern of smaller family size. Hence, unblocking our minorities and enabling them to get into the mainstream is going to have a significant effect upon future population levels.

Historically, there has been a close link between urbanization and upward social and economic mobility. But this link has broken down for blacks, the Spanish-speaking, Indians, and other "have-not" groups. For whites, the descendants of immigrants or migrants have done better than their parents. The first arrivals may have taken jobs in factories or on the docks, but they had children who finished high school and went into skilled occupations, and grandchildren who finished college and moved into the professional ranks—and out of the central cities into the suburbs.

There is no question that black people who move from farm to city are better off than those who stay on the farm. The city is where they go for jobs and educational opportunities that simply are not available in rural areas. The problem is that subsequent advances have not come to them as they have come to the majority.[35]

Even though blacks are narrowing the education gap, they are not faring as well economically. In fact, the better educated a black becomes, the worse grows the income gap between himself and a comparably educated white.* For example, in 1969, the median income for men with an eighth grade education was $4,300 among blacks and $5,500 among whites—a difference of $1,200. For those with high school diplomas, black men had a median income of $6,100, whites $8,600—a difference of $2,500. Among college graduates, black men earned median incomes of $8,600, which was $3,800 below the $12,400 earned by whites. The black college graduate in 1969 was earning no more than a white with a high school diploma. For men of Spanish origin, the 1970 median income was $6,000 compared with $8,200 for all whites and $5,000 for blacks.[36]

Those minority people who have "made it" into the system have adopted the small-family pattern. The problem is that so few of them have made it. The task is to make the system work for them as it has for the majority.

If the facts of life for blacks and many other minorities are grim—the facts of death are no better. Blacks live, on the average, seven years less than whites, though this is not as bad as the turn of the century when the gap in life expectancy was 15 years.[37] Current differences are due primarily to premature death among black adults between the ages of 20 to 60, and secondarily to higher mortality among black children.[38] The source of this higher black mortality is found in the social and economic facts we have already noted.

A Houston case study showed that the number of deaths in 1960 among Mexican-Americans was 12 percent higher for males, and 67 percent higher for females than would have been the case if they had been subject to the death rates experienced by non-Spanish whites. The corresponding figures for excess mortality in Houston's black population were 43 percent for males and 87 percent for females.[39] National figures show that total mortality among Indians exceeds white mortality by 50 percent.[40]

The existence of large differences in mortality by

**A separate statement by Commissioner D. Gale Johnson appears on page 158.*

socioeconomic level within minority populations suggests that the excess mortality of these groups can be largely reduced with improvements in levels of living.[41]

In Little Rock, Arkansas, a black man confronted us with a more basic issue: Do we, as a society, *want* to improve conditions for the poor and the excluded? He questioned whether we do:

> I suggest to you that many of us who are advantaged have a vested interest in keeping the disadvantaged exactly where they are. Our economic and political strategies are clearly designed to keep a segment of our population poor and powerless. I suggest that many of our social welfare programs have failed and are failing to help the poor and oppressed among us because they were never intended to help them.[42]

The decade 1960 to 1970 saw a doubling of the number of young black men and women aged 15 to 24 in the metropolitan areas of every part of the nation except the south.[43] This increase, twice that for comparable white youth, was the result of higher black fertility to begin with, participation in the post-World War II baby boom, and continued migration away from southern rural poverty. The result has been more and more young black people ill-equipped to cope with the demands of urban life, more likely to wind up unemployed or in dead-end, low-paying jobs, and caught in the vicious wheel of poverty, welfare, degradation, and crime.

The facts we have cited describe a crisis for our society. They add up to a demographic recipe for more turmoil in our cities, more bitterness among our "have-nots," and greater divisiveness among all of our peoples. What we have said here means that unless we address our major domestic social problems in the short run—beginning with racism and poverty—we will not be able to resolve fully the question of population growth. And, unless we can resolve the question of population growth, in the long run it not only will further aggravate our current problems, but may eventually dwarf them.

Chapter 8: Population and Public Policy

We have reviewed population trends in the United States and examined their implications. Now we are ready to talk about the meaning of these trends for policy.

Four things stand out: First, the effects of our past rapid growth are going to be with us for a long time. Second, we have to make a choice about our future growth. Third, the choice involves nothing less than the quality of American life. And, fourth, slower population growth provides opportunities to improve the quality of life, but special efforts are required if the opportunities are to be well used.

A Legacy of Growth

Regardless of what happens to the birthrate from now on, our past growth commits us to substantial additional growth in the future. At a minimum, we will probably add 50 million more Americans by the end of the century, and the figure could easily be much higher than that.

We will be living for a long time with the consequences of the baby boom. Not long ago, that surge of births caused double sessions, school in trailers, and a teacher shortage. Now it is crowding the colleges and swelling the number of people looking for jobs. As these young people grow older, they will enter the ranks of producers as well as consumers, and they will eventually reenter dependency—the dependency of the aged.

We are going to have to plan for this. Swelling numbers of job applicants put an extra burden on full employment policy, if only because failure in this respect now affects so many more people than it did once. This will continue to be true for many years. People think the "baby boom" ended in the 1950's. Not so. That was only when it reached its peak. The last year when births exceed four million was 1964, only eight years ago.[1] In fact, today's eight-year-olds are just as numerous as 18-year-olds. So it is not too late to try to do better by the youngest of the baby-boom babies than we did by the oldest.

The baby boom is not over. The babies have merely grown older. It has become a boom in the teens and twenties. In a few decades, it will be turning into a retirement boom. During the second decade of the next century, 30 million people will turn 65, compared with 15 million who had their 65th birthday in the past 10 years.[2] Will the poverty of the aged be with us then? Census Bureau reports disclose that 25 percent of today's aged are in poverty, compared with eight percent of people in the young working ages of 22 to 45.[3] Thirty years from now, will we do better by the swelling numbers of aged than we do by those we have now? Will we develop alternatives to treating the elderly as castoffs? Not if we don't try. Not if we don't plan for it.

We may be through with the past, but the past is not done with us. Our demographic history shapes the future, even though it does not determine it. It sets forth needs as well as opportunities. It challenges us to get ready. While we cannot predict the future, much of it is foreseeable. For this much, at least, we should be prepared.

The Choice About Future Growth

We have to make a choice about our future growth. As a Commission, we have formed a definite judgment about the choice the nation should make. We have examined the effects that future growth alternatives are likely to have on our economy, society, government, resources, and environment, and we have found no convincing argument for continued national population growth. On the contrary, the plusses seem to be on the side of slowing growth and eventually stopping it altogether. Indeed, there might be no reason to fear a decline in population once we are past the period of growth that is in store.

Neither the health of our economy nor the welfare of individual businesses depend on continued population growth. In fact, the average person will be markedly better off in terms of traditional economic values if population growth slows down than if it resumes the pace of growth experienced in the recent past.

With regard to both resources and the environment, the evidence we have assembled shows that slower growth would conserve energy and mineral resources and would be a significant aid in averting problems in the areas of water supply, agricultural land supply, outdoor recreation resources, and environmental pollution.

Slower population growth can contribute to the nation's ability to solve its problems in these areas by providing an opportunity to devote resources to the quality of life rather than its quantity, and by "buying time"—that is, slowing the pace at which problems accumulate so as to provide opportunity for the development of orderly and democratic solutions.

For government, slower population growth offers potential benefits in the form of reduced pressures on

educational and other services; and, for the people, it enhances the potential for improved levels of service in these areas. We find no threat to national security from slower growth. While population growth is not by any means the sole cause of governmental problems, it magnifies them and makes their solution more difficult. Slower growth would lessen the increasing rate of strain on our federal system. To that extent, it would enhance the likelihood of achieving true justice and more ample well-being for all citizens even as it would preserve more individual freedom.

Each one of the impacts of population growth—on the economy, resources, the environment, government, or society at large—indicates the desirability, in the short run, for a slower rate of growth. And, when we consider these together, contemplate the ever-increasing problems involved in the long run, and recognize the long lead time required to arrest growth, we must conclude that continued population growth—beyond that to which we are already committed by the legacy of the baby boom—is definitely not in the interest of promoting the quality of life in the nation.

The Quality of American Life

We are concerned with population trends only as they impede or enhance the realization of those values and goals cherished in, by, and for American society.

What values? Whose goals? As a Commission, we do not set ourselves up as an arbiter of those fundamental questions. Over the decades ahead, the American people themselves will provide the answers, but we have had to judge proposals for action on population-related issues against their contribution to some version of the good life for this society and, for that matter, the world. What we have sought are measures that promise to move demographic trends in the right direction and, at the same time, have favorable direct effects on the quality of life.

We know that problems of quality exist from the variety of indicators that fall short of what is desirable and possible. There are inequalities in the opportunities for life itself evidenced by the high frequency of premature death and the lower life expectancy of the poor. There is a whole range of preventable illness such as the currently high and rising rate of venereal disease. There are a number of congenital deficiencies attributable to inadequate prenatal care and obstetrical services and, in some cases, to genetic origin. Not all such handicaps are preventable, but they occur at rates higher than if childbearing were confined to ages associated with low incidence and if genetic counseling were more widely available.

Innate human potential often has not been fully developed because of the inadequate quality of various educational, social, and environmental factors. Particularly with regard to our ethnic minorities and the female half of the population, there are large numbers of people occupying social roles that do not capitalize on their latent abilities and interest, or elicit a dedicated effort and commitment. There is hunger and malnutrition, particularly damaging to infants and young children, that should not be tolerated in the richest nation the world has ever known. Sensitive observers perceive in our population a certain frustration and alienation that appears to go beyond what is endemic in the human condition; the sources of these feelings should be explored and better understood.

And we can also identify and measure the limiting factors, the inequalities of opportunity, and the environmental hazards that give rise to such limitations in the quality of life—for example, inadequate distribution of and access to health, education, and welfare services; cultural and social constraints on human performance and development associated with race, ethnic origin, sex, and age; barriers to full economic and cultural participation; unequal access to environmental quality; and unequal exposure to environmental hazard.

There are many other problems of quality in American life. Thus, alongside the challenges of population growth and distribution is the challenge of population quality. The goal of all population policy must be to make better the life that is actually lived.

