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Population Law: A Neglected Field

Larry D Barnett

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LARRY D. BARNETT*

The rate at which American society is changing is appreciable, and there is no indication that it will noticeably slow in the years ahead. The American public apparently believes that the pace of change will continue unabated; in a national survey done in the summer of 1978, three out of four Americans indicated that they expected lifestyles in twenty-five years to be "very much different" than today.[1] The changes in lifestyle, however, will be overt and readily-observable, and they should not be permitted to obscure accompanying changes that are under the surface and not easily detected. Among the latter changes will be different assumptions about the nature of the world. The importance of the new assumptions cannot be overemphasized, for they will create a different perspective towards human experience. Americans will have a mental map of the world differing from what they have today.[2] The changes occurring in the map will be generated by new circumstances that will have to be taken into account in order to make sense of a changed world, that is, in order to identify the new factors in human experience creating problems which must be solved. This process is also at work in science, where human adaptation and problem-solving behavior finds its most formalized expression; what is true of science as a method of solving problems is fundamentally true of human behavior generally.

> "Recognition is the source of all our natural knowledge," Whitehead has said. "The whole scientific theory is nothing else than an attempt to systematize our knowledge of the circumstances in which such recognitions will occur." This is to say that science is a search for constancies, for invariants. It is the enterprise of making those identifications in experience which prove to be most significant for the control or appreciation of the experience yet to come. The basic scientific question is, "What the devil is going on around here?"[3]

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* Assistant Professor of Law, Widener College Law School. B.A., University of California, Los Angeles; M.S., Oregon State University; Ph.D., Florida State University; J.D., University of Florida.

1. The Harris Survey (Sept. 18, 1978).
2. S. HAYAKAWA, LANGUAGE IN THOUGHT AND ACTION 30-32 (2d ed. 1964).
3. A. KAPLAN, THE CONDUCT OF INQUIRY 85 (1964). An illustration of a mental map or identification system that permits human experience to be organized and

In order to adapt to a rapidly-changing world, Americans will be forced to abandon portions of their mental maps and to incorporate new assumptions that permit them to understand and control their experiences. The new assumptions have a strong ecological basis[4] and are necessary in large measure because of the presence of too many human beings on the planet, that is, because of the presence of human numbers that are pressing against and exceeding environmental and resource constraints. It is the thesis of the present paper that members of the American legal system, like Americans generally, have yet to develop the new mental map that will permit them to comprehend the influence of past, present, and future population growth in the United States. That growth has created or exacerbated a wide variety of domestic social problems and has had an important, though unrecognized, impact on the legal system.

Psychologists long ago discovered from experiements that people find it difficult to recognize and adapt their behavior to new types of problems. Given experience with problems whose solution requires one approach, individuals are resistant to change when they encounter a similar-appearing problem that can be solved more efficiently using a different approach. For example, in one experiment, two groups of individuals were given a series of tasks requiring that they obtain a designated amount of water using assigned containers. One group was given six problems all of which required filling the largest container and then taking water out of it using the other, smaller containers until the designated amount was obtained; after completing the six problems, the group was given two additional problems of the same nature that could be solved more efficiently by not filling the largest container first. Only one out of five individuals in this group was able to solve the last two problems using the most efficient method. By comparison, individuals in a second group had only one of the problems of the initial six faced by the first group before going to the last two problems, and all of them solved the latter two problems using the most efficient method. Therefore, the rate of use of the most efficient method to solve the last two problems was five times greater

controlled, both in everyday life and in science, is that of the Western formulation of time. An unsuccessful attempt to change the Western temporal framework occurred in France between 1793 and 1805, the failure resulting in part from the alteration required in the mental map or identification system of French citizens. Zerubavel, *The French Republican Calendar: A Case Study in the Sociology of Time*, 42 AM. SOC. REV. 868 (1977).

4. For a statement of the general assumptions see Barnett, *Population Control and Child Mortality: Constitutional Issues in Recent Demographic Research*, 1979 HAMLINE L. REV. 57, 81-82.

in the group that had not developed a commitment to another method.

A second experiment extends the principle. Using the same general series of problems, one group was given a comparatively difficult first problem while a second group was given a problem that was relatively easy to solve. The first group showed a far greater persistence in using the method developed for the first problem when it was confronted with other problems that could be solved more readily, or only, by another method. Consequently, there is a strong commitment to an approach in which there has been a substantial investment of time and energy even when the approach is no longer useful.[5]

These principles from relatively simple psychological experiments can be seen at work in larger, more complex situations. The situation of concern in this paper is the population problem in the United States and its solution. The number of Americans is large and growing rapidly. In 1970, population numbered 205,000,000.[6] As 1979 began, population numbers approached 219,000,000,[7] and, if women entering their childbearing years now and in the future have an average of 2.1 children each, population will reach 260,000,000 by the year 2000, just two decades in the future.[8] Such growth in numbers has had and will have serious costs. However, because childbearing decisions have rested entirely with the parents in the past and because the costs of population growth have been subtle and not easily recognized, Americans have developed a commitment to the philosophy that individuals should have complete freedom to decide on the number of children they will have. That commitment is strong due to the substantial investment Americans have in their present course of economic and social conduct, especially since that course of conduct has appeared to generate appreciable benefits in the past. As a result, reflecting basic psychological principles, they have failed to identify the need for measures that will significantly curtail a birth rate that is cur-

5. The experiments are described in D. KRECH, R. CRUTCHFIELD & N. LIVSON, ELEMENTS OF PSYCHOLOGY 426, 427 (2d ed. 1969).

6. BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 1978 6 (99th ed. 1978).

7. Health Resources Ad., Pub. Health Serv., 27 MONTHLY VITAL STATISTICS REP. 1 (1979).

8. Bureau of the Census, U.S. Dep't of Commerce, *Projections of the Population of the United States: 1977 to 2050*, Series P-25, No. 704, CURRENT POPULATION REP. 3, 73 (1977).

Women who were 18 or 19 years of age in June 1977 expected to have an average of 2.09 children each. Bureau of the Census, U.S. Dep't of Commerce, *Fertility of American Women: June 1977*, Series P-20, No. 325, CURRENT POPULATION REP. 1, 8 (1978).

rently producing approximately 1,400,000 more births than deaths annually.[9] Legal scholars have been governed by the prevailing orientation and have failed to recognize the costs of continued population growth to the United States that have been manifested in its legal system. Elsewhere, the writer has attempted to identify the impact of that growth on the constitutional right to privacy.[10] This paper will examine instances where population pressures have helped generate recent legislation at the federal level.

The interrelationship between population and law has regrettably received little attention. The most frequently-appearing scholarship having any relevance to the interrelationship concentrates on statutes and regulations relevant to the subjects of contraception, sterilization, and abortion. For instance, the Planned Parenthood Federation of America publishes a periodical titled *Family Planning/Population Reporter*, and subtitled *A Review of State Laws and Policies*, that deals exclusively with these subjects. No distinction is made by the *Reporter* between the legal aspects of family planning—i.e., contraception, sterilization, and abortion—and the legal aspects of population size and growth. The distinction, however, is crucial. The family planning perspective is concerned with the means by which an individual can determine his or her fertility; it emphasizes freedom of choice in childbearing decisions and in the use of contraceptives and maximum access to safe, effective means of birth control, including abortion. A concern with population, on the other hand, yields a different perspective. The population perspective examines the causes and consequences of the increase, decrease, and distribution of population numbers. In the field of law, the population perspective focuses on questions such as the aspects of the legal system that generate an excess of births over deaths and the effects on the legal system ensuing from past and continued growth in population numbers. The population perspective, in short, emphasizes large-scale, group-level phenomena while the family planning perspective emphasizes the individual.

The distinction between the two perspectives can be better understood by examining some of the major assumptions made by each. The family planning perspective is based on two assumptions. First, the individual has the right to decide freely how many children he or she will have; that is, decisions regarding number of children should rest in the absolute discretion of the individual.

9. Health Resources Ad., Pub. Health Serv., *supra* note 7.

10. Barnett, *Population Growth, Population Organization Participants, and the Right of Privacy*, 12 FAMILY L.Q. 37, 47 (1978).

As a result, the individual should have ready access to contraception, sterilization, and abortion. Second, if the size of the population needs to be limited, one can safely rely on the rationality of the individual to curtail his or her childbearing in the best interests of society. Given ready access to safe, effective means of birth control and education concerning the dangers of overpopulation, the voluntary childbearing decisions of individuals will yield a number of births that is not excessive.

