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ABSTRACT

This document contains abstracts and the complete texts of 19 papers that were presented at a conference held to improve the policy education efforts of extension workers responsible for public affairs programs. The following papers are included: "Microwave Society and Crock-Pot Government" (Bill Graves); "Citizen Participation, Social Capital and Social Learning in the United States, 1960-1995" (Carmen Sirianni); "Citizen Involvement--Federal Level" (Sam Brownback); "Citizen Involvement in Public Policy Formation from the Perspective of a Rural Kansas Senatorial District" (Janis Lee); "Johnson County Citizens Are Involved with Local Government" (Johnna Lingle); "The Past and Future: Social Contract, Social Policy, and Social Capital" (Cornelia Butler Flora, Jan L. Flora); "Asset-Based Alternatives in Social Policy" (Michael Sherraden, Deborah Page-Adams); "Application Opportunities in Public Issues Education" (Alan J. Hahn); "National Policy Trends: Implications for Resource Conservation" (Jeffrey A. Zinn); "Civic Environmentalism and National Environmental Policy: Reform or Rollback?" (DeWitt John); "Whose Land Is It Anyway? Endangered Species, Private Property, and the Fight for the Environment" (Jon H. Goldstein); "Consumer Perceptions of Risk: Implications for Food Safety Policy" (Margy Woodburn); "Economic Issues Associated with Food Safety" (Stephen R. Crutchfield); "1995 Farm Bill; Will We Decouple?" (Barry L. Flinchbaugh); "1995 Farm Bill" (Ronald D. Knutson); "Industrialization of Agriculture: What Are the Policy Implications?" (Michael Boehlje); "Sustainability: Observations, Expectations and Policy Implications" (Dana L. Hoag, Melvin D. Skold); "Understanding the Changing Structure of American Agriculture" (Don Paarlberg); and "Understanding the Changing Structure of American Agriculture" (Harold F. Breimyer). Also included are lists of the conference's invited poster/display session topics and conference participants. Some papers contain substantial bibliographies. (MN)

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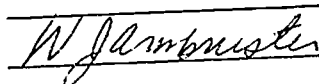
Increasing Understanding of Public Problems and Policies

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Subjects Discussed at Previous Conferences

- 1979 Controlling Inflation: Alternative Approaches, Impacts and Implications • Policy Legislative Process
- 1980 Dispersed vs. Concentrated Agriculture • Ethics of Public Policy • Productivity • Rural Transportation • Energy Policy Issues • Policy Issues and Educational Approaches
- 1981 Government Programs and Individual Decisions • Public Support of Research and Extension • Agriculture in the 1980s • Methodology of Public Policy Education
- 1982 Domestic Economic Policy • Federal Government Role in Resource Management • Trade Policy • Financing Government Under Tight Budgets • Food Policy
- 1983 Economic Transition • Land Ownership Issues and Policy Education Approaches • The U.S. Food and Agricultural System in the International Setting • The Policy Education Process
- 1984 Federal Deficit • Providing Public Services in an Era of Declining Taxpayer Support • Water Policy • Distribution Issues in Food & Agricultural Policy • Methodology Workshops • Emerging Policies of Food & Agriculture
- 1985 The Changing Face of America • The Changing Face of Agriculture • Status of 1985 Agricultural and Food Legislation • Tax Policy Revision • Developing Policy Education Programs on Controversial Issues
- 1986 Balancing the Federal Budget • Effects of Agriculture and Trade Policies on the Competitiveness of U.S. Agriculture • Human Stress and Adjustment in Agriculture • The Food Security Act of 1985 and Public Policy Education for the Future
- 1987 Socioeconomics of Rural America • Rural Revitalization • U.S. Agriculture in the International Arena • Role of Values, Beliefs and Myths in Establishing Policy • Policy Education and the Policy Process
- 1988 Policy Choices for Revitalizing Rural America • Priority Issues for a New Farm Bill • Opportunities for Joint Public Policy Education • Emerging Issues in Agricultural and Food Policy • Emerging Resource Issues • International Agricultural Relations
- 1989 The Global Environment for the U.S. Economy in the 1990s • Family Policy • Rural Development Policy • Public Policy Education • Water Quality Policy
- 1990 An Evolving Public Policy Education • Safe Food and Water: Risks and Tradeoffs • Balancing Environmental and Social Concerns with Economic Interests in Agriculture • Structural Change in Food Industries and Public Policy Issues • Toward a New Europe
- 1991 Global Competitiveness, Productivity and Social Impacts • Public Policy Education Methods • Policy for Environment and Economic Development • Rural Resource Development and Work Force Productivity • Political Economy of the Dysfunctional Family
- 1992 Public Policy Education in the 1990s • Agriculture and Environmental Policymaking: Issues, Actors, Strategies • The Rural Social Infrastructure • Domestic Consequences of Evolving International Trade Policy
- 1993 The Status of Agriculture and Rural America • An Evolving Public Policy Education • Health Care Reform • Public Issues Education and the NPPEC • Environmental Policy: The Legislative and Regulatory Agenda
- 1994 Ethical Perspectives in Public Policy Education • Transition of Food and Agricultural Policy • Building Human Capital—Reforming Education • Environmental Policies • Local Impacts of Trade Policy • Financing K-12 Education • Sustainable Rural Policy

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Increasing Understanding of Public Problems and Policies—1995
Editors: Steve A. Halbrook and Carroll E. Merry
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Farm Foundation, Oak Brook, Illinois
January, 1996

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FOREWORD

This publication reports the major discussions of the 45th National Public Policy Education Conference held September 24-27, 1995, in Overland Park, Kansas. The 140 participants represented most states, the United States Department of Agriculture and other public agencies.

The conference is held to improve the policy education efforts of those extension workers responsible for public affairs programs. The ultimate goal is to help citizens faced with solving local and national problems make more intelligent and responsible decisions.

Specific objectives were: 1) to provide timely and useful information on public issues; 2) to explore different approaches to conducting public policy education programs; and 3) to share ideas and experiences in policy education.

The Farm Foundation financed the instructional staff for, and the transportation of one individual from each extension service to, this conference which is planned in conjunction with the National Public Policy Education Committee. The Foundation also financed publication and distribution of these proceedings which are made available to state and county extension personnel, teachers, students and others interested in increasing understanding of public policy issues.

Neil L. Meyer, Chairman
National Public Policy
Education Committee

Walter J. Armbruster
Managing Director
Farm Foundation

January, 1996

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Abstracts

CITIZEN INVOLVEMENT

THE MICROWAVE SOCIETY AND CROCK-POT GOVERNMENT

*Governor Bill Graves
State of Kansas*

Citizen involvement is alive and well in the Heartland. While it may not always be readily apparent, if those in elected positions listen more carefully, they will hear their constituents very clearly. The fact is, the citizenry expects public officials to perform their duties properly and effectively, and to be sensitive to understanding that there are always multiple sides to any policy decision.

CITIZEN PARTICIPATION, SOCIAL CAPITAL AND SOCIAL LEARNING IN THE UNITED STATES, 1960-1995

*Carmen Sirianni
Brandeis University*

The process of civic innovation in the United States is examined in reference to recent thinking on social capital, and the limits of Robert Putnam's argument on the decline of social capital are explored. The development of civic environmentalism provides a case study that shows how social capital has been built within a complex regulatory arena over two and a half decades, and how such innovation provides a foundation for a more robust "public policy for democracy.,, Comparisons to community organizing in urban settings are also suggested.

CITIZEN INVOLVEMENT - FEDERAL LEVEL

*Sam Brownback
U.S. House of Representatives - Kansas*

Today, citizens want to "take back,, their government. They are tired of being given mandates from afar that don't reflect or represent their true local needs. This is resulting in a revolution in civic involvement that is being reflected in the election process as this moral and spiritual revival sweeps across the nation.

CITIZEN INVOLVEMENT IN PUBLIC POLICY FORMATION FROM THE PERSPECTIVE OF A RURAL KANSAS SENATORIAL DISTRICT

*Janis Lee
Kansas Senate*

It means hard work, long hours and writing responses to all letters coming in, but state senate-to-constituency communication can be accomplished. The result is an electorate with a sense of greater involvement in state government, a better understanding of the decision-making process, more opportunity for civic participation, and greater voter turnout. A side benefit has also been a restoration of integrity in public dialogue and a building of trust through interacting, and involving as much of the public as possible.

JOHNSON COUNTY CITIZENS ARE INVOLVED WITH LOCAL GOVERNMENT

*Johnna Lingle
2nd District Commissioner, Johnson County Kansas*

Developing active citizen involvement in local government can be successful as long as the agencies involved are responsive to those efforts of involvement, are willing to change, and government employees are "customer" oriented. Johnson County, Kansas, has met those requisites with the end result being pro-active citizen participation in the governmental process. It has meant changes in the way agencies and bodies have recognized and responded to public needs, with the end results being increased volunteerism, greater communication and understanding, and increased citizen support and involvement.

RENEGOTIATING THE SOCIAL CONTRACT

THE PAST AND FUTURE: SOCIAL CONTRACT, SOCIAL POLICY AND SOCIAL CAPITAL

*Cornelia Butler Flora
Jan L. Flora
Iowa State University*

The "social contract" between citizens and the state is under negotiation, with the potential for major changes in the definition of the role of the state.

That shift can impact the legitimacy of the state and the way civic society operates. Social capital is a critical component of civic society, and can be enhanced or destroyed by policies and their implementation. Social capital is particularly important for communities of place, and consists of reciprocity and trust which reduce the transaction costs of other forms of capital. Short term "problem solving" policies and highly regulatory policies focusing on means, not ends, tend to reduce social capital.

ASSET-BASED ALTERNATIVES IN SOCIAL POLICY

*Michael Sherraden
Deborah Page-Adams
Washington University, St. Louis*

The current U.S. welfare state is heavily oriented toward the provision of income for consumption, but the income-based welfare state is under considerable strain, and there are signs that it may be in decline. Among several types of alternative strategies are asset-based policies, which would focus more on savings and investment. Proposals for asset-based policies, such as Individual Development Accounts, are becoming more prominent. Along with such proposals comes a research agenda to inquire into the effects of assets on individual and household well-being. If asset building has multiple positive effects, as evidence indicates, then it would be desirable for social policy to shift in this direction.

APPLICATION OPPORTUNITIES IN PUBLIC ISSUES EDUCATION

*Alan J. Hahn
Cornell University*

A review of the 1994 debate on national health care reform suggests that renegotiating the social contract in a democratically responsible way requires (1) time for gestation, (2) consensus seeking among the active players, (3) public understanding and support, and (4) representation of all sides, including poor people. Roles for educators include (1) facilitating consensus seeking among the major players, (2) educating citizens as well as active players, and (3) involving poor people. Such a combination of conflict resolution and empowerment can be thought of as the "third wave" of public issues education.

ENVIRONMENTAL POLICY TRENDS: IMPLICATIONS FOR AGRICULTURE AND NATURAL RESOURCE USE

NATIONAL POLICY TRENDS: IMPLICATIONS FOR RESOURCE CONSERVATION

*Jeffrey A. Zinn
Congressional Research Service*

This paper reviews the status of implementing the 1990 Farm Bill, identifies how knowledge about key topics has changed over the past five years, and examines relationships between the political changes and the ongoing process for developing a farm bill this year. It concludes with some observations about how change since 1990 might affect future farm policy debate. These observations include: the congressional setting will be more volatile in the future; information will likely play a less important role; and this farm bill will be largely about redressing past excesses on environmental topics, rather than expanding upon the existing base of program accomplishments.

CIVIC ENVIRONMENTALISM AND NATIONAL ENVIRONMENTAL POLICY: REFORM OR ROLLBACK?

*DeWitt John
National Academy of Public Administration*

“Civic Environmentalism” is a kind of problem-solving that occurs at the local level when people custom-design answers to local environmental challenges. Tradition has held that laws and regulations and uniform goals have tended to impose uniform procedures and policies on a wide array of local conditions. Environmental policies have been designed to fit an essentially top-down, narrowly-focused mode of government.

People have learned how to custom-design responses to fit local situations. And when they have done this, the practical problems which they face and the inherent complexity of most environmental problems have led them to take a broader approach, focusing not just on one symptom or issue, but on a complex mix of environmental issues, and to social and economic issues as well.

**WHOSE LAND IS IT ANYWAY?
ENDANGERED SPECIES, PRIVATE PROPERTY, AND
THE FIGHT FOR THE ENVIRONMENT**

*Jon H. Goldstein
U.S. Department of the Interior*

The Endangered Species Act is up for reauthorization. Prominent among the criticisms of the Act are: ESA protects listed species to the exclusion of human needs; ESA ignores economic considerations, imposing burdensome, inequitable costs on landowners, businesses and workers; ESA constitutes an unconstitutional "taking" of private property without compensation. In this paper, I distinguish legitimate concerns about the Act and the endangered species process from self-serving carping, summarize the Administration's and Congress' proposals for reforming the process, and report the status of and prospects for reauthorization.

FOOD SAFETY POLICY

**CONSUMER PERCEPTIONS OF RISK:
IMPLICATIONS FOR FOOD SAFETY POLICY**

*Margy Woodburn
Oregon State University*

Recent surveys indicate that the majority of consumers believe that their food is generally safe. A shift has occurred in the last three years toward more concern about spoilage/foodborne illness. However, consumers are generally found to differ greatly in their perceptions of hazards and their trust in all involved in the food supply, which is an important element in confidence. An inherent ambivalence in attitudes toward food has increased as food choice-making becomes more complex. A major policy issue is the optimum balance between regulation and consumer information/education in increasing the safety of the food supply and consumer confidence.

ECONOMIC ISSUES ASSOCIATED WITH FOOD SAFETY

*Stephen R. Crutchfield
USDA Economic Research Service*

American agriculture excels at producing an abundant supply of safe, nourishing food for the nation and the world. Despite the productivity and

quality of the nation's food system, concerns remain about the safety and quality of the food we eat and the water we drink. In recent years some well-publicized incidents, such as the contamination of hamburgers with the *E. coli* O157:H7 bacteria and residues of the pesticide Alar on apples, have led to increased public concern about the possibility of foodborne illness and exposure to potentially hazardous chemicals in the food supply. According to the USDA's 1991 Diet and Health Knowledge Survey, 43 percent of primary meal preparers cited bacteria or parasites in food as the food safety issue of greatest concern to them. An additional 22 percent cited pesticide residues in food as their greatest safety concern. In response, the Agriculture Department has begun several broad-based efforts to make further improvements in the safety and quality of the nation's food supply.

This paper discusses the food safety issue from the economist's perspective. Economics has an important role to play in the public debate about food safety. Fundamental economic principles help explain why a food safety problem may exist. Economic analysis of the costs of foodborne disease helps put the overall social burden of unsafe food into a broader perspective. Finally, economic analysis of the costs and benefits of alternative policies to improve food safety supports public and private decision making by allowing us to rank policy options on the basis of their expected costs and benefits.

1995 FARM BILL UPDATE

1995 FARM BILL WILL WE DECOUPLE?

Barry L. Flinchbaugh
Kansas State University

Traditionally, Farm Bill debate and discussion have been more along the lines of commodity groups than political parties. However, with a Democratic White House and a Republican Congress, old standards of "you scratch mine and I'll scratch yours" have become history with the debate over the new Farm Bill. There are also a lot of myths involved with the Freedom to Farm proposal.

1995 FARM BILL

*Ron Knutson
Texas A & M University*

In times of substantially reduced funding, it is unlikely that there will be many farm program participants who are better off as a result of the 1995 Farm Bill. Whereas some farmers and ranchers in the past looked to farm bills to solve financial problems or stabilize prices, this is not reasonable expectation for the 1995 Farm Bill. The second point has to do with the manner in which the farm bill is developed. In the past, reconciliation has played an important role in the development of farm policy. What is new and different about the 1995 Farm Bill is that reconciliation appears to be the drive core of the process. Moreover, ideological mandates from the majority leadership, particularly in the House, appear to be driving the process, as opposed to traditional debate and compromise procedures. In the process, authorizing committees appear to be more partisan, and therefore, relatively less important in farm policy development.

SUSTAINABILITY AND INDUSTRIALIZATION: CONFLICTING OR COMPLEMENTARY

INDUSTRIALIZATION OF AGRICULTURE: WHAT ARE THE POLICY IMPLICATIONS?

*Michael Boehlje
Purdue University*

The economic benefits of the dual dimensions of industrialization of agriculture -- implementation of a manufacturing approach to the food and industrial product production and distribution chain, and negotiated coordination among the stages in that chain -- are expected to dominate the economic and social cost, resulting in a rapid movement of the livestock sectors (particularly pork) followed chronologically by the grain sectors to an industrial model of production and distribution. The implications of this industrialization process for agricultural policy with respect to traditional farm programs, environmental policy, labor regulation, food safety, information/technology transfer and regulation of structure are profound. In essence, the underlying policy questions can be stated simply: (1) should the

perceived by some to be a more acceptable structure of the industry, and (2) if industrialization of the agricultural sector does occur, can one justify unique policies like price and income supports, and exemption from other policies such as worker safety and environmental regulation, for an industry that is now no longer different than other manufacturing and industrial sectors of the economy.

SUSTAINABILITY: OBSERVATIONS, EXPECTATIONS AND POLICY IMPLICATIONS

*Dana L. Hoag
Melvin D. Skold
Colorado State University*

We explore the concept of sustainable agriculture (SA) in light of industrialization. We are neither supporters or opponents of SA, but we do see a disturbing lack of understanding about what the term means and consequently what its contributions have been. While the goals of sustainability are laudable, the term SA is only the most recent catch-all phrase to address externality problems in agriculture (Hoag and Skold). Like other terms which preceded it, the term SA is not likely to endure. The issues and concerns of its proponents are too diverse and intractable to unify. However, new terms or phrases will arise, because the concerns bundled in SA are important and they will persist. It is in the definitions of SA that people express their concerns about agriculture. And it is these concerns that need to be addressed, whether it be through SA, the latest catch phrase, or through narrower, more targeted programs.

We will attempt to persuade the reader that the worthy goals of SA can be and are better accomplished through other more problem-specific programs and policies. Furthermore, industrialization will play a part in addressing many of these issues. SA's search for its identity has left an awareness about some problems which may need to be addressed, but the market will deal with many of these without the need of government policies. If and where the market fails to ensure the level of sustainability that the public demands, policies may be required. The trick comes in knowing when market signals are not correctly reflecting society preferences.

UNDERSTANDING THE CHANGING STRUCTURE OF AMERICAN AGRICULTURE

*Don Paarlberg
Purdue University*

Structural changes are needed that will: check the drift toward concentration of land ownership, change the attitude toward off-farm income, and open up farming opportunities for qualified young persons in addition to those who stand to inherit going farms.

Institutional changes that should be considered are: reduce subsidies to super-large farms which, with government help, are gobbling up the smaller units; consider farms with off-farm income not as competitors with full-time farmers but as a new and worthy form of agriculture; and acknowledge vertical integration as an accomplished fact.

The purpose of my paper is to examine what structural changes, short of basic land reform, might occur which would:

- Check the drift toward concentration of land ownership,
- Bring in needed income from nonfarm sources, and
- Open up farming opportunities for qualified young persons in addition to those who stand to inherit a going farm operation.

UNDERSTANDING THE CHANGING STRUCTURE OF AMERICAN AGRICULTURE

*Harold F. Breimyer
University of Missouri-Columbia*

The structural change underway in agriculture, often referred to as its industrialization, is not a nibbling at the edge of traditional structure but total reconstitution. It replaces the market system as the coordinating instrument for the agricultural and food sector with differentiated oligopoly -- a hierarchical structure that requires a discipline and a collective ethic that are at variance with our tradition. Many current developments, however, depend on almost-free-good energy; they will end as energy costs skyrocket in the next century. Agriculture's structure, essentially sustainable, could revert to individual proprietorships.

Citizen Involvement

THE MICROWAVE SOCIETY AND CROCK-POT GOVERNMENT

*Governor Bill Graves
State of Kansas*

I am pleased to welcome this very diverse group to Kansas. We thank you for coming, and are glad to be able to acknowledge the role that Barry Flinchbaugh's played over many years in agriculture and rural Kansas economic development.

Kansas has the enviable position of not only being geographically the center of the United States, but right now, in a public policy sense, the agricultural center of the United States. We probably have more clout than many of you think we deserve. But we're going to take it and keep it for as long as we can. But any time you discuss the creation of the farm bill back in Washington, you have names like Bob Dole, Pat Roberts, Dan Glickman and Barry Flinchbaugh come up. We have all of the big names working for us, and I hope that speaks well of this country, and I hope in the end, reflects positively on how the farm bill is reworked.

This gives me the chance to say to all of you how important we believe the work you do, in the land grant universities of this country, is to the back-bone of this nation, and agricultural policy. The graduates you produce lead this country. Thus, we are pleased that you decided this year to come to Kansas to have this conference.

Barry asked me to speak about citizen involvement and public policy development. I made a note when he said that I got over 60 percent of the vote; I'm glad that he didn't ask me to talk about political involvement, because six out of 10 voted right in the last gubernatorial election, so they obviously have their politics straightened out. But I'm going to start with citizen involvement.

It made me think of the oration that I wrote for the Optimist's Club rhetorical contest as a sophomore in high school in 1968. Without boring you with the entire speech, it began something like this: The American education system reflects the values of our nation. One of the most important values taught in our schools is that of citizenship. Since the beginning of my own education, I've been made aware of the importance of good citizenship; that is the survival of democracy in America. I have learned that a democracy depends upon its people, and its people must take an active role in this nation's affairs in order to ensure that our heritage of democracy might be passed on. This participation by the people is called good citizenship. I got second place for that speech.

I was thinking back about that, and the fact that there are some people who no longer think that the education system reflects the values of our nation. I hope that it does, and I hope we continue to invest in the American education system, because I believe that it is a critical link to developing citizenship skills and values in young people, who are so very important today.

As Governor, I have discovered the best place to learn about citizen involvement and to get advice and input, is someplace many of you are familiar with, and that's at the State Fair, which I attended about 10 days ago. A gentleman walked up to me and said, "Governor, you are doing a great job, so far." Then I went by the Kansas Veterinary Medical Association Birthing Center. I don't know how many of you have birthing centers at your state fairs, but this is a big deal in Kansas. We actually have bleachers, and people come in and sit around for hours and wait for a cow, or hog, or something, to give birth at the birthing center. I walked in with the executive director of the Fair Association to take a tour of the new center, and there was a young veterinary student from KSU, a young woman who was taking care of twin calves that had been born the day before. We stood there and asked a lot of stupid questions, and I would have assumed she knew we were probably politicians, but instead she turned to us and asked, "Are you all a group of veterinarians?" The director of the fair was quite embarrassed that this young woman didn't recognize me, and he said "No, this is Governor Graves." This young woman looked at me and it was clear, she didn't know who I was, and she didn't care who I was.

I mention that to you because, as I thought about that, in a funny sort of back-handed way, that was the ultimate compliment to somebody in public service. What if some of us could go through our terms in office and perform the duties that we are required to perform without becoming household names? It seems to me, that, in this country, one of the reasons there is cynicism and distrust among the electorate, is because most of what they know about us comes from hearing all the bad things about public officials. We all know more about Bob Packwood than any of us want to know, and, this is not just in Republican politics. We all know more about Dan Rostenkowski's problems than we want to know, and we all have our own favorite list of those people who have gotten themselves in trouble. So I guess my goal is to go back to the fair next year and hope somebody doesn't recognize me; probably says that I've been doing all right.

I've been governing Kansas for nine months, and I think that I have a fairly interesting and unique perspective on being a new Governor. Most of what we do and where we work seems to be internal. It's kind of the inside "baseball stuff." You put together a cabinet and staff. You go to work on some of the issues of the day. You make critical appointments, and again it's

basically internal. You work with the legislature; that's kind of inside "baseball stuff."

The point where we come in contact with the general public is always on those policy matters that are of greatest concern to them. That's what keeps you up late at night more than anything else in this business. In fact, a friend was counseling me and advised that, "Governor, you need to understand that you just can't be all things to all people," which may sound like good advice. Although in spinning that around, I would say to you in your respective states, and depending on who your respective leaders are at a particular moment in time, or on a particular issue, that your leader can't be all things to all people. How many of you want to volunteer to be in the group that doesn't get served because I'm having a bad day? Who wants to get left out in the cold in terms of the responsiveness of voting the way you want us to vote or on addressing the issue you want us to address? Who wants to volunteer to be part of that group? The answer to that is, nobody wants to be part of that group. That's the problem with public service today. We are expected to be all things to all people, regardless of what the difficulty of the issues are that we face. And we have some issues that are no different from the issues that are taking place in your state.

We are having a great debate right now about closing a mental health or mental retardation hospital in our state, because we believe that, if we spend more dollars in community services, we can do a better job of taking care of people. We think that the old bricks and mortar approach has out-lived its usefulness. We are trying to find a balance between closing down a state institution and rechanneling our effort and our energy into communities. That seems to make sense. But there are always those conflicting interests of the patient, the family and the people that work in those institutions, who don't want to see that happen. The communities that are going to lose the economic impact of those institutions don't want to see that happen, and, yes, collectively, the state probably knows it's in our best interest to move in that direction. Someone is going to go away not feeling very good about that problem.

We're having a big debate about gambling in Kansas. We seem to think everybody's leaving Kansas and going to other states to gamble. I don't know if that's true or not, but I've been saying to folks, "Why don't we resolve this issue once and for all, and have a statewide constitutional vote to see whether or not we should have gaming in the state?" It seems to make sense. But not to some people, because they feel the gaming interests have a tremendous amount of money, and will come in and influence all of these folks, who don't know any better, to go out and support having expanded gambling in Kansas. So, some don't even think we should have a statewide

vote on the issue. They think we should just do our jobs as public officials and just say "No" to influence on gaming in Kansas. I happen to be one who thinks citizen involvement in that regard is very important.