Opportunity and Choice

While slower population growth provides opportunities, it does not guarantee that they will be well used. It simply opens up a range of choices we would not have otherwise. Much depends on how wisely the choices are made and how well the opportunities are used. For example, slower population growth would enable us to provide a far better education for children at no increase in total costs. We want the opportunity presented by slower growth to be used this way, but we cannot guarantee that it will be. The wise use of opportunities such as this depends on public and private decisions yet to be made.

Slowing population growth can "buy time" for the solution of many problems; but, without the determined, long-range application of technical and

political skills, the opportunity will be lost. For example, our economic and political systems reward the exploitation of virgin resources and impose no costs on polluters. The technology exists for solving many of these problems. But proper application of this technology will require the recognition of public interests, the social inventiveness to discover institutional arrangements for channeling private interests without undue government regulation, and the political courage and skill needed to institute the necessary changes.

Slower population growth offers time in which to accomplish these things. But if all we do with breathing time is breathe, the value of the enterprise is lost.

Population change does not take place in a vacuum. Its consequences are produced through its joint action with technology, wealth, and the institutional structures of society. Hence, a study of the American future, insofar as it is influenced by population change, cannot ignore, indeed it must comment upon, the features of the society that make population growth troublesome or not.

Hence, while we are encouraged by the improvement in average income that will be yielded by slower population growth, we are concerned with the persistence of vast differences in the distribution of income, which has remained fixed now for a quarter of a century.

While we are encouraged by the relief that slower population growth offers in terms of pressure on resources and the environment, we are aware of the inadequacy of the nation's general approach to these problems.

We rely largely on private market forces for conducting the daily business of production and consumption. These work well in general and over the short run to reduce costs, husband resources, increase productivity, and provide a higher material standard of living for the individual. But the market mechanism has been ineffective in allocating the social and environmental costs of production and consumption, primarily because public policies and programs have not provided the proper signals nor required that such costs be borne by production and consumption activities. Nor has the market mechanism been able to provide socially acceptable incomes for people who, by virtue of age, incapacity, or injustice, are poorly equipped to participate in the market system for producing and distributing income.

Our economy's use of the earth's finite resources, and the accompanying pollution or deterioration of the quality of water, air, and natural beauty, has neglected some of the fundamental requirements for acceptable survival. Often the time horizon for both public and private decisions affecting the economy has been too short. It seems clear that market forces alone cannot be relied upon to achieve our social and environmental goals, for reasons that make exchange, though the main organizing principle, inadequate without appropriate institutional and legal underpinnings.[4]

In short, even if we achieve the stabilization of population, our economic, environmental, governmental, and social problems will still be with us unless by will and intelligence we develop policies to deal with the other sources of these problems. The fact that such policies have shown little conspicuous success in the past gives rise to the skepticism we have expressed above in our discussion of the relations between government and population growth.

The problem is not so much the impact of population on government as the adequacy of government to respond to the challenge of population and the host of issues that surround it. Long-term planning is necessary to deal with environmental and resource problems, but there are only beginning signs that government is motivated or organized to undertake it. A major commitment is required to bring minorities into the mainstream of American life, but the effort so far is inadequate. It is clear that the "real city" that comprises the metropolis requires a real government to manage its affairs; but the nation is still trying to manage the affairs of complex, interconnected, metropolitan communities with fragmented institutional structures inherited from the 18th century.

Population, then, is clearly not the whole problem. But it is clearly part of the problem, and it is the part given us as the special responsibility of this Commission. How policy in this area should be shaped depends on how we define the objectives of policy in respect to population.

Policy Goals

Ideally, we wish to develop recommendations worthwhile in themselves, which at the same time, speak to population issues. These recommendations are consistent with American ethical values in that they aim to enhance individual freedom while simultaneously promoting the common good. It is important to reiterate that our policy recommendations embody goals either intrinsically desirable or worthwhile for reasons other than demographic objectives.

Moreover, some of the policies we recommend are

irreversible in a democratic society, in the sense that freedoms once introduced cannot be rescinded lightly. This irreversibility characterizes several of the important policies recommended by this Commission. We are not really certain of the demographic impact of some of the changes implied by our recommendations. One or two could conceivably increase the birthrate by indirectly subsidizing the bearing of children. The rest may depress the birthrate below the level of replacement. We are not concerned with this latter contingency because, if sometime in the future the nation wishes to increase its population growth, there are many possible ways to try this; a nation's growth should not depend on the ignorance and misfortune of its citizenry. In any event, it is naive to expect that we can fine-tune such trends.

In the broadest sense, the goals of the population policies we recommend aim at creating social conditions wherein the desired values of individuals, families, and communities can be realized; equalizing social and economic opportunities for women and members of disadvantaged minorities; and enhancing the potential for improving the quality of life.

At the educational level, we wish to increase public awareness and understanding of the implications of population change and simultaneously further our knowledge of the causes and consequences of population change.

In regard to childbearing and child-rearing, the goals of our recommendations are to: (1) maximize information and knowledge about human reproduction and its implications for the family; (2) improve the quality of the setting in which children are raised; (3) neutralize insofar as it is practicable and consistent with other values those legal, social, and institutional pressures that historically have been mainly pronatalist in character; and (4) enable individuals to avoid unwanted childbearing, thereby enhancing their ability to realize their preferences. These particular policies are aimed at facilitating the social, economic, and legal conditions within our society which increase ethical responsibility and the opportunity for unbiased choice in human reproduction and child-rearing. At the same time, by enhancing the individual's opportunity to make a real choice between having few children and having many, between parenthood and childlessness, and between marriage and the single state, these policies together will undoubtedly slow our rate of population growth and accelerate the advent of population stabilization.

In connection with the geographic distribution of population, our objectives are to ease and guide the process of population movement, to facilitate planning for the accommodation of movements, and to increase the freedom of choice in residential locations.

To these ends, therefore, we offer our recommendations in the belief that the American people, collectively and individually, should confront the issues of population growth and reach deliberate informed decisions about the family's and society's size as they affect the achievement of personal and national values.

Chapter 9: Education

One characteristic American response to social issues is to propose educational programs, and this Commission is no exception. The range of educational topics impinging on population is broad and diffuse; somewhat arbitrarily, we have elected to organize the subject into three categories: population education, education for parenthood, and sex education. This is not the only way to organize this material. It is for the individual community, school, or agency to decide what is appropriate and wise for them in preparing such educational programs.

Population Education

If Americans now and in future generations are to make rational, informed decisions about their own and their descendants' future, they must be provided with far more knowledge about population change and its implications than they now possess.* The amount and accuracy of information currently held by Americans on the subject of population leave much to be desired. Approximately six out of 10 questioned in our 1971 poll either did not know or could not guess the size of the United States population within 50 million persons (205 million in 1970). And among young persons between 16 and 21, many of whom are still in school, the proportion answering correctly rises only a couple of percentage points. The record is even worse with respect to information about the world's population. Only 16 percent know or can guess the size of the world's population within one-half billion persons (3.6 billion in 1970). If information on such elementary facts is missing, one can imagine the state of more advanced knowledge and understanding.[1]

Population education involves more than simply learning the size of different populations. Ideally, it includes some elementary knowledge of the arithmetic of population growth and the growth of metropolitan areas and suburban decentralization. A program of population education should seek to present knowledge about population processes, population characteristics, the causes of population change, and the consequences of such change for the individual and for the society. We believe that population education should not approach population as a "problem" to be solved or as a point of view to be promoted. The goal of population education is to incorporate concepts and materials related to population into the school curriculum in order to educate future generations, enabling them to make more intelligent decisions with regard to population matters.[2]

Although some students are exposed to a smattering of population content in courses such as geography and biology, there is hardly any systematic coverage of the topic.

There is no evidence that anything approaching an adequate population education program now exists in our schools. Very few teachers are trained in the subject and textual materials are scant and inadequate.

Teachers can be trained in the content of the population field and in the methods of population education, through pre-service and in-service programs, summer institutes and workshops, the development of mobile teams of specialists, and other special programs. Some beginnings in this direction have already been made.

It is, of course, understandable that schools are under enormous pressure to incorporate in their curriculum many new topics ranging from driver education to drug education. The techniques for incorporating population materials into other courses will have to be explored.

Congress has begun to recognize the need for population education. Population is among the subjects that may be included in programs funded under the Environmental Education Act of 1970. P.L. 91-572, the Family Planning Services and Population Research Act, contains an authorization of $1.25 million in fiscal year 1973 for family planning and population information and education.

However, the Environmental Education Act is seriously underfunded; and population education, which is only a small element of the program, is unlikely ever to receive adequate attention under the present legislation. The Office of Education, which administers the environmental education program, has not been an enthusiastic advocate of population education. This situation might change if adequate authority and funding became available for such a program.

Although Congress authorized funding of population education under P.L. 91-572, in the first two years no funds have been made available under the Act for this purpose. In fiscal year 1973, the Department of Health, Education and Welfare has requested $170,000 for population education. In a paper prepared for the Commission, one expert estimated that federal funds amounting to $25 million over the next three years are needed in this field.

Responsibility for coordinating activities in population education has recently been assigned to the Deputy

A separate statement by Commissioner Alan Cranston appears on page 150.

Assistant Secretary for Population Affairs. This represents an initial step toward establishing quality programs in population education. The Commission suggests that, as activity in the field of population education expands, it may be necessary to review periodically the location of this responsibility.

In view of the important role that education can play in developing an understanding of the causes and consequences of population growth and distribution, the Commission recommends enactment of a Population Education Act to assist school systems in establishing well-planned population education programs so that present and future generations will be better prepared to meet the challenges arising from population change.

> *To implement such a program, the Commission recommends that federal funds be appropriated for teacher training, for curriculum development and materials preparation, for research and evaluation, for the support of model programs, and for assisting state departments of education to develop competence and leadership in population education.*

At the college level, a recent survey of 537 accredited four-year institutions in the United States indicated that nearly half offer a course in demography or population problems. Variation by type of institution was considerable, with only one-fifth of the Catholic schools, but two-thirds of the state or municipal schools offering a population course.[3] In reality, only a small fraction of the college population is exposed to formal coursework in demography. The Commission feels that a useful way to increase this exposure would be to include population in the large introductory social science courses offered by all colleges and universities. Additionally, exhibits, lectures, and programs sponsored by campus groups would serve to increase student awareness of population questions.