The population perspective, on the other hand, employs markedly different assumptions. First, the causes and effects of (changes in) population numbers often differ from the causes and effects of childbearing behavior in the individual. The former operate on a large scale, can be beyond the recognition and control of the individual, and have important implications for the nature and welfare of society. Second, the relationship between the causes and consequences, on the one hand, and changes in population numbers, on the other, is not necessarily linear in nature; a change in one may not always be followed by a constant and consistent change in the other. Any given cause of change in population numbers may intensify or abate but not have much or any impact on population size until reaching a certain threshhold, at which point there may be a relatively rapid change in numbers that is out of proportion to the degree of alteration in the cause. Additionally, changes in population numbers may not have much or any impact on social and ecological conditions until a certain threshhold is attained, at which point there may be a relatively large impact with a very small change in population size. Third, the population perspective assumes that motivation to limit family size, not the availability of birth control methods, is the key factor in population control.

Because the population perspective is new and has not been adopted yet by the American people, including the members of the legal system, let us turn to some concrete illustrations of the assumptions of the perspective. With regard to the causes of population growth in the first assumption, the availability of contraception, sterilization, and abortion helps to determine the number of children the individual has. Even with unchanged access under the law to birth control methods, however, there may be substantial changes in childbearing in response to other factors. There is evidence that the baby boom occurring after World War II resulted from a decline in the effectiveness with which birth control methods were used rather than from reductions in access to

the methods or from increases in intended family size.[11] The baby boom apparently resulted in part from causes operating throughout society. These causes included both economic prosperity and the income tax exemption for children in the Internal Revenue Code which reduced the cost of childbearing and childrearing.[12] The exemption, itself, reflects the social philosophy that large families and unrestricted childbearing are desirable. With regard to the consequences of population growth in the first assumption, the birth of any one child will have such a slight effect on the legal system that it will not be measurable, but the birth of a large number of children will result in population growth and a narrowing of the constitutional right of privacy.[13]

With regard to the second assumption, the writer is unaware of any research permitting reasonably-established illustrations: illustrations under this assumption necessitate sophisticated, quantitative research to identify the nature and form of the relationship between population size, on the one hand, and its causes and consequences, on the other. A possibility with regard to the consequences of population growth, however, may be found in the apparent increases since 1950 in the number of people who are awake and active during the night. The increases have an influence on the operation of the legal, particularly law enforcement, system[14] and, since these increases seem to have occurred at a certain point in time, they may have resulted from population numbers exceeding a certain threshhold. A possibility with regard to the causes of population growth is that child exclusion policies in apartments and condominiums will have little effect on fertility when they are confined to a small proportion of the housing units in an area, but will have an important effect as soon as they prevail in some threshhold proportion that creates a housing shortage for parents.[15] Another possibility with regard to the causes of population growth is that child care facilities for employed women promote childbearing[16] although their impact on fertility is

11. Ryder, *A Model of Fertility by Planning Status*, 15 DEMOGRAPHY 433, 455 (1978).

12. P. LINDERT, FERTILITY AND SCARCITY IN AMERICA 134-35, 170 (1978).

13. Barnett, *supra* note 10.

14. *See* Melbin, *Night as Frontier*, 43 AM. SOC. REV. 3, 4, 9-12 (1978).

15. Curry & Scriven, *The Relationship Between Apartment Living and Fertility for Blacks, Mexican-Americans, and Other Americans in Racine, Wisconsin*, 15 DEMOGRAPHY 477 (1978).

16. Until recently there was no research evidence on the impact, if any, of child care facilities on childbearing. Presser, *Childbearing, Work, and Welfare: Research Issues*, 1 J. POPULATION 167, 174 (1978). A study published in late 1978, however, found that the lack of adequate child care was the primary reason cited by Filipino migrants to the United States for having fewer children than they would have had

substantial only after their prevalence in a geographic region reaches a certain level. In turn, the prevalence of child care facilities will be determined partly by the existence or absence of governmental incentives for their establishment; thus, the extent of child care facilities was undoubtedly increased by a change in the Internal Revenue Code that permitted employers making capital expenditures for such facilities for the children of their employees to deduct the expenditures in calculating their federal income tax.[17]

The third assumption emphasizes that the key to the causes of population growth lies in the motivation to use birth control methods and curtail childbearing. Effective birth control technology and its widespread availability will not reduce the number of births unless those capable of having children *want* to limit their fertility.[18] An illustration, previously used for the first assumption but also applicable here, is that the baby boom following World War II was apparently the result of deterioration in the effectiveness with which birth control methods were employed; that is, the baby boom resulted not from a decline in the availability of contraceptives but from a reduction in the motivation to utilize contraceptives as effectively as they could be used.[19] Another illustration comes from India, where a study found that, in spite of increases in knowledge and use of modern birth control methods, only small declines occurred in childbearing levels over a quarter-century. This result was attributed to the effects of modernization in disrupting fertility-inhibiting traditions and in increasing maternal health.[20] The means were available to curtail the birth rate sub-

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in the Phillippines. Card, *The Malleability of Fertility-Related Attitudes and Behavior in a Filipino Migrant Sample*, 15 DEMOGRAPHY 459 (1978). More research is needed, of course, before it can be definitively concluded that child care facilities promote fertility.

17. 26 U.S.C. § 188 (1976). The change permitted deductions for expenditures made on or after January 1, 1972. The provision was expected to reduce federal revenues by $400 million in fiscal year 1977 and by less than $50 million in fiscal years 1978 and 1979. S. REP. NO. 95-66, 95th Cong., 1st Sess. 23 (1977), *reprinted in* [1977] U.S. CODE CONG. & AD. NEWS 185, 204.

The Select Committee on Population of the House of Representatives, expecting the labor force participation rate of women with young children to continue rising, has recommended that Congress consider the expansion of financial support for child care facilities. HOUSE SELECT COMM. ON POPULATION, FINAL REPORT, 95TH CONG., 2D SESS. 44, 51 (1978).

18. Blake & Gupta, *Reproductive Motivation Versus Contraceptive Technology: Is Recent American Experience an Exception?*, 1 POPULATION & DEV. REV. 229, 246 (1975).

19. Ryder, *supra* note 11.

20. Srinivasan, Reddy & Raju, *From One Generation to the Next: Changes in Fertility, Family Size Preferences, and Family Planning in an Indian State Between 1951 and 1975*, 9 STUD. IN FAM. PLAN. 258 (1978).

stantially, but not the motivation.

The third assumption has raised the issue of coercion in the control of population size because it focuses attention on the inducements to limit childbearing. If individuals are encouraged to have small numbers of children by rewards and penalties, have they not lost their freedom to determine their fertility? Are not incentives to limit childbearing coercive in nature? One of the most articulate spokesmen for the population perspective has labelled the controversy over "compulsory" versus "voluntary" measures a "false issue," because it overlooks the fact that reproductive motivation always results from the social, economic, and cultural setting in which people live:

> To say that couples should have exactly the number of children they want, taken by itself, is an anarchic slogan. It says nothing about how people's desires in this regard are determined. The desire for [a certain number of] children is not a pure accident. It is not biologically determined. It is engendered by social and economic circumstances. If I want four children but feel that my economic circumstances make only two advisable, then I am involuntarily constrained by economic circumstances. An exclusively family-planning approach to fertility limitation *assumes* that what individuals want is identical with what society needs; it therefore sees no need to change social institutions so as to influence reproductive motivation. It therefore can say that its approach is "voluntary" and that other approaches are "compulsory." A program [of population control], however, would be more realistic in endeavoring to change reproductive motivation by making it to the individual's *interest* to reproduce less.[21]

The motivation to have a certain number of children, in short, is the result of incentives. The incentives may be legal and formal in nature or nonlegal and informal. Whatever their nature in a society, they exist, and the population perspective focuses on them.

