Preface

THIS BOOK originated in my interest in the economics of population. When (starting about 1969) my studies showed that population growth does *not* hinder economic development or reduce the standard of living, critics asserted that adding more people to the planet causes natural resource scarcities and environmental decay. Hence, I was forced to broaden my inquiries. That's how the first edition of this book came to be written.

Ironically, when I began to work on population studies, I assumed that the accepted view was sound. I aimed to help the world contain its "exploding" population, which I believed to be one of the two main threats to humankind (war being the other). But my reading and research led me into confusion. Though the then-standard economic theory of population (which had hardly changed since Malthus) asserted that a higher population growth implies a lower standard of living, the available empirical data did not support that theory. My technical 1977 book, which is the predecessor of this volume, is an attempt to reconcile that contradiction. It arrived at a theory implying that population growth has positive economic effects in the long run, although there are costs in the short run.

The all-important point in this personal history: It was the facts that changed my mind about population growth away from the conventional belief. It was not some wider, preexisting set of beliefs that brought me to the point my work is now at. Indeed, the facts and my new conclusions about population economics altered my wider set of beliefs, rather than the converse.

About This Author and His Values

One spring day about 1969, I visited the U.S. AID office on the outskirts of Washington, D.C., to discuss a project intended to lower fertility in less-developed countries. I arrived early for my appointment, so I strolled outside in the warm sunshine. Below the building's plaza I noticed a road sign that said "Iwo Jima Memorial." There came to me the memory of reading a eulogy delivered by a Jewish chaplain over the dead on the battlefield at Iwo Jima, saying something like, How many who would have been a Mozart or a Michelangelo or an Einstein have we buried here?[1] And then I thought: Have I gone crazy? What business do I have trying to help arrange it that fewer human beings will be born, each one of whom might be a Mozart or a Michelangelo or an Einstein—or simply a joy to his or her family and community, and a person who will enjoy life?

I still believe that helping people fulfill their desires for the number of children they want is a wonderful human service. But to persuade them or coerce them to have fewer children than they would like to have—that is something entirely different.

The longer I have read the literature about population, the more baffled and distressed I have become that one idea is omitted: Enabling a potential human being to come into life and to enjoy life is a good thing, just as protecting a living person's life from being ended is a good thing. Of course a death is not the same as an averted life, in large part because others feel differently about the two. Yet I find no logic implicit in the thinking of those who are horrified at the starvation of a comparatively few people in a faraway country (and apparently more horrified than at the deaths by political murder in that same faraway country, or at the deaths by accidents in their own country) but who are positively gleeful with the thought that a million or ten million times that many lives will never be lived that might be lived.

Economics alone cannot explain this attitude, for though the economic consequences of death differ from those of non-life, they are not so different as to explain this difference in attitude. So what is it? Why does Kingsley Davis (one of the world's great demographers) respond to U.S. population growth during the 1960s, "I have never been able to get anyone to tell me why we needed those [additional] 23 million"?[2] And why does Paul Ehrlich say, "I can't think of any reason for having more than one hundred fifty million people [in the U.S.], and no one has ever raised one to me."[3] By 1991 he and Anne Ehrlich had even lowered the ceiling: "No sensible reason has ever been given for having more than 135 million people."[4]

I can suggest to Davis and Ehrlich more than one reason for having more children and taking in more immigrants. Least important is that the larger population will probably mean a higher standard of living for our grandchildren and great-grandchildren. (My technical 1977 and 1992 books and a good many chapters in this book substantiate that assertion.) A more interesting reason is that we need another person for exactly the same reason we need Davis and Ehrlich. That is, just as the Davises and Ehrlichs of this world are of value to the rest of us, so will the average additional person be of value.

The most interesting reason for having additional people, however, is this: If the Davises and Ehrlichs say that their lives are of value to themselves, and if the rest of us honor that claim and say that our lives are of value to us, then in the same manner the lives of additional people will be of value to those people themselves. Why should we not honor their claims, too?

If Davis or Ehrlich were to ask those twenty-three million Americans born between 1960 and 1970 whether it was a good thing that they were born, many of them would be able to think of a good reason or two. Some of them might also be so unkind as to add, "Yes, it's true that you gentlemen do not *personally* need any of us for your own welfare. But then, do you think that we have greater need of you?"