Education For Parenthood

Life in the future will depend significantly on the characteristics of our children. The Commission's interest is not limited to the number of children in our population, but extends to a concern for the quality of their development. How adequately are we raising our children, and how can we insure that parents and children are given the opportunity for self-fulfillment?

There is a diversity of styles of family life in America today. It includes the conventional nuclear family (parents and children) along with extended families and experiments in communal living. In addition, a great many of the traditional functions of the family are being assumed by other institutions. Although its functions diminish and its size and form change, the family as a basic social institution shows little sign of obsolescence. The family remains the primary environment for the physical, emotional, social, and intellectual development of children. The home continues to be the focus for learning about parenthood. Children are constantly being educated for their future roles as parents by the examples set for them. The infant shares in the loving environment of his home; the young child learns discipline and the daily activities of family life; the teenager begins to understand the responsibilities involved in the creation of a home.

Since the overwhelming majority of Americans marry and have children, we tend to overlook the fact that we are not all equally suited for parenthood any more than we are for teaching school or playing various sports. Matters of temperament, age, health, and competing interests, to mention just a few, are considerations in determining whether or not to have children. For most people, choosing to remain childless is not a real option. Our society should enlarge its tolerance and accept, without stigma, those individuals who choose not to become parents.

Costs of Children[4]

At the same time, the Commission considers it important for parents and prospective parents to have some understanding of the implications of their reproductive decisions for themselves and their children. The benefits and rewards of children are well known, but not many recognize the emotional and financial costs involved. For many young people, becoming a parent represents a greater change in their lives than does marriage; and they are unprepared for the emotional demands of parenthood or the impact of each additional child on the family unit.

Although many couples have only a vague idea of the financial costs of a child, more and more parents are enlarging their expectations for their children. This change in expectations has meant a change in costs. Parents today, in addition to paying for the birth and rearing of a child, may also bear the costs of a college education. The costs of raising a child from birth

through college, without including the costs borne by the public sector, are estimated in Table 9.1. As substantial as these are, the direct cost is only part of the total. With the birth of a child, one parent—usually the woman—will tend to spend more time at home, thereby giving up the income which she otherwise would have earned. Today, with more women better educated and having better jobs, the earnings a woman foregoes due to the birth of a child are often substantial. Depending on her educational background, a woman's loss of earnings over a period of 14 years due to the birth of her first child might be as high as $60,000. Although she will forego less in the way of earnings with subsequent children, the loss of income, combined with the costs of raising a family, may place a heavy financial burden on the parents. Information on the costs to the family of raising a child is an important part of education for parenthood. With some idea of the financial demands of children, parents can plan ahead and be better prepared to provide the kind of life they want for their children.

Another type of cost for many individuals and their children are the disadvantages that result from early childbearing. Infants of young mothers, especially those under 19 years of age, are subject to higher risks of prematurity, mortality, and serious physical and intellectual impairments than are children of mothers 20 to 35. Despite a downward trend, a quarter of American girls who recently reached their twentieth birthday had already borne a child. Moreover, the mother, father, and child are more likely to be disadvantaged in social and economic terms than are couples who postpone childbearing at least until the mother is in her twenties.[5] In addition, a recent government report indicates that the probability of divorce is considerably higher for couples married when the wife is younger than 20 years old.[6]

Table 9.1
The Total Cost of a Child, 1969

	Discounted	*Undiscounted*[a]
Cost of giving birth	$ 1,534	$ 1,534
Cost of raising a child	17,576	32,830
Cost of a college education	1,244	5,560
Total direct cost	20,354	39,924
Opportunity costs for the average woman[b]	39,273	58,437
Total costs of a first child	$59,627	$98,361

[a] Discounted and undiscounted costs—spending $1,000 today costs more than spending $1,000 over a 10-year period because of the nine years of potential interest on the latter. This fact is allowed for in the discounted figures by assuming interest earned annually on money not spent in the first year. True costs are not accurately reflected in the undiscounted estimates, for these are simply accumulations of total outlays without regard to the year in which they must be made.

[b] Depending on the educational background of the mother, the opportunity costs (earnings foregone by not working) could be higher or lower.

Source: Ritchie H. Reed and Susan McIntosh, "Costs of Children" (prepared for the Commission, 1972).

Family Life Education

The decision to marry and the decision to bring a child into the world should not be made lightly. Both marriage and parenthood should imply a deep personal commitment and a continuing emotional investment. As a nation, we have a responsibility to provide better preparation for parenthood. At the present time, some school systems throughout the country have included family life courses in their curriculum. The Catholic Church has been in the forefront in family life education and is working to inform children and their parents on issues involved in family living. Programs in home economics similarly provide training for marriage and parenthood. The subject matter of these courses is extremely variable, including topics on the functions of the family in human history and in modern industrial society, nutrition and home management, the physiology of reproduction, the physical and emotional relationships involved in dating and marriage, and the roles of family members, including discussions of the changing status of women and patterns of child-rearing. Supplementary to these school programs are the efforts of community groups, such as the Red Cross, in training and guiding prospective parents. In regard to parent education, the White House Conference on Children concludes:

> Where parent education does occur, it is typically presented in vicarious forms through reading and discussion. . . . Excellent preparation for parenthood can be given to school-age children through direct experience under appropriate supervision, in caring for and working with those younger than themselves.[7]

The mass media are a potent educational force in our society. American children and adults spend an estimated average of 27 hours a week watching television.[8] They also spend large amounts of time reading

newspapers and magazines, listening to the radio, and going to movies. Family life, as depicted in soap operas, situation comedies, and romantic magazines and films, bears little resemblance to that experienced by most of the population. In our judgment, the media should assume more responsibility in presenting information and education for family living to the public.

In proportion to the number of individuals who are and will become parents, our educational effort is insufficient. The Commission believes that community agencies, especially the school, should become more sensitive to the need for preparation for parenthood and should include appropriate subject matter in their programs. We observe that there is information and expertise in the various aspects of family life scattered throughout the public and private sector. The Commission suggests that the Department of Health, Education and Welfare provide financial support for programs designed to examine and coordinate existing information activities and resources in this field.

If one of our goals is to maximize the opportunities for parents and their children, the concept of education for parenthood goes beyond the provision of courses in family life. The field expands to considerations of maternal and child health, the emotional and physical conditions under which we raise our children, and finally the genetic endowment with which the young will develop. Discussion and recommendations on issues of maternal and child health are found in Chapter 11.

Nutrition[9]

The existence of hunger and malnutrition in the United States is well known. Although it is difficult to separate nutrition from the total physical, social, and biological environment, the Director of the National Nutrition Survey estimates that there may be more than 10 million malnourished Americans among the poor. Of these, approximately 40 percent are children. Of all the children surveyed, 15 percent showed evidence of growth retardation—an anticipated result, since malnutrition is known to inhibit the normal growth process.[10]

Experts have stated that, if malnutrition persists during the first few years of life, the child is doomed to foreshortened physical and mental development, increased susceptibility to infection and impaired response to his environment.[11]

Malnutrition is not only a threat to growth and development, it endangers life itself. Scientists have shown that malnutrition directly increases the mortality rate of pregnant women and, indirectly, of infants; maternal malnutrition is a major cause of immaturity and prematurity among infants. Between one-half and three-fourths of all children who die in the first four weeks of life are premature. A Norwegian study has demonstrated that improved nutrition resulted in a 50-percent decrease in still births, premature births, and infant mortality.

We urge private and public agencies to combine in establishing programs to prevent malnutrition and its effects. Malnutrition can be prevented by providing the appropriate food to expectant mothers and to children under three years old, particularly those living in poverty.

If any food supplement program is to be successful, food fads and habits must also be changed. Nutrition education is a vital component in any program to prevent and correct malnutrition.

It is not only the poor who are in need of nutrition education. All groups in our society require information to improve their nutritional health. Currently, we are giving a good deal of attention to consumer education, including some nutritional education. We urge that these efforts extend to ensuring fair and honest advertising and labeling of the products we consume.

Environment and Heredity

We have all heard the term "deprived environment" used to describe the handicaps of ghetto children; yet, relatively little attention has been paid to determining the environmental needs of children. More consideration should be given to the physical, intellectual, and emotional environments in which we raise our children. Other groups and commissions are reviewing many of these issues; our concern is that we recognize the need for programs to provide parents with the education, skills, and services to deal effectively with these problems.

The relative importance of heredity and environment in shaping an individual's growth and development remains uncertain. Clearly, it is desirable to reduce the incidence of genetically related disorders in the population. The frequency of such disorders is much higher than formerly suspected. According to experts:

> No less than 25 percent of hospital and other institutional beds are estimated to be occupied by patients whose physical or mental illnesses or defects are under full or at least partial genetic control.[12]

Others estimate that one out of 15 children is born with some form of genetic defect, some so severe as to have tremendous implications in the life of the affected person and his family.[13]

The provision of genetic advice to parents and prospective parents can increase the responsibility of their reproductive decisions. With the information provided by genetic screening and counseling, a couple can approach parenthood with some notion of the probability of their child having a genetic disorder. We believe that this increased knowledge and awareness can benefit parents and children alike.

It would be unrealistic at the present time to imagine that we can launch a full-scale program of genetic screening and counseling. For centuries, man has observed that some disorders are found with greater frequency in certain families, and in some social and ethnic groups; it has only been in the last half century that knowledge has accumulated concerning the actual mechanism controlling inheritance. And there remains a great deal to learn regarding the genetic components of many disorders and the precise mode of their inheritance. Furthermore, only recently have we become concerned with the ethical and moral implications of the expanding technology of genetics.

As a Commission, we encourage increased support of: (1) research to identify genetically related disorders; (2) development of new and more refined screening techniques and research aimed at improving the delivery of these services; (3) extension and improvement of the care and treatment of persons suffering from genetically related disorders; and (4) exploration of the ethical and moral implications of genetic technology.

Although the science of genetics is still in its early development, our knowledge and technology are sufficient to begin to develop the educational, screening, and counseling programs to identify and inform couples at risk.