These, then, are the major assumptions of the population perspective, a perspective missing in the field of law. The limited development of the perspective was manifested in the 1978 hearings of the Select Committee on Population of the U.S. House of Representatives. The Committee, which existed for one year, did not have any testimony addressed to the interrelationship of population and law in the United States, evidently reflecting the prevailing American view that the population problem is more serious in

21. *World Population: A Global Perspective: Hearings Before the Select Committee on Population*, 95th Cong., 2d Sess. 516, 521 (1978) (statement of Kingsley Davis).

other, particularly non-industrialized, countries.[22] The testimony relevant to law focused on developing nations, but even in these nations the development of population law is admittedly just beginning.[23] It is the purpose of this paper to focus on one aspect of population law—recent legislation that has resulted in large part from domestic population growth. In doing so, the paper will provide additional illustrations of the consequences of population growth under the first assumption, thereby hopefully creating a greater awareness of the existence and impact of population pressures in the United States and advancing the population perspective in legal scholarship.

FEDERAL LEGISLATION STEMMING FROM POPULATION PRESSURES

In selecting the laws that would be included in this paper, a number of criteria were employed. First, laws were included only where the effect of population pressures on them was relatively obvious or where research existed showing that population pressures create social, economic, or ecological problems of a type that would give rise to such legislation. Second, the legislation had to be of substantial importance in and of itself; legislation briefly amending and legislation appropriating funds for previously enacted laws was not included. Third, because of the substantial volume of recent legislation that can be traced to population pressures, the analysis was confined to laws enacted by the Ninety-Fifth Congress, which met in 1977 and 1978. Applying these criteria, laws were selected that were organized into the following areas: environment and natural resources (including land, water, wildlife protection, food and nutrition, energy, and other miscellaneous environmental and natural resource laws); economy (including employment and taxation); and cities.

ENVIRONMENT AND NATURAL RESOURCES

In the National Environmental Policy Act of 1969,[24] the Ninety-First Congress expressly recognized the adverse impact of population growth on the quality of the environment and the utilization of

22. *See* Barnett, *A Study of the Relationship Between Attitudes towards World Population Growth and USA Population Growth*, 5 J. BIOSOC. SCI. 61, 63 (1973).

23. 3 *Population and Development: Research in Population and development: Needs and Capacities: Hearings Before the Select Committee on Population*, 95th Cong., 2d Sess. 488, 525-26 (1978) (second annual report of the National Security Council Ad Hoc Group on Population Policy).

24. 42 U.S.C. §§ 4321-4361 (1976).

natural resources.[25] Because the most obvious and immediate manifestations of population pressures are found in this area,[26] it is appropriate to begin our review of legislation with them.

Land

Three problems involving land were covered by the Ninety-Fifth Congress. The first was soil conservation. The Congress enacted the Soil and Water Resources Conservation Act of 1977[27] with the goal of developing (1) information on the quality, quantity, and use of soil, water, and related resources (for example, fish and wildlife habitats) in the United States and (2) a national program of soil and water conservation. The Act resulted from the finding that "[t]here is a growing demand on the soil, water, and related resources of the Nation to meet present and future needs."[28] The report on the bill by the House of Representatives identified the role of domestic population pressures in creating the need for the legislation:

> Among the ever-increasing pressures caused by population growth are greater demands on soil, water, and related resources in order to meet both present and future requirements for food and fiber; for rural and urban development; for agricultural, industrial, and community water supplies; for fish and wildlife habitats; and for an untold variety of other needs and uses.[29]

By possessing and controlling exports in grain, the United States can influence the policies of foreign governments, reduce the deficit in its balance of payments in international trade, and promote at least short-term humanitarian goals, because it is by far the leading source of grain for the world market today.[30] Thus, the impact of population growth on agricultural land in the United States is of considerable importance both to the nation and to the world. The impact of population on agricultural land occurs in at least two ways. First, population expansion forces the conversion of agricultural land to nonagricultural uses, for example, housing,

25. 42 U.S.C. § 4331 (1976).

26. *World Population: A Global Perspective: Hearings Before the Select Committee on Population*, 95th Cong., 2d Sess. 199, 201 (1978) (statement of Lester R. Brown).

27. Pub. L. No. 95-192, 91 Stat. 1407 (1977) (to be codified in 16 U.S.C. § 2001). By its own terms, the Act will expire at the end of 1985. *Id.* § 10.

28. *Id.* § 2(1).

29. H.R. REP. NO. 95-344, 95th Cong., 1st Sess. 7 (1977), *reprinted in* [1977] U.S. CODE CONG. & AD. NEWS 3670, 3673.

30. L. BROWN, THE TWENTY-NINTH DAY 135 (1978); L. BROWN, BY BREAD ALONE 61 (1974); COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY 270 (9th annual report, 1978).

reservoirs, and roads. Roughly one million acres of prime farmland in the United States is lost to other uses each year.[31] Second, population growth promotes soil erosion from wind and water. As population numbers increase, agricultural land is used more intensively for food production; marginal land is brought into production; and forests are cut, both to acquire lumber for buildings and to increase the amount of food-producing land. Soil erosion on such land is greater than on land that is used little or not at all.[32] The seriousness of erosion in the United States is indicated by the fact that one-third of the topsoil on croplands has been lost over the past 200 years, a loss that includes some 100 million acres of cropland that since 1935 has deteriorated to the point where it can no longer be cultivated.[33]

Besides soil conservation, a second problem addressed by the Ninety-Fifth Congress was the deterioration of rangelands. Two laws were enacted. One was the Forest and Rangeland Renewable Resources Research Act of 1978[34]; the other was the Public Rangelands Improvement Act of 1978.[35] The former authorizes support for research on the protection, management, and utilization of forests and rangelands and for dissemination of the resulting infor-

31. COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 30. The United States has only 250 million acres of prime farmland. *Id.* A loss of a million acres per year means that four percent of all prime farmland is lost each decade. Only limited possibilities exist for replacing lost cropland with land not now devoted to agriculture. *Id.* at 272.

32. L. BROWN, THE WORLDWIDE LOSS OF CROPLAND 22-26 (Worldwatch Institute Paper No. 24, 1978). *See generally* E. ECKHOLM, LOSING GROUND (1976).

The Food and Agriculture Act of 1977, Pub. L. No. 95-113, § 1511, 91 Stat. 913, 1022 (amending 16 U.S.C. § 590q-3), created a program to combat soil erosion in the Great Plains region. The legislation was a response to serious wind erosion of 6.8 million acres of land, of which approximately 80 percent was cropland, and to the threat of erosion on an additional 17 million acres. The erosion was the result in part of the cultivation of marginal lands during a drought. The influence of population growth is found in a succinct statement in the report on the bill by the House of Representatives: "Prior to being settled and farmed, the Great Plains suffered only slight erosion as natural grasses provided protection from wind and water erosion." H.R. REP. No. 95-348, 95th Cong., 1st Sess. 37 (1977), *reprinted in* [1977] U.S. CODE CONG. & AD. NEWS 1704, 1738.

33. COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 30, at 274.

The magnitude of a loss of 100 million acres of cropland can perhaps be best appreciated by reference to the following facts. First, the United States today has only some 400 million acres of cropland (of which 250 million acres are prime lands) and only limited ability to replace lost cropland with land not currently devoted to agriculture. *Id.* at 270, 272. Second, the total area covered by the state of California is roughly 100 million acres. *See* BUREAU OF THE CENSUS, *supra* note 6, at 206.

34. Pub. L. No. 95-307, 92 Stat. 353 (1978) (to be codified in 16 U.S.C. §§ 1600, 1601, 1641-1647).

35. Pub. L. No. 95-514, 92 Stat. 1803 (1978) (to be codified in scattered sections of 43 U.S.C.).

mation.[36] The latter provides a program for developing an inventory of managing and improving publicly owned rangelands.[37] One study leading to the latter law found that, of 163 million acres of public rangelands, 83 percent was in no better than "fair" condition, four out of every six of the 163 million acres was not improving in quality, and an additional one out of every six acres was declining in quality, primarily because of unregulated grazing.[38] The quantity of livestock grazing on land is partially determined by the size of the human population that needs to be supported. As population numbers rise, the number of livestock also will tend to increase until the optimum number is passed and regulation is required.

Population pressures manifested in overgrazing by livestock cannot be permitted because of serious ecological consequences. Among those consequences are: soil erosion; expanding deserts; deterioration in the quality and quantity of water for human consumption, agriculture and fish production; flooding; and possible climatic alterations.[39] As a result, with increases in population numbers and grazing, rangelands must be regulated and the number of livestock limited. This limitation may, of course, have undesireable effects on American lifestyles such as reducing meat available for consumption.