What is most astonishing is that these simple ideas, which would immediately spring to the minds of many who cannot read or write, have never come into the heads of famous scientists such as Davis and Ehrlich—by their own admission. And by repeating the assertion in 1991, Ehrlich makes it clear that he does not consider the above ideas, which I suggested to him earlier, to be "sensible."

The absence of this basic value for human life also is at the bottom of Ehrlich's well-known restatement of Pascal's wager. "If I'm right, we will save the world [by curbing population growth]. If I'm wrong, people will still be better fed, better housed, and happier, thanks to our efforts. [All the evidence suggests that he is wrong.] Will anything be lost if it turns out later that we can support a much larger population than seems possible today?"[5]

Please note how different is Pascal's wager: Live as if there is God, because even if there is no God you have lost nothing. Pascal's wager applies entirely to one person. No one else loses if she or he is wrong. But Ehrlich bets what he thinks will be the economic gains that we and our descendants might enjoy against the unborn's very lives. Would he make the same sort of wager if his own life rather than others' lives were the stake? (Chapter 39 has more to say about the morality of betting other people's lives.)

I do not say that society should never trade off human life for animals or even for nonliving things. Indeed, society explicitly makes exactly this trade-off when a firefighter's life is lost protecting a building or a forest or a zoo, and neither I nor hardly anyone else says it should not be so. And I have no objection in principle to the community taxing its members for the cost of parks or wilderness or wildlife protection (although a private arrangement may be better) any more than I object to taxes for the support of the poor. But according to my values, we should (1) have a clear quantitative idea of the trade-offs we seek to make, rather than make them on some unquantified principle such as "the loss of a single human being [or of a single nonhuman species or animal] is obscene," implying that the costs of saving that entity should not be reckoned; (2) recognize that economic science does not show that a greater number of human beings implies slower economic development or a lower standard of living in the long run; and (3) understand that foregoing the births of additional human beings is costly according to the value systems of some other human beings.

Changes in the Intellectual Environment since the First Edition

Most of the above appeared in the preface to the first edition. The common attitude toward the environment in the past decade, however, impels me to add the following personal note.

People who call themselves environmentalists sometimes say to people like

me, "You don't appreciate nature." Such remarks often are made knowing little of the other person. Given the personal nature of such attacks, perhaps a few words of information are in order for at least this one representative person.

I'll bet I spend more hours of the year outdoors than any staff member of an environmental organization whose job is not specifically outdoors. I'm outside about nine hours a day perhaps 140 days a year—every day that it is not too cold for me to work. On average, only about one afternoon a year is too hot for me to be outside; shirtless and in shorts, with a fan blowing and a ridiculous-looking wet napkin on top of my head, I am comfortable outside if the temperature is less than 95 or even 100 degrees. Does this not show some appreciation of the out-of-doors?

Two pairs of binoculars are within reach to watch the birds. I love to check which of the tens of species of birds that come to sup from the mulberry tree behind our house will arrive this year, and I never tire of watching the hummingbirds at our feeder. I'll match my birdwatching time with just about any environmentalist, and I'll bet that I've seen more birds this spring than most of your environmental friends. And I can tell you that Jeremy Rifkin is spectacularly wrong when he writes that a child grows up in the U.S. Northeast without hearing birds sing nowadays. There are more different birds around now than there were forty-five years ago, when I first started watching them. (The mulberry tree is a great attraction, of course.)

As to my concern for other species: I don't like to kill even spiders and cockroaches, and I'd prefer to shoo flies outside of the house rather than swat them. But if it's them versus me, I have no compunction about killing them even if it is with regret.

The best part of my years in the Navy were the sunsets and sunrises at sea, the flying fish in tropical waters, the driving rain and high waves, too, even at the cost of going without sit-down meals. And being aboard a small ship near the eye of a killer typhoon (knowing it to be the same spot where thirteen U.S. ships foundered and sank in a typhoon a decade earlier) was one of the great experiences of my life. There is no more compelling evidence of the awesome power of nature.

When I was a Boy Scout I delighted in the nature study merit-badge learning. I loved building bridges over streams using only vines and tree limbs, and I was proud of my skill at making fires with flint and steel or Indian-style with bow-and-drill and tinder.