Private and public funds should be made available to develop facilities and train personnel to implement programs in genetic screening and counseling. A small number of such programs are already functioning within groups in the population known to experience a high frequency of certain disorders. For example, biochemical evaluation of the fetus is now used to detect the presence of Tay-Sachs disease among members of the Jewish community, and prenatal chromosome analysis can detect Down's syndrome (monogolism), which occurs with a high frequency in older pregnant women. A simple blood test is now available to screen for sickle cell anemia, which affects tens of thousands of black Americans, and to identify those individuals who are carriers of the sickle cell trait.

The Commission believes that genetic education is an important component in any program of education for parenthood. Therefore, we suggest that genetic information be part of the health education services offered in comprehensive programs where patient counseling is involved, such as family planning services, premarital counseling, prenatal clinics, and maternal and child health projects. Moreover, we suggest that material on genetically related diseases be included in the school curriculum. Professional education should be expanded to alert doctors, nurses, and other health workers to recognize genetically related problems and to refer them to available genetic counseling services.

In the United States at present, the one role which most people ultimately assume—parenthood—is given little attention. The Commission urges that parents and prospective parents have access to the information, techniques, and services needed to raise their children to be healthy, creative individuals who are capable of full participation in our society.

Sex Education

In our society today, many young people appear to be questioning traditional sexual codes and experimenting with new life styles and new moralities. Although there are many manifestations of change, it may be that the fundamental change consists of a greater willingness to submit our sexual attitudes and behavior to public discussion. Traditional and religious constraints on such discussion have receded; psychiatric writing has induced us to accept sexuality as a basic aspect of personality development and interpersonal relationships.

For some, the subject of human sexuality refers to the physiological and emotional responses to sexual stimuli; recent research into the biology of human sexuality reflects this perspective. For others, sexuality consists of learning the guidelines for appropriate sexual behavior. In its broadest sense, sexuality is no less than the fact of being a man or a woman, and how this identity affects personality and human relationships.

Whatever the limits of the subject, there seems to be a lag between the recognition of the importance of sexuality in human relationships and the development of ways to improve this aspect of our lives. One reason for this is the insecurity felt by most people in dealing with human sexuality. The challenge is great and there are few acknowledged experts to guide us. When so

basic a system of attitudes and behavior appears to be changing and when there is conflict between traditional sexual mores and contemporary sexual behavior, the task is to educate and inform in this climate of uncertainty.[14]

As a nation, we are reaching a consensus on the need for sex education; and there is widespread support for these programs from the general public. A number of states have passed legislation in support of sex education in public schools. Some local school districts have instituted programs in family life and sex education. Many responsible organizations have indicated their support for sex education programs. In 1969, the president of the National Congress of Parents and Teachers stated that "sound education about sexuality is basic if children are to understand human development, cope with stresses and pressures of adolescence in modern America and become adults capable of successful marriage and responsible adulthood."[15] The *Interfaith Statement on Sex Education*, urges "all (parents, clergy and school) to take a more active role, each in his own area of responsibility and competence, in promoting sound leadership and programs in sex education."[16]

There is a wide range of opinion on the subject of sex education among specialists who are themselves divided on the definition and content of sex education programs. To some degree, the social and cultural backgrounds of the groups with whom the sex educator is most familiar, and his perception of their immediate needs, are reflected in his definition of sex education. The sex educator working in an urban ghetto will have views on the methodology and presentation of sex education which might differ from those of an educator working in a middle-class suburban community. Furthermore, there is a dearth of carefully constructed programs with clearly stated assumptions, values, aims, and mechanisms for evaluation.

Some authorities define the subject from a relatively narrow, pragmatic perspective. They are of the opinion that young people reject the authority of the school as representing "the establishment," thereby making it difficult, if not impossible, for schools to be an effective force in discussing the sensitive relationships involved in human sexuality. These educators feel that students should be taught what they want to know—that is, the specific facts about reproduction, contraception, abortion, and venereal disease. Moreover, students want the opportunity to discuss in the classroom their attitudes toward sexual behavior. This subject matter should be presented in a straightforward manner in existing biology and health courses. And, these school programs should be combined with community efforts sponsored by youth-oriented groups, Planned Parenthood centers, and similar groups.

Others view sex education as a form of preventive medicine, as an "appreciation of maleness and femaleness in relationship with the same and opposite sex—part of the total personality and health entity of each individual—character education." From this perspective, sex education is not reproduction education or simply the presentation of facts; it is seen as a way of helping people, especially the young, to understand themselves and their sexuality in relation to the human community.

Although no single definition of sex education is accepted by all those working in this field, we find more agreement on the general objectives of sex education programs.

A major goal of sex education is to improve human relationships by helping individuals deal more openly and reasonably with their sexual concerns. In addition, sex education programs aim to increase the individual's knowledge and appreciation of human sexuality.

Programs in sex education have the responsibility to present, in an appropriate manner, factual information on the emotional, physical, and social aspects of sexuality.

Another goal of sex education is to enhance communication between the generations regarding sexual attitudes and behavior. Most would agree that the home should be the source of sound sex education. In fact, informal education about sexuality is constantly provided in the home environment as children are influenced by parental attitudes and behavior. A recent survey conducted for the Commission on Obscenity and Pornography indicates that an overwhelming number of those interviewed reported parents as the preferred source of sex education. However, mothers were an actual source of sex information for 46 percent of the women, and parents served as an actual source for only 25 percent of the men.[17] Unfortunately, large numbers of parents feel factually and emotionally ill-prepared to handle the topic with their own children. Most adults have had no formal sex education, and the characteristic lack of communication about sexuality is a source of great frustration and anxiety for parents and children alike. The community can assist in this difficult task by providing sex education for citizens of all ages; sex is a vital aspect of life for people in every age group, and education in sexuality should be an ongoing process.

The Commission recognizes that there is no best way to define or conduct sex education programs, and

that local communities and groups must create programs which coincide with their values, resources, and needs.

Today there is an increasing openness and public presentation of sexual matters. Some take advantage of this situation, presenting sex in a sensational manner. Not enough information about sexuality is presented to the public by responsible sources. For example, we see no justification for a situation where newspapers accept advertisements for X-rated movies, while advertisements for birth control methods are unacceptable.

With an appreciation of the difficulties involved, we feel it is possible to present material from this intensely personal aspect of life in an open and forthright manner, while maintaining respect for the intimate and private nature of the subject. We believe this can best be done through responsible programs of sex education.

Yet there remains a well-organized and vocal minority actively opposing programs of sex education. Some of these groups go so far as to interpret sex education as a politically inspired plot to teach young people how to engage in sexual activity, thereby officially condoning "immorality" and "perversion." We regret that these groups have successfully forestalled sex education programs in 13 states.[18] We call upon all groups to join in the creation of appropriate, high quality programs in sex education. The issue was underscored by the observation of a high-school girl at one of the Commission's public hearings: "... the refusal to provide education will not prevent sex, but it certainly will prevent responsible sex."[19]

Ignorance does not serve to prevent sexual activity, but rather promotes the undesirable consequences of sexual behavior—unwanted pregnancy, unwanted maternity, and venereal disease. These problems seem particularly acute for the adolescent segment of our population. Unfortunately, society has been slow to face the fact that, with or without formal sex education, there is a considerable amount of sexual activity among unmarried young people. A recent national study of unmarried teenage girls revealed that 14 percent of 15-year-olds and up to 44 percent of 19-year-olds reported having had sexual relations. Only 20 percent of these girls used contraception regularly. Such a low incidence of contraceptive use is particularly significant when less than half of these girls knew when during the monthly cycle a girl can become pregnant.[20] Rates of out-of-wedlock births to young women aged 15 to 19 increased by two to threefold between 1940 and 1968.[21] (Discussions of teenage pregnancy and contraceptive information and services for teenagers are found in Chapter 11.)

Venereal disease in the United States is considered by public health officials an epidemic of unusual extent and severity. They estimate that 2.3 million cases of infectious venereal disease were treated in the United States last year. The incidence of reported venereal disease is highest among persons under 25.[22]

After a consideration of alternative mechanisms for improving and increasing programs of sex education throughout the nation, the Commission suggests that funds be made available to the National Institute of Mental Health to support the development of a variety of model programs in human sexuality. These programs should include school- and community-based projects in a number of different communities. In the area of sex education, there are few carefully designed programs with clearly defined goals and mechanisms for evaluation. The evaluation and testing of different model projects would greatly enhance the field of sex education.

We believe that sex education ideally should be focused in the home and supplemented by schools and other community groups including religious, medical, and service organizations.

To handle this material successfully, those people involved should be individuals who themselves experience no difficulty in being open and direct about sexual matters, and who have the sensitivity and perception to gain the trust of youth. Few of today's teacher training institutions provide adequate education in this field. From a sample of 100 teacher training schools, it was discovered that only 13 percent provide any kind of specific training for teachers of sex education.[23]

The Commission supports those community agencies and educational institutions training professional sex educators, and urges more schools to include such training in their programs. Moreover, we encourage institutions involved in training professionals in the health and welfare fields, such as doctors, clergy, family planning workers, and social workers, to add courses in human sexuality to their curriculum.

Recognizing the importance of human sexuality, the Commission recommends that sex education be available to all, and that it be presented in a responsible manner through community organizations, the media, and especially the schools.

Chapter 10: The Status of Children and Women

The Children

There is no paradox in welcoming the trend toward smaller families and simultaneously viewing children as our most valuable resource. In the past, we have not given children as high a place in our priorities as in our rhetoric. With a renewed trend toward fewer children per family, now is a propitious time to begin.

The total needs of children within our society are addressed in detail in the report of the 1970 White House Conference on Children. There are, however, several issues of special relevance to our task. Among these are child health and development, welfare of pregnant adolescents, rights of children born out of wedlock, and adoption.

Health and Development

We know that the physical, emotional, and intellectual potential of each human being is greatly affected by the health and nutrition of the expectant mother and by the care given to the child in the first few years of life. However, adequate prenatal care is not available to many women, especially the poor who live in inner-city ghettos and in rural areas, pregnant adolescents, and women pregnant out of wedlock. One result is higher rates of death or illness among such mothers and infants. Our nation's infant mortality rate is higher than that of 12 other nations, and it varies within the United States according to location and socioeconomic group. Infant mortality is higher among nonwhites and the poor than among whites and the middle class. The incidence of cerebral palsy and other birth disorders is also higher among the same groups.