How about speed limits? That's going to impact everyone in this room. Just how fast is too fast? How fast do people need to go to be satisfied in terms of speed limits in this country? I have a horrible problem. Everywhere I go I am driven by members of the Kansas Highway Patrol. These guys drive the speed limit all the time! I think I'm in the one car on the road that everyone else is going past. There is a genuine public policy debate in this issue, and it has to do with public safety. We try to find the balance between making sure we don't have accidents, take lives and have the type of property damage associated with automobiles, by keeping speeds at a reasonable level. At the same time, it is not government's desire, and not my desire, to restrain people from moving quickly and efficiently around our state to conduct business or for whatever purpose. But again, it's one of those issues where I can line two people up in this room and have them on opposite sides of the issue.

We're debating how to keep all the bad guys in jail. Every state is probably struggling with prison construction. Every time I talk about this issue, I think of the Kevin Costner movie, "Field of Dreams," where they said, "If you build it, they will come." We have, in our public debate, and in our legislature, made a decision that we want to put bad people away, and as a result we need to spend dollars to build more prison space. But, at the same time, we have a lot of people saying that we should be more focused on community corrections; that we should be investing our dollars in programs that will keep individuals from repeating crimes and from coming back to our corrections facilities. I don't know that we can do both, because the Kansas taxpayer, and I would bet taxpayers in most of your states, are very, very, unwilling at this moment to absorb any more financial obligation on behalf of the state.

The list goes on and on, and I could discuss a number of others. But let me tell you where I see this whole thing going. I'd like to describe the dilemma that we're faced with in public service, as the microwave society trying to live with a crock-pot government. Stop and think for a minute. Everyone of us gets up in the morning and we fire up the oatmeal in the microwave. On the way to work we run by the same-day dry cleaner, and just before lunch we run in and pick up the photos we left yesterday. And then we drive through McDonald's, and, when the voice comes on the speaker, we order lunch and someone hands it to us in a plastic bag. Everything we do, and with every day of our lives, we become very, very impatient. I think what we're seeing, at this moment in history, is people who are impatient with the government that really hasn't changed much over many, many years; thus, the microwave society and the crock-pot government. But I would submit to you, and I would imagine most of you would

agree, we're probably fortunate that we have the system of government that we do, the slow deliberative process that we go through.

I want to suggest three things to you and you'll think I'm preaching to the choir. First of all, in this microwave society, it is as critical now as it always has been, that we continue to focus on education, and to make sure that people know as much as they can about this system of government so they can understand and appreciate it. Joyce Carrey, an English author, once wrote that it's the tragedy of the world that no one knows what they don't know, and the less the person knows, the more certain they are that they know everything. For those of you who didn't get that, it's the tragedy of the world that no one knows what they don't know, and the less the person knows the more certain they are they know everything. I would submit to you that we have a lot of people like that, whether it's their fault or not. It might be simply the circumstances of growing up in a situation where they didn't have educational opportunity. We have a lot of people who are uneducated about the political system and the system of democracy that exists in this country. As a result, we find a lot of people making a lot of outrageous, uneducated, ridiculous statements, and yet, most of those people firmly believe in a lot of those things that they are saying.

I think for us to get everybody singing out of the same book and on the same page, we need to continue to encourage, no matter how long you've been doing it, and beating this drum, education. It is so critical to this country and the future of our nation. Lack of education will undermine the democracy that has served this nation so well for so many years. I think that we need to say to people that they need to appreciate the system of democracy that we have. In Kansas, and every other state, except for the unicameral government in Nebraska, every single citizen gets represented in the House of Representatives on a public policy debate. Then they have the opportunity to be represented in our State Senate on a public policy debate. Then a governor gets the opportunity to represent collectively all the people in our state before signing, or vetoing, or making any decision on legislation. Three times, people have someone, who is charged with looking out for their best interest, involved in the process. It's slow and cumbersome, and does sometimes create confusion, yes; but I think it contains the kinds of checks and balances that are so critical to good public policy.

In the 15 years that I've been involved in state government in Kansas, anything that usually has been rushed through at the last minute, or has been done in a hurry, has ended up being wrong. And we probably regretted doing it. Not always the case, but in most instances.

We have tremendous diversity in Kansas. If you travel from the northeast to the southwest, you would think you were in two different worlds, in terms of geography, in terms of the population, and in terms of the difference between

the agricultural community and small manufacturing. Right now you're in Johnson county, which is probably the fastest growing, and soon to be the largest county in our state. We have a county in western Kansas where we could take all the people who reside in the county and put them on a bus, or buses, and bring them into this hotel, and they could all check in for the night. Now when you talk about diversity, this is not a large county by many of your standards. We have about 400,000 people residing here. I think there are around 1,200 residing in Wallace county. We have to make or create public policies that service both the 400,000 who are here in this county, and also that small number in western Kansas, and again that makes it difficult to be all things to all people.

So, I would first of all reiterate that education in terms of citizen involvement is so very very critical, because without sound education, they're likely to be involved in a counter-productive sort of way. Secondly, I think, by being educated, it will create a citizenry with a greater appreciation for the wonders of the process that we have in this state and this country. And I think that, finally, that appreciation will reinforce the realization and the understanding that government can't be all things to all people. Hopefully, folks will be more inclined to be patient with us and understand that we are all working for the best common interest, but sometimes, individually, you'll feel like you've been left out in the cold.

Again, I thank Barry for inviting me to come over and get a chance to extend my thanks to you all for traveling to Kansas. We're glad that our weather is cooperating to a certain extent. We're all proud this morning because for the first time in the history of our state, both our football teams are ranked in national polls. For a number of years, the word "rank" had nothing to do with quality relative to the football programs in Kansas. But we all woke up today on a high note. It's great to have you all in our state, and I hope you have a productive conference. Enjoy yourself while you're here, and travel safely on your trip home.

CITIZEN PARTICIPATION, SOCIAL CAPITAL AND SOCIAL LEARNING IN THE UNITED STATES, 1960-1995

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We are clearly entering a period of very interesting, if not profoundly significant, change in American politics, and the question of citizen participation in shaping this change ought to be a central one. Might a movement for civic renewal and a new citizenship be able to add new vitality to our democratic system, and provide a robust civic "center" around which our parties can realign? Or will that system further decay in a "demosclerosis" (Rauch, 1994) of special interest claims that themselves represent an all too effective form of citizen advocacy? Will we be able to increasingly make "public policy for democracy," as Helen Ingram and Steven Rathgeb Smith's (1993) recent book argues, or will policy remain captured by narrow interests and technocratic solutions—or worse, unravel in the search for cheap and easy solutions? Will populist anger and disaffection help renew our representative institutions—and, indeed, our social welfare institutions—or will it sweep aside much that is valuable to them?

There are many factors that will determine the answer to these questions over the next decade, if this is indeed roughly the correct time frame in which to expect some clearer outlines and indicators. And much is unpredictable, to be sure. But certainly part of the answer will lie in what kinds of citizen participation we can fashion as historical actors, whether this be as ordinary citizens engaged in community problem solving, extension agents helping to facilitate such a process, analysts whose policy designs enhance rather than undermine civic capacities, or politicians who begin to rethink their roles in the face of the limits of their own capacities to solve problems, aggregate interests and fulfill promises.

What I want to do is argue that in taking on this task of fashioning and refurbishing citizen participation, we have reasonably solid foundations upon which to build. While many of the indicators of civic decline are certainly cause for concern, we are far from being a society whose reservoir of social capital is slowly draining away, or whose capacity for participatory innovation has been exhausted. Indeed, the past 30 years have witnessed some very significant social learning and capacity building, even in some arenas where overall measures of social capital reveal decline.

This seeming paradox appears when we examine the development of urban community organizing, for instance. And in some important arenas,

such as the environment, our stocks of social capital—and the kinds of social capital that can be applied to complex public problem solving—have been substantially enhanced over the past three decades. How can we understand these developments? How might we build upon them and use them to further enhance our capacities for civic education and reflective practice?

The work of Robert Putnam (1993a, 1995) and others has recently focused attention on social capital as those features of social organization such as networks, norms and social trust that facilitate cooperation for mutual benefit. Putnam (1995: 67) summarizes elegantly a range of social theorizing that leads us to believe that stocks of social capital enhance capacities for community problem solving:

In the first place, networks of civic engagement foster sturdy norms of generalized reciprocity and encourage the emergence of social trust. Such networks facilitate coordination and communication, amplify reputations, and thus allow dilemmas of collective action to be resolved. When economic and political negotiation are embedded in dense networks of social interaction, incentives for opportunism are reduced. At the same time, networks of civic engagement embody past success at collaboration, which can serve as a cultural template for future collaboration. Finally, dense networks of interaction probably broaden the participants' senses of self, developing the "I" into the "we," or (in the language of rational choice theorists) enhancing the participants' "tastes" for collective benefits.

As Putnam fully recognizes, however, there are many unanswered questions about the mechanisms through which social capital produces better schools or more effective government, or which types of social capital are needed to help solve which kinds of problems. And there is a host of complex questions about the impact of social policy and the role of administrators, made ever more pressing by a polarized political debate about more state intervention or more markets, that tends to ignore the civic fabric in between.

Let me elaborate in some detail on what I think the contours of social learning and capacity building have been over the past three decades in one of the arenas that I examine in my forthcoming book, namely the environmental arena, and then more briefly in several other arenas, and suggest that there is a more complex — and also more hopeful — story than the one of decline that Putnam tells, or that the political metaphor of "bowling alone" suggests.

Civic and Grassroots Environmentalism

Beginning in the 1980s, more participatory alternatives to top-down environmental regulation and the public lobby model of formal citizen participation, which often enhanced the rigidity of regulation, started to emerge in the United States. Grassroots groups, particularly in the area of toxics, exploded onto the scene, and a variety of other civic approaches spread more quietly through state and local networks of officials, nonprofit groups, corporate environmental affairs offices and federal regulatory agencies (Sirianni and Friedland, 1995; John, 1994). But how are we to understand this as a process of social capital building? I would stress several kinds of things here.

First, and quite simply, in the area of environmental protection, social capital has had to be self-consciously developed. Addressing the complex and relatively new problems of environmental protection could not rely on stocks of social capital as these existed in the 1950s or 1960s. Neither bowling leagues nor church groups addressed these issues. Old conservation groups did so, but the major ones that dominated the scene up until the late 1960s had distinctly technocratic views (Pollack, 1985), and the new ones created by the movements of the 1960s and 1970s had quite limited perspectives and capacities for collaborative problem solving at the community level (Gottlieb, 1993). Given the complexity of problems, the uncertainty of all regulatory tools available in 1970, and the political opportunity structure that favored a turn to courts and congressional committees (Harris and Milkis, 1989), the task of generating new forms of social capital that might address problems effectively was clearly — if only retrospectively — one for extended social learning and capacity building. Measures of the general decline of social capital cannot tell us much about this directly, or help explain the crisis of institutions and governance in the environmental arena. Even more specific measures can be deceiving. The League of Women Voters, for instance, has experienced a 42 percent decline in its membership from 1969, yet has been an important civic innovator in groundwater, solid waste and other areas, and in forging new kinds of community networks in the environmental arena in this very same period (Sirianni and Friedland, 1995; League of Women Voters Education Fund, 1994).

Second, we need to understand the complex ways that new rights to participation within the public lobby regulatory regime have fostered the development of social capital. There are several major ways that this has been occurring.

One is that mandated citizen participation has tended, over time, to generate valuable experience and personal networks among representatives

of various civic and environmental organizations, and between them and corporate environmental affairs officers and agency staff. The participatory water programs of the 1970s, for instance, which were based on a far-reaching mandate of the Clean Water Act of 1972, were disorganized and ineffective in many ways (Cohen, 1979; Godschalk and Stiffler, 1981; Rosenbaum, 1976). But members of local Leagues of Women Voters, state and local chapters of the Sierra Club, and other environmental organizations who took part in them, were often the very same people who, in the 1980s, helped to develop more effective and collaborative local groundwater approaches, state-wide common ground projects, and national estuary programs based on the civic cultivation of a protective ethic with institutional support from EPA (Goslant, 1988; Nelson, 1990).

Another dimension of this is that citizen participation rights have established a much more even balance of power among contending parties and have given environmental organizations the capacity to impose costs on corporate managers. This power balance has been a precondition for developing forms of collaboration based on increased trust within regulatory communities (Ayers and Braithwaite, 1992; Meidinger, 1987; Harris, 1989). The period in which such rights are initially established and broader participation is mobilized tends to be one of heightened conflict and polarization. Yet actors tend to learn that there are less costly and more collaborative ways to proceed, and new social networks give them the opportunity to pursue these based on the development of trust and recognition of legitimate interests. On the national forests, more deliberative cultures and the use of alternative dispute resolution, open decision making and ecosystem management emerged only in the wake of an extended period of conflict, during which citizen participation mandates were put into effect (Woodollock, 1988; Shannon, 1989; Simon, Shands and Liggett, 1993).

Still, one further way that rights can help generate social capital is seen most clearly perhaps in the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986. Passed as part of a highly-contested Superfund re-authorization, EPCRA established a Toxics Release Inventory (TRI) of industry output by plant, and thus encouraged not only local involvement, but regional and national support networks to assist citizens in utilizing this geographically-organized database. Aside from enhancing citizen power in legal and regulatory channels, these information rights have enhanced their power in the court of local public opinion, and have thus spurred new norms of voluntary compliance, "good neighbor agreements" and voluntarily established citizen advisory committees to oversee performance (Hadden, 1989; Roy, 1992; Vallery, 1993; Good Neighbor Project, 1994; Cohen, 1995). In a complex regulatory environment, citizen rights to information become a key mechanism for amplifying reputation within social networks.

Third, social capital building in the environmental arena can and has been promoted by administrative action. Of course, one could argue that administrative action has not lived up to its potential — a view I would certainly share — or that it has also destroyed some kinds of social capital — a possibility that I would accept in principle, but am more skeptical of measuring empirically.

There are a variety of ways that administrators have helped develop social capital. One way is through grants that support local capacity building and broader network formation. EPA grants to support local management conferences within the National Estuaries Program, to aid civic environmental groups such as Save the Bay in Rhode Island and Massachusetts, to establish the independent RTK-Net, and to foster network building within emergent place-driven and sustainable development approaches, are all examples of this. Such administrative strategies within EPA can serve its own need for broad public legitimacy, as well as help generate local public support for taxes and bond issues to improve sewage and treatment facilities and the like (Goslant, 1988).

The Office of Environmental Justice at EPA has developed a small grants program to develop community groups' capacities to problem-solve on toxics and to help generate volunteer efforts from other community institutions, such as churches and local businesses. And with formal rights to participate in setting agency policy established through the National Environmental Justice Advisory Council, activist leaders have come to recognize a "new paradigm" (Bullard, 1994) within the agency that fosters empowerment, trust building and problem solving (Gaylord, 1994; Knox 1994; Smith, 1994).

The policy design of Superfund profoundly impairs more deliberative and collaborative responses to toxics, to be sure (Landy, Roberts and Thomas, 1990; Mazmanian and Morell, 1992), and thus complicates the capacity-building effects of administrative support to local groups. But policy-oriented learning over the past decade has now established a relatively solid knowledge base, if not political calculus, for a more consistently civic approach (Hird, 1994; Sirianni and Friedland, 1995; Rabe, 1994).

Administrators have also taken an active role in developing new norms and networks. The Design for the Environment Program at EPA facilitates collaboration within trade associations, and among employers, workers and environmental groups, to establish voluntary toxic reduction priorities for their industries, generate the information needed to develop new production techniques that are cost effective, test and refine these, and disseminate results through national and regional networks. It explicitly seeks to

mobilize assets within voluntary associations and to cultivate norms of civic responsibility (Topper, 1994; CPN Environment Case Studies, 1995).

These kinds of programs also provide incentives for national environmental organizations to place greater emphasis on civic and local learning approaches (Roy, 1992). Forest rangers have helped citizen groups get organized, and have facilitated informal network building among varied forest-use constituencies, in some cases building the basis for a local civic culture on forests in the Northwest that has had much deeper historical roots in the Northeast (Shannon, 1989). Middle-level civil servants in the Army Corps of Engineers have removed themselves as a party in some disputes to play a facilitative role in consensus building and providing technical advice among varied constituencies (Delli Priscoli, 1988; Langton, 1994). Civil servants have also taken initiative to establish broad networks to foster citizen participation and exchange "best practices," such as the Interagency Council for Citizen Participation in the 1970s and the International Association of Public Participation Practitioners in the 1980s and 1990s, and staff from environmental agencies have played a key role in these (Delli Priscoli, 1994).

Fourth, the development of the capacities of state and local regulatory agencies over the course of the 1970s, under great pressure from Washington, and the policy vacuum at the federal level in the early 1980s, permitted "shadow learning communities" (John, 1994) among regulators, nonprofits and businesses to innovate with new civic environmental approaches. Many of the state and local reforms did not have a major civic component, but many others did. They built upon and further reinforced networks of practitioners from civic and environmental organizations at the state and local levels.

Fifth, and not least important, the environmental movements of the period have been a vast reservoir for generating social capital. I do not simply mean dues-paying memberships in large environmental and other public interest organizations, which, of course, have grown enormously since the 1960s and have focused largely on lobbying and litigation. Nor do I mean participation in grassroots protest organizations as such, which has also grown substantially. Rather, I mean the activist social networks that have focused on problem solving and developed new forms of local collaboration and civic education.

I know of no quantitative measures of this more delimited category, though the evidence from innumerable case studies and local reports points clearly towards the conclusion that the past 25 years have seen a very substantial increase in these kinds of community-based efforts. From my

review of cases, as well as the careers of civic practitioners in the environmental arena, several kinds of dynamics stand out:

a) local protest organizations often shift emphasis towards building broader networks that can sustain collaborative and voluntary solutions while maintaining a power base for conflict, if need be. The dynamic here is quite similar to one that has been evident in the field of community organizing, as we shall see below, and it is reinforced when officials and adversaries show a willingness to engage in community dispute resolution, open decision-making and the like. An increasing number of citizen environmental guides and dispute resolution techniques build upon the lessons of these kinds of experiences (Crowfoot and Wondolleck, 1990, Bidol, Bardwell and Manring, 1986; Suskind and Cruikshank, 1987), and;

b) individual activists, whether they remain with these organizations or not, see their own shift in style to collaborative and trust-building methods as developmental progress, both personally and politically, and a form of learning that is consonant with the values that underlay their initial involvement in the movement and their deeper commitment to participatory democracy. This is often accompanied by their settling into specific communities of place after an earlier period of greater transience.

To summarize my argument so far: the very complexity and newness of the problems, the relative weight of top-down regulatory tools and political-legal opportunities at the beginning of the new social regulation, and the very modest capacity to translate existing stocks of social capital from the 1950s and 1960s into environmental problem solving, confronted the United States with a challenge that would inevitably have required an extended period of participatory social learning and capacity building. The mechanisms through which this has occurred over the past quarter of a century have been varied and complex, and in some ways even paradoxical and contradictory. And much remains to be done to develop social capital and civic innovation further, not least in the area of policy design. The measures of this learning and capacity building are rough, to be sure¹. But on the basis of what we know in several areas—the number and diversity of civic environmental innovations, the extent of local involvement in them, and the policy-oriented learning associated with them—the year 1995 represents a very substantial advance over the year 1970, when the National Environmental Protection Act went into effect. We still face the task of understanding the relationship of this to other measures of the erosion of social capital. But there seems little doubt that we have a much more robust foundation upon which to build in the environmental arena that we did 25 years ago.

The Broader Contours and Challenges

The story in other arenas is different than this, to be sure. Take urban community organizing and community development. The flight of the black middle class from urban ghettos once economic opportunities improved and housing discrimination barriers were lowered, had the effect of thinning out cross-class networks and community assets. Capital flight, post-industrial development and federal housing policy contributed to further isolation and concentration of the urban poor (Wilson, 1987). Yet, in the arena of community organizing and community development, there has also been very substantial learning and capacity building over the past 30 years. In early 1964, the OEO community action program had not yet been devised, and only a few experiments in the Ford Foundation's "gray areas" program existed. Alinsky organizing projects were alive and well in only a handful of cities, and their philosophy and techniques were crude by today's standards in the Industrial Areas Foundation. Very few community development corporations existed, and support from city governments for community-based development was virtually nil. Neighborhood participation in local government was channeled through party ward bosses.

Today, by contrast, there are several thousand community development corporations across the country, and as many as 6,000 other community organizations. Congregation-based organizing that derives from Alinsky has many durable and influential projects, refined leadership development and capacities for collaboration with government and business, four major networks and is growing steadily. And other modifications of the Alinsky model have substantial membership, influence and training capacities. There are far more multi-racial community organizations and community development projects than ever before. Extensive national support networks exist for community-based development, as well as a good number of state- and city-wide networks. Many cities have expanded their capacities for community development and recruited innovative leaders of community organizations to staff housing, planning and other agencies. And some cities have developed formal systems of neighborhood associations where citizen participation is robust (Berry, Portney and Thomson, 1993). The capacity of community-based organizations to engage in complex public-private partnerships, and the availability of workable models for this, are far greater than in the 1960s and have been increasing steadily. As Paul Brophy (1993: 223) argues, "Far more capacity exists at the neighborhood level to effect change than ever before."

Civic innovation in other arenas is also progressing in many forms. Civic journalism experiments have begun to redefine the relation of news media to public debate and community problem solving in an increasing number

of news organizations (Schaffer and Miller, 1995; CPN Civic Journalism Case Studies, 1995). Health decisions groups and community health partnerships have continued to refine their practices, and in cases such as Oregon, have demonstrated a capacity to shape statewide policy making and reform. Electronic networking projects show an increasing focus on public problem solving and social capital building (Friedland forthcoming). Common Ground and community dispute resolution projects have developed ways of collaborating across difficult value divides, such as abortion, and have built networks and training capacities to diffuse these approaches.

The point is not to paint a rosy picture. Indeed, in many areas, overall conditions have deteriorated and the complexity of problems seems to be outrunning the capacities of our regulatory, social welfare and political institutions to solve them. But this is also what is driving civic innovation.

As we move forward in trying to enrich the social capital perspective, several things need to be emphasized. First, the period from the 1960s to the present has clearly been a complex one regarding the development and depletion of social capital. If indicators of net gains and losses are quite revealing, it is important to focus as well on the specific arenas in which civic capacity has been built over an extended period of time, and on the mechanisms through which this has occurred. After all, this is the most promising foundation upon which we are likely to be able to build in the coming years, even if we clearly need to further refine our capacity-building approaches, invent new ones and develop much better policy supports.

The “participatory revolution” of the 1960s has had complex and often paradoxical impacts on participation itself (Dionne, 1991; Huntington, 1980). But it also signalled the beginning of an extended period of social learning and capacity building that has been quite impressive.

Viewed from the perspective of the development and refinement of new civic models, support networks, practitioner skills, legal opportunities and—at least in some areas such as the environment—quantitative increases in civic participation—the glass is half full. Viewed from the perspective of the complexity of problems to be solved, net indicators of overall depletion of social capital, and the capacity of our other institutions (parties, interest groups, media, legislatures, etc.) to reinvent themselves in such a way as to foster collaborative problem solving and deliberative democratic approaches, the glass seems half empty, and perhaps draining quickly.

How we choose to view this is partly a question of scholarly analysis, where we will continue to debate the relative importance of different factors and policy alternatives. But it is also partly a question of the choice of

political metaphor. It is hoped that the metaphor of "bowling alone" does not eclipse the metaphor of citizens "working together," which seems equally important as a discursive resource that can enhance capacities to learn and act.

Secondly, in thinking about social capital development and depletion, it is important that increasing attention be paid to the specific characteristics of problem areas, what makes them increasingly complex and challenging, and what specific kinds of social capital stocks might be drawn upon in addressing them.

As the cases of civic environmentalism and community development show, it cannot be assumed that pre-existing stocks of social capital could have served as an adequate foundation for building capacities in new and more complex problem arenas, even if some of them might have been more effectively preserved and utilized. This is also the case in areas such as health and aging and others as well.

Thus, as we think about general measures, and even some policy options with potentially broad impacts (community service, working time alternatives), we need to continually bring these down to the level of problem specificity.

The "tale of decline" based on general measures can romanticize the degree to which previously existing stocks of social capital might have been applied to our increasingly complex problems, and obscure the specific challenges that we face.

Thirdly, to build the kinds of social capital that can permit us to more effectively address highly complex social problems with an increasingly complex array of social actors will require greater capacities for participatory learning and assessment within many institutional arenas. Much learning has occurred over the past three decades, but developing capacities for reflective civic practice needs to become further refined, systematic and widespread. Improved scholarly assessment tools are important, but much more emphasis should be on developing collaborative learning communities within organizations and policy arenas themselves, including state agencies, legislatures, interest groups, media, and civic organizations (Sirianni, Boyte, Delli Priscoli and Barber, 1994; Sirianni, Friedland and Schuler, 1994).

If the problems associated with the elderly and health (including the financing of these) are to be addressed creatively in the coming years, for instance, then organizations like AARP will have to learn how to further build the civic capacities of its 33 million members, and direct these

increasingly toward self-help, intergenerational community projects, and health-values dialogue at the policy level and within specified health institutions, such as managed care, and less toward merely lobbying as a special interest group for benefits and entitlements. It does not seem possible to come to grips with the long-term problems of an aging society, chronic illness and high-tech medical culture, rising expectations about the quality of life, and issues of equity among the generations, unless interest groups such as AARP develop much more robust civic capacities, and are challenged to do so by our political leaders.