The real issue is not whether one cares about nature, but whether one cares about people. Environmental sympathies are not in dispute; because one puts the interests of one's children before the interests of the people down the street does not imply that one hates the neighbors, or even is uninterested in them. The central matters in dispute here are truth and liberty, versus the desire to impose one's aesthetic and moral tastes on others.

What's New in the Second Edition?

What's new in this second edition? The most important and best additions are new data that enable us to measure and state quantitatively phenomena that earlier could only be described qualitatively or with few data. For example, in the first edition I could only report that one could see further in London than in years past; now there are excellent data on the number of hours of sunshine on winter days and on the amount of smoke in the air. In the end, the data constitute the entire difference between the case I present here and the case of the doomsters, just as it was data that entirely changed my mind from agreeing with them in 1966. So please bear with the heavy load of graphs and numbers, all of which make the case even stronger than it was in the first edition.

There also are new ways that others and I have developed to explain the topics treated here. And there is a new offer of a wager that confronts the doomsters' predictions in a more complete and testable fashion than before. Some new problems that have come to the fore since the first edition are also addressed, even though they had earlier been discussed by specialists—for example, acid rain, species extinction, household waste disposal, and a variety of chemical substances—all of which need attention but none of which turns out to be of a different nature than other issues discussed in the previous edition.

This book may best be read in conjunction with my edited 1995 book, *The State of Humanity*, which contains a great deal of additional data, as well as discussions of these trends by a wide variety of thoughtful writers.

This second edition has benefited enormously from the ease of writing with the computer and word processor. But this process has produced a new problem. The old edition was scanned electronically to produce the files from which I worked. The scanning did not reproduce quotation marks in most cases. I trust that I have properly identified and marked most if not all of those old quotations. But it is possible that one or more quotes now appears without quotation marks, an apparent plagiarism. This worries me, and I hope that if it has happened, the interpretation will be kindly, considering this as honest error rather than intentional theft. The scanning also did not always catch ellipses in quotations. This was even tougher to check than quotation marks. I hope that where they were omitted and the error not caught, the meaning was not altered.

Some passages have been taken directly from various of my other books without the use of quotation marks or footnotes, because my work on these subjects is an integrated entity that has grown organically over the years, rather than a set of separate special topics. I hope that no one is troubled by these repeated unattributed statements (some sentences surviving unchanged since 1968).

You may notice that certain ideas in the book are repeated, even several times. And you may find that even after I have defined something, I repeat the definition later. This is because I sympathise with those people who, like me, forget certain things quickly, and don't like (or are often too lazy) to check back to see if or where the matter is mentioned earlier. The repetition also increases the chance that the basic ideas in the book will reach those people who may dip in here or there, rather than reading sequentially from beginning to end.

The course of the public's thinking on these matters over the past decade or so has caused in me alternate hope and despair. On the one hand, opinion has reached the point where it seems that everything I pick up has the obligatory reference to "exploding" population or "plundered" Earth. And these ideas are simply taken for granted, unexamined, by journalists, a process which works the ideas ever more deeply into the grain of the public's thinking, and makes them ever harder to challenge successfully. On the other hand, more and more people have come to recognize the unsound theoretical nature of Malthusian thinking, often because they have seen how the plain facts of history and our present state of living contradict those ideas.

The book is called *The Ultimate Resource 2* rather than a revised edition because so much has been added to the content of the original. (For example, there are now more than twice as many citations as in the first edition, I regret to say.) But with a single minor exception (so labeled in the book), every one of the ideas contained in the original remains unchanged. This is the opposite from Malthus's experience with his famous book, whose second and subsequent editions were utterly different in conclusions from the original, but did not indicate that there was a major change.

The chapters on the politics and financing of the population-control movement have been deleted to save space, and because it was a very big job to bring them up to date. The conclusions of those chapters are summarized in the current introduction, however.

This book is friendly to the environment. It has the welfare of poor people at heart. And nothing that I write is inconsistent with, or antagonistic to, direct tax transfers from the rich to the poor of as large a proportion of the society's resources as a democracy deems appropriate. Any critic contemplating an ad hominem attack on my knowledge and experience with the environment and with the poor might usefully check out my origins and my life's activities.