Regular health care during the first year of life is a key to preventing or correcting illnesses that may handicap for life; but pediatric services are not sufficiently available to the poor. In addition, very few private health insurance programs pay for well-baby care, and even nonpoor parents may have difficulty in meeting these costs.

Since 1935, the federal government has supported programs to extend and improve health services for mothers and children, especially in rural areas. One of these, the Maternal and Child Health program of the Department of Health, Education and Welfare, provided maternity nursing services to over a half million women in the year beginning July 1, 1970. Almost 1.5 million children received preventive health services that included attention to their nutritional and other special needs. Another, the Maternity and Infant Care program, was established in 1963 to help reduce the incidence of mental retardation and other handicapping conditions caused by complications associated with childbearing, and to help reduce infant and maternal mortality by providing health care to high-risk mothers and their infants. As of July 1971, 56 maternity- and infant-care projects admitted 141,000 new maternity patients and over 47,000 infants.[1]

Federal support of these programs is not increasing significantly; and they are unable, as presently constituted, to meet the needs of all low-income women who are not receiving private health care. Moreover, neither program is designed to defray the costs of maternal and infant care for the nonpoor.

The Commission believes that our nation should set a goal of providing comprehensive health care to all mothers and children. This should be a high priority of our health-care system. The costs and methods of developing a complete fertility-related health program are discussed later. Two-thirds of the costs of such a program would be for maternal and infant care.[2] The costs to the nation, over and above current expenditures, are not excessive. The savings, in terms of improved maternal and infant health, would be considerable. Until the time that it becomes fully operational, existing federal maternal and infant care programs, especially those carried out under the authority of Title V of the Social Security Act, should be extended and enlarged.

Child Care

It is essential to recognize the critical significance of the first three years of life for the emotional and intellectual, as well as the physical, development of children.* Information and education on the importance of early cognitive development should be made available to parents. In both the home and in child-care programs, every effort should be made to provide the best possible health, nutritional, emotional, and educational support during this vital period.

Many parents today are looking for assistance in the care and rearing of their children. There are various reasons for this, including the steadily growing employment of women, the declining reliance on relatives, and the increasing realization of the learning potential of preschool children.

In 1970, almost 26 million children under 18 had

**A separate statement by Commissioner John N. Erlenborn appears on page 154.*

mothers who worked at least part time; over 5.8 million of these children were under age six.[3] Large numbers of these working mothers were the sole support of their families or supplemented incomes near the poverty level. Many middle-class women are also entering the work force. Changing values, the rising number of divorces, and the increasing costs of children in an urban environment are some of the factors contributing to this new trend.

The child-care arrangements made by working mothers, especially those whose ability to pay is limited, are frequently inadequate. Many children are cared for in their own homes by adult relatives or babysitters, but many are cared for by sisters or brothers who are themselves children. Other children receive care outside of the home under various arrangements. Only a small percentage are enrolled in nursery schools or day-care centers, and many of these are of low quality. At least one million young Americans receive no supervision at all—these are the so-called "latch-key" children who wander about after school or remain at home alone when ill.[4] These conditions are unacceptable.

In other societies and in earlier times in our own country, very young children were exposed to a variety of adults and other children. In the so-called extended family, care was often provided by grandparents, aunts, and cousins. In larger families and before universal education, many children depended upon older siblings for much of their care. Today, greater mobility, smaller families, and suburban housing patterns have tended to isolate mother and child alone in the home for extended periods of time. As with employment, these trends appear to be increasing. Many families would benefit from versatile part-day as well as full-day child-care programs, or from programs that could provide day and night care in case of a family emergency.

Research has indicated the high learning potential of preschool children, and many people are beginning to urge that some exposure to formal learning begin before age six. Some have suggested that child-care programs become extensions of the educational system. As the birthrate falls, school systems may find that the desire for earlier entry into the educational system will coincide with available classroom space. However, the needs of a child-care system are such that substantial changes would be required in the present operation of the public school system.

Some of the opposition to the creation of a child-care system in this country is based on the following beliefs: it may be destructive of the family; we cannot afford to undertake something as expensive as good developmental child care; and by reducing the tension between motherhood and other roles, child care will encourage the birth of more children.

We believe that institutional child care, if undertaken on a broad basis, may have some beneficial implications for the family. Economic and educational functions have been separated from the family without destroying it. A "latch-key" child will probably benefit from anything that gets him off of the street. The child from a more traditional home may benefit from the companionship of other children. It is unlikely that any child could benefit from a sterile, institutional setting that offers no stimulation. The kind of care a child receives is more important than where he receives it. A child may learn to love or hate in his own home, in a neighbor's home, or in a child-care center. What is essential is that children receive love, warmth, continuity of care, and stimulation.

Aside from the quality of care, parents must be able to make the decision whether or not to use child-care services and to what extent. Any form of compulsory child care is unacceptable, including the requirement that mothers place young children in these programs in order to comply with regulations that exact training and employment as a condition for benefiting from assistance programs.

Developmental child care seems preferable to custodial programs; and there is no question that such programs, on a large scale, will involve enormous expense. One source estimates that it would cost $20 billion per year in public funds to pay for the best kind of full-time developmental program for the 18 million children from families with incomes under $7,000.[5] There may be ways to obtain good care for less. Experimentation with a variety of programs and personnel seems essential.

Those who are able to pay for child care should do so. Recent amendments to federal tax law to permit working persons with incomes under $18,000 to deduct up to $4,800 per year in child-care costs should make it possible for many middle-income families to pay for these services.[6] Union and industry programs that provide care for children of members and employees should be expanded. Even so, public funds will be necessary both to stimulate innovative programs and research, and to subsidize services for lower-income families.

Many people concerned with population growth have argued against public subsidization of child-care programs because they believe such programs may encourage childbearing. In the short run, child-care programs may reduce the tension between motherhood and employment, and thus make it possible for some working women to feel they can manage the responsibil-

ities of both employment and children. However, it is also possible that child-care programs will have a negative impact on fertility. Parenthood is an almost universally desired status in our society and most couples want at least one child. The availability of child care is not likely to affect the behavior of the woman who perceives her role as that of wife and mother; nor is it apt to affect the decision to have a first child. After the first or second child, however, the economic opportunities available outside of the home to a woman who wishes to work may affect her desire to have additional children. With child care available, women who want to work will have the opportunity to enter or reenter the labor force much sooner; and the rewards of employment may compete effectively with the satisfactions of additional children. On the other hand, if a woman is unable to seek alternative roles outside the home, perhaps because of an inability to make adequate child-care arrangements, she might channel all her creative energies into her domestic role and might be encouraged to have additional children.

In the long run, therefore, child-care programs may reduce fertility. Faced with no prospects for child care, many women have chosen to forsake career aspirations rather than forego motherhood. If future young women perceive that they may combine both roles, it is likely that more of them will undertake the training and education necessary to pursue careers outside of the home.

We believe that the demand for child-care services will continue to grow. The challenge is to make certain that they enhance the well-being of the child.

The Commission therefore recommends that both public and private forces join together to assure that adequate child-care services, including health, nutritional, and educational components, are available to families who wish to make use of them.

> *Because child-care programs represent a major innovation in child-rearing in this country, we recommend that continuing research and evaluation be undertaken to determine the benefits and costs to children, parents, and the public of alternative child-care arrangements.*

Adolescent Pregnancy and Children Born Out of Wedlock

The problem of pregnant adolescents requires special attention by our society. In 1968, just over 600,000 infants, 17 percent of all births in that year, were born to women under 20 years old. Childbearing at any age is a momentous event for a women; but pregnant teenagers, especially those in the early teens, often experience serious health and social difficulties quite different from those of women over 20.[7]

Their babies have a higher incidence of prematurity and of infant mortality. Girls who marry or have a first child at an early age also tend to bear subsequent children at a rapid rate, so that intervals between births are relatively short. A study of one metropolitan area found that 60 percent of girls who had a child before the age of 16 had another baby while still of school age.[8] Education and employment opportunities may be seriously impaired. In other sections of this report, we stress the necessity of minimizing adolescent pregnancy by making contraceptive information and services available to sexually active young women. When an adolescent does become pregnant, however, she should not be stigmatized and removed from society. In the past, pregnant girls almost always had to leave school as soon as their condition became known. Today, more and more school systems are making efforts to see that the pregnant adolescent does not suffer from lack of educational opportunity. Recently the Commissioner of the Office of Education stated:

> Every girl in the United States has a right to and a need for the education that will help her prepare herself for a career, for family life, and for citizenship. To be married or pregnant is not sufficient cause to deprive her of an education and the opportunity to become a contributing member of society. The U.S. Office of Education strongly urges school systems to provide continuing education for girls who become pregnant.[9]

We support the Commissioner's view, and believe that society will be well-served if all school systems would make certain that pregnant adolescents have the opportunity to continue their education, and that they are aided in gaining access to adequate health, nutritional, and counseling services.

Out-of-wedlock births among young people aged 15 to 19 are increasing in the United States. In 1965, there were 125,000 children born to unwed teenage mothers; in 1968, the figure rose to 160,000. By 1970, the figure is estimated to have risen to 180,000. The proportion of out-of-wedlock births among 15- to 19-year-olds rose from 15 percent in 1960 to 27 percent in 1968.[10]

Unwed mothers are less likely than married

mothers to have adequate prenatal care; and children born out of wedlock are more likely to be born prematurely and to die in the first year after birth. Adequate provision of contraceptive information and services, regardless of age, marital status, or number of children, is likely to reduce rates of out-of-wedlock pregnancy.

Our concern is specifically for the child who is born out of wedlock. This child is not only more likely to suffer from a health problem; he is born into a society that traditionally views him as socially, morally, and legally inferior. Under English common law, the child of an unwed mother was the child of no one and had no rights of inheritance. Unfortunately, this tradition has been preserved in many jurisdictions. In many states, children born out of wedlock do not have the same rights to child support or inheritance as children born to married women.[11] In some instances, when a man has a wife and children born in wedlock, there are legal limits on the amount that a father may will to a child born out of wedlock.