If legislatures, for their part, are to develop effective policies with enhanced public legitimacy in areas with divided constituencies and difficult trade-offs, then they will increasingly have to learn how to complement their own deliberative and representative functions with an array of community dialogue, visioning and dispute-resolution practices, as has happened in the Oregon health plan and an increasing number of environmental policy dialogues. In many ways, perhaps, the very role of political leaders will have to change, since representative institutions alone, under massive and cross-cutting pulls by special interest groups, seem less capable of solving complex problems, and political parties manifest long-term decline and a decreased capacity to aggregate interests (Silbey, 1994).

In short, what I am arguing is that we need to develop robust and complementary projects for case-based civic education that can enhance reflective practice among many kinds of civic actors. local citizen and community groups, civil servants in regulatory and social welfare agencies, elected representatives at local, state and national levels, advocacy groups that may lobby for the special interests of their members, journalists who frame the way we see problems, professionals who apply their expertise to fix them, and public policy analysts who develop the policy designs that can enhance our civic capacities, or, as is more typical, deplete them. The movement for a "new citizenship" or "national renewal" (American Civic Forum, 1994; Gardner, 1994; Broder, 1994) has begun to do this. The Civic Practices Network (on the World Wide Web at <http://cpn.journalism.wisc.edu/cpn>) as well as the Alliance for National Renewal and other projects, bring together partners from many civic organizations, as well as some from government, to develop and broadly share the kinds of stories, case studies, evaluation and training tools that can serve as a much more solid foundation for learning and innovation. Similar projects exist within particular areas.

If there is one lesson that I would leave for all public policy educators, it would be this: we all have a responsibility to develop the case-based and practice-based tools for a broad civic education through which our citizens

can develop the capacities for collaborating to solve the increasingly complex and obdurate problems of the 21st century. We cannot hope to develop the robust foundation for a "public policy for democracy" that enhances civic capacities rather than depleting them, unless we assume these responsibilities. We cannot hope to educate policy makers and challenge the appeal of simplistic solutions from the right or the left, unless we have much richer educational tools for community problem-solving and deliberative democratic dialogue. Policy educators are hardly the only ones that have this responsibility, or who can contribute to our fund of practical tools, of course. Civic and community groups themselves, foundation program officers who fund them, and civil servants who collaborate with them can also contribute enormously to a common and high visibility project that uncovers best practices, educates through rich case studies, and helps create citizens capable of reflective civic practice in all of our institutions and in whatever professional role they may play.

We have learned a great deal about citizen participation over the past three decades. We have built important capacities, refined our practices and learned many lessons in both failure and success. But the problems of our political, social welfare and regulatory institutions today require much more sustained and common focus to build upon this legacy, and to ensure that many more of our citizens and our leaders can learn to become effective civic practitioners capable of renewing our institutions from the inside out.

¹ John (1994) utilizes two indexes: the Renew American Environmental Success Index and the Green Index. I have reviewed case studies in specific policy areas that give an indication of policy-oriented learning, and have interviewed civic practitioners within a number of different networks. I do not know of an existing quantitative measure of local environmental problem solving, as distinct from protest, however, or the dynamic between these over time.

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CITIZEN INVOLVEMENT - FEDERAL LEVEL

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I have a few comments to make on what's taking place on the political landscape across America today and I give it to you from my perspective in the second district of eastern Kansas. It is a fascinating time of real change in Washington and we've got a number of big issues coming up. I came in with a big new class of people, 72 Republican freshman that tilted the balance of power in the House for the first time in a generation to the Republican side of the aisle. I came in with a lot of interesting people. It isn't the standard collection of lawyers and Rotarians that normally come into Congress. We have football players. We watched J.C. Watts from Oklahoma before and we're seeing him again. We have Steve Largent with the Seattle Seahawks, and Sonny Bono is probably the most famous new member of Congress.

This last election was both a conservative and populous election. And I put equal emphasis on both conservatism and populism taking place across America. As I campaigned up and down eastern Kansas the people were just angry at their government.... "Don't tell me what all it's done good for me, I just want to tell you what it's done bad to me." They would give me countless different examples. I would go to Lecompton, Kansas, and walk up and down the streets and they would complain about the fire department that had a ramp that was handicap accessible. It was made to specification 20 years ago and they just got a letter telling them it's not good enough. The ramp needs to be longer, have a slower slope. Fine. But that's going to cost them \$20,000 to take the old ramp out and put in a new one. That wasn't rational thinking in their minds. They were mad that they were going to have to spend that kind of money in a town of roughly 700 people to change something that had worked for years. I hear countless comments about they're just tired of being poked at and dumped on.

It reminded me about the 1890's time period when there was a populous movement in America. The object of the anger at that time was, if you recall some of the policy history, big railroad and big banks were controlling everything. The poor little guy down here didn't feel like he could do anything about it. He felt like they were just sitting on him like a big brother sits on his little sister. But, she can't move him. She can't hit him. And, they felt the same way towards big government. You can say it's irrational. It's not right. Look at the things government has done. It didn't matter. They were mad and they were angry. They wanted change and they wanted it now. They didn't want to study. They didn't want commotion. They wanted action and they wanted it to take place.

They also said that they didn't trust their system of government anymore. Whether it comes from campaign financing or self-serving people in Congress. They just don't trust it any more. I had a lot of people come look me in the face and say, "Just don't forget us little people out here."

I would hear it day after day. What is it in our government in this national representative democracy that would cause people to continuously come up and say, "Just don't forget us little people out here?" I think they just didn't feel like they could move their system of government anymore. It didn't represent them anymore. That was the electoral force that brought new members from across the spectrum into the Congress. The people had no hope that they could change the system, but I think they have some fragile hope now.

I don't think everybody is happy with everything that we've done thus far. There is a lot to be in disagreement about. But at least they're seeing some change taking place.

Fundamentally, we're in one of those revolutionary times. In revolutions big things happen fast and in evolutions small things happen slow. We're at one of those revolutionary times where you're seeing massive changes taking place on a very rapid scale.

Take a look at welfare reform that we are going to pass through this Congress -- shipping it back to the states, because we failed at the federal level. Take balancing the budget in a seven-year time period. I think seven years is plenty of time to balance the budget. I voted to balance it in five because most people don't think that we're going to balance it all. That we're never going to get it done. You can take a look at the farm program that is being debated right now. Some massive changes in farm programs are being considered as we speak today. These are revolutionary times. There are a lot of forces in play out there.

I came back from the August break, having traveled through my district a great deal trying to sense again what it is that people are saying. I've been comparing notes with a number of my fellow freshman representatives. None of them came back from break saying people are looking at us saying, "Are you guys any different than the last bunch we threw out? Are you really going to change the place? Did we just trade one set of special interests for another set of special interests?" They were saying again, "We want our government back. We want our government to be smaller. We want it to be more efficient and more focused. We want you to be fair about it." It's a very electric electorate and it's watching. It's watching very aggressively. For me that's a great thing, because for too long the electorate hasn't been watching very closely.

What do they want? It seems to me that they want several things. They want to balance the budget, but they want to do it fairly. I get 80% of my mail running, "I'm all for balancing the budget, but don't cut this program or don't cut my program, or this one is absolutely imperative." Let me tell you, at the end of the day, if we keep on this track to balancing the budget, that's not enough. I not only want to balance the budget, I want to start paying off the debt. And, that's 4.9 trillion dollars of debt. So we not only need to balance the budget but begin running account surpluses to do that. But if we're going to do that by the end of day, we're going to cut everything. Everything is going to be addressed in this downsizing phase. We are just on year one, and you just hear about year one. Wait until we get to years five and seven when we get into this budget balancing routine. Then if we stay on the track of not just balancing, but also running account surpluses, we can begin to pay off the debt.

We have a long way to go because we have dug ourselves a heck of a hole. It's Republicans and it's Democrats and it's the Tim Pennys and the Sam Brownbacks and everybody. We've all done it. It's time we balance the budget and begin to work our way out of the deficit. The people want us out. They want welfare reform. They want a smaller, less intrusive federal government, that is more focused and more efficient. They want us to keep reforming the system so they can trust it again.

I think there is even a bigger thing that's moving across America right now. It's having an impact on the political landscape. But, I think it's going to blow through the political landscape, and move to the culture of society and the morality of America. Because I think we're at a time of major moral questioning of what's taking place in the nation. Let me ask you a question, because I ask this of all my audiences that I speak to in my district: Do you think the greatest problems facing our country are economic, or moral? How many of you think it's economic? The greatest problems facing our nation -- and be square with me -- how many of you think they're economic? How many of you think they are moral? I get about 9 to 1 moral when I ask that of people across my district, and it may be a problem they've had in their own family. It may be a problem they see in society in general, where people don't respect other people. Whether its so much crime, or this or that. Maybe it's the center of the family. But people cite that, and they say this is something that is truly bothering them. I see it's impact in American politics today. I think it's going to blow through politics and go to the cultural and societal nature of the atmosphere that we are in today.

I think we are on the edge of a moral and spiritual revival in America. If you look back at some historical parallels to the 1880's, there was a big revival type of inovement that was taking place at that time. It's activating people who have

never been active before. It's an area in which people feel like they've been under attack. Their own morals and values have been under attack for some period of time and they are tired of it. They want to take their country back.

But I don't see it as just a political issue. It goes much more to the deeper societal, cultural, moral roots of this nation. It's having a big impact and I think it's going to continue to have a big impact. A lot of people are being very active and very involved in changing the face of this nation. I think it's going to be very positive at the end of the day.

It could have some negative downsides. Certainly the front end of populism has a distractive phase and I think we are probably in that distractive phase at this point. It generally comes out in the end more progressive, or into more of a re-awakening time period. I think we're at those front edges and moving into those various phases of something we've seen before. It's going to be a massive cultural shift. It's going to have some problems with it, but by the end of the day it is going to be a positive force for us as a nation.

I hope you will encourage people to be involved. I think you may start to see different types of people coming out to your meetings on policy education. I would encourage you to involve different types of people than you have historically seen coming out to some of your policy education meetings, talking in more moral terms, instead of just economic terms that we have traditionally spoken to most of the time. And I would encourage you to read and look at some of the historical parallels that exist from prior populist movements throughout much of the midwest. "Raise less corn and more hell" type of movements from the past. See what parallels are there and what can be used in the policy education process to encourage and bring people forward to participate. Once they participate and work in the process hopefully they will begin to trust their democracy more.

CITIZEN INVOLVEMENT IN PUBLIC POLICY FORMATION FROM THE PERSPECTIVE OF A RURAL KANSAS SENATORIAL DISTRICT

Janis Lee
Kansas State Senator

Implications for citizen involvement in public policy formulation is a very appropriate and timely topic. We have experienced significant changes in the last few years, with the emergence of new special interest groups—groups that have not traditionally been politically involved, certainly not to the extent which they are now. In addition, people are expressing frustration regarding the two major political parties. The corresponding rise in the influence of political figures who have not been mainstream party activists, such as Ross Perot and Colin Powell, is threatening to change the complexion of the American political scene.

The question for our discussion is not, should there be or will there be citizen involvement, *but* rather, which citizens—only special interest groups or a wide spectrum of the general public.

It is imperative that the general public become more involved in, and have a better understanding of, the decision making process. If we are to have a truly responsible and effective government, the public must understand and actively consider the policy choices that are before society, if they are to help determine the course our public officials pursue. Including the public in the decision making process from the beginning, will increase the likelihood that the policy will be politically supported, funded and implemented (Graves, *Nation's Cities Weekly*, 1995).

A caveat, which needs to be clarified at this point in our discussion, is that virtually all decision making processes in the public arena are involved in the political process, whether it be at the local city council, the state legislature, Congress, local school district, or the university level.

Before I discuss citizen involvement from the perspective of a state senator representing a very rural constituency, it is important to examine some of the power shifts we are witnessing from a national and state perspective. To date, the rural districts have not experienced the same degree of shift to the right that has been experienced by the more urban areas—*but* that may change in the near future.

Conventional wisdom tells us that the low voter turnout we are experiencing in our election process is caused by voter apathy. A more in-depth

examination of the situation will demonstrate that we find ourselves confronting a pervasive sense of political impotence among the American people. This impotence grows out of a politics of disconnection—where citizens find little access to the process of politics; where they feel overwhelmed by a political system that seems to be running beyond their control; where citizens believe their relationship with public officials is perilously near to being severed; where citizens believe there is only a muffled “public voice.” (The Harwood Group, 1991, p. 52).

A major concern of the electorate is the perception that two forces have converged to usurp much of the influence in the political process that rightly belongs to the people. The first force is that the political system is now designed to respond to special interest groups and lobbyists, rather than individual citizens. The other force, seen as more pernicious, is that campaign contributions seem to determine political outcomes more than voting (The Harwood Group, 1991, p. v).

The issue is not whether these perceptions are correct, but rather that, in politics, perception can be reality.

Indeed, citizens want to participate in the political process, if they feel they can make a difference—that their voices will be heard—that public officials are truly listening. The public will participate when they believe there is at least the *possibility* of creating and seeing change. They want public officials to be accountable.

As we examine the implications of citizen involvement in the formulation of public policy, it is helpful to have an understanding of the entities who have traditionally been active in the political process and the traditional avenues for activism, as well as the emerging activists and the tactics which have been successfully employed by these new groups. In addition, we need to consider factors which encourage or inhibit participation in the political process.

Special interest groups, such as the Farm Bureau, senior citizen’s groups, Kansas National Education Association and Kansas Bankers Association, to name just a few, have been major players in the political scene in Kansas for many years. These groups are very influential in a rural district such as mine. I am certain that similar special interest groups dealing primarily with occupation-related interests or economic issues have been active all across the nation.

Lobbyists for these groups work closely with elected officials to be certain that the elected officials “understand” the philosophy of their groups

and, at opportune times, rally their members to contact those same elected officials, all the while keeping their members apprised of the activities of the governing bodies. This interaction provides somewhat of a two-way conduit—although at times it tends to be rather biased.

With the emergence of the pro-active extremist groups, we are witnessing groups whose primary interests are social and moral issues, who also tend to be fiscally conservative—much more so than the traditional moderate Republicans or Democrats. These are groups who tend not to support many of the programs which have usually experienced adequate support from both of the major political parties—such as public education at the elementary, secondary and post-secondary levels, and programs designed to support and enhance communities like the extension services.

A variety of activities have traditionally been avenues for political activism. These include voting, working in a campaign, testifying at a public hearing, contacting a public official, being active at the community level or making a contribution.

Voting could be considered to be a more passive method of activism. An elected official can, perhaps, ignore with impunity a single voter or a single letter writer. However, the campaign volunteer who works many hours and the donor who makes a large contribution have potentially greater leverage, as does the special interest group which has a history of influencing a large number of voters. In contrast to the single vote, a letter or a conversation permit the transmission of much more precise messages about citizen concern (Verba, Schlozman, et al, 1993, p. 304).

The emerging extremist groups have been successful in gaining influence by focusing the interests of their followers to a few specific issues, communicating with those followers on a very regular basis, and aggressively promoting their agenda internally and externally. These groups are very active through participation in church activities, training members for political activism, the publication and distribution of issue-specific newsletters, tapes, videos and voter guides. While many of these activities are similar to those which have been used by the more traditional special interest groups, the weekly involvement in organized religious institutions has given these emerging groups a great deal of influence in a relatively short time. Their voter guides, which concentrate on a few specific issues, have given them substantial clout, especially in the primary election arena.

Nationwide, in the 1994 primary election, only 36 percent of the registered voters voted, and only 45 percent of the voting-age population voted in the general election. These low voter participation numbers enable

well-organized special interest groups to have more influence in the electoral process than their actual percentage of the population would indicate.

These emerging extremist groups have been very astute and successful in many areas of Kansas by taking over the local party positions as well as filling the party committeemen and committeewomen slots, thereby having an inordinate amount of influence in the political process.

In order for citizens to be involved in the policy formulation process, they must have a reason—an interest in politics, a concern regarding public issues, a sense that their actions will make a difference, a sense of civic responsibility. In addition to this psychological engagement in the political process, the availability of certain resources may have a profound effect on involvement. Resources which have the most effect are time, financial resources and civic skills (Brady, Verba, and Schlozman, 1955, p. 273).

Time is used in many ways in the service of political action, such as attending a community meeting, working in a campaign or writing a letter to a public official. While all of us have 24 hours in each day, the amount of free time we have or are willing to make in our schedules varies greatly. The factors that affect free time are “life circumstances,” having a job, having a spouse with a job, and having children at home, especially preschool children—all these things diminish the amount of free time available (Brady, Verba, and Schlozman, 1955, p. 273).

Money has become increasingly more important in the political process. The relative importance of money for campaigns increases with the level of the elected office. I do not regard this increased emphasis on the need for money in the electoral process to be positive. I am one who believes that the personal touch -- having the opportunity to meet the voters—should be most important.

To the extent that citizen politics in America relies increasingly on modes of activity that use money rather than time as a resource, the edge enjoyed by the already-advantaged is enhanced (Brady, Verba, and Schlozman, 1955, p. 274). Those with family incomes over fifty thousand dollars have a much higher overall participation rate than those with incomes under twenty thousand dollars (Verba, Schlozman, et al, 1993, p. 305). Research demonstrates that those with real financial need are much less visible in the political process.

A very interesting contrast is revealed when we examine the receipt of government benefits and its relationship to the level of political activity.

Those who receive non-means-tested benefits, such as student loans, veterans' benefits, Medicare or Social Security, are at least as active as the public as a whole. In contrast, those who receive means-tested benefits such as AFDC, Medicaid, food stamps or subsidized housing, are substantially less active than is the public as a whole. The differences imply that those who would be in most need of government response, because they are dependent on government programs, are the least likely to make themselves visible to the government through their activity, whether it be voting, working in a campaign or contacting a public official (Verba, Schlozman, et al, 1993, p. 305).

The third resource helpful for political participation is civic skills—those communication and organizational capacities that are so essential to political activity. Having the capacity to speak or write well, or to organize and take an active part in meetings, make an individual more effective when involved in politics. While the acquisition of civic skills will most likely begin at home and school, they may also be acquired as an adult at work, in organizations and in church.

Interestingly, church appears to be the least discriminating institution when it comes to acquiring civic skills, since there is no consistent relationship between education and church membership. Among those who attend church, there is relatively little stratification by education in terms of who makes a speech or organizes a meeting (Brady, Verba, and Schlozman, 1995, p. 275). It is apparent that the emerging extremist organizations have taken full advantage of this resource.

As to representing a very rural constituency, I find it incredibly challenging, interesting and rewarding. It requires many hours and miles, and provides some wonderful moments. Your "home town" interests grow to encompass your whole district as you make numerous new friends and acquaintances.

Rural Kansans are very independent people who are also very open and supportive, once they trust you. As a whole, rural Kansans are less negative about government and tend to be less radical than their urban counterparts. They are more involved in the political process, as is demonstrated by the fact that, in 1992 in my Senatorial District, 84 percent of the voting-age population was registered to vote, and 74 percent of the voting-age population turned out to vote in the general election. Both of these percentages were 10 percent higher than for the state as a whole. Nationwide only 45 percent of the voting-age population bothered to vote in both the 1990 and 1994 general elections.

My district covers nine and two-thirds counties, so it requires a great deal of traveling—an average of 45,000 miles per year on my car. Because the district is made up of many small towns, most of which have a community celebration every year, I have numerous opportunities to visit with my people. I attend these celebrations every year, and find that non-election years are more fun.

My goal as an elected official is to work to restore integrity in our public dialogue—to build trust—by informing, interacting with and involving as much of the public as possible. Trust empowers people.

It is important to me to have two-way communication with the people in my district, to stay in touch, to find ways for my constituents to interact more constructively in the political process. I work very hard to focus the public debate on policy issues and help people understand how these issues affect their everyday lives.

I have many well-publicized public meetings throughout my district—a pre-session tour, Saturdays during session, and a second listening tour before the wrap-up session. These local meetings are held in public places where citizens are comfortable considering and discussing policy issues. Local public meetings allow individual citizens to express their views on policy issues without having to compete with the loud voices of special interest groups.

During session, I write a weekly newsletter which is printed in many of the newspapers in the district. I also do four weekly radio reports which cover most of the district. All of this is done not only to keep the people in my district as well-informed as possible as to what is happening in the legislative session, but, just as importantly, to get their opinions and ideas.

I attend as many public functions as possible in and around my district, almost anytime, anywhere I am invited. I attempt to be very available to listen and discuss with my constituents. I answer all my mail and telephone calls. This personal contact helps to ensure the public that its input is valued.

Leaders must learn to listen in order to develop a give-and-take relationship with the public. We are responsible for promoting public debate as well as providing opportunities for our citizens to learn about and understand both sides of an issue, thus enabling them to have the opportunity to examine the options which are presented to public officials. Most of all, we must find ways to tap our citizens' sense of civic duty to improve our country's political health.

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JOHNSON COUNTY CITIZENS ARE INVOLVED WITH LOCAL GOVERNMENT

Johnna Lingle

2nd District Commissioner, Johnson County Kansas

"There is one thing better than good government, and that is good government in which all people have a part," nineteenth century American journalist Walter Hines Page once said. I am pleased, on behalf of Johnson County government, to welcome you to one place where the people do have a part. Local government, especially Johnson County government, may be the exception to the rule that people feel removed from their governments. That occurs for a variety of reasons.

We have a history of citizen involvement. Johnson County won an All-American Cities award from the National League of Cities in 1984 for its citizen-led reorganization of government. The citizens of Johnson County were recognized by the League for:

- An unsuccessful charter campaign that nevertheless paved the way for the existing professional government;
- A successful effort to expand the county board from three to five members, to better represent districts; and
- A redrawing of county commissioner districts that involved everyone from the League of Women voters to the political parties.

We are a direct service provider, which ensures us of a great deal of feedback at meetings, classes and clinics.

- Even when elected officials are not present, staff members have been trained to be customer-oriented, and to pick up consumer signals during the provision of service.
- In Johnson County's case, that includes special populations, such as persons with handicaps, elderly residents or low-income families.
- Our departments offer special programming and support groups for those individuals and families, which keep us in touch, as government, with their needs.

We are otherwise accessible: or, as the real estate agents say, location, location, location.

- It's far easier for a constituent to pick up a phone or come to our office than it is to contact Washington, D.C., or even Topeka.
- Virtually every locally elected official I know has his or her number listed in the phone book, and people find them—sometimes at 6 a.m., especially if they're angry.
- People know our names better because we receive local coverage as individuals more often than do distant figures at the capitols.

Our Johnson County population is well-educated, which means our people know how to access the services and the people they need. Ninety-three percent of Johnson County's residents have at least a high school education, and 40 percent have a bachelor's degree, or higher, according to the 1990 census.

We welcome comments, and we communicate that to citizens.

- Twice a year, we publish a citizen newsletter that is mailed to each Johnson County residence, and it invites comments on ways we can better serve the public.

- We conduct an annual scientific survey to determine how citizens view the government and what services they desire.

Johnson County residents have the opportunity to be involved with the government as advisors and service providers, as well as consumers.

- Nearly 200 people are appointed by the Board of County Commissioners to provide advice on everything from A to Z—from how to operate the airport to how to handle zoning.

- It was estimated, in 1990, that volunteers in Johnson County government contributed services worth \$2.4 million if those services would have been purchased.

- Volunteers perform tasks that they find rewarding, and that link them to the staff and their fellow citizens. Just a few of the many examples include:

1. The Extension Council, which uses elected members to help set up and evaluate projects, as well as to provide services, such as our Master Gardener program. Last year, extension volunteers contributed 350 hours for the agricultural program, 900 hours for home economics, 4,790 hours for 4-H and youth, and 7,506 hours for horticulture and Master Gardener programs.

2. Our environmental department, which asks volunteers to help with monthly household hazardous waste collections, and with advising us on creation of a recent solid waste management plan.

3. Our human services and aging department, which utilizes volunteers as young as high school age to be a companion to a lonely, older person, deliver meals, rake leaves, etc.

Still, even the best-working system needs an occasional tune-up. So this fall, the Board of County Commissioners will launch a renewal effort to encourage citizen support and involvement. This will include a group of residents who will look at what services the county should provide into the next century. It is also hoped that this group will involve even more residents in the process, and report the results to us.

Henry Clay said that, "Government is a trust, and the officers of the government are trustees; and both the trust and the trustees are created for the benefit of the people."

We, in Johnson County government, and many of our fellow elected local officials across the nation, are pleased that trust still exists between us and the people we serve. We are trying very hard to maintain that relationship.

Renegotiating The Social Contract

THE PAST AND FUTURE: SOCIAL CONTRACT, SOCIAL POLICY AND SOCIAL CAPITAL

Cornelia Butler Flora

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Social Contract

Early social theorists (Thomas Hobbes, John Locke, and Jean-Jacques Rousseau) were intrigued by the notion of order and the mutual obligation it entails. For them, a critical part of social order is the relation between the ruler and the ruled, which includes collective agreement on the criteria for distinguishing right behavior from wrong, and enforcing right action. Why do the vast majority of people do what they are supposed to do? Hobbes addressed the question by theorizing what he felt separated “civilized” society from savagery. The “state of nature,” according to Hobbes, was based on each person gaining the most possible on an individual basis, resulting in a life that was “solitary, poor, nasty, brutish and short.” Only when individuals, through a social contract, give up their individual liberty to a sovereign committed to defending the subjects’ lives in exchange for obedience to the sovereign’s rules, does order, and thus security, emerge. The Hobbesian argument justifies the power of the sovereign. If citizens do not obey the rules, harsh and even extreme punishment is justifiable, indeed, necessary.

Locke differed from Hobbes in his view of history. He argued that the rights of life and property were recognized under natural law. Insecurity arose from lack of clarity as to who was to enforce those rights. The social contract involves individuals agreeing to obey the laws of the state in exchange for the state’s protection of the person and property. Locke reasoned that, when the sovereign did not provide the appropriate protection, overthrow of that sovereign was justifiable.