The third problem involving land that was the subject of legislation was the preservation of wilderness areas. The Ninety-Fifth Congress enacted the Endangered American Wilderness Act of 1978,[40] which incorporated 1.4 million acres into the National Wilderness Preservation System established by prior legislation.[41] The need for the Act, according to a congressional finding, stemmed in part from threats to the designated areas from increasing population numbers and economic expansion.[42]

Water

The Ninety-Fifth Congress enacted legislation concerned with two aspects of domestic water resources. The first aspect was

36. Pub. L. No. 95-307, § 3, 92 Stat. 353.
37. Pub. L. No. 95-514, § 4, 92 Stat. 1805.
38. GENERAL ACCOUNTING OFFICE, PUBLIC RANGELANDS CONTINUE TO DETERIORATE 4 (1977).
39. Public Rangelands Improvement Act of 1978, Pub. L. No. 95-514, § 2(3), 92 Stat. 1803 (to be codified in 43 U.S.C. § 1901); ECKHOLM, *supra* note 32.
40. Pub. L. No. 95-237, 92 Stat. 40 (codified in scattered sections of 16 U.S.C.).
41. 16 U.S.C. §§ 1131-1132 (1976).
42. Endangered American Wilderness Act of 1978, Pub. L. No. 95-237, § 1(a)(3), 92 Stat. 402 (codified in scattered sections of 16, 43 U.S.C.).

water quality. Congress passed the Clean Water Act of 1977,[43] which amended earlier legislation,[44] in order to increase the effectiveness of programs to curb water pollution, particularly those programs operated by municipalities. It has been estimated that the abatement of water pollution under existing legislation will require the expenditure of forty-one billion dollars by public agencies and seventy-six billion dollars by private organizations between 1976 and 1985.[45] The scale of water pollution in the United States is thus clearly enormous. Moreover, the role of population growth in creating such pollution is significant. Other things being equal, population expansion results in greater water pollution through increased use of rivers, lakes, and other bodies of water for the waste from the larger numbers of humans and livestock, for the chemicals discharged by more extensive industrial activity, and for the fertilizers, pesticides and herbicides washed off land being farmed on an increased scale.[46]

The second aspect of water resources that was the subject of legislation was water quantity. Two laws were enacted—the Soil and Water Resource Conservation Act of 1977, which was discussed in the preceding section,[47] and the Water Research and Development Act of 1978.[48] The goal of the two acts is increased domestic water supplies. But due to past and continued population growth, there exists a constantly increasing demand for water for personal consumption, industry, and agriculture. Evidence indicates that, in spite of legislation, serious water shortages will exist in many regions of the United States in the near future. The United States uses great amounts of water to maintain its high standard of living: approximately 3,750 gallons are used daily to provide food for each American and an additional 1,800 gallons per capita are used daily for industry, personal consumption, and other purposes.[49] These amounts—and their manifestations in our

43. Pub. L. No. 95-217, 91 Stat. 1566 (codified in scattered sections of 33 U.S.C.). *See also* Federal Water Pollution Control Act, Pub. L. No. 95-576, 92 Stat. 2467 (1978) (to be codified in 33 U.S.C. § 1321).

44. 33 U.S.C. § 1251-1256 (1976).

45. COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY 328 (8th annual report, 1977). The sums cited are in 1976 dollars and will be increased by inflation.

46. *See id.* at 199-252; A. REITZE, ENVIRONMENTAL LAW 4-8 (2d ed. 1972); STAFF REPORT TO THE NATIONAL COMMISSION ON WATER QUALITY IV-25-IV-30 (1976).

47. See notes 27-29 and accompanying text *supra*.

48. Pub. L. No. 95-467, 92 Stat. 1305 (to be codified in scattered sections of 42 U.S.C.).

49. G. BORGSTROM, TOO MANY 153, 159 (1969). Soil erosion will increase the amount of water needed for agriculture. *Id.* at 138.

standard of living—will have to be reduced if population growth persists:

> In summary, then, growth in population and economic activities during the next half century will force upon us significant expenditures for [water] treatment and storage facilities; moreover, for a growing number of regions, such investments will eventually prove inadequate. When one takes a region-by-region look at the situation, it becomes clear that the scope for redistribution of water, activities, and people is more limited and difficult to achieve than it might appear at first glance. But there is considerable scope for inducing reductions in demand for water. Short of significant technological breakthroughs in water augmenting procedures, this is the method that will have to be relied upon to hold expenditures on treatment and storage facilities to reasonable levels and to avoid difficult and painful redistributions. Population growth has a large role to play in determining how rapidly we must accomplish all these changes.[50]

Wildlife Protection

The Ninety-Fifth Congress enacted two laws to protect animal species whose numbers are seriously jeopardized or could be jeopardized in the absence of regulation. The first was an extension and expansion of the Fishermen's Protection Act of 1967.[51] The law gives the President of the United States the authority to ban the importation of fish or wildlife products from countries in which persons are pursuing trade, hunting, or fishing that reduces the effectiveness of international programs designed to protect endangered species.[52] The second bill was the Fish and Wildlife Improvement Act of 1978 authorizing funds for research on, and resource management (including land acquisition) to protect, fish and wildlife in the United States.[53]

The threat to animal species is a worldwide and serious problem. Over half of the animal species that are known to have become extinct have disappeared in the present century, and an estimated one species or subspecies becomes extinct each year. In the United States over 100 species of birds and mammals are con-

50. Ridker, *Future Water Needs and Supplies, with a Note on Land Use*, in POPULATION, RESOURCES, AND THE ENVIRONMENT 213, 221-222 (Vol. III of the Research Reports of the U.S. Commission on Population Growth and the American Future, R. Ridker ed. 1972).

51. Pub. L. No. 95-376, 92 Stat. 714 (1978) (codified in scattered sections of 22 U.S.C.).

52. Pub. L. No. 95-376, § 2(2), 92 Stat. 714.

53. Pub. L. No. 95-616, 92 Stat. 3110.

sidered to be in jeopardy at this time.[54] The repercussions for human welfare are serious, for each species occupies a niche in an ecosystem and the disappearance of the species leaves a gap that can disrupt the functioning of the ecosystem. Crop loss and the spread of disease can be the result.[55]

Population growth and its correlates—for example, the expansion of residential areas, industry, and agriculture and the cutting of forests for wood—are playing a major, if not the key, role in the disappearance of species.

> By far the biggest single cause of extinctions over the next few decades will be the destruction of habitats. As both populations and economies grow, and human settlements sprawl, undisturbed natural areas shrink. Essential wildlife breeding zones, migration routes, and browsing and hunting domains are paved, inundated with water, grazed, or plowed. Forest lands are denuded by farmers, timber companies, and firewood gatherers and then are given over to cattle, crops, or non-native tree species. Plant species unique to a small locality can be erased from the earth by a single bulldozer, as can the animals that feed on them; predators dependent on a lengthy food chain may disappear once the wild area around them is compressed below a critical minimum.[56]

Under the pressure of population growth, an ecological basis for human life on the planet is being eroded.

Food and Nutrition

Perhaps the most often recognized consequence of overpopulation is in the area of food and nutrition, but the recognition seems to exist primarily with regard to the developing nations of the world having relatively high rates of population growth.[57] The Ninety-Fifth Congress enacted several laws promoting food supplies and nutrition. The International Development and Food Assistance Acts of 1977[58] and 1978[59] authorize programs of food

54. E. ECKHOLM, DISAPPEARING SPECIES: THE SOCIAL CHALLENGE 6 (Worldwatch Institute Paper No. 22, 1978); COUNCIL ON ENVIRONMENTAL QUALITY, *supra* note 30, at 328, 334.

55. E. ECKHOLM, *supra* note 52, at 18.

56. *Id.* at 9.

57. For example, a House of Representatives report on population growth in developing countries and in the United States discusses food only with respect to the former. HOUSE SELECT COMM. ON POPULATION, WORLD POPULATION: MYTHS AND REALITIES, 95TH CONG., 2D SESS. v, 31-32 (1978).