The purpose of this legal discrimination was to protect the sanctity of the family and to discourage extramarital sex. That goal has not been fully realized. Furthermore, the assumption that eliminating distinctions between children born in and out of wedlock will somehow undermine the family has itself been undermined by the fact that there has been no apparent increase in the rates of out-of-wedlock births and/or irregular unions in those countries where discrimination against such persons has been abolished.[12] There is a trend within this country to reduce discrimination against these children. Every state now recognizes that a mother has a legal right to the custody of a child born out of wedlock, and some states grant equal custody rights to the father. In states permitting recovery for wrongful deaths, there is a trend toward considering children born out of wedlock the natural progeny of both father and mother for purposes of collecting damages. The 1965 amendments to the Social Security Act[13] made it possible for the child to collect social security and other federal benefits on an equal basis with children born in wedlock. Such cases include those where the father has contributed to the support of the child or has been decreed by a court to be the child's father. Other, more subtle forms of discrimination are also slowly being eliminated. Several states prohibit any statement on a birth certificate as to whether a child is born in or out of wedlock, or as to the marital status of the mother.

There is no justifiable reason to discriminate between children according to the circumstances of their birth. The word "illegitimate" and the stigma attached to it have no place in our society.*

The Commission recommends that all children, regardless of the circumstances of their birth, be accorded fair and equal status socially, morally, and legally.

The Commission urges research and study by the American Bar Association, the American Law Institute, and other interested groups leading to revision of those laws and practices which result in discrimination against out-of-wedlock children. Our end objective should be to accord fair and equal treatment to all children.

Adoption

One consequence of unwanted childbearing, especially out-of-wedlock births, has been an increase in the number of children available for adoption. In 1969, there were 171,000 children adopted, roughly two-thirds of whom were born out of wedlock. However, in the same year, nearly half a million children lived in foster homes, group homes, or child welfare institutions.[14]

It has been asserted that increased adoption might lower the birthrate. Had all the children in foster homes and institutions been adopted, the total number of adoptions in 1969 would have reached over half a million. If each of these children had represented a birth averted, the total reduction in the birthrate might conceivably have reached 18 percent. This would be a one-time effect, however, because the large number represents an accumulation of unadopted children over many years.

The potential annual reduction in the birthrate can be derived from the number of children born and made available for adoption each year. In 1968, there were 339,000 out-of-wedlock births recorded.[15] Had each of those children been adopted by a family which otherwise would have borne a child of its own, the birthrate would have dropped by 11 percent at most. However, this is an extreme upper limit, because many children are not adopted as substitutes for childbirth. Some are adopted for humanitarian reasons; others are adopted by infertile couples. Some out-of-wedlock children are retained by their families; and there are administrative complexities and racial attitudes which prevent other

**A separate statement by Commissioner John N. Erlenborn* *appears on page 154.*

children from being adopted. Thus, the demographic impact of adoption on the birthrate in the United States is minimal.

The value of adoption, however, is not diminished by the lack of demographic significance. It is a practice that holds rewards for children, parents, and society. There appears to be a substantial number of prospective parents interested in adopting children, including couples unable to bear children of their own. Presumably others would become interested in adoption if it became more widely publicized that constraints on adoption were less stringent than frequently believed, and if public subsidies were available to assist adopting parents. For example, about a fifth of our states have recently enacted legislation to make it possible for a public agency to grant subsidies to adopting parents. In addition, there is probably an increasing number who would be willing to adopt rather than bear all of their children. More than half (56 percent) of the respondents to the Commission's public opinion poll indicated that they would consider adopting a child if they already had two children and wanted a larger family.[16] Thus, the symbolic value of adoption as a mode of responsible parenthood may come to outweigh its direct demographic impact.

At the present time, it is not possible to determine reliably the potential number of children available for adoption, or the total number of parents who would adopt children. In this country, adoption placement is shared by public and private agencies. Legislation governing adoption differs among states and within states. There is, therefore, considerable variation in adoption practice and procedure, as well as in the availability of services for prospective adoptive parents and children. Due to provisions guarding the secrecy of legal proceedings and changes in the child's birth certificate, little information about adoption exists in the public domain. Nor is much known about who assumes the responsibility for rearing children born out of wedlock.

It is our impression that adoption might become a more widespread practice with: (1) changes in legislation; (2) changes in adoption services; and (3) improved education about adoption opportunities.

The Commission recommends changes in attitudes and practices to encourage adoption thereby benefiting children, prospective parents, and society.

To implement this goal, the Commission recommends:

Further subsidization of families qualified to adopt, but unable to assume the full financial cost of a child's care.

A review of current laws, practices, procedures, and regulations which govern the adoptive process.

Such a review could be carried out by the Council of State Governments, the American Law Institute, and the American Bar Association, and should include study of the adequacy and comparability of laws, the rights of natural parents, the rights of children, the options for foster care and other custodial care as opposed to adoption, and eligibility requirements for adoptive parents, including such criteria as age, race, marital status, religion, socioeconomic status, and labor-force status of prospective mothers.

Institutional Pressures

Every human society has various ways of channeling reproductive behavior, both formally through the legal system and informally through social institutions and cultural norms. For most of human history, such influences have been strongly pronatalist as societies sought to ensure survival in the face of high mortality. Today, in the modern technological society, the balance has shifted. But childbearing is so interwoven with other aspects of social life, and affected by laws promulgated for other purposes, that it is not easy to say what would constitute genuine "neutrality" in this respect, or what would be truly "voluntary." Just how close to "neutral" is the present situation, in either the legal or the institutional sphere? What are the major pressures one way or the other?

A consultant to the Commission concluded:

> . . . our society is already pervaded by time-honored pronatalist constraints . . . . We cannot preserve a choice that does not genuinely exist, and, by the same token, it makes no sense to institute anti-natalist coercions while continuing to support pronatalist ones.[17]

Institutionalized pronatalist pressures include: (1) the socialization of the young into sex-typed roles, with the boys pointed toward jobs and the girls toward home and motherhood; (2) discriminations against the working woman and, even more, the working mother; and

(3) restrictions on higher education for women. Such pressures are so pervasive that they are typically perceived as "natural," and not simply cultural prescriptions. They are so powerful that even the current movement for women's liberation has hardly questioned motherhood as one of the goals for the modern woman.

There is no denying the strength of these pressures in today's society, or the psychic punishments employed in their enforcement. However, there are some contrary social trends as well—the limited economic value of children in an urbanized, industrialized society; the substantial liberation that has already occurred in the status of women; the rise of universal education; the increasing ethos of rationality and freedom of choice in reproduction; the decrease in pressure from traditional religious doctrine and, in some cases, direct religious support for more freedom of choice—in short, all of the still emerging social changes associated with the transition from traditional to modern society. Indeed, it is largely this counterbalancing that has resulted in the historical decline of birthrates in the developed countries, as compared with the high birthrates in developing countries where the pronatalist pressures are stronger still.

Similar tendencies, in both directions, are also present in the legal structure and public policy of the United States. Governmental actions that can affect childbearing decisions by individual couples include the laws regulating marital status (age at marriage, divorce, responsibility for child care, status of children born out of wedlock, even homosexuality); laws directly regulating fertility control (contraception and abortion); tax policy on income, property, and inheritance; housing regulations and subsidies, urban renewal programs, and welfare policies; food subsidies; health programs; aid to families with dependent children; fiscal support of formal schooling; allocation of expenditures to "male" or "female" sectors of the economy; even the draft laws. Although our knowledge of these influences is uncertain, three points should probably be made: (1) rarely are such laws adopted on demographic grounds; governmental influence is unintended, the by-product of policies adopted for other reasons; (2) the influence is mixed—some pronatalist, some antinatalist—and not easily balanced; and (3) accordingly, their influence is not likely to be great.

Thus, the informal, institutional pressures would appear to be much stronger than the formal, legal ones. They are probably also more difficult to change, at least over the short run. The objective for American society should be to make the childbearing decision as free as possible of unintended societal pressures: It should not be to "force" people to become parents in order to seem "normal," but to recognize that some people, and perhaps many, are not really suited to parenthood. We should strive for the ideal of diversity in which it would be equally honorable to marry or not, to be childless or not, to have one child or two or, for that matter, more. Our goal is one of less regimentation of reproductive behavior, not more.

Women: Alternatives to Childbearing

Historical Change

Societies have varied widely in their family arrangements and ideal roles for men and women, but the desire for progeny has characterized both agricultural and industrial societies.* Until modern times, high rates of reproduction were necessary to offset high mortality —especially high among infants and children. In agricultural societies, children had an economic value. More hands were an asset in a home-centered economy. Also, before care of the aged became institutionalized, parents had to rely upon their children for care in their old age; and large numbers of children were advantageous. As a result of these factors and of shorter life expectancy, women spent most of their adult lives bearing and rearing the four or five children traditionally expected.

In an earlier time, when economic functions were centered in the home, both men and women shared child-rearing and economic roles. When the industrial revolution shifted economic activities into the marketplace, women were required by the necessities of child-rearing to remain behind in the home. Over the years, this division of labor between the sexes became well-established, and has perhaps reached a new high in parts of this country where the mother tends the children in the suburbs, while the father commutes long distances to work and has only a few hours each day to spend with the family.

Long before the tradition of the large family disappeared, some couples had begun to adopt the small family pattern as individually desirable. With declining mortality rates, diminishing economic value of children, increasing costs of raising a child in an industrialized urban society, and improved methods of fertility control, both the number of children desired and born declined. Today, women marry earlier, have smaller families earlier, and live longer than they did 50 years ago.

**A separate statement by Commissioner John N. Erlenborn* *appears on page 154.*

One result of reduced fertility and increased longevity has been that, although virtually all American women marry and bear children, they spend less and less of their lives in maternal functions. Most women have completed their childbearing by age 30; and typically, by their mid-30's, the last child is in school. By age 50, the chances are that all children have left home. And the average woman who reaches 50 today can look forward to 28 more years of life after her maternal activities have ceased. Women of all ages have contributed invaluable services to their communities through volunteer activities. At the same time, more and more women are beginning to work, to seek higher education, and to choose roles supplementary to or in place of motherhood. We have not yet fully accommodated these changes in our social, legal, and economic structures.

If we should achieve a stationary population, women will spend even less of their lives in bearing and rearing children since family size, on the average, will be smaller. More women may forego motherhood altogether.

For all of these reasons, it would seem good social policy to recognize and to facilitate the trend toward smaller families by making it possible for women to choose attractive roles in place of or supplementary to motherhood.