Rousseau saw history as a movement toward increasing the power of reasoning, and the sense of morality and responsibility. When individuals agree, for the sake of mutual protection, to surrender individual freedom of action and establish laws of government, they acquire a sense of moral and civic obligation. This implied a constant negotiation between the state and its citizens to maintain legitimacy, and thus, social order. When government violates the social contract and loses its legitimacy, revolution is justified. Rousseau provided the intellectual basis for the French and American Revolutions. We are currently in a situation of renegotiation— not revolution—of the social contract. The thrust of the Contract with America is a

shift from an emphasis on the rights of life to the rights of property. For that contract to replace the previous understanding of the relation of the state to its citizens, access to property, and the security it entails, will have to be as important as ensuring that those who now have property keep it. The balance of what government should provide for citizens—and citizen obligations to the state—are now in negotiation.

Contracts are ultimately based on trust that the parties to the contract will live up to their obligations. What is needed for such trust to develop? One prerequisite is a degree of social and economic equality. The nineteenth century German social and economic theorist, Max Weber, argued that the “unfettered” market contributes to inequality; thus wealth and power accumulate rapidly into the hands of a few. An important role for public policy is to compensate for the “market failure” which is the result of structural inequality, despite a strong counter tendency for policy to codify and make even more severe existing inequalities.

When the state fails to ensure a level playing field, civic culture does not flourish. Absent the state’s guarantee of equity (enshrined in the U.S. Constitution as equality of opportunity, not necessarily of outcome), civic culture is beset by social distinctions which reduce the level of trust, and substantially increase the transaction costs of conducting daily community life.

Important key questions for policy are: 1. How to make it profitable to do what is moral (rational self-interest reinforced by public policy), and 2. How to nurture a civic culture. A strong civic culture is a prerequisite for a common moral order (Putnam, 1993b).

Our analysis of policy is based on the notion of a common moral order and the norms of mutual trust and reciprocity which underlie it. Using the terminology of other scholars, we call that “social capital.” While Coleman and others use that term to refer to resources wielded by individuals, a concept based on rational choice and game theory, others (Portes and Sensenbrenner; Granovetter) approach social capital, or embeddedness, in terms of the formation of collective conscience, which provides a social, rather than individual, basis for action.

Public policy has, in general, ignored social capital, choosing instead to try to enhance other resources: financial/manufactured resources, human resources, and, more recently, environmental resources. (See C. Flora for a discussion of the different kinds of capital that emerge from these resources). As a result, the unintended consequence of many policies is to decrease social capital and undermine the social structure (*not* individual motivation) that contributes to civiness and the common moral order.

Attempts, such as efforts by the religious right to impose a common moral order, which ignore the importance of social embeddedness as a structural prerequisite, further diminish social capital, and are thus counterproductive. The level of all resources available to a society declines.

Putnam (1995) uses longitudinal survey data to document the decline in civic engagement and levels of trust of individuals in the United States, which he summarizes in his title, *Bowling Alone*. He traces the decline of bowling leagues (and the accompanying decline in sales of food and drink at bowling alleys), and the *increase* in number of lines bowled, to the individualization of leisure and the separation of the individual from community. This concern is not with leisure but with democracy.

Based on Roper polls, participation in town and school meetings, writing Congress, attending rallies or speeches, being a member of any civic committee, or doing volunteer political party work declined between 29 percent and 56 percent between 1973 and 1993. Weekly church attendance has declined between 1950 and 1991, although there are significant year to year fluctuations.

Volunteerism, measured through involvement or membership in selected civic organizations, such as the Elks, Federated Women's Clubs, Lions and League of Women Voters, is decreasing. Volunteers in Scouting and the Red Cross are also down. Membership first declined in women's organizations as economic shifts and global restructuring basically required two incomes in households during the inflationary times of the 1970s. Participation in men's organizations followed suit in the 1980s, when for many families, particularly in the working class, even two incomes in a household were no longer adequate. Parent-Teacher Association membership is down from 1960 to 1992, even controlling for number of school age children.

Spending social evenings with neighbors more than once a year (not a stringent indicator of neighborliness) declined about 12 percent between 1974 and 1995. Decreased participation in formal organizations is not replaced with informal interactions.

Finally, social trust has declined precipitously. Distrust of government peaked at Watergate, and, by 1992, had returned to the Watergate level. Fifty-eight percent of the U.S. public agreed with, "Most people can be trusted," as opposed to, "You can't be too careful in dealing with people" in 1960, compared to 41 percent in 1975 and 37 percent in 1993. If social capital depends on mutual trust, certainly on an individual level, it is declining.

This paper attempts to show the need for policy to take into account the balance among the various resources in society, particularly at the commu-

nity level. We argue that, in the past, policies which have sought to privilege a single resource and to maximize it, have reduced social capital—and thus the long term sustainability of the social system. By reducing social capital, often in the name of short-term problem solution which maximizes the return to a single resource, the social basis of the relation between citizen and state deteriorates, and extreme reactions—from the bombing of buildings to the *Posse Comitatis*—emerge.

There is a tendency to judge community progress in terms of the increase in financial and manufactured capital, in part because it is easy to measure. Financial and manufactured capital is either already monetized or easily expressible in monetary terms. Only if policy makers and citizens articulate additional goals for policy can alternative policies be developed. An unarticulated goal is that of enhancing social capital, trust and reciprocity. By articulating it, we make it legitimate to measure it, and, as is pointed out in *Reinventing Government*, what we measure is what we do. And as devolution is put into place, it is critical that we measure multiple goals at the community level.

There are communities of interest and communities of place. A community of interest is composed of people who interact with each other, but who may not be together in the same place except for short periods of time. The National Public Policy Education Committee is a community of interest. Many members of that group are particularly concerned about the second type of community, community of place. The community of place is composed of people who live in and interact with one another within a geographic area. This geographic area may be urban or rural.

Communities of interest can be very powerful. They are becoming more powerful as communities of place become more unstable. Communities of interest are able to mobilize a particular kind of capital that is a sub-category of social capital: political capital. About two billion dollars will be added to the Pentagon's budget for 1996-97 for 20 more stealth bombers, which are bombers the Air Force does not want because of the costs of maintaining those planes once they are built and commissioned. Construction of these bombers would require an additional wing in the Air Force. That policy decision has been a carefully orchestrated campaign by Northrup, at the center of a community of economic interest. The desire of the corporation is to maintain profits, which is most easily done by maintaining existing government contracts with their friendly, cost-plus provisions. They used focus groups to find out what sells stealth bombers best. The answer—fewer American lives would be lost. The media campaign to retain the funding for the stealth bomber builds on this. Ads with this theme appeared on television and in newspapers in July of 1995. A three-pronged approach was

launched: 1. mass advertising, 2. letter writing to Congress by all the employees, subcontractors and sub-subcontractors, and 3. direct lobbying activities supported by handsome campaign contributions (*Morning Edition*, National Public Radio, July 25, 1995).

The result is money diverted from programs involving people (human capital) to programs involving things (stored manufactured resources). Different forms of capital are privileged by this choice of funding priorities. Communities of interest can mobilize a great deal of power, and when they do so, it may or may not be in terms of what will better serve a community of place. Clearly the sub-subcontractors are better off in the short-term, if they continue to manufacture the buttons that go on the panel of the stealth bomber. But in the long-term an inability to diversify and to become economically flexible may, in fact, jeopardize their jobs in the future, more than converting to a post cold war economy now rather than later.

Social Capital

Social capital is defined as networks of reciprocity and mutual trust, involving shared symbols and collective identity. (A similar definition is offered by Putnam, 1993b: 35-36.) Social capital is important for strengthening communities of interest and communities of place.

Social capital cuts transaction costs (North). When neighbors interact regularly and a sense of trust develops among them, the number of lawsuits filed by one against another is low. One tends not to need expensive liability insurance, extensive credit checks, complicated contracts, or to seek out formal enforcement mechanisms (police, courts, jails) when social capital is in place. Currently, communities that have the advantage of high levels of social capital must still pay the transaction costs of other communities where mutual trust and reciprocity are low. Hopefully, devolution of power from the federal to state to local level will ameliorate that problem.

Scholars who base their discussion of social capital on rational action theory—related to public choice theory—conclude that the decline in social capital and the tendency not to invest in social capital creation is because of the public goods character of social capital, which means individuals capture little of the asset enhancement of their investment (Coleman). We argue that there are structural reasons, rather than reasons of individual motivation, that are biased against the formation of social capital. For example, the way that financial and manufactured capital is enhanced can either help or hurt social capital development. When programs are delivered in a top-down fashion, with the decisions and resources coming totally from outside the community, social capital decreases and dependency increases.

How might we characterize social capital in communities, a principal locus for building national social capital? Social capital has a variety of configurations. Social capital can be horizontal, hierarchical or non-existent.

Absence of Social Capital

Absence of social capital is characterized by social fragmentation. In these communities, there is little trust, and, as a result, little interaction. Almost all interactions are market relations, characterized by contracts—and law suits.

Social capital is often absent in bedroom communities, rural communities which become a low-rent haven for jobless urbanites, some tourism communities, boom-bust communities, such as mining towns and some timber towns, and many central city neighborhoods (including those undergoing gentrification or which suffered urban renewal). Such communities tend to have high population turnover. Many have high levels of conflict, carried out on the streets in poor communities, and in the courts in rich ones.

When middle and upper class residents lack social capital, they are able to substitute financial and manufactured capital for social capital: private guards, fenced neighborhoods and elaborate security systems. If you are wealthy, social capital decline can be basically ignored and replaced through purchase of manufactured security resources and separation from the “riffraff.”

However, if you are poor, and there is an absence of social capital in your community or neighborhood, you are subject to violence, anarchy and fear. When resources—both local and outside—are devoted to encouraging the neighborhood to work together, as occurred in the west central neighborhood of Spokane, Washington, with the help of Washington State Extension, changes can happen to decrease violence and increase community empowerment: community policing, neighborhood watch, youth programming, neighborhood festivals, etc.

Putnam (1993a) showed that areas in Italy with low levels of social capital (concentrated in southern Italy) had lower levels of government efficiency, lower levels of satisfaction with government, and slower rates of economic development than did provinces with high levels of social capital (central and northern Italy). Further, the citizens of these areas with low levels of social capital did not trust others to follow the established rules, and were thus less likely to follow them themselves. As a result of this heightened level of distrust, there was a high demand for more law enforcement, and more demand to lock up criminals for longer periods of time—a societal level manifestation of substituting manufactured capital for social capital.

There is a role for public policy where there is an absence of social capital. That role is not simply more police and more prisons. It is critical that resources be focused on increasing people's sense of mutual trust and reciprocity. Since patterns of reciprocity and trust require time to establish themselves, people who live in these areas have to have enough economic security and sense of place so they do not frequently move. The kind of economic development which local and state governments encourage has an impact on social capital. Attracting low wage firms which thrive on high labor turnover will diminish social capital and require greater expenditures of financial/manufactured capital and of human capital (social service personnel, in particular). Citizens of Spencer, Iowa, convinced their city council not to rezone, so that Montfort could convert an existing facility into a packing plant, because they had examined the experience of nearby Storm Lake (Brack). (The issue was completed by the fact that Mexicans, Central Americans and other foreigners are regularly recruited to work in the plants. Those favoring the plant accused the opponents of racism in a tumultuous city council meeting where rezoning was rejected (*Des Moines Register*, *ibid.*). In Storm Lake, high employee turnover at the IBP plant resulted in major increases in uncompensated health care, especially at the County Hospital, and a doubling of emergency room visits in 10 years. (Employees do not receive health benefits from IBP until they have been employed six months; the higher the turnover rate, the greater the proportion of workers and their families without the means to pay for health care.) Perhaps the most disturbing change for long-time residents (and others) was the increase in the crime rate and in insecurity (Grey).

Policies which encourage and assist in broadening community participation in decision making regarding the kind of industries to be recruited and the kind of economic development to be pursued, would in the process build social capital.

Our research suggests that, within non-metropolitan areas of the U.S., larger communities and counties are more likely to be successful in the recruitment game than are smaller ones (Flora, et al.). On the other hand, economic self-development can be successfully practiced by localities of all sizes. Hence, a state program with no particular size bias, such as one providing technical and organizational assistance and perhaps seed capital for self-development enterprises, could positively affect social capital by encouraging cooperation of different sectors of the community. It would also contribute to greater population stability in both urban and rural areas than would an incentive program for industrial recruitment. Recruitment programs often create jobs—but recruit from the outside to fill them. Often there is high population turnover. Self-development tends to provide jobs for those already in the community. This increases the potential for building social capital.

Hierarchical Social Capital

Hierarchical social capital occurs in communities where power is clearly concentrated and economic inequalities are solidified into strong social distinctions. Built on norms of reciprocity and mutual trust (or mutual obligation, if not actual trust), those relationships are vertical rather than horizontal. Traditional patron-client relationships, typical of urban gangs (Portes and Sensenbrenner), Sicilian "family" or "boss"-run political machines are created. Those at the bottom of the hierarchy—who obviously are beholden to the few at the top—are the majority of the population in such communities. As a result, the receivers of favors owe strong loyalty to their "patron" when time comes to vote for public office, to collect from a loser in the numbers racket, or to settle a score with a rival gang. As a result, horizontal networks, particularly outside the sphere of influence of the patron, are actively discouraged. Dependency is created and mistrust of outsiders is generated. Reciprocity occurs only within kin groups, and not across them. This type of social capital is prevalent in persistent poverty communities (Duncan; Duncan and Lamberghini).

With hierarchical social capital, many activities which are public in other communities are privatized. Public schools in Prince Edward County, Virginia, were closed for six years in the 1960s rather than integrate. In Cairo, Illinois, in the 1960s, the public swimming pool was closed rather than let "the wrong kind of people" swim in it; the right kind of people (i.e., those with money and power) have their private club. In an Iowa community where a meat packing firm exists, the local newspaper editor led a campaign to defeat a public golf course, thereby maintaining the exclusivity (keeping out the workers through the high membership fee) of the private course, of which he was a stockholder (C. Flora). Such privatization of recreation reinforces hierarchical social capital. When these resources are privatized, they can then be exclusionary, thereby reducing interaction among diverse groups of citizens on equal social footing, and reinforcing existing power relationships.

Looking at community-based recreation options may seem trivial, but it has tremendous impact on social capital. Reciprocity means mutual dignity and respect. When one group of the community is reduced to feeling that its members are not treated with dignity, and the only way they can survive is by behaving in ways that offend their dignity, then the power differential is felt in a very personal way.

Fair housing laws, laws against redlining, and welfare reform which would encourage asset accumulation (rather than having asset limits, as do Aid to Families with Dependent Children, Medicaid, and rent-supplement housing programs) reduce poverty and/or economic and social inequality

(see Michael Sherraden's essay in this volume). Through our elected representatives, we can establish policy that either rewards consumption or investment (savings).

Horizontal Social Capital

Horizontal social capital implies egalitarian forms of reciprocity. It does not imply a flat structure, or equal wealth, education or talents. Instead, there is a wide definition of resources. Not only is each member of the community expected to give (and gains status and pleasure from doing so), but each is expected to receive as well. Each person in the community is seen as capable of providing any other member of the community something of value. Contribution to collective projects, from parades to the volunteer fire department and Girl Scouts, is defined as a "gift" to all. Norms of reciprocity are reinforced, but payback to the donor is not required or even expected.

Horizontal social capital is that in which all community members treat each other with dignity. Mutual trust and reciprocity is based on relative equity, not differential power. It does not mean that everyone is equal. It does not mean there are no leaders. It does not mean that controversies do not arise—in fact, they should. But controversies are resolved so that permanent enmities and rigid positions do not emerge, which remain regardless of the issue. Horizontal social capital means that there are a series of structures in place that help facilitate people getting together to build mutual trust, and which allow for reciprocity (for more detail, see Flora and Flora). Public policy can either support or discourage these structures.

Much government regulation tends to be heavy-handed, based on one-size-fits-all for ease of enforcement. As a result, it privileges the large, who are the ones who make the regulations to fit what they can conform to, over the small, who do not make the regulations. Research on how standards are set reveals the role of industry in setting the standards that impact them. For example, one of the problems in rural development is that small niche markets that could be served by alternative animal industries, such as specialty fish processors or specialty meat processors, with links to "green" producers, are unable to purchase the expensive equipment and plant conditions required by law. Standards are not based on the actual bacterial count in the meat (the end), but on manufactured capital, such as the distance of the drinking fountain from the kill floor (a means to that end, but perhaps not the most efficient one). This penalizes the small producer and favors large enterprises.

A rural development example comes from our study of Galena, Alaska. A native Alaskan entrepreneur attempted to commercialize smoked salmon. There is no known instance of anyone becoming ill from fish cured in the

traditional Athabaskan manner, but because of problems with e-coli in lox on the east coast—a completely different smoking process—he was required to install expensive processing machinery. Though he eventually succeeded in becoming licensed, with considerable help from state government and from the extension service, others with less capital and fewer connections were precluded from following his example.

Social capital is enhanced when there is vision of the ends and flexibility in terms of means. Fortunately, there are some government efforts which seek to reduce unnecessary or inappropriate regulations. One example is the CERT program, targeted at timber communities in the Pacific Northwest. First, the Forest Service assisted with strategic planning in communities experiencing sharp declines in income from logging and milling. The community could then choose a government agency to run interference for the community in putting together federal and state programs in such a way that the community could more readily fulfill its strategic plan. The state Rural Development Councils are an example of a public-private effort which seeks to achieve similar results by facilitating collaboration among federal, state and local governments, and the private for-profit and non-profit sectors. A key area of attention of the National Rural Partnership is to identify regulatory impediments to rural development, which often discount social capital.

Conclusions

Social capital is a necessary but neglected aspect of public policy. The different ways we invest in financial/manufactured, human, and environmental capital can have a major impact on social capital, either reinforcing existing power structures (hierarchical social capital), creating dependency on a central authority (lack of social capital), or making investment decisions based on widespread community participation and vision-building (horizontal social capital). Social capital can be created in communities of place and communities of interest, and social capital in the two types of communities can reinforce or compete with one another.

Each form of capital can enhance the productivity of the other forms. Increasing social capital greatly cuts transaction costs, making other resource use more efficient. On the other hand, overemphasizing the value of a single form of capital can reduce the levels of other forms of capital. For example, overemphasis on generating financial and manufactured capital without regard to resulting pollution can reduce the value of human capital through negative impacts on health. It may also reduce environmental capital through destruction of soil and water quality. It could diminish social capital through by-passing local networks and replacing them with impersonal bureaucratic structures with top-down mandates. Attention solely to

environmental capital can waste human capital, and decrease financial and manufactured capital.

More attention to social capital is appropriate at this time of democratization, devolution of government to local levels, decentralization of responsibility (if not authority) and privatization. As government is reinvented and the Contract with America is codified, social capital is critical for investing in other forms of capital, because it makes other forms of investment more efficient. Smaller bureaucracies are required, because less documentation, regulations and contract oversight is needed. Unfortunately, the creation of social capital, which requires trust and reciprocity, takes time, whereas top-down regulation, presumably, is achieved instantly.

Investment in social capital takes time, because simply forming a group is not enough. It is important that groups are diverse, inclusive and flexible within broad and permeable community boundaries. Flexibility means groups within communities, and communities within coalitions of communities can form and reform according to the concerns to be addressed. Communities need to form lateral linkages. Policies that foster different communities learning from each other can be particularly effective in building social capital.

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ASSET-BASED ALTERNATIVES IN SOCIAL POLICY

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The modern American welfare state, initiated under Franklin Roosevelt during the 1930s and augmented under Lyndon Johnson during the 1960s, has been a sweeping, remarkable social innovation. The welfare state has achieved countless victories of caring over indifference, many of which we today take for granted. Although not perfect, social welfare policy has creatively, sometimes courageously, met the needs of the aged, the ill, the disabled and the economically vulnerable. For 40 or 50 years, the American welfare state was largely a success.

But time does not stand still. Today the welfare state—with its entitlements, public guarantees, insurances, transfers and tax expenditures—is like an aging, oversized, overloaded and well-traveled sedan. The suspension is sagging; the tires are bald, and a worrisome haze of blue smoke is billowing out behind. The welfare state is still rolling down the road, but it is in need of major repairs. Without an engine overhaul, we are not sure that it will carry us much further.

There is a growing perception that the welfare state, as it is currently structured, is not by itself sufficient for moving people out of poverty. Also, we must squarely face the reality that the welfare state, that began with a vision of security for those at the bottom, has become a huge consumption subsidy for those who are not at the bottom. The overwhelming majority of payments to individuals do not go to the poor. While exact figures are not available, we know that only about 15 percent of federal expenditures to individuals actually go to Americans in poverty. Counting tax expenditures, wealthy households receive far more in public transfers than do poor households. Although it has been politically unpopular to say so, we must face the reality that the welfare state is not helping the poor enough, and is helping some of the non-poor far too much.

Income and Consumption: The Welfare State of the 20th Century

The modern welfare state is a conglomeration of programs created over many years, responding to a variety of political appeals, sometimes with conflicting goals, and operating through a number of different policy channels (Lampman, 1971; Janowitz, 1976; Gilbert and Gilbert, 1989). Despite this complexity, the welfare state does have one overriding and distinguishing feature: It is characterized by the provision of income for consumption purposes. This is its chief activity and main effect.

We are beginning to realize that massive consumption is a short-term economic strategy that the macroeconomy cannot endure indefinitely. This is not to suggest abandoning traditional programs—indeed, they are essential—but, simply to raise a question about whether the welfare state, as we know it, is the only answer to the domestic problems that beset this country.

The same logic that applies to the nation as a whole applies to poor households. Poor households, like poor nations, do not leave their poverty by consuming more. The way out of poverty is through savings and investment.

This is not to say that the current consumption in poor households is sufficient. Many Americans do not have enough to eat; many are without basic shelter; many do not have medical insurance of any kind. These are shocking, shameful facts. Public policies that have allowed these inadequacies are not merely unjust and inhumane, but unwise as well. How is the nation to prosper in the future when nearly one-fourth of today's children are born into poverty—and the hunger, suffering, crime and ignorance that so often accompanies it?

In the last decade of the 20th century, the traditional welfare state, at least that portion oriented toward the poor, is in serious political trouble. There is a widespread perception that the policies are not working. Programs that were created in the name of community have led to isolation and alienation. There is little support, either in Washington or across the country, for increasing—or even maintaining—expenditures in current programs. Many states are now in the process of reducing expenditures and restricting welfare reciprocity, and the federal government is very likely to give them more latitude to do so.

Savings and Investment: Domestic Policy for the 21st Century

One direction for consideration, in addition to the flow of income, is the stock of accumulated assets. In business economics, we take for granted that asset accumulation is important—in looking at a company, we would not overlook its balance sheet. Other economic entities, including households, are very similar. Looking at the flows but not the stocks gives us an unbalanced view of economic conditions. But this essential economic reality is very often ignored in public policy, particularly in the consideration of household welfare, and more particularly regarding poor households.

To the extent that current social policy does support asset accumulation, it is primarily in the form of tax benefits for home ownership, retirement pension accounts, and gains on invested capital. Altogether, federal tax

expenditures to individuals are estimated at \$392.0 billion in 1995, rising to \$504.6 billion in 1999 (Table 1), most of which is aimed at asset building. These tax expenditures go almost exclusively to the non-poor. In contrast, means-tested transfers to the poor, which total well under \$200 billion per year (Table 2), typically have asset tests that effectively discourage asset accumulation. Thus, we have asset-building policy for the non-poor, but not for the poor.

A small group of scholars have attended to assets and wealth distribution, and this work is aided by occasional data sources, such as the Survey of Consumer Finances and the Survey of Income and Program Participation. Some recent and very useful studies of US asset distributions are by Wolff (1992), Oliver and Shapiro (1990), and the US Bureau of the Census (1994).

European discussions of welfare have more often looked at asset distributions (e.g., Wolff, 1987). Certain Asian welfare states, most notably Singapore's, are built fundamentally on asset accumulations rather than income transfers (International Social Security Association, 1965; Asher, 1991; Sherraden, 1995). And discussions of economic development in "developing" countries have long focused on land, business development, savings and other asset-oriented concepts (e.g., Geertz, 1962; Chandavarkar, 1985; Sherraden and Ruiz, 1989). In the United States, there has been, for some time, an interest in small business development (e.g., Light, 1972; Friedman, 1988; Balkin, 1989), and during the past several years, there has been a marked increase in microenterprise development as an anti-poverty strategy. This activity has become quite vigorous in some localities, with characteristics of a social movement. Of late as well, there is an emergent academic discussion and policy development in other areas of asset-based policy in the United States, including subsidized savings accounts for long-term goals such as education and home ownership (Sherraden, 1988 1990a; Johnson and Sherraden, 1992).

Theory and Rationale for an Asset-Based Policy

The rationale for an asset-based policy can be stated in two parts. First, economically, accumulation of assets is the key to development of poor households. For the vast majority of households, the pathway out of poverty is not through consumption, but through savings and accumulation. To put this in very simple language (and contrary to the neoclassical definition of "welfare"), not many people manage to spend their way out of poverty. Second, when people begin to accumulate assets, their thinking and behavior changes as well. Accumulating assets leads to important psychological and social effects that are not achieved in the same degree by receiving and spending an equivalent amount of regular income. Thus, in

Table 1
Estimated Federal Tax Expenditures
to Individuals and Corporations
Billions of Dollars, 1995 and 1999

	1995	1999
Tax Expenditures to Individuals	392.0	504.9
Housing		
Mortgage Interest Tax Deduction	53.5	67.8
Other Home Ownership Tax Benefits	33.4	39.8
Health Care		
Exclusion of Medical Insurance Premiums	45.8	62.6
Excl. of Untaxed Medicare Benefits	13.1	25.2
Retirement Security		
Excl. of Pension Contributions/Earnings	80.9	102.0
Excl. of Untaxed Soc. Sec. & R.R. Benefits	23.1	27.1
Excl. of Income on Life Ins. and Annuities	10.3	14.3
Capital Gains and Other Income/Property Benefits		
Excl. of Capital Gains at Death	12.7	18.3
Max. 28% Tax Rate on Capital Gains	9.1	13.9
Excl. of State and Local Income and Personal Property Taxes	24.7	31.0
All Other Tax Expenditures to Individuals	85.4	102.9
Tax Expenditures to Corporations	58.7	59.9
Total Tax Expenditures	450.7	564.5

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 Source: Calculated from US Congress, Joint Committee on Taxation (1994) Estimates of Federal Tax Expenditures for Fiscal Years 1995-1999. Washington: US Government Printing Office.