58. Pub. L. No. 95-88, 91 Stat. 533 (codified in scattered sections of 7, 21, 22 U.S.C.).

59. Pub. L. No. 95-424, 92 Stat. 937.

and other assistance to developing countries, with decisions as to amounts of assistance being made in part on the basis of the efforts of the recipient countries to control the growth of their populations.[60] Other legislation provided additional financial support for multilateral financial lending institutions that promote economic development in developing nations,[61] including support for assistance for food and agricultural development.[62] While no mention is made in the legislation of the role of population growth, the Senate report on the bill briefly refers to the role in retarding or preventing economic progress generally.[63] Further, the North Pacific Fisheries Act of 1954[64] was amended in order to further the operation of an international agreement regulating the use of fisheries in the region covered so as not to exceed their maximum sustainable yield.[65] The role of population growth, though not mentioned,[66] is obvious,[67] and its role in developing nations other than the United States is identified in a recent report of the Select Committee on Population of the House of Representatives.[68] Finally, the National Agricultural Research, Extension, and Teaching Policy Act of 1977[69] was enacted to advance domestic food production through increased research and dissemination of informa-

60. International Development and Food Assistance Act of 1977 Pub. L. No. 95-88, § 101(a), 91 Stat. 533 (to be codified in 22 U.S.C. § 2151(d)(1); International Development and Food Assistance Act of 1978 Pub. L. No. 95-424, § 102(b), 92 Stat. 938 (to be codified in 22 U.S.C. § 2151-1).

The Food and Agriculture Act of 1977 encourages the establishment of a food reserve in the United States as part of an international system of such reserves to provide food during emergencies in other countries. Pub. L. No. 95-113, § 1102, 91 Stat. 953 (to be codified in 7 U.S.C. § 1445f). The emergencies may, of course, be caused by ecological problems associated with overpopulation. *See* E. ECKHOLM, *supra* note 32. However, the existence of a population control program in a country experiencing such an emergency is not a requirement for aid from the U.S. food reserve.

61. Act of Oct. 3, 1977, Pub. L. No. 95-118, 91 Stat. 1067 (to be codified in scattered sections of 22 U.S.C.).

62. Act of Oct. 3, 1977, Pub. L. No. 95-118, § 901(a), 91 Stat. 1071 (to be codified in 22 U.S.C. § 262g).

63. SENATE FOREIGN RELATIONS COMM., INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT, S. REP. NO. 95-159, 95th Cong., 1st Sess. 23 (1977), *reprinted in* [1977] U.S. CODE CONG. & AD. NEWS 2670, 2689.

64. 16 U.S.C. 1021 (1976).

65. Pub. L. No. 95-326, 92 Stat. 399 (1978) (to be codified in scattered sections of 16 U.S.C.).

66. *Id.*; S. REP. NO. 95-924, 95th Cong., 2d Sess. 1 (1978), *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 1080.

67. L. BROWN, THE TWENTY-NINTH DAY 152-53 (1978). L. BROWN, BY BREAD ALONE 147-63 (1974).

68. HOUSE SELECT COMM. ON POPULATION, *supra* note 57, at 33.

69. Pub. L. No. 95-113, 91 Stat. 981 (to be codified in scattered sections of 7 U.S.C.).

tion.[70] The report on the legislation by the Agricultural Committee of the House of Representatives makes explicit reference to domestic population growth as helping to create the need for the law.[71] The emphasis of the report, however, is on increasing food production in order to provide for a larger population size in the future, not on the role of past population growth in creating problems of nutrition in the United States at the present time.

Legislation was enacted by the Ninety-Fifth Congress to promote the current nutrition of Americans in two ways, but in neither case was there recognition of the role of past or current population growth in creating the nutritional problems. The first avenue that the Congress pursued to foster nutrition in this country led to the Food Stamp Act of 1977[72] amending previous legislation to upgrade the nutrition of the poor. Under the Act, food stamps are to be available to households having financial resources that are "a substantially limiting factor" in obtaining adequate nutrition.[73] The second avenue that the Congress pursued led to legislation promoting the nutrition of children in limited-income families[74] and the nutrition of mothers in such families, both during pregnancy and up to one year after giving birth.[75] The premise of all of the legislation is that financial limitations are responsible for inadequate nutrition. The role of population growth in creating the financial limitations is ignored. Population growth has, however, forced food prices to rise, thereby making it more difficult for those with low incomes to obtain an adequate diet, and held down incomes. As a result, population growth has played a major role in creating the need for these programs. Population growth tends to increase food prices in various ways.[76] First, population growth promotes soil erosion and the use of marginal lands for agriculture. Upward pressure on prices will thus result because yields on eroded and marginal lands are less than on high-quality land unless there is a greater investment of energy for ex-

70. *Id.* § 1407(A) at 987.

71. H.R. REP. No. 95-348, 95th Cong., 1st Sess. 103, *reprinted in* [1977] U.S. CODE CONG. & AD. NEWS 1704, 1804.

72. Pub. L. No. 95-113, 91 Stat. 958 (to be codified in scattered sections 7, 21, 42 U.S.C.).

73. *Id.* § 5(a) at 962 (to be codified in 7 U.S.C. § 2014).

74. National School Lunch Act and Child Nutrition Amendments of 1977, Pub. L. No. 95-166, 91 Stat. 1325 (to be codified in scattered sections of 42 U.S.C.). Child Nutrition Amendments of 1978, Pub. L. No. 95-627, 92 Stat. 3603 (to be codified in scattered sections of 42 U.S.C.).

75. Child Nutrition Amendments of 1978, Pub. L. No. 95-627, § 3, 92 Stat. 3611 (to be codified in 42 U.S.C. § 1786).

76. L. BROWN, *supra* note 32; L. BROWN, THE TWENTY-NINTH DAY 128-191 (1978); L. BROWN, BY BREAD ALONE (1974); E. ECKHOLM, *supra* note 32.

ample, in the form of fertilizer. But the greater use of energy increases the cost of the food produced on the land. Second, shortages of energy are created, thereby increasing its price. Modern agriculture, of course, uses large amounts of energy for producing, processing, and transporting food. Third, capital becomes scarce and its price rises, as reflected in interest rates, forcing up the cost of obtaining agricultural equipment, energy, and land. Finally, agricultural land must be converted to urban uses such as housing and transportation, and as a result, the supply of agricultural land is reduced and its price increased. The result of the preceding is increased food costs. Population growth also acts to promote inequalities in income and hence to limit purchasing power among low income groups. Specifically, population growth increases the quantity of young workers and reduces the quality of their skills, thus negatively affecting their earnings. With regard to the factor of quantity, a recent study found that, because of their increasing numbers, the income of young men relative to the income of older men exhibited a greater disparity in 1975 than in 1968; responding to the greater supply of young men, the income of such men fell further behind the income of their elders between 1968 and 1975.[77] With regard to the factor of quality, there is evidence that high fertility causes less parental time and financial resources to be devoted to each child, affecting the educational attainment of the child and causing lower expenditures per capita for public education. High fertility reduces the quality of the labor force and thus its earning ability by inhibiting educational achievement:

> There is . . . a considerable body of evidence that reductions in fertility should raise the average level, and reduce the dispersion, of schooling. Fertility reduction has this effect by giving each child more inputs both from his family and from the public schools. The higher level and lower dispersion of schooling should in turn tend to equalize incomes by shifting labor supply toward the higher-skill occupations.[78]

Energy

The Ninety-Fifth Congress enacted a number of laws attempting to promote the conservation and production of energy. The leg-

77. 2 HOUSE SELECT COMM. ON POPULATION, CONSEQUENCES OF CHANGING U.S. POPULATION: BABY BOOM AND BUST, 95th Cong., 2d Sess. 767, 775 (1978). The effect of an increased number of female workers on the relative income of females was questionable. *Id.* at 774-77; LINDERT, *supra* note 12, at 216-59.

78. LINDERT, *supra* note 12, at 214-15. DE TRAY, CHILD SCHOOLING AND FAMILY SIZE: AN ECONOMIC ANALYSIS 36 (1978).

islation included: the Surface Mining Control and Reclamation Act of 1977[79] aimed at fostering the mining of coal and environmental quality simultaneously; the Department of Energy Organization Act establishing a separate Department of Energy in the executive branch to advance conservation and production[80]; the Solar Photovoltaic Energy Research, Development, and Demonstration Act of 1978[81] promoting research and development with regard to electricity from solar energy; the Public Utility Regulatory Policies Act of 1978[82] dealing with electric and natural gas utilities; the Energy Tax Act of 1978[83] providing tax benefits to homeowners for expenditures for energy conservation and renewable energy sources, imposing a tax on new automobiles that consume relatively large amounts of gas, removing excise taxes on buses and items used by buses, providing tax incentives for pooling in commuter vehicles having seating capacities larger than automobiles, and furnishing tax incentives for conservation and use of new energy technologies in business; the National Energy Conservation Policy Act[84] to reduce the growth in demand for and conserve energy in homes, schools, hospitals, and public buildings, including those owned by the federal government; the Natural Gas Policy Act of 1978[85] dealing with the price of natural gas; and the Powerplant and Industrial Fuel Use Act of 1978[86] to reduce the use of natural gas and petroleum by electric powerplants and major fuel-burning installations.