Alternative Roles

Although we believe that increasing the freedom of women to seek alternative roles may reduce fertility, this change is not sought on demographic grounds alone. The limitations on the rights and roles of women abridge basic human liberties that should be guaranteed to all, regardless of the future course of population growth.

Here, as in the control of reproduction, our goal is to increase freedom of choice. Just as we oppose coercion in the control of fertility, we oppose any effort—explicitly or implicitly—to penalize childbearing and parenthood. We reject the notion that either motherhood or childlessness is or should be made to seem unfashionable. Instead, we seek a greater range of choice. Women should be able to choose motherhood, work, or other interests. Both men and women should be free to develop as individuals rather than being molded to fit some sexual stereotype.

Maximizing choice will require changes in the way men and women are educated, as well as in certain legal and economic practices. We have come to view certain roles, jobs, school courses, feelings, actions, and reactions as either male or female, and this effectively limits choice.[18]

Building self-images begins within the family. Girls should learn to look upon the wife-mother role as but one among a number of desirable roles. They should be helped to develop a sense of responsibility and confidence; personal achievement and enterprise should become valued traits for them. At the same time, boys should learn to relate to girls as true equals.

Schools are among the most important institutional forces at work in defining male and female roles. Women's horizons are effectively limited in many instances by the courses girls are encouraged to take or not take, and by implications that it is less necessary for them to excel academically or to pursue higher degrees. Textbooks that always show women in stereotypical domestic roles are probably effective image shapers.

It would be desirable to end sex differentiation in school courses, to train guidance counselors to view students as individuals, to channel educational and vocational interests without regard to sex, and to revise school books to show men and women in attractive roles both outside and inside the home.

There is, despite the number of working mothers, considerable ambivalence in our society as to whether women with children should be working outside the home. If the notion is to receive greater social acceptability, some redefinition of the family roles of men and women will be required. Under such conditions, both husband and wife would share more equally in both economic and domestic functions. Women who now work outside the home, often receive little assistance from their husbands in domestic functions. Greater participation of the husband in family matters would probably reduce home-job tensions for the wife. It would also provide fathers more opportunity to participate in the rearing of their children and give children the opportunity to know their fathers better. Many young couples are striving to develop this pattern of family life, but it is difficult to achieve within the present American context. A reworking of family roles would necessarily involve changes in institutional practices—different sets of working hours and provision for some sort of paternity leave, for instance. Certainly, more study of the effects of changing family structures and roles is necessary.

Although it is no longer necessary for all men and all women to marry and have children, virtually all American men and women do. We realize that not everyone is suited for marriage and child-rearing, but those who choose to remain single and childless are viewed with some suspicion in our society. It would be particularly helpful if marriage, childbearing, and child-rearing could come to be viewed as more deliberate and

serious commitments rather than as traditional, almost compulsory behavior.

Employment

More and more women are entering the labor market; today 43 percent of all women are in the work force.[19] Some analysts conclude that employment for women has a depressing effect on fertility. Census Bureau data and various studies show that, in the United States, employed women have borne fewer children than economically inactive women.[20] It is difficult, however, to determine the direction of cause and effect in this relationship. Some women may limit family size because they are working, but women with children frequently do not work because they must care for the children.

Given the kinds of jobs usually open to women and the employment patterns of women, claims that employment has reduced fertility should be made with caution. Most women are in low-paying, low-status jobs that are unlikely to compete effectively with childbearing. Further, until very recently, most women worked only until they had children, and returned to work after the children left home. This pattern, of course, contributed to the limitations on pay and promotion because women were not in the labor force long enough to secure seniority and higher pay.[21]

There is no question that women have experienced and continue to suffer discrimination in employment. Often, they are paid less than men for the same work, and are barred from certain job positions by protective laws. Generally, they have less chance for advancement even when they remain in the work force for extended periods of time. Minority women have suffered the greatest deprivation in the labor market. Black women are consistently among the lowest paid of all workers and the most likely to live in poverty.[22]

Recent federal and state laws to combat sex discrimination have had some beneficial effect. However, further action is necessary. Women should have equal access to all areas of the labor market, for several reasons. First, despite the generally held opinion that women work only until marriage or for "pin money," there are 12 million women in the labor force who have children under 18.[23] A 1965 Department of Labor report states that about two-thirds of all working women gave economic considerations as their reason for employment.[24] In 1971, 44 percent of working women were the sole support of a family.[25] Many others worked to supplement the low incomes of their husbands. These women must have an equal opportunity to support themselves and others.

Second, we believe that attractive work may effectively compete with childbearing and have the effect of lowering fertility, especially higher-order births. Virtually all American couples want at least one child, but there is some evidence that rewarding employment may compete successfully with childbearing beyond the first child.

Third, even if the number of children desired does not change very much in the future, more women are likely to be entering the labor market. Many will be single and will support themselves and others. Others will work to augment family income. Whatever the reason for working, equity demands that all participants in the labor force have equal opportunity to advance as far as their skills and desires permit.

Education

Education is an important key to achievement in employment in this country. Part of the reason women are underrepresented in such fields as law, medicine, and engineering is that they do not have equal access to the higher educational experience required by those fields.

There is abundant evidence that higher educational attainment is associated with smaller families in the United States. The American college graduate tends to marry later and procreate later, and to have fewer children per family or to form more childless families.

While sex differences among whites in the attainment of a high-school education have been minimal over the past 50 years, men have had and continue to have a better chance of achieving a college education. In 1970, 59 percent of college students were men. A woman's chances of going on to advanced degrees are much smaller than a man's. In 1970, 60 percent of all master's degrees and 87 percent of all doctorates were awarded to men. This inequity appears to stem both from institutional discrimination and from traditional expectations that women will spend their lives in the home and therefore have less need for higher education.[26]

In 1970, some eight million Americans were enrolled in vocational education programs.[27] Women in these programs have been enrolled in the traditionally female occupations of health, business and office work, and home economics. In many schools, women are not permitted to take courses traditionally viewed as male oriented—electrical or electronics technology, drafting, data processing, and power machine operation—which usually pay more.

The Commission believes that, as attitudes toward and individual control of family size continue to change

and more women seek employment outside of the home, more women will also seek technical training, college, and graduate educations. So that opportunities will be available on an equal basis, institutional discrimination against women in education should be abolished. Enactment of several of the recommendations contained in the Report of the President's Task Force on Women's Rights and Responsibilities would go far toward resolving institutional discrimination.[28] Because sex is not included in federal legislation which prohibits discrimination in federally assisted programs, women have sought a variety of means to gain entrance to the student bodies and teaching staffs of universities. These methods have been only partially successful in achieving integration of the sexes. Since virtually all schools receive some federal aid, extending federal law to include sex discrimination, while exempting presently existing one-sex schools, would go far toward increasing opportunities in a more orderly fashion.

Equal Rights

As we have learned in the struggle for equal rights for minorities, an end to legal discrimination does not guarantee equality.* However, equality cannot begin to exist until all legal barriers have been abolished. Women in the United States occupy a separate and unequal status under the law. Under common law, women were afforded few rights, and our Constitution was drafted on the assumption that women did not exist as legal persons. The legal status of women has improved in the past century with the adoption of the Nineteenth Amendment, alteration of some common law rules, and passage of some positive legislation. But equal rights and responsibilities are still denied women in our legal system. We believe this should be remedied. The right to be free from discrimination based on race, color, or creed is written into our fundamental document of government. We believe the right to be free from discrimination based on sex should also be written into that document.

The Commission therefore recommends that the Congress and the states approve the proposed Equal Rights Amendment and that federal, state, and local governments undertake positive programs to ensure freedom from discrimination based on sex.

**A separate statement by Commissioner Howard D. Samuel appears on page 169.*

Tax Policy and Public Expenditures

The costs to parents of bearing and raising children were discussed in an earlier chapter. Those costs, however, represent only a portion of the true costs of children. A research paper prepared for the Commission reached the tentative conclusion that public funds—through tax benefits or expenditure programs—subsidize an additional large portion of the costs of shelter, health, education, and welfare, thereby benefiting couples with children more than those without children. All citizens, regardless of whether or not they have children, pay for the public costs of children.[29]

None of the tax policies or expenditure programs which benefit children was instituted with the expressed intention of encouraging childbearing. They all resulted from other perceived needs within our society. Despite the fact that none of these programs was intended to be pronatalist, many believe this has been the result. They maintain that social welfare programs which benefit children have the effect of encouraging population growth.

An examination of the effects of these laws in that respect is worthwhile. Some programs may be said to encourage growth because they are supportive of physical well-being. For instance, food and health programs have improved the chances of successful outcome of pregnancy and have helped to reduce infant mortality.

Other programs have both benefited some families with children while burdening others—housing programs are an excellent example. Middle- and upper-class families, with and without children, are more likely to purchase homes and, therefore, have benefited from tax deductions on interest paid on home mortgages. They have also benefited from such programs as Federal Housing Authority and Veterans Administration loan guarantees, Federal National Mortgage Association and Government National Mortgage Association mortgage purchase authority, and Farmers Home Administration subsidized housing. On the other hand, some housing programs have had the effect of burdening families with two or more children, especially among the poor. The public housing program, often described as pronatalist, has in fact rarely benefited the larger family. Until adoption of the 1968 Housing Act, the emphasis in public housing was on smaller units. In that year, one-third of all families moving into projects were elderly. One-third had one or two children, one-fifth had three or four, and only one-tenth had over four. At the same time, through urban renewal and clearance for public housing and federal highway programs, the federal government destroyed more low-income housing

units than it constructed in the 1960's. It can be said that the overall effect of federal housing programs has been to benefit middle- and upper-class families with children, but to make it more difficult for low-income families with children to find suitable housing.

Some programs have obviously benefited families with children, but there is no proof they have encouraged the birth of additional children. For instance, tax exemptions for children benefit parents; but the amount of the deduction is so small in contrast to the cost of child-rearing, that it is difficult to imagine that anyone would have additional children in order to secure additional exemptions.