It's a shame to have to begin a book this way. But there is an unfortunate tendency for purveyors of majority thinking and members of popular organizations to indict everyone who does not agree with them as callous to human suffering, lacking compassion for poorer persons, and indifferent to nature. And this is a successful ploy, as shown by the fact that I feel forced to open the second edition of this book with these defensive remarks.

The saddest aspect of that ploy is that it damages the very people and causes

that it purports to benefit. Poor people, as well as property of high social value such as natural habitats and valuable species, stand to gain the most from the public's being aware of the facts and concepts contained in this book, and from the policies of freedom and enterprise under the rule of wise laws that are the heart of the book's prescriptions.

The common assertions that resources are growing more scarce, that environmental conditions are worsening, and that the poor suffer from economic freedom are the gravest danger to the poor and the environment. And many of the government interventions that are predicated on these false assertions constitute fraud because they benefit only the well-off and the vested interests that many constricting regulations protect from competition for a good life of cheap, high-quality housing and consumer goods, easy access to wilderness, and upward mobility in society.

Message to Future Generations

When I began my population studies in the 1960s, I was in the midst of a depression of unusual duration (whose origins had nothing to do with population growth or the world's predicament). As I studied the economics of population and worked my way to the views I now hold—that population growth, along with the lengthening of human life, is a moral and material triumph—my outlook for myself, for my family, and for the future of humanity became increasingly more optimistic. Eventually I was able to pull myself out of my depression, and it has never recurred. This is only part of the story, but there is at least some connection between the two sets of mental events—the happy outcomes of my population studies brightened my personal outlook. Because my statement to this effect in the first edition has been misinterpreted by some—albeit only by those who damned the book—I'd like this to be crystal-clear: my mental outlook did not affect my studies; rather, my studies affected my mental outlook. And I believe that if others fully recognize the extraordinarily positive trends that have continued until now, and that can reasonably be expected to continue into the future, it may brighten their outlooks, too.

Consider this anecdote:

> The local newspaper in the Indiana town where I was teaching last year ran a contest for schoolchildren. The students were to create a one-frame cartoon on any topic. . . . A sample of the winning entries revealed a common theme.
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> A girl in Grade 2 drew a sad-faced planet Earth, with the caption, "I am weary. I am tired. Please quit wasting me!" . . . A girl in Grade 3 depicted a number of crying animals looking at a house under construction with some smokestacks in the background; the caption read, "We want our homes back!!!". . .
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> My college freshmen classes are regularly populated by young adults who are convinced that no solutions are possible and so it's useless to try.[6]

My message to these young people—who are representative of many others, as the polls in chapter 14 show—certainly is not one of complacency. In this I agree with the doomsayers: Our world needs the best efforts of all humanity to improve our lot. I part company with the doomsayers in that they expect us to come to a bad end despite the efforts we make, whereas I expect a continuation of humanity's successful efforts. And I believe that their message is self-fulfilling, because if you expect your efforts to fail because of inexorable natural limits, then you are likely to feel resigned, and therefore to literally resign. But if you recognize the possibility—in fact the probability—of success, you can tap large reservoirs of energy and enthusiasm.

Adding more people to any community causes problems, but people are also the means to solve these problems. The main fuel to speed the world's progress is our stock of knowledge, and the brake is our lack of imagination. The ultimate resource is people—skilled, spirited, hopeful people—who will exert their wills and imaginations for their own benefit as well as in a spirit of faith and social concern. Inevitably they will benefit not only themselves but the poor and the rest of us as well.

A last, very personal word. Because of the fighting words in this preface and elsewhere, I may seem to be feisty or even tough, and able to take care of myself in this argument. But I am not very feisty in person. I have been trying—mostly unsuccessfully—to get a hearing for these ideas since 1969. Although times have changed somewhat, the difficulties of espousing this unpopular point of view do get to me, until recently they were near the point of shutting me up and shutting me down. If there weren't a handful of editors like Sandy Thatcher, then of Princeton University Press, you wouldn't hear from me at all. Some others hold a point of view similar to mine. But there are far too few of us to provide mutual support and comfort. So this is a plea for love, printer's ink, and research grants for our side. All contributions gratefully accepted.