Congress has expressly recognized that the United States faces a serious shortage of energy.[87] Unfortunately, it has not recognized the role of population growth in creating and exacerbating the shortage. Total energy consumption is the result of two distinct factors—the number of people and per capita consumption; multiplying the two factors yields total consumption. The size of the population affects the first factor in an obvious manner, but it

79. Pub. L. No. 95-87, 91 Stat. 445 (to be codified in scattered sections of 5, 30 U.S.C.).
80. Pub. L. No. 95-91 Stat. 565 (to be codified in scattered sections of 15, 42 U.S.C.).
81. Pub. L. No. 95-590, 92 Stat. 2513 (to be codified in scattered sections of 42 U.S.C.).
82. Pub. L. No. 95-617, 92 Stat. 3117 (to be codified in scattered sections of 16 U.S.C.).
83. Pub. L. No. 95-618, 92 Stat. 3174 (to be codified in scattered sections of 26 U.S.C.).
84. Pub. L. No. 95-619, 92 Stat. 3206 (1978).
85. Pub. L. No. 95-621, 92 Stat. 3350.
86. Pub. L. No. 95-620, 92 Stat. 3289.
87. H.R. REP. NO. 95-543, 95th Cong., 2d Sess. 7, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 7673, 7676.

is not often realized that it affects the second factor, per capita consumption, as well. As population size increases, per capita energy consumption is forced up. Two situations illustrate how this happens. The first involves the occurrence of traffic jams. As vehicles are added to a road and the optimum number is exceeded, each vehicle encounters difficulty in moving and its energy consumption rises. The second situation involves the procurement of natural resources such as minerals. The resources that are highest in grade and geographically closest are exploited more rapidly than would otherwise occur as the result of population growth; as these resources are exhausted, increased energy is required to supply the needs of each member of the population.[88]

Other Miscellaneous Environmental and Natural Resource Laws

A number of other pieces of environmental/resource legislation from the Ninety-Fifth Congress have considerable importance because of population pressures. One law was the National Climate Program Act[89] whose aim is the advancement of knowledge of the causes and consequences of climatic change. In enacting the legislation, Congress noted that "[w]eather and climate change affect food production, energy use, land use, water resources and other factors vital to national security and human welfare,"[90] all of which consequences increase in scale as population size mounts. A second law was the Earthquake Hazards Reduction Act of 1977[91] aimed at minimizing risks to life and property from earthquakes in the United States. An important reason for the law was the recognition that "[e]arthquakes have caused, and can cause in the future, enormous loss of life, injury, destruction of property, and economic and social disruption,"[92] consequences that are magnified as population size increases in areas struck by earthquakes. A final pair of laws was the Community Emergency Drought Relief Act of 1977[93] authorizing the executive branch to provide funds for water projects to drought-stricken areas, and the Food and Agriculture Act of 1977[94] that amended previous legislation establishing a food reserve to alleviate natural disasters in the

88. U.S. DEP'T OF THE INTERIOR, UNITED STATES MINERAL RESOURCES 8 (Geological Survey Paper No. 820, D. Brobst & W. Pratt eds. 1973).
89. Pub. L. No. 95-367, 92 Stat. 601 (to be codified in scattered sections of 15 U.S.C.).
90. Pub. L. No. 95-367, § 2(1), 92 Stat. 601 (to be codified in 15 U.S.C. § 2901).
91. Pub. L. No. 95-124, 91 Stat. 1098 (to be codified in 42 U.S.C. §§ 7701-7706).
92. *Id.* § 2(2) at 1098.
93. Pub. L. No. 95-31, 91 Stat. 169 (to be codified in 42 U.S.C. § 5184).
94. Pub. L. No. 95-113, § 1103, 91 Stat. 953 (to be codified in 7 U.S.C. § 1427(a)).

United States. The need for water and food in areas subjected to drought and other natural disasters increases with population size.

ECONOMY

We will now leave the area of environment and natural resources and turn to the area of the economy. An argument that has been advanced at times with some vigor is that population growth is necessary for economic progress.[95] In part, the argument apparently stems from a misunderstanding of the writings of the major economic theorist of the twentieth century, John Maynard Keynes, who in fact hypothesized that population stability would promote economic welfare if there is the increase in resources and/or consumption that population stability makes possible.[96] Fortunately, the American public generally seems not to accept the argument that economic prosperity depends on population growth. A 1971 national survey found that slightly over half of those interviewed rejected the argument.[97] But the rejection of the argument does not mean that Americans are cognizant of the negative economic consequences of population expansion. On the contrary, it appears that a clear recognition of the economic costs of continued population growth is still lacking. Let us, therefore, turn to legislation from the Ninety-Fifth Congress dealing with economic problems that resulted to a significant degree from domestic population pressures.

Employment

Several laws were enacted that were aimed at reducing the number of unemployed persons. Among them were the Comprehensive Employment and Training Act Amendments of 1978,[98] the

95. COMMISSION ON POPULATION GROWTH AND THE AMERICAN FUTURE, POPULATION AND THE AMERICAN FUTURE 41 (1972); Espenshade, *Zero Population Growth and the Economies of Developed Nations*, 4 POPULATION & DEV. REV. 645, 646 (1978).

96. *Some Economic Consequences of a Declining Population*, 4 POPULATION & DEV. REV. 517, 522 (1978).

97. 4 UNITED STATES COMMISSION ON POPULATION GROWTH AND THE AMERICAN FUTURE, ASPECTS OF POPULATION GROWTH POLICY 469, 480 (R. Parke & C. Westoff eds. 1972).

The question asked was "Do you agree or disagree with those who claim that population growth helps keep our economy prosperous?" Among all respondents, 52 percent disagreed, 36 percent agreed, and 12 percent registered no opinion. The proportion disagreeing was substantially higher for Whites than for Blacks (53 and 38 percent, respectively) and increased with educational level (from 45 percent among those who had not graduated from high school to 66 percent among those who had graduated from college).

98. Pub. L. No. 95-524, 92 Stat. 1909 (to be codified in scattered sections of 20, 26, 29, 42 U.S.C.).

Economic Opportunity Amendments of 1978,[99] and the Youth Employment and Demonstration Projects Act of 1977.[100] Perhaps the most significant, however, was the Full Employment and Balanced Growth Act of 1978,[101] a statement of policy that the federal government would simultaneously attempt to alleviate unemployment while balancing its budget, minimizing inflation, improving the balance of trade with foreign nations, and achieving gains in productivity. Special attention was given to the relatively high rate of unemployment among young adults, the Act declaring that "serious unemployment and economic disadvantage of a unique nature exist among youths even under generally favorable economic conditions."[102] The Act found that federal monetary and fiscal policies had failed to attain the goals established and that the policies must be supplemented by other measures.[103]

The problem of unemployment can be largely explained by existing population pressures.[104] The number of workers has been expanding rapidly in recent years as the result of the baby boom following the second World War. For example, the number of young adults 18 to 24 years old increased from roughly 16,000,000 in 1960 to 28,000,000 in 1976[105]—a 75 percent increase in just sixteen years. The economy of the country has been unable to absorb the rapid increase in the number of young workers from the baby boom, with the result that about half of all unemployed persons in the last few years have been 24 years of age and younger.[106] The unemployment problem today is to a considerable degree the result of the high fertility of the late 1940s and the 1950s.