Table 2
Federal Spending for Means-Tested Public Assistance Programs
Billions of Dollars, 1992

	Amount	Percent
Income Support	32.3	18.1
Aid to Families with Dependent Children	13.6	
Supplemental Security Income	18.7	
Medical Care	75.6	42.3
Medicaid	67.8	
Medical Care for Veterans	7.8	
Food and Nutrition	30.8	17.2
Food Stamps	23.5	
School Lunch and Other	7.3	
Housing	17.3	9.7
Section 8 Rental Assistance	12.3	
Low-Rent Public Housing	5.0	
Education and Training	17.8	10.0
College Grants and Loans	11.1	
All Other	6.7	
Social Services	4.8	2.7
Total Means-Tested Public Assistance	178.6	100.0

 Source: Ross, Jane L. (1995). Means-Tested Programs: An Overview, Problems, and Issues, GAO Report T-HEHS-95-76. Washington: US General Accounting Office (citing Congressional Research Service).

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contrast to neoclassical economic assumptions, we are suggesting that assets do more than provide a storehouse for future consumption, and these behavioral effects of asset accumulation are important for household "welfare" or well-being. Below we list some of these psychological and social effects of assets, and offer them as propositions (revised somewhat from Sherraden, 1991a). These have some intuitive appeal, and certain theoretical and empirical support, but specific tests with a wide range of populations will be necessary. In this short space we cannot elaborate, but a list may be helpful.

- Assets provide greater household stability.
- Assets create long-term thinking and planning.
- Assets lead to greater effort in maintaining assets.
- Assets lead to greater development of human capital.
- Assets provide a foundation for risk-taking.
- Assets increase personal efficacy and sense of well-being.
- Assets increase social status and social connectedness.
- Assets increase community involvement and civic participation.
- Assets enhance the well-being and life-chances of offspring.

These, then, are some key propositions regarding assets and well-being. At this point, they are at a beginning level of development, but they are stated in such a way as to invite systematic tests. If future research lends support to the propositions, perhaps they can be specified and ordered into a more coherent theory.

What We Are Learning about Assets and Well-Being

The need for research on the relationship between asset-holding and well-being is critical. As a first step, the Center for Social Development (CSD) at Washington University has systematically reviewed studies from multiple disciplines and perspectives (economics, anthropology, sociology, psychology, policy analysis) to assess what is currently known about asset effects. In addition to review of prior research, CSD has embarked on a program of basic research to examine social and economic effects of asset accumulation (Sherraden, Page-Adams, Yadama, 1995). Research has focused on analyses of existing data sets, including the Panel Study of Income Dynamics (Yadama and Sherraden, forthcoming) and the National Survey of Families and Households (Cheng, 1995; Page-Adams, 1995a); and collection of new data, including a survey of auto workers (Page-Adams and Vosler, 1995), and an extensive household study of the impacts of the Central Provident Fund of Singapore, an asset-based domestic policy system (Sherraden, 1995).

In this section, we summarize findings from 25 studies addressing the personal and social effects of assets, and draw implications from this research for evaluators of IDAs and other asset-building programs. The research summarized here addresses effects of asset holding on: 1. personal well-being; 2. economic security; 3. civic behavior and community involvement; 4. women's status, and 5. well-being of children (Page-Adams, 1995b).

The first group of studies focuses on the relationship between assets and personal well-being (Figure 1). These studies demonstrate positive effects of assets on life satisfaction and self-efficacy, and negative effects on depression and problematic alcohol use. Assets also appear to be associated with self-direction, intellectually flexibility, and future-orientation. However, the effect of assets on stress is not consistent from study to study, with some research suggesting a positive relationship between assets and stress for low-income families.

Research on the relationship between assets and economic security demonstrates positive outcomes for diverse groups of asset holders, whether such security is measured objectively or subjectively (Figure 2). For example, assets helped reduce welfare receipt among low-income people with small businesses, as well as perceived economic strain among auto workers stressed by a plant closing. Other studies in this group find that perceived economic security helps explain the nearly universal desire for homeownership among British military families, and that high rates of land and small business ownership in one's community of origin have positive effects on future economic security among immigrants to the US from Mexico. Finally, asset accumulation in Singapore's Central Provident Fund has dramatically improved the economic well-being of CPF members, especially in terms of housing and health care.

The evidence on the relationship between assets and civic behavior is mixed (Figure 3). While some studies in this area suggest positive effects of assets on recycling behavior and involvement in block associations, others find limited asset effects on civic involvement beyond the neighborhood level. Further, if assets do have effects on civic behavior, these effects may not be direct. One of the studies in this group found positive asset effects on community involvement working almost entirely through cognition or knowledge about asset accumulation strategies.

For women (Figure 4), assets appear to be associated with higher levels of social status in the home and in the larger community, increased contraceptive use, and improved material conditions of families. In addition, several studies point to a relationship between asset holding and lower

levels of marital violence. This relationship seems to hold whether assets are measured at the individual level or at the household level, suggesting that both individual and joint ownership of assets increases safety from marital violence. The consistency of findings in this area is interesting, in part, because domestic violence research in the US has been overwhelmingly focused on psychological, rather than economic, issues.

Cumulatively, studies addressing the relationship between parental assets and children's well-being (Figure 5) demonstrate that assets have positive effects on self-esteem for adolescents; staying in school, avoiding early pregnancy, and facilitating saving among teens; and home owning for adult children. Assets also reduce vulnerability to poverty for children in white and African-American female-headed households. In fact, some of the strongest and most consistent empirical evidence for the positive effects of assets come from studies involving outcomes for children of parents who hold assets, particularly in the form of home ownership. Further, many of these effects are largest for children from income poor families.

Overall, the 25 empirical studies summarized here indicate that asset holding has a wide range of positive effects beyond consumption. Not all propositions are supported, but many are. Other asset effects—particularly gender-related effects—appear to be important as well. No doubt summary evidence only “scratches the surface,” but the general picture that emerges is clear: asset holding has multiple personal and social effects in people's lives that would generally be interpreted as positive. Further, the research suggests that some effects of asset holding may be particularly strong for people who are economically vulnerable.

Asset-Based Policy

Asset-based policy is, in practice, not a new idea. For example, many American families during the nineteenth century were beneficiaries of a very sensible U.S. land distribution policy, the Homestead Act of 1862. The Homestead Act was a highly successful domestic policy, and a major antecedent of the welfare state (Commager, 1967).

We cannot help but wonder how different our nation might be today if, following the Civil War, freed slaves had been given the “40 acres and a mule” that was talked about at the time, but not delivered (Oubre, 1978). At a time when newly arriving European Americans were given land, newly freed African Americans, many of whose ancestors had worked on this continent for generations, were not given land. Continuously since that time, barriers to asset accumulation, particularly in residential real estate and business property, have been major—perhaps the major—impedi-

Figure 1. Effects of Asset Holding: Studies Addressing Personal Well-Being

Study	Purpose	Sample	Description	Findings
Finn (1994)	To describe empowerment experiences of low-income Habitat for Humanity participants.	22 low-income families in Cleveland area; 20 of the families were African-American.	Qualitative information about both the benefits and challenges of buying and keeping a home.	Homeowners reported personal and social benefits. Wanted on-going Habitat support.
Kohn, Naoi, Schoenbach, Schooler & Slomeczynski (1990)	To test effects of ownership on the psychological well-being of men in 3 countries.	Representative samples of men employed in civilian jobs in United States, Japan, & Poland.	Class is conceptualized as ownership, control of means of production, control of labor power.	Ownership has significant positive effects on 3 of 4 measures of well-being.
Rocha (1994)	To explore role of saving and investment in explaining stress among two-parent families.	1500 randomly sampled women in two-parent families with dependent children from NSFH. ¹	Assets modeled as mediating relationships between income, number of children, and stress.	Stress increases as assets increase for working poor families, controlling for income and children.
Rohe & Stegman (1994a)	To test effects of home-owning on 3 measures of psych well-being among low-income people.	125 low-income homeowners and 101 Section 8 control group renters. 92% African-American.	Homeowning effects tested controlling for income, education, among other variables.	Homeowning positively effects life satisfaction, but not self-esteem or sense of control.
Yadama & Sherraden (forthcoming)	To test effects of assets on efficacy, horizons, prudence, effort, and connectedness	Data from 2871 PSID ² respondents in 1972, controlling for attitudes and behaviors in 1968.	Effects of assets (home value and amount of savings) tested, controlling for income.	Savings, but not home value, had positive effects on efficacy, horizons, and prudence.

Figure 2. Effects of Asset Holding: Studies Addressing Economic Security

Study	Purpose	Sample	Description	Findings
Chandler (1989)	To explore transition from married quarters housing to homeownership among navy families.	30 British navy wives. Content analysis of interviews to identify common themes.	Qualitatively addressed perceived advantages and disadvantages of homeownership.	Desire to own universal, despite advantages of base housing. Perceived financial security.
Massey & Basem (1992)	To explore determinants of savings, remittances, and spending among Mexican immigrants.	Randomly selected households in four Mexican communities. Sample of 295 men.	Tested effects of owning and of being from a community with many land or business owners.	Saving and remitting higher among those from communities with many land & business owners.
Page-Adams & Vosler (1995)	To test effects of homeownership on stressed auto workers, controlling for income and education.	193 auto workers in midwestern city in 1992. Half laid off by plant closing.	Economic strain was one of four outcomes, in addition to social and emotional well-being.	Homeowning related with lower economic strain, alcoholism, and depression.
Raheim (1995)	To evaluate the first publicly-funded U.S. microenterprise program for low-income people.	Random sample of 120 SEID ¹ participants who started businesses. 68% single household heads.	Six year follow-up focused on economic well-being of participants and their businesses.	SEID businesses had high survival rates (79%), created jobs, and reduced welfare receipt.
Sherraden, Nair, Vasoo, Liang & Sherraden (1995)	To assess effects of asset accumulation through Singapore's Central Provident Fund (CPF).	Sample of 356 CPF active members, representative of CPF total population.	Explored impact of CPF asset accumulation on economic, social and psychological well-being.	CPF improves economic well-being, foremost through housing and health care.

Figure 3. Effects of Asset Holding: Studies Addressing Civic Behavior and Community Involvement

Study	Purpose	Sample	Description	Findings
Cheng, Page-Adams & Sherraden (1995)	To test effects of assets on human capital, home maintenance, and civic involvement outcomes.	Representative sample of 356 active members of Singapore's Central Provident Fund.	Focused on the role of knowledge about asset accumulation strategies in mediating effects.	Positive asset effects, (working through knowledge) on work, home & civic outcomes.
Oskamp, Harrington, Edwards, Sherwood, Okuda & Swanson (1991)	To investigate factors that encourage and discourage recycling in a suburban US city.	Survey of 221 randomly selected adults in city with new curbside recycling program.	Tested associations between demographics, attitudes, conservation knowledge and recycling.	Strongest predictors of recycling were living in a single-family house and owning one's own home.
Perkins, Florin, Rich, Wandersman & Chavis (1990)	To explore demographic and social correlates of participation in block associations.	Data from 48 blocks in New York City using observation, police records, and surveys.	Tested association between homeownership and civic involvement in block associations.	Homeownership positively associated with civic involvement in block associations.
Rohe & Stegman (1994b)	To test the impact of homeownership, controlling for other variables, on civic involvement.	125 low-income homeowners and 101 Section 8 control group renters.	Studied neighboring and civic involvement before and, again, 18 months after home purchase.	Homeowners had significant increase in neighborhood and block association involvement.
Thompson (1993)	To compare demographic and social characteristics of volunteers and the general population.	Survey of rural New York county done as part of the 1990 US census.	Explored differences between two groups to inform volunteer recruitment efforts.	Volunteers more likely to be self-employed and high-income. No more likely to own homes.

Figure 4. Effects of Asset Holding: Studies Addressing Women's Status

Study	Purpose	Sample	Description	Findings
Levinson (1989)	To test an economic model of wife beating using data on small-scale and peasant societies.	90 societies selected from the HIRAF PSF ³ sample. Data from ethnographic reports.	Three of the four indicators of economic inequality are asset-based measures.	Suggest that "male control of wealth and property is the basic cause of wife beating."
Noponen (1992)	To evaluate economic and social effects of microenterprise loans to poor women in India.	Random sample of 300 women participants in a model loan program surveyed in 1980 & 85.	Explored effects of access to credit for both women and their families over a 5 year period.	Access to credit improved social status of women and material conditions of families.
Page-Adams (1995)	To test effect of homeownership on marital violence, controlling for income and education.	1038 married women whose husbands also completed questionnaires for NSFH ⁴ in 1987-88.	Analysis was designed as one test of the theory of well-being based on assets.	Homeownership is negatively associated with violence among white couples only.
Petersen (1980)	To explore relationships between several measures of household SES and wife abuse.	Random statewide telephone survey of 602 married women living in Maryland in 1977-78.	SES measures included homeownership in addition to husband's income, education, etc.	22% of women who rent, but only 2% of women who own, reported abuse.
Schuler & Hashemi (1994)	To test effects of credit on contraception and empowerment among Bangladeshi women	1,305 women: 2 random samples of program members; 2 comparison group samples.	Both effects of access to credit and living in village served by credit program were tested.	Credit programs increase family support, leading to empowerment, leading to contraception.

Figure 5. Effects of Asset Holding: Studies Addressing the Well-Being of Children

Study	Purpose	Sample	Description	Findings
Cheng (1995)	To test effects of parents' SES, education, and assets on poverty among adult daughters who have children.	836 female heads of household from NSFH ⁶ . 548 white and 288 black single women with dependent children.	Tested effects of assets on adult daughters' SES, controlling for parents' SES and daughter's education.	Assets have positive economic effects for female-headed families, controlling for education and parents' SES
Green & White (1994)	To test whether children of homeowners were less likely to drop out, have babies, and be arrested.	Four large, representative data sets. PSID, HSB, PUMS, and BYS. ⁷ 17- and 18-year-olds.	Effects of parental homeownership tested controlling for parents' income and education.	Teens of homeowners less likely than those of renters to drop out and to have babies.
Henretta (1984)	To test effects of parents' homeownership and home value on same for adult children.	PSID ⁸ cases containing data on a sample member who was a child in earlier wave (1968-79).	Effects of parental homeownership and home value tested controlling for parental income & gifts.	Parents' homeownership associated with same for adult children, controlling for income and gifts.
Pritchard, Myers & Cassidy (1989)	To explore individual & family factors associated with saving and spending ⁴ patterns among teens.	1619 employed teens and their parents from the 1982 sophomore cohort of the HSB ⁹ survey.	Family factors included parent saving behaviors and whether they had saved for college.	Parents saving patterns and saving for college associated with teen saving patterns
Whitbeck, Simmons, Conger, Lorenz, Huck & Elder (1991)	To test effects of economic hardship and parental support on adolescent self-esteem.	451 families recruited from cohort of 7th-graders living in mid-western state in 1989.	Debt-to-asset ratio is needed to measure hardship, controlling for income & work history	Economic hardship lowers adolescent self-esteem by reducing parental support

ments to equal opportunity for African Americans (Sherraden, 1991a, pp. 131-139). Today, by some measures, blacks have only about one-tenth of the net worth of whites (U.S. Bureau of the Census, 1994). This huge difference in property holding between whites and blacks is, in our view, one of the most fundamental issues in race relations in America.

Other asset-based policy precedents include home mortgage subsidies under the Federal Housing Administration (FHA), land ownership support under the Farm Security Administration (FSA) and the G.I. Bill, which enabled millions of returning World War II veterans to attend college. During the 1980s, still other asset-based policies emerged, such as Individual Retirement Accounts and state-based college savings plans, although these did little to help the poor.

If asset-holding has positive effects, "welfare policy" and social policy in general should promote asset accumulation. Such a policy would recognize that individuals, families and the nation as a whole should counterbalance income and consumption with savings and investment. Asset building would become a foundation of social policy, so that many social and economic goals—perhaps especially higher education, home ownership, small business development, retirement security and even health care—would be achieved to some extent through programs of asset accumulation, even for the poorest families.

One way to do this would be through a comprehensive system of Individual Development Accounts (IDAs). This proposal has generated widespread policy discussions and a number of IDA policy initiatives. More than 30 states have proposed or implemented increases in welfare asset limits, sometimes in the form of special savings accounts for development purposes, such as education, purchase of a home or starting a microenterprise. Iowa and Texas have passed legislation calling for community-based IDA experiments. Other IDA legislation is pending in Illinois, North Carolina, Virginia and other states. President Clinton included an IDA demonstration in his 1994 welfare reform package. Federal legislation for an IDA demonstration has increasing support (Edwards and Sherraden, 1995). It appears that a number of IDA demonstrations will be occurring over the next several years, in a number of different places, with a variety of program designs, and with different populations.

Individual Development Accounts

IDAs would be optional, earnings-bearing, tax-benefitted accounts in the name of each individual and initiated as early as birth (Sherraden 1988, 1989, 1990b, 1991a, 1991b). IDAs would be similar to Individual Retirement

ment Accounts (IRAs), but would serve a broad range of purposes, and there would be deposit subsidies for the poor. Regardless of the designated purpose(s) of IDAs (housing, education, training, self-employment, retirement or other), assets would be accumulated in these long-term accounts. Federal and state governments and/or private sector organizations would match deposits for the poor. There would be potential for creative program design and partnerships among the public, private, and nonprofit sectors, in cooperation with account holders themselves. The following general guidelines might be considered for IDAs.

- IDAs would complement income-based policy.
- IDA opportunities would be available to everyone.
- Certain IDA deposits would be subsidized for poor families.
- Creative partnerships among government at all levels, the private sector, and nonprofit organizations would be encouraged in designing and funding IDA accounts.
 - Deposited funds and earnings on funds would be, in whole or in part, tax-benefitted (tax-exempt or tax-deferred) when used for designated purposes.
 - Ideally, individuals (or their parents or guardians) would have choices regarding how their IDA accounts are invested.
 - Because asset-based welfare is a long-term concept, some of the best applications of IDAs would be for young people.
 - If withdrawn for other than designated purposes, all subsidized deposits and the earnings on those deposits would revert to an IDA Reserve Fund.
 - An individual could transfer, at any time during his or her lifetime or at death, without penalty, any portion of an IDA to the IDAs of his or her children or grandchildren, or other designated beneficiary.

The key would be to establish an IDA policy structure that is responsive to the goals of individual participants and local needs; can generate creative initiatives and funding from multiple sources, and can expand gradually as it demonstrates its worth. In the long run, it is possible that an IDA system, or something similar, might expand to a number of social welfare purposes, and become a significant part of what we currently think of as "welfare state" activities.

Once the structure of Individual Development Accounts was in place, even with minimal direct funding from the federal government, there would be opportunities for a wide variety of creative funding projects from the private and non-profit sectors. To build IDA accounts, one can imagine church fund raisers; contributions from civic organizations; bake sales, car washes, carnivals and other school-based projects; student-run businesses; corporations "adopting" a school or a neighborhood, and so forth. There

would be great potential for creative partnerships and entrepreneurial funding projects. The key is to establish an IDA policy structure that could attract creative funding and expand gradually as the policy demonstrates its worth.

Conclusion

As a concluding thought, we offer the suggestion that the income-based welfare state—although it was a remarkable social innovation in its time and led to many important triumphs of caring over indifference—may have passed its historical moment. As a practical matter, there is growing concern about the sustainability of consumption-oriented entitlement spending for the non-poor on so large a scale. Also, it has become apparent that means-tested income transfers for the poor, although they help to relieve suffering, do little to help people move out of poverty. As a result, the income-based welfare state, particularly that portion oriented toward the poor, is under concerted attack in the policy world. This attack is broadly-based and gaining momentum. Under these circumstances, it seems likely that the income-based welfare state will, during the coming decades, undergo a major transformation. The direction of this transformation is difficult to predict—indeed, there are reasons to fear haphazard policies created during a moment of crisis, or regressive policies created during a moment of reaction. Despite these uncertainties and risks, it seems likely that a growing theme in social policy will be policies that emphasize not merely income and consumption, but also savings and investment. If widely implemented, IDAs would eventually provide the framework of a new domestic policy based on asset-building and stakeholding. This new policy would serve as a counter-balance to the income-based welfare state.

As a closing thought, Individual Development Accounts, or some other form of asset-based domestic policy, could become, for the 21st century, what the Homestead Act was for the 19th—an investment-oriented policy to develop individual capacity, build strong families, promote active citizenship and contribute to economic growth.

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APPLICATION OPPORTUNITIES IN PUBLIC ISSUES EDUCATION

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What is the role of public issues education in renegotiating the social contract? In trying to answer that question, I have found the 1994 debate on health care reform instructive.¹

Health Care Reform

People have been trying to renegotiate the health care contract for nearly a century. Failed efforts occurred during the Wilson, FDR, Truman and Nixon administrations. Finally, in 1994, it looked like national health care reform was going to happen. Public opinion supported reform (Schlesinger and Lee; Jacobs; Jacobs and Shapiro). Escalating insurance premiums, exclusionary practices, such as preexisting-condition provisions and cost shifting by employers that made even middle-class families nervous about insurance coverage, combined to produce growing public support for reform, in spite of continued skepticism about government involvement in most other areas (Peterson, 1994).

Interest groups were ready for reform. The solid front of opposition was breaking down, as internal divisions appeared between general practitioners and specialists, for-profit and not-for-profit hospitals, small and large insurance companies, small and large businesses (Peterson, 1993). The American Medical Association finally acknowledged that the health care system had faults that needed correction; insurance companies were realizing that they could not much longer get away with the practice of looking for "ever-smaller pools of healthier people to insure,; businesses were exasperated by ballooning health insurance costs; many small firms were finding that they could no longer afford coverage of any kind for their employees (Skocpol, 1993, pp. 532-33). Lobbyists for education, corrections, welfare and other causes were increasingly critical of a health care nonsystem that sucked resources from their priorities and still left 15 percent of the population without coverage (Brown, p. 200).

Politicians advocated reform, especially after Clinton's victory and Harris Wofford's surprising election to Congress on a health care reform platform. Clinton promised a proposal. But then what happened? The Clinton proposal was delayed, and it was thick and complicated when it did arrive. The very size of the proposal made it vulnerable to criticism. From

the start, the concept was a hard one to communicate. Instead of a simple basic idea, like "prohibit the sale of alcohol" or "guarantee voting rights for minorities," health care reform called for balancing two seemingly contrary objectives, controlling cost and extending coverage (Hecklo).² Moreover, the Clinton plan relied heavily on regional health care alliances, an unfamiliar mechanism that raised suspicions which were hard to counteract (Skocpol, 1995).

Interest groups mobilized against the plan. "Hospitals [said] they would not have enough money to provide medical care to everyone who [needed] it. Insurance companies [said] that the plan would prevent them from raising enough money to pay the ... bills. Doctors [said] the government [did] not have the right to force them to work for lower wages and that the plan would not give them enough resources to take proper care of their patients. Pharmaceutical companies [said] the price controls would prevent them from developing ... new drugs.... Many small companies [said] the new costs [might] drive them out of business. Larger employers [said] the ... requirements [would give them] an incentive to replace [part-time employees] with [temporaries]" (Castro, pp. 210-12).

In response to these developments, the public (in a public issues educator's nightmare) actually became *de-informed*. In opinion polls, the percentage saying they knew "a lot" about the Clinton plan actually went down when the debate over the plan was in the news. Daniel Yankelovich's commentary about this is interesting (Yankelovich, 1995). Consistent with what he has written elsewhere (Yankelovich, 1991)—namely, that creating awareness of problems is the easy part—he notes that, even though most people claim to be satisfied with their own health care, the sense of a need to overhaul the system had risen to majority levels. But a closer look at public opinion showed that the main concern was the cost of health care, and the solution was to cut the profits of hospitals, lawyers, physicians and drug companies. Yankelovich points out that experts were more likely to blame the aging of the population and the cost of new technology, and to foresee a need to limit care. From that perspective, the public was guilty of "wishful thinking" and failure to grapple with hard choices. Indeed, the more that critics of the Clinton plan raised the specter of tax increases, restrictions on choice of doctors, and employers forced to cut jobs in order to reduce health care costs, the more that public support for reform withered.

Congress began developing alternative plans, which further confused the public, and, in the end, Congress lost the will to act and gave up.

Information vs. Agreement

Did health care reform fail because we didn't know enough? That is not my impression. The problems were well-understood. It is true that there was

uncertainty about likely budget impacts. There was fear that the plan would be too costly, and consensus never developed on just what the impacts would be. But that kind of uncertainty is inevitable.

A better explanation for the failure of health care reform was lack of agreement. The emerging consensus that something needed to be done was what Paul Starr had called a "negative consensus" (Marmor, p. 194, quoting Starr)—agreement that change was needed, but no agreement on what form it should take. Poor information about likely budget impacts may have aggravated the disagreement, but the road between information and agreement runs in two directions. If lack of good information makes agreement difficult, it is also true that disagreement complicates the task of getting good information by giving people incentives to exaggerate and to be less than honest.