Public assistance programs, especially aid to families with dependent children, are frequently cited as encouraging reproduction among the poor. This cannot be demonstrated except insofar as assistance payments make it possible for these families to be better fed and cared for, thereby strengthening their reproductive capacities. For years, the argument has been that, because assistance payments are based upon the number of children in the family, welfare mothers have more children in order to increase their monthly payment. Welfare payments and standards vary widely. In November 1971, the average payment per family in New Jersey was $250; in Mississippi, it was $55. Neither is large enough to support a family of any size well. In addition, most state standards of need are set in such a manner that progressively less is paid for each child; and 20 states have set maximum payments for each family regardless of the number of children.[30]

Many people believe that welfare families are much larger than families in general. They are, in fact, half a child larger on the average. Between the years 1967 and 1969, when welfare payments were increasing, the average family size of welfare recipients was declining.[31] In New York City where, according to the pronatalist view, steadily increasing payments and program utilization in the years 1959 to 1970 should have encouraged more births, the percentage of welfare mothers bearing children each year dropped from 18.9 percent in 1959, to 11.3 percent in 1970.[32]

This brief review of programs that benefit and/or burden reproduction indicates how scant our knowledge is of the demographic effects of tax and expenditure programs. We feel it would be valuable to undertake studies to provide more information in this area, and to determine at what point reproductive behavior is measurably affected by these programs.

While we are unable to find evidence that present tax policies and public expenditures promote the birth of additional children, it is conceivable that the reverse might be true. As concern about overpopulation has grown, some individuals and groups have proposed consideration of tax policies or other programs that would penalize childbearing.[33] Three types of policies have been proposed. The first would require parents to assume all or a greater portion of the costs of their children. For instance, public education and health and welfare programs would either be abolished or substantially reduced, and tax deductions for children eliminated or cut back. The second type of policy would penalize or levy a fee for childbearing. The third type of policy would provide direct financial rewards for not having children, or in some cases, a bonus for undergoing sterilization. Since it is generally assumed that it is not childbearing per se but excessive childbearing that is to be avoided, all of these proposals have variants in which penalties or rewards would go into effect for any child after a certain number. For example, public education would be available for the first two children but not the third child; a fee would be levied for the third child or a reward paid for each year in which a third child was not born.

Many problems arise in regard to these proposals. First, disincentive programs that penalize childbearing, withdraw public subsidies of children, or limit public benefits to a certain number of children in each family, have the effect of penalizing the child and his siblings. For instance, if public education were limited to two children and a third child were born, the family would have the option of not educating the third child or of depriving the children of some benefits in order to support the cost of private education for that third child. The penalty, of course, falls most heavily upon the poor. To penalize children in order to motivate their parents is not justifiable.

Second, the type of program that offers direct financial rewards for limiting childbearing would almost certainly offer greater inducement to the poor. A flat rate of perhaps $300 for not bearing children is more likely to affect the behavior of the poor than of the middle class, since the $300 has a relatively higher value to the poor. A graduated bonus, increased according to income, might still be more likely to affect the behavior of the poor, depending upon the increase, since the subjective need for money is not the same at all levels. The need for a bonus of $300 to pay for next month's food and shelter is unlike the need for $3,000 to purchase a new car. If, as some have proposed, a bonus is to be offered for sterilization, the question of financial inducement becomes even more difficult so long as the procedure is substantially irreversible. Childbearing is very highly valued in our society, and

sterilization should never be undertaken without serious prior thought and knowledge of the ramifications. Since a poor person would be especially vulnerable to financial inducements, important ethical and moral questions arise. Bonus payments would serve to discourage childbearing only among the relatively few who are poorest. Therefore, it would not affect our overall growth substantially, and would weigh unevenly upon decisions about childbearing in a manner we find unacceptable.

Third, not only would these policies have more effect on the poor, but actual proposals to carry them out have, almost without exception, been directed specifically toward one group—welfare recipients. Bills to penalize childbearing by welfare mothers have been introduced in a number of states. Coercive proposals in regard to welfare recipients have included mandatory sterilization after a specific number of out-of-wedlock births. Most of the proposals have been framed in terms of "voluntary action": The woman may choose to practice birth control or lose custody of her children; the woman may choose to be sterilized or go to jail; the woman may choose to be sterilized or lose her welfare benefits. In 1971, the last proposal was approved by a committee of the Tennessee state legislature. In Connecticut last year, the state legislature considered a proposal to pay a bonus of $300 to every welfare mother who chose to be sterilized. This Commission has made clear the value it places upon voluntary fertility control, including sterilization. We wish to make equally clear our opposition to any program that singles out any group and attempts to control their reproduction as the price for receiving aid for their children, for maintaining custody of their children, or for retaining their own freedom.

Clearly, no proposal to penalize childbearing or reward nonchildbearing can be acceptable in a situation in which fertility control is not completely reliable and large numbers of unwanted births occur.

Finally, past attempts to accomplish specific nonrevenue goals through taxation have often been unsuccessful or have led to unexpected side effects that overshadowed the original goal. Some have suggested that one conceivable way to end the argument over the anti- or pronatalist effects of tax policies would be to undertake a fundamental revision of the tax system to eliminate all deductions, exemptions, and loopholes. This would remove any possible special inducements to childbearing. It would also broaden the tax base and reduce the rate of the tax levy.

Quite apart from the issue of using fiscal policy to affect childbearing is the question of whether it is equitable to require taxpayers who do not have children to pay for the programs that make it less expensive for others to have and rear their children. Present tax policies and expenditure programs have the effect of distributing the costs of children throughout the society and of redistributing income in a manner that benefits parents over nonparents. If parents were required to bear the costs of their children, governmental expenditures and taxes would be lower. Or alternatively, nonparents could be taxed at lower rates if the tax structure were arranged so that the costs of programs benefiting children fell only upon parents.

If parents and children are viewed as a single unit and anything which benefits the child is viewed as a benefit to the parent, then some inequity is unquestionably involved. However, if the child is viewed separately from his or her parents and raising the next generation is viewed as the responsibility of society as a whole, the question of equity in supporting children ceases to exist. All children require some minimum amounts of food, shelter, protection, and education; and the general good of society is served by insuring that they receive it. Nonparents certainly have an interest in seeing that all children are inoculated and that epidemics are avoided. Nonparents certainly benefit from the scientific and cultural advances that result from the education of young people. The only reason to alter present policies which are supportive of children would be if an even higher goal were to be served. We cannot foresee any goal with a higher priority than insuring the welfare of future generations. We believe the public support of children, at least at the present level, is justifiable. In fact, some of the Commission's proposals would have the effect of increasing that support for reasons which we also believe are justifiable.

Chapter 11: Human Reproduction

Contemporary American couples are planning to have an average of between two and three children. Given the fact of youthful marriage, far-from-perfect means of fertility control, and varying motivation, many of these couples will have children before they want them and a significant fraction will ultimately exceed the number they want.

Recent research[1] has disclosed a substantial incidence of such unplanned pregnancies and unwanted births in the United States. According to estimates developed in the 1970 National Fertility Study conducted by the Office of Population Research at Princeton University, 44 percent of all births to currently married women during the five years between 1966 and 1970 were unplanned; 15 percent were reported by the parents as having never been wanted. (See Table 11.1.) Only one percent of first births were never wanted, but nearly two-thirds of all sixth or higher order births were so reported. In theory, this incidence of unwanted births implies that 2.65 million births occurring in that five-year period would never have occurred had the complete availability of perfect fertility control permitted couples to realize their preferences. And these estimates are all conservative.

Unwanted fertility is highest among those whose levels of education and income are lowest. For example, in 1970, women with no high-school education reported that 31 percent of their births in the preceding five years were unwanted at the time they were conceived; the figure for women college graduates was seven percent. Mainly because of differences in education and income—and a general exclusion from the socioeconomic mainstream—unwanted fertility weighs most heavily on certain minority groups in our population. We have relevant data for blacks only, but this is probably true for Mexican-Americans, Puerto Ricans, Indians, and others as well.

For example, if blacks could have the number of children they want and no more, their fertility and that of the majority white population would be very similar. These figures about our black population illustrate the inequality of access of our minority populations to the various means of fertility control, as well as to the education and income which is so closely connected with that access.

Not all unwanted births become unwanted children. Many, perhaps most, are eventually accepted and loved indistinguishably from earlier births that were deliberately planned. But many are not; and the costs to them, to their siblings and parents, and to society at large are considerable, though not easy to measure.

Table 11.1
Unwanted Fertility in the United States, 1970[a]

Race and Education	*Most Likely Number of Births per Woman*	*Percent of Births 1966-70 Unwanted*	*Percent of Births 1966-70 Unplanned[b]*	*Theoretical Births per Woman without Unwanted Births*
All Women	3.0	15	44	2.7
College 4+	2.5	7	32	2.4
College 1-3	2.8	11	39	2.6
High School 4	2.8	14	44	2.6
High School 1-3	3.4	20	48	2.9
Less	3.9	31	56	3.0
White Women	2.9	13	42	2.6
College 4+	2.5	7	32	2.4
College 1-3	2.8	10	39	2.6
High School 4	2.8	13	42	2.6
High School 1-3	3.2	18	44	2.8
Less	3.5	25	53	2.9
Black Women	3.7	27	61	2.9
College 4+	2.3	3	21	2.2
College 1-3	2.6	21	46	2.3
High School 4	3.3	19	62	2.8
High School 1-3	4.2	31	66	3.2
Less	5.2	55	68	3.1

[a] Based on data from the 1970 National Fertility Study for currently married women under 45 years of age.
[b] Unplanned births include unwanted births.

And the costs are not only financial. The social, health, and psychological costs must be enormous. Despite the incidence of unwanted fertility—an incidence which in terms of ordinary public health criteria would qualify as of epidemic proportion—there is little hard evidence on which to assess its impact. There was one study in Sweden[2] in which a sample of children born to women whose applications for abortion were denied, was compared over a 20-year period with a control group of other children born at the same time in the same hospital. They turned out to have been registered more often with psychiatric services, engaged in more antisocial and criminal behavior, and have been more dependent on public assistance.

The psychological burdens carried by children who are literally rejected by their parents and given over to institutional care cannot be measured easily. But they must be considerable, and we do know that the costs to society of providing for the care of abandoned infants are significant.

Most of the costs of unwanted fertility are not visible in the dramatic instances of abandonment or child abuse, but rather in the more prosaic problems of everyday family life. Family budgets can be seriously strained by the unexpected and unwanted birth of a child. And those who can least afford such additional