Another law reflecting population pressures was the Federal Employees Flexible and Compressed Work Schedules Act of 1978[107] authorizing a three-year experiment in varying the length of the workweek and workday of federal government employees.[108] Rather than work five days a week and eight hours each day, variations will be possible so that employees might work, for example,

99. Pub. L. No. 95-568, 92 Stat. 2425 (to be codified in scattered sections of 42 U.S.C.).

100. Pub. L. No. 95-93, 91 Stat. 627 (to be codified in scattered sections of 29 U.S.C.).

101. Pub. L. No. 95-523, 92 Stat. 1887 (to be codified in scattered sections of 15 U.S.C.).

102. *Id.* § 205(a)(1) at 1901. (to be codified in 15 U.S.C. § 3115).

103. *Id.* at § 2(b)(2) at 1888 (to be codified in 15 U.S.C. § 3101).

104. *See* H. KAHN, WORLD ECONOMIC DEVELOPMENT 1979 AND BEYOND 9 (1979); M. MEAROVIC & E. PESTAL, MANKIND AT THE TURNING POINT 80 (1974).

105. Bureau of the Census, U.S. Dep't of Commerce, *supra* note 8, at 10.

106. BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, *supra* note 6, at 408.

107. Pub. L. No. 95-390, 92 Stat. 755 (to be codified in 5 U.S.C. § 6101).

108. *Id.* § 4(a)(1) at 755.

ten hours a day for four days. Changes in the standard weekly work schedule of five eight-hour days have begun in nongovernmental employment and have been motivated in part by the pressures that population numbers have placed on urban transportation systems during rush hours.

> . . . [S]uch changes have produced a redistribution of traffic patterns and increased carpools and public transit . . . . Many transportation experts began to question increased investment in mass transit and expressways to meet the transit requirements of two 15-minute peak traffic periods. Flextime has tended to reduce congestion, extend peak hours, increase fuel economy and decrease air pollution since vehicles not subject to stop and go traffic don't idle as much.[109]

Taxation

The Internal Revenue Code[110] permits a taxpayer to deduct a fixed amount for each dependent child from his or her income in determining taxable income. Until recently, the amount was $750 for each child, but under the Revenue Act of 1978,[111] the amount was increased to $1,000 for taxable years starting on or after January 1, 1979.[112] The reason given for the change is that:

> The $750 exemption became effective in 1972. Inflation since then has eroded the real value of the $750 exemption and increased the difference between $750 and the cost of supporting a dependent. Consumer prices have in fact increased 55 percent since 1972. This erosion in the value of the exemption has been particularly severe for middle- and upper-middle income taxpayers, especially those with large families.[113]

The inflation experienced by the country can be explained in large measure by population pressures, and it is ironic that an express motivation for the increased exemption was minimizing the impact of inflation on large families, those who contributed the most to inflation. Population numbers have reached the point where they are pressing against the limits to growth, and the pressures are

109. H.R. REP. NO. 95-912, 95th Cong., 2d Sess. 11, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 1894, 1903. Whether changing work schedules will result in reduced energy consumption overall remains to be seen. The changes in work schedules will cause buildings to operate for longer hours, tending to increase energy consumption. *Id.*

110. 26 U.S.C. §§ 151(e), 152(a) (1976).

111. Pub. L. No. 95-600, 92 Stat. 2771.

112. *Id.* § 102(a), (d).

113. SENATE FINANCE COMM., REVENUE ACT OF 1978, S. REP. NO. 95-1263, 95th Cong., 2d Sess. 46, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 6761, 6809.

manifested in shortages and concomitant price increases.[114] The population-induced shortages and price increases have appeared throughout the economy, including energy,[115] capital,[116] and materials for housing.[117]

CITIES

The Ninety-Fifth Congress passed several laws dealing with the quality of life in urban areas. The National Neighborhood Policy Act[118] established a national commission to identify and make recommendations to alleviate the factors reducing the quality of life in urban neighborhoods. The law resulted from the congressional finding that the incentives needed to preserve the man-made environment had been ignored, with resulting deterioration in the environment, and that the deterioration would continue until explicit incentives were developed to encourage conservation of existing neighborhoods.[119] The Quiet Communities Act of 1978[120] amended previous legislation to authorize research and education directed to the effects of noise and their reduction.[121] The Livable Cities Act of 1978[122] provided assistance to state and local governments and to private organizations for programs promoting the aesthetic and psychological aspects of the urban environment, particularly for low and moderate income residents. The legislation was based on the congressional finding that "artistic, cultural, and historic resources, including urban design" are a vital part of the urban environment and that such resources should be extended to all residents of that environment.[123] Finally, the Urban Park and

114. L. BROWN, THE TWENTY-NINTH DAY 161-91 (1978).

115. H.R. REP. NO. 95-543 95th Cong. 2d Sess. 7, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 7673, 7676. The Committee states: "The United States faces the problem of making the transition from an era of cheap abundant energy to relative scarcity of expensive energy supplies." *Id.*

116. Interest rates on capital have been appreciably higher during the 1970s than during the 1960s. BUREAU OF THE CENSUS, *supra* note 6, at 548-49.

117. Wholesale prices of construction materials rose less than 20 percent during the 1960s but will apparently increase at least three times as fast during the 1970s. BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES: 1977 773 (98th ed. 1977).

118. Pub. L. No. 95-24, 91 Stat. 56 (to be codified in 42 U.S.C. § 1441).

119. *Id.* § 202(b) at 56 (to be codified in 42 U.S.C. § 1441).

120. Pub. L. No. 95-609, 92 Stat. 3079 (to be codified in scattered sections of 42 U.S.C.).

121. *Id.* § 14(2) at 3079.

122. Pub. L. No. 95-557, 92 Stat. 2122 (to be codified in scattered sections of 42 U.S.C.). The Act was part of the Housing and Community Development Amendments of 1978, 92 Stat. 2080, that were also concerned with promoting housing for low-income persons.

123. *Id.* § 802(1) at 2122 (to be codified in 42 U.S.C. § 8141).

Recreation Recovery Act of 1978[124] authorized assistance for recreational facilities in low income urban neighborhoods.[125]

As urban populations grow larger in response to population increase in the nation as a whole, the quality of life tends to decline. It is no accident that extensive governmental programs have developed in recent years to deal with urban problems, for population numbers had reached the point in urban areas where they had caused serious problems that demanded a remedy.[126] In the words of a computer simulation study of the dynamics of urban areas, "[o]ther things being equal, an increase in population of a city crowds housing, overloads job opportunities, causes congestion, increases pollution, encourages crime, and reduces almost every component of the quality of life."[127] A manifestation of the principle that population growth causes the quality of urban life to deteriorate is the suburbanization process that has been occurring in the United States over the past half-century. Americans have found that areas of high population density are less attractive than areas of low density, and the quality of life differential has motivated them to live in low-density areas.[128]

This completes our review of major pieces of legislation that emanated from the Ninety-Fifth Congress and that are attributable in large part to population pressures in the United States. A review of the work of earlier Congresses would undoubtedly expand the number of population-induced problems that were the subject of legislation. Such a review, however, is unnecessary here, for the

124. Pub. L. No. 95-625, 92 Stat. 3538 (to be codified in scattered sections of 16 U.S.C.).

125. *Id.* § 1006 at 3541.

126. Expenditures by all levels of government on housing and urban renewal were as follows:

	Aggregate expenditures	Per capita expenditures
1940	$0.3 billion	$ 2
1950	$0.6 billion	$ 4
1960	$1.1 billion	$ 6
1970	$3.2 billion	$16
1976	$5.4 billion	$25

BUREAU OF THE CENSUS, *supra* note 6, at 288-289; 2 BUREAU OF THE CENSUS, U.S. DEP'T OF COMMERCE, HISTORICAL STATISTICS OF THE UNITED STATES: COLONIAL TIMES TO 1970 1121 (1975). Per capita expenditures in 1940 and 1950 were calculated using the population figures for those years in BUREAU OF THE CENSUS, *supra* note 6, at 6.

127. Forrester, *Counterintuitive Behavior of Social Systems*, 73 TECHNOLOGY REV. 1, 6 (1971).

128. 3 HOUSE SELECT COMM. ON POPULATION, CONSEQUENCES OF CHANGING U.S. POPULATION: POPULATION MOVEMENT AND PLANNING, 95TH CONG., 2D SESS. 218, 219-24 (1978).

purposes of this paper has simply been to provide the reader with illustrations of domestic population pressures as they are currently appearing in federal legislation. In so doing, the paper aims at fostering sensitivity to and concern with legal aspects of population pressures and thus promoting scholarship in the realm of population law.