Efforts at Agreement

So why was agreement not reached? It looked as if the long-elusive agreement on health care reform was about to happen, but then it fell apart. It appears to me that there were three important efforts at agreement that need to be analyzed. Why didn't they work?

1. The most obvious effort at agreement was the Clinton task force. It was clear that any successful reform effort would require consensus-building. The task force was dominated by government officials and experts—a fact that made it more easily attacked as big government (Skocpol, 1995). It was not a stakeholder group with the various interest groups represented. The interest groups were consulted in order to identify ideas and concerns to take into account, but not for purposes of political bargaining. The task force worked largely in secret. The intention was to "conclude much of the process of compromise before the legislation went to Capitol Hill" (Castro, p. 208). As several analysts have put it, the administration was still working in "campaign mode" (Heclo). The emphasis was on getting a proposal that could be quickly adopted in order to enhance Clinton's re-election prospects. The task force tried to anticipate all viewpoints and work out the necessary compromises before announcing the plan. The key element in the task force's proposal was the concept of managed competition, a "middle-range, mixed public and private" scheme that was considered more likely to succeed than an effort to rally public support behind a full-blown plan of universal, government-funded insurance (Skocpol, 1993, p. 539).

2. Clinton's managed competition concept was borrowed from the Jackson Hole Group, which is the second effort at agreement that is worth looking at. Founded by Dr. Paul Ellwood, and composed of representatives of the major players in health care, the Jackson Hole Group had been

meeting periodically since 1970 in Ellwood's living room in Jackson Hole, Wyoming (Castro; Navarro). Members included representatives of "the large insurance companies, some of the largest employers in corporate America, the pharmaceutical industry and some major professional associations" (Navarro, p. 206). The purpose of the meetings was to air grievances, identify problems and accommodate differences. Whenever unanimity was reached, someone on Ellwood's staff would draft a position paper, circulate it for comments, and then distribute it among health care experts and policy makers. The managed competition proposal was developed through that process in 1991. The Clinton task force adopted the managed competition idea, but then toughened it in response to opposition from advocates of a Canadian-style single-payer plan (Navarro; Castro). The single-payer plan was supported by twenty major unions, senior citizens groups, African American and Hispanic groups, religious organizations and other activist groups (Navarro, p. 211). The administration evidently feared that the Jackson Hole proposal would not extend coverage and reduce costs fast enough to compete with what the single-payer advocates claimed their plan would do (Castro, p. 207). That raises the question of why the Jackson Hole Group's consensus-building did not accommodate the single-payer objections. One possible reason is that labor unions, key supporters of the single-payer plan, did not participate in the Jackson Hole Group (despite Ellwood's constant efforts, according to at least one account—Castro, p. 82).

3. The third effort at agreement worth looking at is the administration's promised grassroots educational campaign. There was to have been public education throughout the country. The purpose most likely was more to sell the plan than to get public input; but, in any case, the campaign never got off the ground (Skocpol, 1995; Hecl). That failure was a factor that contributed to, or in any case failed to counteract, the withering of public support. Ensuing events helped explain why public education and support was important. If public support had gathered momentum instead of withering, it would have kept pressure on Congress to find agreement instead of generating competing proposals and eventually taking the easy way out by doing nothing. Why did the grassroots campaign not get off the ground? One reason was the fact that Clinton's original grassroots plan was criticized as improper use of public funds for what were called "partisan" purposes. So the campaign was moved to the auspices of the Democratic National Committee, where it had less funding, and interest groups found it harder to cooperate without jeopardizing the nonpartisan stance they wanted to maintain (Skocpol, 1995). But the main reason for the campaign not getting off the ground was that there was simply too little time. The "campaign mode" in which the administration's health care plan was developed and promoted meant that there was too much pressure for a quick decision.

The time dimension is important. Big decisions like health care reform require a period of what Hugh Heclo calls "gestation" (Heclo). Heclo says that policy arguments need to be sustained long enough for people to be persuaded that a real problem exists that will not go away unless something is done. Yankelovich adds the point that there also needs to be public understanding of and support for at least the general direction of proposed solutions. The public needs to be aware of costs and trade-offs—they need to get beyond "wishful thinking," and not only recognize a problem, but also come to favor a course of action for which they "accept the consequences." Heclo makes the observation that the Great Society reforms of the 1960s had a "gestation period" in the 1950s, which raises the interesting question of why reforms proposed in the 1990s were not effectively gestated in the 1980s. Heclo's answer is that ideological polarization inhibited the genuine exploration of conflicting perspectives that gestation requires.

Welfare Reform

So, now we're debating welfare reform, another major element in the social contract. What are the prospects for a better outcome? I would say zero. The motive for welfare reform is more mean-spirited (although one should never assume that poor people want welfare left as it is). The middle class is not worried about potential loss of benefits for themselves, as was the case, at least initially, in health care reform. Nor is there the structure of powerful interest groups with a stake in the status quo that inhibited reform in the health care field.

But there are similarities as well as differences. The central question in both issues is what society will do for poor people. (Despite the language of universal coverage, it eventually became clear that the most obvious beneficiaries of health care reform would be the poor and the uninsured.) In both issues, there is a high degree of middle-class ambivalence—compassion for poor people, mingled with concern for one's own welfare and an inclination to let the poor fend for themselves. And both issues are greatly affected by ideological polarization over the size and role of the government.

Requirements

What would "renegotiating the social contract" require if it were to be done in a democratically responsible way? My reading of the post mortem on health care reform suggests four things that are needed:

1. Time for gestation. There is nothing (or, at least very little) that educators can do on issues like these, where decisions will come soon. Heclo's "gestation," Yankelovich's "working through" to a "public judg-

ment," and our public issues education (which are all pretty much the same thing) take time. The health care debate does show, however, that decisions may not come so soon after all. There may still be ample time for education on these issues—or at least on a variety of state and local issues related to reform.

2. Consensus-seeking among the active players, with all of them involved. You can't leave out labor, as in the Jackson Hole Group. (If they refuse to come to the meetings, you find some other way to get their viewpoint understood and taken into account.) If competing proposals are going to emerge anyway, people who favor those proposals need to be included in consensus-building efforts from the beginning. In addition, there is also the problem that, whatever happened in the Jackson Hole Group or the Clinton task force, the quality of consensus-seeking certainly deteriorated after the health care debate became public. In my view, that debate is the most compelling evidence of all about the sorry state of our policy making process. If there was ever a situation where everyone agreed that something needed to be done, this was it, and yet nothing was done. The inauthentic politics of ideological polarization reasserted itself, and the debate became yet another knock-down argument in which winning, or making the other side look bad, was more important than solving the problem.

3. Public understanding and support. The public needs to come to grips with conflicts and contradictions regarding the issues. Wishful thinking needs to be replaced by a public judgment—a judgment based on an understanding of conflicting perspectives, and capable of holding up in the face of interest-group counter-arguments. The need for public understanding and support means that the issues cannot be thrashed out in secrecy, beyond the scrutiny of the press and the opportunity for public observation and learning. As Hecló says, secrecy by the Clinton task force "further dimmed the prospects for educating Washington and the public about the difficult trade-offs at stake" (p. 97). In the words of another commentator, "... the administration ended up simply advertising its plan rather than having a real public discussion" (Weir, p. 102).

4. Representation of all sides, including poor people. The poor may have little power in decision making, but the public (bless its heart) continues to persistently care about poor people. On welfare reform, public anger about welfare continues to be combined with strong feelings that poor people should not suffer economic hardship or be left on the streets (Altman). Among the contradictions and trade-offs that need to be weighed in arriving at a public judgment, are the implications of different proposals for poor people. If they were present, the voices of poor people would be a valuable ingredient in forming a public judgment (to say nothing of the fact that programs for poor people might work better if they were designed with poor people's input).

Think of how rarely you hear the voice of poor people in the debate about welfare reform. Articles that rely on interviews with recipients are rare enough that I tend to clip them when I see them. I do not have a large collection. One example is an article about illegitimacy in a recent *National Journal* that begins with an 18-year-old mom's response to the question of whether cutting welfare benefits would discourage her and other teenage mothers from getting pregnant again (Carney). "No," she says, "because some teenagers have children to keep the male friend they're with. Other teenagers have children because they feel that they want something that'll love them back. Other teenagers have children to be accompanied by another person. It's not for the money." One may not like what she says, but that's hardly the voice of someone with nothing relevant to say about welfare reform.

Roles for Educators

Let me turn more specifically to the question of what public issues educators should be doing. Decisions about health care and welfare are coming back to the state and local levels. The failure of national health care reform tells us that, and the trend toward block grants to the states as a key element in welfare reform tells us the same thing. Those trends will give educators working at the state and local levels a fine opportunity to help bring together the major players in state and local issues related to health care and welfare,—not the current issues, but ones coming down the road. Educators should use what they've learned about conflict resolution. Get the various players' interests, not their positions, on the table. Help them talk to one another and listen to one another in a safe forum. Help them understand one another and search for solutions they can all live with. Maybe new solutions to contentious issues regarding the social contract can be worked out. Then, sometime in the future, if a need for national action becomes apparent again, solutions worked out in states and localities may get a chance to "trickle up."

There is a need for education of citizens, as well as the active players. Ordinary people need to wrestle with the issues, understand the conflicts and contradictions, and make a public judgment. One useful response by educators would be to sponsor citizen discussion groups on the National Issues Forum (NIF) model. Another important opportunity is for all citizens (not just those who participate in discussion groups) to see the issues discussed in ways that include their viewpoints and bring out the contradictions and possible solutions. This is the opportunity that gets foreclosed when the active players deliberate issues and possible solutions in secrecy. This is also why it's important for public issues educators to build connections with the news media.

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Finally, poor people need to be involved. They need to be included in NIF-type discussion groups, and they need to be represented in the conversations among major players. Think how rarely that happens. Making it happen is a big challenge—a blending of empowerment and conflict resolution strategies. I have a colleague, David Pelletier, in the Division of Nutritional Sciences at Cornell, who envisions two basic approaches for bringing the perspectives of ordinary citizens into policy-related discussions. One approach is direct involvement in the same conversations—which Pelletier believes is ultimately the best strategy, but one that is problematic because of inequalities in power, status and self-confidence. The second approach is for the active players to conduct interviews or focus groups with ordinary citizens in order to tap their viewpoints and bring them into the active players' discussions. Pelletier hopes to experiment with both approaches and evaluate their strengths and weaknesses.

Another approach with potential for blending empowerment and conflict resolution is the Citizen Politics model put forth by Harry Boyte and Project Public Life at the University of Minnesota (Boyte; Project Public Life). My reading of Citizen Politics says that it starts with unempowered individuals or groups, such as poor people—or school kids, parents, tenants, etc.—and helps them take the initiative to study an issue, identify and interview the major players, and then bring them together for discussions of the conflict-resolution variety. The end result is the same thing that Pelletier is aiming for (consensus-seeking discussions in which poor people are represented), but in this case the inequality problem is addressed by having poor people initiate the entire process.

The Third Wave

In whatever way it's done, this combination of conflict resolution and empowerment is what I'd like to call the "third wave" of public issues education. The first wave was primarily information provision about public issues (often using the alternatives-and-consequences approach). The second wave, which increasing numbers of educators have been joining in recent years, puts major emphasis on conflict resolution, bringing together people from different sides of the issue to learn, at least in part, from one another. Much of this second-wave work has addressed environmental issues. This has happened, at least in part, because the environmental movement succeeded in demanding a place at the table—they became "empowered"—thereby making the need for conflict resolution obvious to many of the major players. The third wave calls for educators to not wait for unempowered groups, such as poor people or welfare recipients, to empower themselves, as the environmentalists did, but to help with that part of the process as well. What's needed is a combination of empowerment and conflict resolution.

So far, in the absence of such a development, the social contract is being renegotiated with little help from public issues educators. The fault is partly ours. We have often avoided social contract issues entirely, or treated them as problems amenable to solution through education for individual and family decisions, or limited ourselves to "networking" with other professionals in programs designed to address essentially noncontroversial issues, such as service gaps in child care, teen recreation or housing for seniors. (Much of this is good work with beneficial results. I don't mean to be critical. But other things might be more important.) Learning how to combine empowerment and conflict resolution is a daunting task, but I think the stories of health care reform and welfare reform are stark illustrations of the consequences of failing to take on that task.

The fault is not entirely ours, however. We are not always working in a receptive environment. Often, no one is asking for our help, and they may not welcome it when it's offered. For the most part, neither policy makers, other active players, the news media nor the public seem able to envision different ways to make public decisions, so they don't seek the help of educators or anyone else. Policy makers and active players at the national level still seem committed to the politics of winning and losing. At the local level, I think policy makers seem more inclined to see policy making as their exclusive responsibility (and sometimes to resent, rather than welcome, partnerships with educators). The news media's dominant metaphor continues to be the horse race, and the public remains cynical, longing for something better but not knowing what to ask for.

Breakthroughs do occur, however, and I continue to be impressed with the prevalence of favorable responses from nearly everyone who gets the opportunity to participate in educational programs that facilitate learning across conflicting perspectives on contentious issues. We need to continue providing those opportunities for more and more audiences, and we need to accept the challenge of the third wave—turning our capabilities more often to issues involving the social contract.

¹ Helpful sources include special issues of *Journal of Health Politics, Policy, and Law*, 18 (Summer 1993); *PS: Political Science and Politics*, 27 (June 1994); *Health Affairs*, 14 (Spring 1995); and *Journal of Health Politics, Policy, and Law*, 20 (Summer 1995); various issues of *National Journal* and *CQ Weekly Report*; and the books by Castro and Navarro (which help balance each other's biases).

² There was a plausible argument connecting the two goals (although economists tended to doubt that it would work): Cost control would make universal coverage affordable; universal coverage would make cost control possible—by stimulating more preventive care and getting people out of expensive inappropriate health care settings (Hecl; Newhouse).

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***Environmental Policy Trends:
Implications for Agriculture
and Natural Resource Use***

NATIONAL POLICY TRENDS: IMPLICATIONS FOR RESOURCE CONSERVATION

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Major shifts in the national political setting occur periodically. Such a shift resulted from the congressional elections of 1994. This shift has put the Republicans in charge, and they are trumpeting a very different message than the Democrats, guided by a very different philosophy about the role of government. Their philosophy is being applied to all legislative proposals. Some proposals, such as items in the Contract with America, are distinct creations by this new majority that would institutionalize their views. But others, such as the 1995 Farm Bill, have the good fortune or misfortune, depending on your view, of requiring congressional attention just after this shift has occurred. As a result, this farm bill debate is very different than its immediate predecessors. And one of the greatest differences is in the ways that environmental issues that affect agriculture are likely to be addressed. Actually, the Republican takeover is at the center of three broad forces that are affecting all issues, from welfare and health care reform to agriculture and the environment. These forces are:

- Republican philosophy about the role of government as expressed through the Contract with America and other initiatives;
- The overriding importance of the budget implications to almost all policy discussions; and
- The changed institutional capability of Congress with so many new members and staff.

The Republican takeover has brought a new philosophy to power about relationships between government and individual rights. In trying to implement these relationships, the Republicans are moving to strengthen the protection of individual rights by weakening mandated social obligations. When this change is applied to agriculture, it means slowing or halting many of agriculture's evolving environmental policy trends initiated during the past decade. These efforts in Washington do not appear to be widely supported by the public, and even farmers, based on recent opinion surveys which continue to show strong support for environmental protection components of agriculture in general, and these policies in particular. As this conference is occurring, there is a tremendous tug-of-war in Congress over how far it can change the current direction that pits the "winners" in the last two farm bills against those who not only did not win, but believe that they were not allowed to participate. Many of these interests believe that the current readjustment effort is only fair and just.

The 10-point Contract with America was the focus of House legislative activity earlier. When asked to predict what would happen to the Contract early in the year, I surmised that probably eight or nine of the 10 contract elements would pass the House, four or five would pass the Senate, and two would be signed into law. That appears to be close to the mark. Operating rules make the Senate a much less impetuous chamber than the House, and it has moved more slowly on the contract items. Also, it has been less inclined to deal with some of those items, either before the rest of the legislative agenda or as distinct legislative items. As many political analysts have said, this process really shows the two chambers working as the founding fathers envisioned. The process for enacting the Contract has now largely run its course, although the philosophy that it embodies is clearly behind many specific proposals that Congress, and especially the House, will continue to consider throughout the 104th Congress.

As this group meets, the budget occupies center stage in Congress. This is the last week of Fiscal Year (FY) 1995, and major debates over appropriations for FY 1996, reconciliation legislation to implement the seven-year budget resolution, and the specter of needing to raise the debt ceiling (which will be reached in another several weeks) absorb Congress. While appropriations is of immediate interest, because of the "train wreck" that would keep many of us out of work next week and temporarily shut down most government functions if a continuing resolution cannot be agreed to, the reconciliation process will have far more profound effects on agricultural policies. (Reconciliation is the process to bring revenue and spending law into conformity with policies set in the budget resolution.) Making the necessary reductions for the next seven years will limit policy options, constrain the policy process, and stimulate more aggressive competition among those who have benefitted from agriculture programs in the past. Also, many of the commodity program decisions will be made in the reconciliation bill rather than in separate farm legislation, thus changing the basic political dynamic of a farm bill debate later this year.

One difficulty that has inhibited moving legislation that would enact portions of the Contract, and other legislation as well, is the congressional change-over, with many new members and even more new staff. These people are newcomers in two ways—many are new to Congress, and those who have been in Congress are new to the majority, with its agenda-controlling power. The plateau at the top of their learning curves remains a long way off for some of these newcomers, although many of them have advanced quickly. But for the most complex legislative vehicles, such as a farm bill or reconciliation, there is still a great deal to learn about process—and that is in addition to the policy complexities. When this lack of knowledge is combined with the high pressure to act rapidly, the results can

be troubling because they disrupt logical approaches in ways that are not always compatible with a sound policy process. This is not meant as a political science discourse, but think about the fundamental question about Congress today—Is the 1994 change-over a new direction or a temporary interruption? How you answer this question will determine your political and policy strategies. Everyone knows it is having a huge impact right now, an impact that has been magnified by the inability of virtually all players in the policy process to anticipate that it was coming.

Even if the Democrats were to recapture both chambers in 1996, making this the shortest possible temporary disruption, it will have a long-term effect, because the Republicans will have initiated many changes that are likely to last, not only in law, but also in the organization and operation of the House. But if the Republicans retain control of both chambers for perhaps a decade, they will gradually ingrain their philosophies into the political setting as they institutionalize and consolidate their 1994 victory. Equally important, remember that, even if they don't retain control in 1996 and beyond, the political world will not suddenly turn back to 1994 and excise the intervening years.

The changes described above have substantial implications for this year's farm bill. Farm policy suggestions that could not pass what one of my colleagues refers to as the "straight face test," have changed a great deal. Ideas that were non-starters during the past decade, have suddenly swapped places with other ideas that were well within the mainstream. This sudden shift has caused substantial frustration for those whose interests had become the central inside players, and probably assumed that they always would be. The context of this year's debate depends not only on the changed political setting; it also includes experiences from implementation of programs enacted in earlier farm bills, development of new information and understanding about agriculture and the environment since the last farm bill, and the process for developing the 1995 Farm Bill. The paper concludes with some observations about possible outcomes in this farm bill debate in the areas of conservation and the environment.

Implementing the 1990 Farm Bill: Status

Implementation of the conservation provisions in the 1990 Farm Bill have been checkered—some programs have been fully implemented, some have been partially implemented, and some are only words in law. This is not surprising, as the conservation title, with its 99 subsections and other conservation provisions scattered throughout other titles, created or amended so many different activities. Amendments to existing programs, especially compliance efforts and the Conservation Reserve Program (CRP), have

generally been implemented. Some of the new programs, such as the Wetlands Reserve Program (WRP), have been implemented, but not at the rate that the law prescribes. Other new programs, such as some of the water quality activities and the Department's Office of Environmental Quality have both been slowly implemented by the Department, and with little pressure from Congress to move ahead. Historically, the biggest public policy hurdle has been getting a proposal idea enacted; now enactment has become just the first of several potential hurdles, as advocates of many environmental ideas that address agricultural issues are finding out.

The Senate Agriculture Committee is addressing the proliferation of programs throughout agriculture in its farm bill effort. It has identified the status of implementation of all programs still on the books, with an eye toward deauthorizing those that have not been funded. This Committee has already used this approach with the research title that it marked up. Research probably has the largest accumulation of programs, but conservation is only a few steps behind. It remains to be seen whether it (or the House Agriculture Committee) will use this approach in developing a conservation title as well.

One of the most visible changes in this debate this year is to focus on adjusting existing programs rather than enacting new ones. The foci of the new majority are a combination of undoing what it views as excessive in past enactments, while avoiding movement into areas that are perceived as inappropriate. This is in marked contrast to amendments in the 1990 Farm Bill that built on compliance, Swampbuster and CRP legislation enacted in 1985. The 1990 amendments to these programs were adjustments that reflected experiences over the preceding five years, combining the strengthening of some provisions with making the programs more flexible. Beyond these amendments, many new initiatives, generally centered on water quality, were enacted as well. Environmental and, to a lesser degree, agricultural interests could claim victories from this process in 1990, but the environmentalists are likely to have little to celebrate at the end of the 1995 process.

Budget concerns have reinforced the pressure to do less, and are likely to be a justification for inaction on many agricultural issues affecting the environment. The incentives to reduce conservation programs in the name of budget savings are far stronger in 1995. These concerns caused Congress to resist increased funding for the CRP since 1992, and substantial new funding for the WRP. The Department of Agriculture's guidance on the 1995 Farm Bill does not suggest that it will try to promote major new expenditures for conservation either, although conservation was one of the largest portions of this department-wide effort. Tinkering around the edges

may be fine, but there is little money and fewer incentives to undertake major new initiatives. New information and new understanding about relationships between agriculture and the environment since 1990 indicates that this should not necessarily be the case.

Developments in Agriculture and the Environment

Since 1990, considerable new information about resource conditions and relationships between agriculture and the environment have been published. The 1992 Natural Resources Inventory (NRI) is a valuable source of data on conditions and trends on private lands. The Office of Technology Assessment (OTA) published a report, *Agriculture, Trade, and Environment*, earlier this year that neatly summarized much of what we know about changing patterns and relations among these topics, and the Economic Research Service published an extensive compilation of relevant information in late 1994 in *Agricultural Resources and Environmental Indicators*. The very detailed National Research Council Report, *Soil and Water Quality: An Agenda for Agriculture*, published in 1993, reviews changing knowledge about soil and water quality problems and solutions, and makes several recommendations about key themes for public policy. The third Resource Conservation Act appraisal, when it becomes available, will provide in-depth assessments of most conservation topics. Others outside of USDA also publish important information that is either more localized or covers limited topics.

The OTA report, as an example, identified conservation program implementation, and technology research and development, as two areas where redirection should be considered because of lack of accomplishment by current efforts. Regarding programs, OTA concluded that existing programs have been inefficiently administered, and have not produced "significant and enduring results." The report recommends that the more than 40 conservation programs it identified could be simplified into three basic approaches, and that private market approaches could be encouraged. Regarding technology, the report recommends making complementary technologies, to both maintain profit and enhance environmental accomplishments, a centerpiece of federal research and development, and facilitating public/private partnerships to develop these technologies.

New information is providing useful insights. Some of these insights reflect new understanding about aspects of resources, for example, changes in wildlife populations or water quality patterns as a result of the CRP. Others, such as the NRI, update older information, but may also lead to new insights or understanding. For example, earlier this year, as a part of their effort to determine how programs might be more effective, OTA staff conducted a study using experts to identify where the most severe resource

problems in their respective fields of expertise were concentrated. The problems included habitat loss, wetland loss and water quality deterioration, among others. This study maps the country, showing where individual and multiple problems have been identified. The map clearly shows where the potential environmental benefits of concentrating federal resources would be greatest.

Another example where new information has affected debate is information on wetland loss in the 1992 NRI. Wetland loss and protection efforts galvanized attention during the past decade, as the Bush Administration made it a cornerstone of its environmental credits. The Bush policies centered around efforts to attain a no-net-loss condition. The 1992 NRI shows that wetlands losses on private lands have slowed considerably over the past decade, especially on agricultural lands. Others have combined these data with the reported accomplishments of the new protection programs, and concluded that the overall rate of loss is very low. Some are using this information to claim that there may now be a net gain of wetlands on agricultural lands. This new information is affecting the broader wetland protection debate, and may be an important component in arguments to amend Swampbuster. Some of those who object to the conclusions based on the NRI are criticizing this data source as flawed.

A very different source of information is the numerous public opinion and farmer surveys. They show repeatedly that a large majority of Americans want environmental protection and are willing to pay for it, and that the current approaches used in agricultural policy to encourage or support environmental goals are generally acceptable. As NRCS Chief Johnson has said, conservation compliance is a success story from almost all points of view. By contrast, the results of the agriculture wetland protection efforts have been more troubling to the farm community and the public in general. Current wetland protection efforts are viewed by some as exceeding the role that government should perform. These objections seem to refer more to the process of protection than to the fact that they are protected. Many of the changes today's majority in Congress is seeking seem to be at odds with these survey results.

A major adjustment in program delivery was initiated in 1994 with enactment of USDA reorganization legislation. The more visible part of this effort—renaming the agencies—is the least important. Less visible is that several of the smaller cost share programs were moved to NRCS from ASCS (now the Consolidated Farm Services Agency and soon to be the Farm Services Agency). Most importantly, it should streamline and simplify a farmer's interaction with USDA at the local level, while saving federal funds by co-locating facilities. But it has opened some old wounds within

the department—wounds that were the products of many past turf battles between the various combinations of agencies that have conservation responsibilities. A reemergence of these battles could compromise aspects of the conservation effort at a time of declining resources.

The Process for Developing the 1995 Farm Bill

An initial question is whether there will be a 1995 Farm Bill. Commodity policy will be handled through the reconciliation process, and some conservation and other issues may be handled through this process as well. Senator Lugar's proposal for reconciliation, which will be acted on next week, includes a lengthy conservation section. Representative Roberts' Freedom to Farm legislation, the primary commodity program proposal in the House, contains no comparable provisions. If the Lugar provisions survive the reconciliation legislative process, pressure may be reduced to deal with remaining conservation issues not related to the federal budget, such as wetlands and compliance, in a separate farm bill. Generally, the greater the number of pressing issues addressed in reconciliation, the less the pressure to enact separate farm legislation. Also, the reconciliation process is destined to require much of the fall. After completing it, both chambers may have little energy left to address a separate farm bill. Further reducing the impetus to enact a farm bill is that both agriculture committees are already saying that they plan to peel off other titles of the farm bill so they can deal with those topics in separate legislation next year. While all these pressures may combine to delay a farm bill until next year, no one is publicly pushing for this as an outcome yet. Delay may affect what is ultimately enacted, and seems likely to aid environmental and conservation interests.

These interests have controlled the legislative "high ground" for a decade now; that is, law has authorized the programs for which they lobbied. In this farm bill, some agricultural interests are aggressively moving to recapture it by undoing some of the efforts that had been enacted. Their effort does not draw on new information, new analyses or new insights. It is based on philosophical differences over how agricultural interests should address environmental problems. At the heart of this debate is whether the past environmental enactments are a prelude to future ones, or whether agricultural interests will succeed in chipping away at the most onerous of the conservation program provisions. Having the law on your side is always a very powerful position. But many significant changes are now being pursued, and delay may dissipate the energy of the Republican initiatives and also start to play into election politics.

Another reason to think that the farm bill might be delayed occurs when one thinks not of a single farm bill, but of five distinct farm bills. The first two would be the ones passed out of both agriculture committees. Committees are starting, haltingly, to put these together now, and the contents will be based, in part, on what will be put into the reconciliation package. The next two will be the ones passed on the floors of the House and the Senate. If the House allows an open rule to amend the farm bill, there is no forecasting the length of the debate or the number of votes. The final one will be cobbled together by a conference committee, which is likely to consist mostly of members from both agriculture committees.

The complexities of a farm bill have more potential than usual to bog down the legislative process, because there is remarkable little institutional memory in Congress due to the recent turnover, and because there are strong pressures to take action on a large number of proposals before the year is out. The considerable institutional memory available to the minority in both chambers has little value to the new majority. One result is that less of the debate seems to be taking place in the open, which may also lead to confusion.

Complications that take time will be increasingly the enemy as the fall passes. Schedules for major legislation will slip, as they always seem to, and work will pile up. This Congress may try to be family friendly for its members, but if they are serious about doing their work, history is rather consistent in indicating that the remainder of the first session will be compressed and demanding. In this environment, only those things that need to get done will be completed.

Not only is this farm bill process different, it definitely has not been business as usual for the interest groups. Commodity and farm groups switched places with environmental groups; commodity groups are now consulted by key congressional leaders, while environmental groups have little input. Commodity groups have prepared proposals they would like to see enacted for compliance, wetlands, CRP and other conservation topics. Many of these are likely to be incorporated in committee legislation. These proposals would largely amend earlier legislation perceived to be unacceptable to powerful elements of the farm community.

Environmental groups now find little receptivity and interest for their proposals. Even groups who seek action on a single topic, like the wildlife organizations now lobbying to protect wildlife benefits associated with the CRP, are finding progress to be slow and laborious. Perhaps the best the environmental community could hope for is the Lugar-Leahy proposal, S. 854, although many in this community do not see it as "their" bill. So far,

one of the key environmental leaders in the last two farm bills, Ken Cook, has avoided the conservation element of this debate entirely. His absence has left a large hole for the environmental groups. More generally, these groups have exhibited little cohesion.

Have you heard any exciting new ideas that are receiving serious consideration for inclusion in the conservation title this year? New ideas are not attracting congressional interest. The one exception is a new Environmental Quality Incentive Program (EQIP) entitlement, as proposed in S. 854. The department proposed a number of initiatives as concepts to consider for the 1995 Farm Bill. A few of these, like the grazing initiative, appear to be finding a home (in this case at the expense of the termination of the more expensive Great Plains Conservation Program in FY 1996 appropriations), but most others either are not, or in the case of whole farm planning, will likely become a department initiative that Congress may support or hold up through the appropriations process.

The whole farm plan experience is an example of the current process. NRCS has been interested in exploring whole farm planning and has proposed trying it in six pilot project states. NRCS views this approach as a way to simplify and make more consistent conservation planning by combining the dozen or more plans that farmers are required to have into a single document. Participation would be voluntary. The NRCS proposal follows on efforts by prior House Subcommittee Chair Glen English to enact legislation accomplishing this more than two years ago. NRCS initiated this effort anticipating that language in the farm bill building on Representative English's effort would either call for it or allow it as an option. But after the Clinton Administration proposed this concept as a Conservation Farm Option in its guidance for the 1995 Farm Bill, it attracted considerable political opposition in Congress. Some in the new majority are concerned that this approach will provide entry for regulatory agencies onto farms and get them more involved in farm operations through the implementation of these plans. The message from Congress to NRCS seems to be either do not do it, or move very cautiously.

Implications for Agriculture in Environmental Topics

When all this is added together, what are the implications for environmental topics in agricultural policies of the future? The political setting is likely to remain more volatile for a number of years. If the Democrats quickly return to control of either chamber (and remain in control of the White House), one of their first jobs will be to undo much of what the Republicans have put in place. This is the best possible outcome, from the Democrat's viewpoint. Others, which expand the range of time before the

Democrats do return to power, will mean that the philosophy and approaches that the Republicans support will have more time to become ingrained within the national government. With both parties controlled to varying degrees by the more zealous and extreme faithful, the two parties will become more strident and vocal in the battlegrounds in Congress and other places where they meet.

In these strident battles over the appropriate roles and actions for the federal government, good and defensible information is, at the same time, both more necessary and less accepted whenever it does not agree with one's point of view. But at the same time, agriculture, in particular, is becoming increasingly information intense. Much has been written about the growing role of information for management at the farm level, but much less has been said about both needs and effects of ongoing changes at the national policy level. Some elements of the department's information activities, most notably the NRI, have been subject to criticisms. Future efforts will have to meet harder standards, if they are to be credible resources in these debates.

Information seems to have a small role in this farm bill, which will likely center on amending existing conservation programs. The CRP will be extended in either reconciliation or in the farm bill. The two major issues, both unresolved now, will be how much money is made available for this program, and which lands will receive the highest priority to enroll. In wetlands, there are also two core issues: how to tie agricultural wetlands to actions that would amend wetland provisions in the Clean Water Act, and how to further amend agricultural wetland programs. For example, many agricultural interests are pushing to replace permanent easements under the WRP, with easements of perhaps 20 to 30 years. Compliance will be treated like wetlands, with many proposals that would soften the impact of compliance requirements and increase producer flexibility before they fall under the penalties of compliance. Other topics that might be considered include block grants for conservation cost share programs and further reorganization of conservation agencies in USDA.

Many discussions of these policy options revolve around the speed at which agriculture has moved, or has been forced to move, to deal with environmental concerns over the past decade. Agricultural interests, who are pushing for the types of changes that appear to be supported by the Republican majority, would likely say that this backlash is a response to the pace and amount of change during the preceding decade; their proposals would slow the rate of change. A slower pace in their view, and some redirection as well, will be more acceptable to agriculture. An alternative interpretation is that agriculture moved too slowly to address most environ-

mental problems in the preceding decade and a half, between 1970 and 1985. Exceptions to environmental requirements mounted, and by 1985, with soil erosion problems as the catalyst, the reaction set in. Where much of the overall environmental policy making over the past 30 years could be charted as following an upward-sloping trend with intermittent plateaus, agriculture is oscillating far more sharply, with this year's proposals for substantial change in direction, a response to the rapid change of the preceding decade.

The implications for the future are not attractive from the standpoint of institutions and programs, or from the standpoint of policy. Clearly there are strong public preferences for continuing the conservation effort. Challenges to getting conservation policy back on track, and to not overshooting the "trend line" in this reaction, include budget and policy questions. If these changes do overshoot the mark, then another reaction or overreaction is likely in the future. The goal should be to design resource conservation policies that meet the public preferences, and are, at the same time, less intrusive, more flexible and less costly for the public and private participants.

NOTE

The views expressed in this paper are those of the author alone, and do not necessarily reflect any views or opinions of the Congressional Research Service.

CIVIC ENVIRONMENTALISM AND NATIONAL ENVIRONMENTAL POLICY: REFORM OR ROLLBACK?

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Usually, at a conference like this, speakers offer updates—information about new developments in policy and law. Usually these updates are about events in Washington, D.C. I do live and work in Washington, and I would guess that most of you are expecting that my presentation, like the others, will say something about events in Washington.

But the topic I was asked to address today is “Civic Environmentalism.” This is a kind of problem-solving that occurs at the local level, when people custom-design answers to local environmental challenges.

So I will speak both about the Washington scene, and about what is happening around the country. Indeed, the two topics are closely connected, in new and interesting ways.

Perhaps the best way to explain civic environmentalism is to say what it is not—and that means contrasting it to the way that the public’s business is done in Washington.

So as an opening, let’s take a quick peek at what is happening in Washington. Then, I will talk about civic environmentalism, and finally give some more information about events in Washington.

Think back to the early 1980s, the first time that the conservative tidal wave thundered into Washington. President Reagan appointed Anne Gorsuch Burford to run the Environmental Protection Agency, and Jim Watt, Secretary of the Interior. Both embraced a philosophy of rolling back the environmental protections that had been erected in the 1970s. They argued for deregulation, budget cuts for environmental agencies and devolving authority to states.

We hear these same themes today—deregulation, budgets cuts, devolution.

The House of Representatives has passed regulatory reform legislation which would require EPA and other agencies to make a strong scientific case about the magnitude of the risks that regulations are trying to reduce, and to defend these judgments in court.

The House has passed a new Clean Water Bill, and an EPA appropriations bill which would sharply cut back EPA regulatory authority—over wetlands and in many other areas.

The House has proposed to cut EPA's budget by 33 percent, and the Senate subcommittee is proposing 23 percent in cuts.

In both the Senate and the House, there are calls for giving states more authority over administration of environmental legislation.

Just like the early 1980s—maybe.

You remember what happened in the 1980s. After a fast start, the rollback of environmental protections collapsed. The proposals for rollback were highly controversial. A holy war broke out—with the white hats of environmental protection against the black hats of polluters. (Or if you were on the other side, the white hats of reform against the black hats of bureaucratic meddling and legislative overkill.) Environmental groups organized projects, and millions of citizens signed on as card-carrying members. Within three years, both Jim Watt and Anne Burford were pushed out, with much of their agendas repudiated.

This year, environmental policy seems to be starting down the same path, with a new holy war between industry and environmentalists, between polluters and bureaucrats. Perhaps the environmentalists will once again rouse the public to repel efforts for environmental reform. Or perhaps this time the conservative tide is running stronger, and the environmentalists will lose.

I think there is a third path, a middle path, which will protect environmental values, while building far more flexibility into environmental regulation.

The key to the third path is civic environmentalism.

The word "civic," as defined by dictionaries, has two meanings. "Civic" means inherent in citizenship—your civic duties are things you do because you are a citizen, a contributing member of a local or regional community, a place. But "civic" also means "devoted to improving the health, safety, education, recreation, and morale of the population in a place through non-political means"—or at least through means that are outside traditional political action.

Now you know how traditional environmental politics works. Our environmental policies are structured around a fragmented system of narrowly-focused federal laws. Each law addresses a separate aspect of the

environment—there are separate laws, and behind them separate professions, separate environmental lobbyists, separate Congressional committees, and separate and quite independent-minded offices for each of these laws within state and federal environmental agencies.

The second feature of this well-established “governance as usual” is that the laws and the regulations and the policies tend to impose uniform regulations, uniform procedures and uniform goals on a wide array of local conditions. It is not too strong to say that environmental policies have been designed to fit an essentially top-down, narrowly-focused mode of environmental governance. There are exceptions, and limitations, but the broad pattern holds true.

It is also true that many people who work inside this system realize its limitations and are trying to break out, to find other ways of addressing environmental problems. Indeed, in the last 15 years, since that first conservative wave washed over Washington in the years of Watt and Burford, there has been a steady growth of a different way of solving problems.

Rather than impose uniform solutions, people have learned how to custom-design responses to fit local situations. And when they have done this, the practical problems which they face, the inherent complexity of most environmental problems, has led them to take a broader approach, focusing not just on one symptom or issue, but on a complex mix of environmental issues, and to social and economic issues as well.

Let me give you some examples.

In Florida, the state, local taxpayers, the federal government and the sugar industry are raising \$700 million to custom-design a massive set of artificial wetlands, and beyond that, a whole series of new facilities and new policies to change the way that water flows in the ecosystem which includes the Everglades. This initiative was custom-designed at the local level, by a group of individuals who were experts on local environmental conditions, and who worked in several different organizations—different state and federal agencies, environmental groups, research centers and even in some of the firms in the sugar industry.

The story of how this happened is illustrative of how civic environmentalism works. Most of Southern Florida was a vast wetland until 50 years ago, when the federal government built thousands of miles of levees and canals to drain the wetlands, prevent flooding and allow farming in what used to be wetlands.

About 15 years ago, problems began to arise from phosphorous running off sugarcane fields. Initially, the result was a classic environmental struggle,

focused on the narrow issue of phosphorous and on a white hat—black hat confrontation between the sugar industry and the state on one side, and environmentalists and federal parks and wildlife areas on the other.

But after the state spent over \$5 million on fruitless litigation, a new governor decided to stop defending the sugar industry. He wanted to surrender—to find a way to help protect the Everglades. He told the experts from the various agencies to work with each other to find a solution. Eventually, the sugar industry sent its technical representatives to these discussions. The experts designed a solution which responds, not only to the issue of phosphorous, but also to a much wider array of environmental problems that arise from the drainage of much of the Everglades.

This is how civic environmentalism works. The answers emerge from a dialogue among people who work at the front lines, in agencies, environmental groups and often industry as well. The experts are protected by a sponsor, in this case, the Governor, who assures that he will embrace the experts' answer, and who will tell their managers and their lawyers to stay out of the room while they design a solution.

Here is another example of civic environmentalism—one just in the making. The city of Columbus, Ohio, has a variety of environmental issues, including dioxin coming from an incinerator which the city has built, asbestos in public buildings, federal requirements to test drinking water for chemicals that are rarely used locally, and other things. The mayor of Columbus has been a vocal protestor against these unfunded federal mandates. As you may remember, the protest against unfunded top-down, uniform federal environmental rules was one of the early themes of the second conservative wave that surged last year.

The protest about unfunded mandates was a typical confrontation between advocates of strong regulation and advocates of more permissive approaches. At the same time as this battle, a civic process was going on. The mayor appointed a group of citizens to look carefully at all of the environmental issues, consider the risks which they pose to human health and to the environment, and to recommend where the city should place its priorities—on the most pressing environmental risks and the biggest opportunity for risk reduction. This process is just now coming to a conclusion, and there will soon be recommendations that perhaps the city should not do all of the things it is required to do by federal law and regulation, or at least should have some flexibility in what it does and when it does it, because the city's resources are, of course, limited.

What will happen when these recommendations come out? Will the managers of EPA's fragmented statutes and programs feel free to allow flexibility, to

say they will wait while the city addresses a different problem? That remains to be seen. It will certainly be hard, because the system's design does not allow for comparing risks and setting priorities across the array of environmental issues.

Before I go on to this question—of how federal managers respond to custom-designed answers at the local level—let me ask you how civic environmentalism is faring in your community. Are you seeing collaborative efforts at broad problem-solving? In many communities, recycling has increased significantly in recent years. This is an easy example of bottom-up problem solving. Stream and lake clean-ups are another common example. In addition to these, are you seeing more efforts to encourage farmers to reduce their use of chemicals and to adopt “greener” farming practices, not through regulations, but through education, incentives, demonstrations, and so forth?

Let's now turn to the second half of my presentation—what is happening in Washington.

My presentation is built around a report which the National Academy for Public Administration (NAPA) recently completed, at the direction of the Senate and House Committees, which appropriate funds for EPA. NAPA is a nonpartisan, nonprofit organization. Congress chartered it to “improve governance”—to find better ways to do the public's business. NAPA works through panels of experts, many of whom are elected by their peers as NAPA fellows, in recognition of their distinguished contributions to public service.

For our study of EPA, we formed a panel of distinguished individuals from the federal level and from communities, some of them with long experience in environmental issues, and some not. We spent a full year on the study, beginning before the elections that brought the Republicans to power in Congress, and concluding in the early spring after the election.

The Senate and House Appropriations Committees asked us to do a thorough review of EPA. They wanted to know: Is EPA regulating the right things in a reasonable way, or does the agency have its priorities wrong?

We interviewed 350 people and held 17 roundtables. We heard broad consensus—not unanimous, but very broad—that the EPA system is broken. Even most of the professional environmental advocates whom we interviewed agreed, though many of them were afraid of reform for fear it would lead to rollback.

Let me quickly summarize the NAPA findings and the NAPA recommendations.

The findings:

- Rising marginal costs of regulation;
- Agency viewed as intrusive, unresponsive;
- Failure to adjust to changes in state, civic capacity;
- Remaining problems not amenable to command and control approach;
- Fragmentation and stovepipes frustrating rational policy, coherent priorities;
- Statutory constraints and inconsistency.

The recommendations:

First: the agency is broken and needs to be overhauled.

• EPA lacks a clear statutory mission. It operates under several laws which address specific forms of pollution; these laws use different definitions, take different strategies and create no basis for setting priorities. EPA should articulate a coherent statutory mission; and Congress should endorse it, or provide one of its own.

• EPA should continue to set national goals and standards, but it should develop flexible, integrated approaches to deal with complex multi-faceted problems. EPA's "Common Sense" initiative is a useful step to move "beyond compliance."

• EPA's relationship with states, which manage most of its programs, should focus on results rather than on procedures. EPA should embrace "accountable devolution."

• EPA should strengthen its management systems, and take steps to integrate the fragmented system of separate offices for separate forms of pollution.

• EPA should set priorities for its budget and operations, using analysis of risks to health and the environment as a tool to help in identifying the most pressing issues and the greatest opportunities for reducing risk.

Second: EPA does need to improve the way it uses scientific estimates of risks to human health and to ecosystems.

• EPA should broaden the scope of the risks it studies, beyond risk of cancer, to include other health problems, and also ecological and societal impacts.

• EPA's risk assessments should make assumptions and uncertainties explicit.

• EPA should strengthen peer review of risk assessments, and provide public access to the analysis.

• EPA needs to train agency decision-makers in risk analysis.

Third: It is time to rebuild EPA, and EPA's relationships with states, local governments and industry.

- EPA should adopt and publish state performance indicators (environmental, programs, business behavior, customer satisfaction).
- EPA should reward successful states with less-intrusive oversight, consolidated grants, and more flexibility.
- EPA should keep up the pressure on unsuccessful states.

Fourth: NAPA called for starting to change the whole basis of environmental regulation away from numerous, highly-detailed, narrow-purpose laws, to a broader and more flexible approach.

- Congress should ask EPA to propose an integrated pollution-control statute within 18 months.
- Congress should reduce the number of subcommittees with jurisdiction over EPA.
- Congress should focus on results, and give the EPA administrator more discretion; it should reduce micro-management and earmarks of EPA's budget.

And NAPA called for major changes in how EPA is organized and does its work; currently, it is fragmented, unmanageable by design.

- EPA should send Congress a plan to reorganize along functional lines, rather than by media.
- EPA should merge budget and planning operations (OARM and OPPE) to create tighter links between policy, performance and budget.
- EPA should equip the deputy administrator to function as chief operating officer.

It is too soon to say whether these recommendations will be adopted. They have been strongly endorsed by Senators Kit Bond and Barbara Mikulski, the Republican and the Democrat who run the subcommittee that writes EPA's budget. Carol Browner, the EPA Administrator, has said she agrees with most of the NAPA recommendations.

As the holy war heats up, the NAPA recommendations are a middle path, which Senator Mikulski called "common ground for common sense," and they might get lost in the cross-fire.

In the long run, I believe there will be substantial reform in Congress and at EPA, without dismantling the protections which we have put in place. The source of this optimism about finding a middle path is the fact that a transformation is already taking place in how Americans protect the environment.

The edifice of environmental statutes was written in fear—that industry

would always pollute, and that politicians (especially at the state and local level) would always sacrifice environmental values to protect industry. Our laws are incredibly detailed and prescriptive. It is truly a command-and-control system.

But over the last decade, since the days of Watt and Gorsuch, three things have happened which permit governments and the private sector to manage environmental problems more efficiently and closer to home.

First, the public is better informed and still firmly committed to environmental values.

Second, states and local governments have built significant capacity to manage environmental problems.

Third, these changes, and the fact that a rollback of environmental laws did not work in the 1980s, have led to dramatic changes in how many businesses—not all, but many—view environmental protection. Many have found that becoming an environmental leader is good for business. Reducing pollution can cut costs and reduce liabilities. Being quick to improve practices, as we learn about new kinds of pollution and new ways to reduce environmental risks, can give a company a competitive advantage, a way to get ahead of its rivals.

As we worked on this report, we met several people who compared environmental policy with raising teenagers. When your children are young, you need clear rules to teach them right and wrong. You need to enforce them firmly. But as your children grow into adults, they internalize their parents' values, and they must figure out how to honor these values in many complicated situations. The smart parent stands by his rules and upholds his values, but no longer tries to micro-manage how his children behave.

In the 1970s and the early 1980s, states and local governments, and most businesses, were still in the childhood phase of environmental protection. Now most states, and many local governments and firms, are young adults. They are ready to exercise a great degree of discretion about how to solve environmental problems, within the context of clear federal environmental goals and active monitoring about actual performance in achieving these goals.

This brings me back to civic environmentalism. What has happened in the past decade and a half is that a new kind of environmentalism has emerged.

Our statutes and our agencies are still built around a narrow, top-down approach—with uniform national procedures, and often uniform national standards, for a welter of specific kinds of pollution.

But environmental issues are not like that; they are complicated, multi-faceted and interdependent. And we are learning that, as states, communities, businesses and citizens accept environmental values and develop the capacity to make sound environmental decisions, it is a good thing to allow them to custom-design solutions for different places.

This new way of problem-solving is a civic approach—it builds on the ability of citizens to come together to work out a reasonable and effective way of solving problems locally.

The new and growing capacity in states, communities and businesses is the key to civic environmentalism, and is also the reason why we can move to a more flexible regulatory system. As long as states, local governments and industry have the technical skills, legal authority and program tools to manage environmental problems, it is safe to allow much more flexibility in our regulatory system, and to use non-regulatory tools, like education, technical assistance and financial incentives, instead of relying exclusively on command-and-control rules.

The NAPA report, with its vision for a new EPA, has been well-received in Washington. Carol Browner, EPA administrator, has welcomed it, and has organized two task forces to develop specific recommendations for unifying EPA's scattered statutes, and for reorganizing the agency, so that it can set reasonable priorities and allow more flexibility to states, local governments and industry.

Both the chair and the ranking Democrat on the Senate Appropriations subcommittee endorsed the NAPA report enthusiastically, and the committee directed the agency to implement the NAPA recommendations. The House Appropriators also welcomed the NAPA report.

Of course, the NAPA report is far from the only set of new ideas about EPA in Washington. The House has passed both a revised Clean Water Act and an appropriation for EPA, which would eliminate, weaken or put in abeyance many of the authorities which EPA has exercised for several years, including its authority to protect wetlands. EPA, environmental groups, and many others have criticized these measures, and a bitter black hat-versus-white hat battle is shaping up around these proposals.

I cannot predict the immediate future. The situation is very fluid. However, in the long run, I am optimistic that the public will continue to support environmental protection, even when protection costs them time and money, as long as they have a sense that the public, local leaders and

experts who are truly knowledgeable about local conditions, have had the opportunity to custom-design solutions which seem to make the most sense, at least cost. In short, as long as EPA allows civic environmentalism to flourish, I think the public will support continued regulation. And as long as a sensible and effective regulatory system is in place, people will find it in their interest to take a collaborative, civic approach to solving problems.

WHOSE LAND IS IT ANYWAY? ENDANGERED SPECIES, PRIVATE PROPERTY, AND THE FIGHT FOR THE ENVIRONMENT

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The Endangered Species Act (ESA) has come in for a lot of inflammatory rhetoric in recent years, primarily at the hands of property rights groups, land-intensive businesses, chemical manufacturers and users, and their associations. The Act is up for reauthorization. (Actually, it expired three years ago, but most statutes, ESA among them, remain in effect unless repealed.) Reauthorization provides an avenue for change, focusing the attention of special-interest groups and making the Act a more attractive target. Prominent among the charges levelled by its detractors are: ESA protects listed species to the exclusion of human needs; ESA ignores economic considerations, imposing burdensome, inequitable costs on land-owners, businesses and workers; ESA constitutes an unconstitutional "taking" of private property without compensation. In this paper, I distinguish legitimate concerns about the Act and the endangered species process from self-serving carping, summarize the Administration's and Congress' proposals for reforming the process and the Act; and report on the status of and prospects for reauthorization. I begin by reviewing the basic structure of the Act, and the stages at which economic considerations enter the process.