The writer does not mean to imply that the Ninety-Fifth Congress totally failed to act so as to curb domestic population pressures. The Congress passed the Population Education Act[129] authorizing funds for the implementation of population education in public and private primary and secondary schools and institutions of higher education.[130] But at the same time, the Congress failed to pass a bill declaring the need for an explicit national population policy.[131] The bill was concerned with the achievement of a balance between population numbers on the one hand, and the quality of the social and physical environment and the availability of resources, on the other. By it, Congress would have recognized "the impact of continued national and international population growth, particularly as that growth affects energy supplies, natural resources, food and agriculture, the environment, governmental expenditures, world security, and diplomatic relations."[132]

The fact that Congress failed to pass the bill reflects the failure of the American people and their elected representatives to clearly perceive the serious consequences of present United States' population size and its continued growth.[133] The recognition must occur if the problems stemming from overpopulation, such as those that were the subject of legislation by the Ninety-Fifth Congress, are to be solved. The American people now believe that the future will be worse than the present and past, a situation that has not existed since measurements were first taken two decades ago.[134] They therefore understand that something is basically wrong in the United States, but they have evidently not identified popula-

129. Population Education Act, Pub. L. No. 95-561, 92 Stat. 2210 (1978) (codified in scattered sections of 20 U.S.C.).

130. *Id.* § 391, 392 at 2227. However, Congress did not appropriate any funds for implementing the Act in fiscal year 1979 and the President's budget for fiscal year 1980 does not request funds. 44 Fed. Reg. 27,630 (1979).

131. H.R. 13223, 95th Cong., 2d Sess. (1978).

132. *Id.* § 2(a).

133. "Policymakers at all levels of government and the American public have limited understanding of the long-term consequences of population change for individuals and society as a whole." HOUSE SELECT COMM. ON POPULATION, *supra* note 17, at 50.

134. A. CANTRIL & S. CANTRIL, UNEMPLOYMENT, GOVERNMENT AND THE AMERICAN PEOPLE 16 (1978).

tion as a key factor in creating many of the problems they face.[135] Legal scholars can help bring about this recognition through the development of the field of "population law," and their work can provide a basis for controlling population size when the political system decides to do so. The field is of vital importance, its surface has only been scratched, and there is much work to be done.

NEBRASKA LEGISLATION

One of the premises set forth in this article is the contention that recent federal legislation has resulted from population pressures creating social, economic or ecological problems.[136] Although the factors resulting in the enactment of Nebraska legislation cannot be determined as easily as those motivating federal legislation,[137] in recent years the Nebraska Legislature has enacted legislation which may be viewed as responsive to increases in population or the related increased pressure on available natural resources. A brief review of selected Nebraska legislation enacted during the past five years indicates several areas in which such considerations may have been motivating factors.

One of these areas is that concerning the development, protection, and preservation of natural resources. For example, in 1975, the Nebraska Legislature enacted the Nongame and Endangered Species Act.[138] This act stated that the policy of the State of Ne-

135. A nationwide public opinion poll conducted in August 1978 found that 56 percent of all Americans believed there are currently shortages of some basic resources in the United States, that 58 percent agreed with the statement "we must accept a slower rate of economic growth in order to protect our environment," and that 59 percent endorsed the proposition that the United States should "slow down" or "drastically limit" the use of its natural resources. XXXVI OPINION RESEARCH CORP., PUB. OPINION INDEX 2, 6, 7 (Nos. 17 & 18, Sept. 1978). Such attitudes are consistent with and, if held by a larger proportion of the American people, could lead to a recognition of the need for population control. However, there appears to be only a weak relationship between concern with environmental and resource issues, on the one hand, and belief in the necessity of population limitation, on the other. Barnett, *Concern with Environmental Deterioration and Attitudes toward Population Limitation*, 20 BIOSCIENCE 999 (1970). Nonetheless, the population control movement in the United States reached its zenith in the 1969-1972 period as part of the wave of concern over environmental and resource issues that swept the country at that time. This suggests that the need for population control is most readily, even though not easily, perceived in the context of environmental and resource constraints.

136. See notes 23 & 24 and accompanying text *supra*. I would like to thank W. Eric Wood of the Creighton University School of Law for providing assistance in the preparation of this section.

137. The motivating factors underlying federal legislation may be discerned through published committee reports, legislative histories, and other sources. Unfortunately, similar information is not always available in regard to Nebraska legislation.

138. NEB. REV. STAT. § 37-430 to -438 (Reissue 1978).

braska is to "conserve species of wildlife for human enjoyment, for scientific purposes, and to insure their perpetuation as viable components of their ecosystems."[139] In order to implement this policy, the Legislature established procedures to identify endangered species, to issue regulations for their protection,[140] and to acquire habitat for their use.[141]

In 1974, legislation was enacted dealing with the development, preservation, and maintenance of water and related land resources.[142] As a result, the Nebraska Resources Development Fund was established and placed under the control of the Nebraska Natural Resources Commission.[143] This structure allowed the state government to furnish financial resources in the following areas: pollution control, flood abatement, development of public irrigation facilities, preservation and development of fish and wildlife resources, protection of public lands, conservation of water resources, and preservation of land resources.[144]

The Nebraska Outdoor Recreation Development Act[145] recognized that the state park system constitutes a valuable state resource and that the furnishing of recreational opportunities is a necessity to the enjoyment of life.[146] This legislation created financial resources[147] and established procedures for the development, operation, and maintenance of state parks.[148] This goal may be viewed as resulting from the increasing utilization of such facilities by a growing Nebraska population.

It may be fairly stated that the greater part of the State of Nebraska does not suffer from population overcrowding problems.[149] But the increasing utilization of available agricultural land and the increasing use of advanced farming technology may be viewed as a response to the food demands of a growing world population.[150] These factors have undoubtedly had a considerable impact upon the State of Nebraska and its available resources.[151] Legislation

139. *Id.* § 37-432(1).
140. *Id.* § 37-434.
141. *Id.* § 37-435.
142. *Id.* § 2-3263 to -3272.
143. *Id.* § 2-3264.
144. *Id.* § 2-3263.
145. *Id.* § 37-1301 to -1305.
146. *Id.* § 37-1302.
147. *Id.* § 37-1303.
148. *Id.* § 37-1304.
149. *See generally* THE WORLD ALMANAC AND BOOK OF FACTS 1978 187-243 (1978).
150. See notes 30-33 & 55-74 and accompanying text *supra*.
151. The scope of Nebraska's dependence upon agriculture and related industries and the factors referred to in the preceeding footnote would necessarily result in this conclusion.

passed within the last several years indicates that one of the natural resources most directly affected by such agricultural development is ground water.

The Nebraska Ground Water Management Act[152] was a response to increased ground water utilization.[153] This legislation sought to identify areas in which the increasing use of underground water resources indicated that controls would be necessary in order to conserve the available supply.[154] Accordingly, the act established procedures for locating such areas[155] and regulating the extent of future use.[156] The importance of this natural resource, and the ever-increasing demands upon it, is reflected by the fact that the Nebraska Legislature has on at least three other occasions adopted legislation directly related to this natural resource.[157]

CONCLUSION

The above-described legislation is supportive of the conclusion that increasing population pressures within Nebraska, the United States, and the world as a whole create forces and situations demanding legislative action. Similar cause-effect relationships may also be perceived in the enactment of legislation dealing with energy, social welfare, taxation, government, and many other areas. Although this causal relationship is not always given express recognition when this type of legislation is enacted, in-depth research frequently leads to the conclusion that such a relationship does in fact exist.[158] Perhaps future legislation may more effectively resolve the problems with which it is confronted if this relationship and its ramifications are perceived and considered.

152. NEB. REV. STAT. § 46-656 to -674 (Reissue 1978).
153. *Id.* § 46-656.
154. *Id.* § 46-658.
155. *Id.*
156. *Id.* § 46-659, -663, -664, -666 (Reissue 1978).
157. *See, e.g.*, L.B. 411, 1978 Neb. Laws 259 (amending NEB. REV. STAT. § 2-3213; repealing NEB. REV. STAT. § 46-614 to -634); L.B. 217, 1978 Neb. Laws 120 (amending § 46-664, 666); NEB. REV. STAT. § 2-1575 to -1582 (Reissue 1977).
158. See notes 23 & 24 and accompanying text *supra*.