The Endangered Species Process

For our purposes, the endangered species process is composed of three elements: listing (§4); the subsequent protections, prohibited activities and enforcement (§7 and 9); and relief/exemption from the sanctions of the Act (§7 and 10). Consistent with the central purpose of the Act (the conservation of endangered, threatened species and their ecosystems), listing is done solely on the basis of biological considerations. Along with listing a species, the Act requires the Secretary to designate critical habitat. Although listing is based on biology, in configuring critical habitat, the Secretary must consider economic impacts, and may exclude potential sites if their opportunity costs are too high. The final configuration must satisfy the biological imperative, however.

Regulatory Constraints—Once listed, §9 protects a species against "taking"—broadly, harming in some way, including degrading its habitat. The take prohibition applies to all entities, private and public. Plants, however, are not protected on private land. In addition, §7 prohibits federal

actions that would jeopardize a species or adversely modify its critical habitat. Sometimes, §7 can affect private entities, because some private activities require a federal permit or other federal action. These prohibitions are not tempered by economic considerations, and it is this feature which makes the Act such a tempting target for vilification.

Regulatory Relief—The situation is not quite so rigidly inflexible, however. As indicated above, §7 and 10 provide opportunities to reduce the regulatory burden; §10 allows the Secretary to grant permits to take listed species. Taking must be incidental to engaging in otherwise legal activities, and permits are conditioned on carrying out an approved conservation plan. Protective measures can involve land set-asides, but many do not. Often the restrictions are limited to management changes and prescriptions. Restrictions on the use of agricultural chemicals and insecticides are a principal example. Generally, such adjustments to management practices involve minimal or modest costs.

Not only does §7 allow economics to be considered; it also provides for complete exemption from the strictures of the Act, if a project is sufficiently important. Once a federal agency determines that an action it is considering may affect a listed species, §7 requires it to consult with the Fish and Wildlife Service (FWS) to try to devise a way to conduct the proposed action without jeopardizing the species. In the vast majority of cases, project modifications consistent with conserving the species are effected at minimal cost. If there are no reasonable modifications, however, the agency can appeal to a cabinet-level committee for an exemption. Exemptions are not granted lightly. The administrative hearing process can be both lengthy (six months or more) and costly, and the standards for exemption are exacting; basically, that the project is of paramount economic import. Thus, contrary to the inflated rhetoric, the process does take economics into account and does embody considerable flexibility.

Perverse Incentives and the Nature of the Costs

Having clarified the record, however, it would be disingenuous not to acknowledge the Act's effects, or to contend that it does not entail costs or inequities, or could not benefit from reform. Nothing within the scope of the Endangered Species Act is devoid of costs.

Navigating the administrative process can be time consuming and create uncertainty, both of which are costly. The restrictions on private land use can reduce the income which landowners can earn from their property. All of this creates anti-conservation incentives, with landowners frequently striving to avert the discovery of a species or its habitat on their land. Indeed,

anti-conservation incentives emerge even prior to listing. Depending on the specific circumstances, once a species is proposed for listing, landowners may have an incentive to incur advocacy costs, hiring scientists, planners, lawyers and lobbyists in an effort to prevent land-use restrictions from being applied to their property. Because of the generally inadequate habitat conditions that exist once a species reaches the stage at which it is a candidate for listing, there is likely to be a greater need for strict conservation of the remaining habitat. This may reduce the opportunities for compatible commercial activities. Often landowners, caught in such circumstances, complain that it is unfair for them to bear such costs, given that other landowners were able to degrade or destroy habitat before the species was listed (Goldstein and Heintz).

Thus, there are indeed costs to protecting endangered and threatened species. Be mindful, however, that advocates routinely misrepresent the effects of the ESA in order to exaggerate the potential burdens for development. The resurgent property rights movement in this country is particularly prone to this offense. What one owns when one owns land, what one does and does not have title to, what one's property rights are, are all central to the issue of who should bear the burden of regulatory costs, whether from ESA or any other statute. The charge has been levelled that ESA constitutes an unconstitutional "taking" of private property without compensation. Numerous bills have been introduced in Congress this year to address this issue. A brief sojourn into legal history will prove enlightening at this point.

Property Rights and Their Evolution

One does not have unfettered use of one's property. Property is always purchased subject to prevailing limitations. Property rights (commonly called "the bundle of sticks" in the legal literature) are not inalienable, and never have been. They did not descend from the Mount. They are a creature of the social compact, and they evolve with the changing nature of society. Indeed, most takings challenges are evolutionary exercises. They are attempts to redefine property rights rather than to preserve existing ones.

The property rights bills now before the Congress are excellent examples of the genre. The bills profess to be protectors of constitutionally guaranteed rights, but they stand in sharp contrast to court doctrine, and are far from subtle in redefining property rights. At numerous junctures they dispense with limitations long in effect.

To varying degrees, the bundle of sticks that constitutes property includes the right to: exclude others from one's property; occupy and derive beneficial use; convey and bequeath (McElfish, p. 10240). These attributes

of U.S. property law have their roots in English common law, have evolved over centuries, and have never been absolute. The right to use and manage one's land as one saw fit was fundamental to 18th century England and colonial America. But, rooted in both English common law of the time and property law in colonial America, was the concept of protection from externalities (a cost imposed upon person A as a result of B engaging in an activity beneficial to him). A landowner had the right to the "quiet enjoyment" of his property, by which was meant "the power to prevent any use of his neighbor's land that conflicted with his own private enjoyment" (McElfish, p. 10237). Inevitably, development and industrial society conflicted with the absolute nature of these prior rights to protection from harm. Legal doctrines began to emerge which deferred less to prior rights, and gave more emphasis to the balancing of beneficial uses.

Thus, the laws governing property have been abridged and modified regularly to reflect the changing nature of society. Sometimes the conditions inherent in existing contracts have been preserved, and new doctrines applied only to future transactions; sometimes changes have been applied retroactively. Sometimes constraints have been accompanied by compensation; sometimes not (Goldstein and Watson).

Property Rights and the ESA

The enactment of ESA in 1973 constituted an amendment to existing property rights. One could make a plausible argument that some property owners at that time suffered capital losses; in almost all cases, partial losses. Congress could have compensated affected landowners in 1973. It chose not to. This is standard practice; legislative compensation provisions are extremely rare. Most legislation affects people's income or wealth in one direction or another—some positively, some negatively. We do not generally compensate those who have their activities restricted by new laws or regulations, nor do we tax those who experience windfall gains as a result of government actions. To do so would make it virtually impossible to govern. In the words of my learned colleague, Joe Sax: "We don't pay people not to do bad things to us." We don't pay them not to dump toxic waste in our waterways; we don't pay them to stop manufacturing CFC's which punch holes in the ozone layer; we don't pay them because zoning prohibits them from siting a chemical facility in a residential area, and we don't pay them not to use their property for criminal activities. Destroying endangered species or their habitat is a bad thing, and, as a property owner, you do not have the right to engage in it. In the legal vernacular, it is not one of the sticks in the bundle of rights which you got when you purchased property.

What about purchasers of land since 1973, or landowners whose property is affected when a new species is listed? Should they be compensated? I am

told that, in response to this question, Gordon Tulloch, a well-known conservative economist and favorite of the right, sneered, "a bunch of babies," by which I take it he meant that investors should be mindful of the potential for government regulatory action, understand that they are taking risks when purchasing property, and adjust their offering price accordingly.

Is any of this a violation of the Fifth Amendment to the Constitution — taking private property for public use without just compensation? In a word, no. The courts have taken a very cautious view of takings claims, requiring a near-total loss of value before compensation is due. In so doing, they have rejected the proposition that property owners are entitled to the *maximum* potential return on their investments. Again, to do otherwise would make such basic local community protections as zoning, health and safety, and pollution control unmanageable.

The Art of the Possible

I cannot tell you how few converts one makes among landowners and property rights ideologs with this scholarly little recitation of the evolution and status of property rights law, and its underlying ethic. The classically conservative stance notwithstanding, politics is the art of the possible, and sometimes it is not possible to be philosophically pure when trying to govern.

Administration Proposals

After a period of reflection, the Administration proposed a 10-point program for improving the ESA (White House Office of Environmental Policy). Many of the changes are aimed at reducing the regulatory and economic burden of the Act and providing landowners with certainty about their responsibilities and administrative decisions. Principal among these are:

Early identification of allowable activities. In conjunction with listing, the Services (FWS and NMFS) are to identify specific activities that are exempt from the "take" prohibitions of §9.

Expedite habitat conservation planning (HCP). The Services have published a draft procedure for streamlining the §10 permitting process, including designating categories of HCPs based on an activity's threat to the species (high, medium or low). The proposal calls for simplified and expedited processing for applications involving low or medium impacts.

"No surprises" policy. In the event of unforeseen circumstances, no additional land restrictions or financial contribution will be required from

landowners operating under an HCP. There is some fine print. Under extraordinary circumstances, the FWS could seek additional mitigation, but it would be limited to modifications within the habitat already conserved or to operating prescriptions for the conservation program. The Administration has recommended that Congress enact similar certainty assurances for landowners who cover candidate species in their HCP. The assurances would indemnify the landowner from additional mitigation requirements in the event that the candidate species is listed.

Small landowner exemption. This provision would exempt small landowners who use their property as a residence, want to disturb five acres or less, or want to undertake activities that have a negligible effect on threatened species. The FWS has published a proposed rule. It covers new listings of threatened species, but the FWS is considering a corresponding exemption for species already listed. The Administration has asked Congress for authority to extend the rule to endangered species.

The Administration is also considering ways to use market mechanisms to achieve gains in conservation efficiency and equity (The Keystone Center; Fischer and Hudson). Incentives may be able to help to bring about land use patterns that achieve habitat objectives at lower cost. Incentives may also induce innovations in the production of habitat and in the techniques employed in managing land for commercial uses that allow habitat objectives to be met at lower cost. Land management techniques that make habitat conservation and other uses more compatible hold particular promise for reducing the costs of meeting conservation goals. It is not feasible, however, to rely primarily on markets for the preservation of ecological resources. Many critical conditions necessary for markets to function properly cannot be fulfilled for such resources. To function properly, market mechanisms for conservation have to be used in conjunction with diligently enforced regulatory regimes (Goldstein and Heintz; Goldstein). Finally, conservation incentive systems generally require funding (tax inducements, direct payment schemes), and although they may achieve a given objective more cheaply than command and control, Congress is always wary of funding a new program.

Congressional Bills

There are numerous bills addressing the ESA in the Congress. None are serious efforts to reform the process for protecting vulnerable species and their ecosystems. Their intent is to reduce protections to a minimum, while freeing up private activities. In general, they do this by: limiting the grounds for listing; establishing numerous opportunities for procedural challenges to listing; including judicial review; abandoning the biological imperative

by making economic considerations an element in the determination of any conservation plan for a species; narrowing the definition of "take," and, hence, the regulated offenses; restricting habitat protection primarily to designated federal lands (parks, wilderness areas, and special refuges), and on private lands, requiring compensation for landowners, or relying largely on voluntary conservation efforts. The bills are too numerous for me to summarize each here. I focus on the principal bill in the House, HR 2275, but S. 768 is similar in many respects.

Conservation objectives and requirements. Deletes as a goal of the ESA the conservation of ecosystems on which listed species depend.

Abandons the restoration of species to a recovered status as the central goal of the ESA. Following listing, a task force would assess the conservation needs of the species, and the social and economic effects of such conservation. Based on the task force's report, the Secretary is given broad discretion to craft a conservation objective for the species—ranging from only prohibiting deliberate killing of members of the species to complete recovery.

Requires emphasis on captive breeding as a technique for protecting and restoring species, ignoring the National Academy of Science's conclusion that captive breeding is fraught with problems and not a substitute for habitat protection and other conventional conservation measures.

Diminished protections. Eliminates adverse modification of habitat as a prohibition under §9, thereby reversing the recent Supreme Court decision in Sweet Home. Defines "harm" only as the direct killing or injuring of a member of a listed species.

Restricts critical habitat designations to areas occupied by a species at the time of listing, thereby handicapping conservation efforts to re-establish a species and achieve recovery. Removes protection for distinct populations.

Reduced protections on public lands. Amends the requirement that federal agencies use their authorities in furtherance of the purposes of the ESA for the conservation of listed species, to require such actions only to the extent consistent with their primary missions. Allows federal agencies to self-regulate and determine whether their actions would jeopardize a species (violate §7), and reduces the jeopardy standard from "likely to jeopardize the continued existence of the species" to "significant diminution of the likelihood of survival of the species by significantly reducing the...entire species."

On federal lands, species are to be conserved only in "biological diversity reserves," crafted from existing parks, refuges, wilderness areas and areas offered by non-federal parties.

Compensation. Requires full compensation of an owner of private property for diminutions in the value of any portion of his property by 20 percent or more due to federal actions taken under the ESA. Compensation would come from the action agency's budget, thereby discouraging enforcement.

This last deserves special attention. It is a radical provision which would expand property rights and the entitlement to compensation far beyond current court standards. (This Congress is particularly fond of this type of legislation; similar provisions having been introduced in over 100 bills since January.) Under current court standards, if a regulation with a valid public purpose eliminates all economic use (including reasonable, investment-backed expectations) of an *entire piece of property*, a taking has probably occurred. In contrast, this bill authorizes segmentation. Thus, if an agency action diminishes the fair market value of a *portion* of a property by more than 20 percent, the property owner would be entitled to compensation. In brief, the bill would expand the judicial standard for property rights and the entitlement to compensation by:

- Ignoring whether the action had a valid public purpose;
- Focusing on the regulated portion of the property i.e., specifically allowing segmentation; and
- Lowering the threshold for eligibility for compensation from essentially 100 percent (the constitutional standard) to 20 percent.

The provision is a prescription for disaster—extensive litigation, frivolous claims for compensation, endless bickering about changes in property values and their causes, inestimable budgetary drains. If enacted, this bill will radically alter the relationship between the citizenry and its government, and set a precedent for legislation to come. The bill does nothing to address the acknowledged inequities and inefficiencies under ESA, opting instead for sweeping compensation provisions, and crippling the protections for endangered species and their ecosystems.

These species aren't here for nothing. Each plays a role in a complex, integrated, interdependent ecosystem. If you think conserving the ecosystem is expensive, try getting along with one that is severely degraded and malfunctioning.

Finally, a look at the prospects for reauthorization. It does not appear that gridlock and confrontation have given way to bipartisan statesmanship. Secretary Babbitt has condemned the congressional proposals as irresponsible and unacceptable, and has recommended a presidential veto in the absence of significant revisions. S. 768 has a private property rights/compensation provision, but it is much more vague than that in the House

bill. Compensation bills have fared less well this year in the Senate than in the House, so the prospects for this particular feature are questionable. Many of the other provisions under consideration in the House and Senate bills would have to be significantly revised before a bill would be acceptable to the Administration. Given the complexity of this issue and Congress' other priorities, it seems unlikely that bills could pass both houses; that the differences will be resolved in conference, and that a bill will be sent to the President before the end of the year. It is more likely that the bills now before the Congress are the opening salvos, and that the real action will occur next year. Presidents try to avoid controversial decisions during an election year. But unless a more responsible reauthorization bill emerges from the legislative process, a veto is virtually certain, and likely can be sustained.

NOTE

The views expressed in this paper are the author's, and do not necessarily reflect those of the Department of the Interior.

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Food Safety Policy

CONSUMER PERCEPTIONS OF RISK: IMPLICATIONS FOR FOOD SAFETY POLICY

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When a subject appears in the comic strips, it's a sign that it has become part of the popular culture. "Cathy" (Sept. 4, 1994) eats only dessert at a potluck picnic because of fear of microbial and chemical hazards. What do we know of consumer concerns?

Consumer Attitudes Toward Safety of Our Food

In the 1995 Food Marketing Institute Survey, 77 percent of shoppers were completely or mostly confident that foods in their supermarket are safe. This percentage is still lower than the 90 percent in 1985-88, or even the 82 percent in 1991, but is increasing. Respondents were asked to volunteer their concerns as to "threats" to the food supply. Spoilage was given by 52 percent (significantly higher than the 41 percent in 1994); the next most frequent was pesticides, residues, insecticides, herbicides for a total of 15 percent. When the list of hazards was presented one by one, 74 percent considered residues, such as pesticides and herbicides, to be serious hazards; 52 percent, antibiotics and hormones in poultry and livestock; 22 percent, additives, preservatives and artificial coloring. The authors suggest that a hazard may not be seen as a threat because it is perceived to be of low occurrence.

Public perceptions can also be judged by consumer purchases of "organic foods" or produce certified as "pesticide free." Although little used to date, the willingness-to-pay measure (WTP) to assess the value consumers place on avoiding foodborne illness is supported by a task force of the Council for Agricultural Science and Technology. Studies reviewed by van Ravenswaay found that those consumers who reported currently purchasing organic foods would be willing to pay 50 percent extra, and those who didn't, five percent; although it varied for specific produce items.

Consumers' WTP for selected assurances of seafood (flounder) safety was studied in an experimental design by Wessells and Anderson. Although their findings are limited to a single, familiar species, consumers were found to be willing to pay approximately 10 percent more for the favored approach (catch date on the label) and about eight percent for information on catch site or on holding temperature history. Eleven percent indicated that they were consuming less seafood than two years ago, citing prices and concerns about safety as reasons. Eighty percent viewed seafoods as either somewhat or very safe.

Although the few recent studies of specific areas of concern were limited geographically, and different questions were asked, the diversity among consumers of perceptions of risk is apparent. I will first review microbial foodborne illness issues, then agrichemicals, biotechnology and radiation.

Microbial Concerns

The early 1993, highly-publicized outbreaks of illnesses and deaths from *E. coli* O157:H7 in the Northwest resulted in increased awareness of health hazards from foods, especially in that region. Expose-type programs by television journalists also got the attention of some consumers. From the FMI 1995 survey, there is evidence of a shift in the last three years toward more concern about spoilage/foodborne illness.

Foods that were considered to be at high risk for food poisoning in early 1993 FDA telephone interviews with 1,620 people (Fein et al.) were chicken (by 33 percent), red meat (by 24 percent), fin fish (by 16 percent), and eggs, shellfish and prepared salads (each by 11 percent). The identified source of food safety problems was led by processing plants (37 percent), followed by restaurants (22 percent), warehouses (13 percent), homes (10 percent), supermarkets (10 percent) and farms (3 percent) (Food Quality). These rankings were very different from where the food perceived as causing foodborne illness was prepared, as reported by those who had had such illness. In this group, 65 percent of illnesses were attributed to foods prepared in restaurants. Microorganisms were considered to be a serious food safety problem by 44 percent who had a perceived foodborne illness, as compared to 34 percent who had not.

Agrichemical Concerns

Agrichemicals have been the focus of crises. Not only are these viewed by some as health hazards, but also as environmental problems and potential risks to farmworkers' or animal health. As found in the FMI 1995 consumer study, the level of concern has been fairly constant. van Ravenswaay concluded from her review of the literature, that approximately one-fourth of the public perceives a great chance of harm from pesticide residues in food, but about the same percentage perceives very little or no chance of harm.

The annual *Fresh Trends* study reported little change in consumers attitudes. Hispanic (Mexican) consumers who participated in focus groups in California had less confidence in the safety of U.S. grown produce than the general population (Diaz-Knauf et al.). However, English-speaking respondents were more confident of safety than non-English speaking (83 percent and 67 percent); both were significantly less confident than a cross-

section of California consumers studied earlier (92 percent). All groups were more concerned about imported produce. More than half (55 percent) of the Hispanic participants reported, in 1990, that they did not consume certain produce because of food safety concerns. Overall, the Hispanic consumers lacked information on the safeguards which are in place for produce safety.

Biotechnology Update

Biotechnology, as a specific technique to produce growth regulators as well as new varieties of plants and, potentially, animals, has been difficult to explain to the lay public. Since several reviews have been published, only the most recent findings are included here. Since awareness of an issue must precede a concern, it is important to note that only 35 percent of shoppers in one 1995 study (Food Marketing Institute) had ever heard, read or seen at least some information about biotechnology. As expected, the percentage was highest for those with more education and higher incomes.

A study conducted in five states in 1992 using focus group techniques (Zimmerman et al.), found that participants had only a little (45 percent) or some (37 percent) knowledge of biotechnology; in general, this group was well educated and had higher incomes. Attitudes toward use of biotechnology were generally positive, but selective: plant applications were more approved than animal. The consumers (93 percent) strongly agreed with the statement, "Average citizens need more information about the use of biotechnology." As to the source of this information, there was least trust in statements made by chemical companies, food manufacturers, grocers or biotech companies; more than 50 percent chose "a little" or "none" in level of trust in each.

The consumer acceptance of the use of recombinant bovine growth hormone (rBGH) to increase milk production in dairy cows has been studied extensively. Awareness has been found to be highly dependent on the extent to which its use had become controversial in the state or region. Reactions are also complex, in part, because milk has a cultural image of being a natural, nutritious, pure food for all ages. The major concern voiced is for future human health. Fears of adverse impacts on the economy of small dairy farms and on animal health (humaneness) are also a part.

In a 1990 telephone interview study (Grobe and Douthitt) of 1,056 in Wisconsin, a state with high awareness, 89 percent of consumers were aware of the rBGH controversy. Statements about expected economic benefits to consumers did not result in differing risk perceptions. Those consumers with higher risk perceptions were willing to pay more for untreated milk, purchased larger quantities of milk, and were predominantly female.

Irradiation of Foods

The acceptability of radiation processing of food remains a confusing issue. Although consumer studies indicate an increasing acceptance, groups of organized citizens, who are active in their opposition, have created a reluctance on the part of industry in Europe, as well as the United States, to move ahead (Lagunas-Solar, Bruhn). Concerns regarding the use of radiation include worker safety and environmental protection to at least as great an extent as the safety of the food itself.

In a 1994 study in Georgia (Resurreccion et al), 72 percent of consumer respondents were aware of the process of irradiation, but had a low level of knowledge with 37-71 percent selecting "Don't know" as the response. This sample of consumers was more concerned about other risks to food safety. This may be because irradiation is used very little in today's food supply. Consumer response appeared to be linked to microbial safety benefits; 54 percent thought irradiation was not necessary for fruits and vegetables, as compared to 27 percent for poultry and pork, 28 percent for seafoods and 31 percent for beef.

There are general issues related to consumer attitudes and actions. I want to enlarge on three of these: the role of the media, the factor of trust and the use of information/education.

Role of the Media

Since consumer awareness is required before there is a consumer concern, the media has had a major role in calling public attention to food safety issues. The publisher's goal is that the item be newsworthy. That may be because of its rarity, incongruity with what is generally accepted or human interest aspects. Based on English food scares, Scottish writers (Miller and Reilly) add to this "disagreement, conflict, conspiracy and cover-up," especially if this involves authorities such as scientists or government departments. What becomes newsworthy as an issue relates not only to the news, but also to the political and social environment at the time.

Twenty-four percent of Nebraska homemakers studied by a mailed questionnaire in 1991 had not used a food in the past year because of adverse comments about the food in the news (Albrecht). The products most frequently mentioned were apples, poultry, tuna and fruits/vegetables (including grapes).

Role of Public Trust

The importance of public trust in consumer determination of risk was emphasized by van Ravenswaay. She concluded that the public lacks trust

in the users and regulators of agrichemicals, because of the evidence of error, such as accidental food contamination episodes or risk assessment revisions and the evidence of dishonesty and ineffectiveness. Her recommendation is: "Both food producers and consumers might benefit from actions taken to improve consumer confidence. What such actions may be, what they may cost, or how great a benefit they may have are questions that should be explored." An informative case study of a conflict is that which led to the 1979 ban on the use of diethylstilbestrol as a cattle growth enhancer (Marcus). It also chronicles the loss of public faith in scientists and regulators.

Scientists know that new information will change many current recommendations. However, the non-scientist views such change as indicative of unreliability. For example, most shoppers surveyed in January 1995 as part of the Food Marketing Institute/*Prevention* magazine annual survey, were concerned about conflicting information on nutrition. The findings: "Most shoppers believe that the experts will change their minds within the next five years about which foods are healthy and which foods are not."

Trust in the producers and processors of foods is increasingly important in public confidence as food preparation moves outside the household. The resources of the food industry include large-scale advertising, public relations and lobbying. Only if information will build confidence, will it be provided. A recent prediction, as to the outcome of "the food information war" between consumer advocates and food industry advocates, is that both sides will continue to seize on issues, especially the effects of international trade agreements and food component-carcinogenity concerns (Anderson).

Research must provide the factual base for risk estimates and for the direction of regulatory action. The public, educators, industry and regulators alike may be frustrated with the time and cost of acquiring the research-based facts. In their zeal to build a base, researchers must not overstate the benefits, or the resulting loss of trust will be reflected in loss of long-term commitments.

Role of Information/Education

Does experience with the extension system influence perceptions of the risks of pesticides? Clients who had contact with extension through a food preservation program and Master Gardener volunteers were compared with commercial growers of vegetables in an Oregon study (Love). Although the majority in each group was confident that fresh fruits and vegetables available to consumers are safe to eat, 26 percent of clients, 24 percent of volunteers and two percent of growers were not very or not at all confident.

Clients had the greatest perception of eating foods produced using pesticides. "as a high risk" (55 percent), as compared to trained volunteers (34 percent) and growers (2 percent). As in other studies, females were significantly more concerned. Thus the fact that the growers were 95 percent male may account for the difference in that group's concern. Those in all groups who perceived a higher risk were more willing to pay a higher price for certified residue-free produce, and produce grown without synthetic pesticides, and also were more concerned about pesticide residues when buying imported produce.

Insights from focus groups, which explored attitudes toward biotechnology, led Zimmerman et al, to conclude that a two-sided educational approach, which presents not only opposing viewpoints and information, but is both cognitive and affective-based, is needed. Grobe and Douthitt also concluded that, "Beliefs rather than information appear to be at the heart of rBGH's nonacceptance."

Public awareness messages to communicate the theme, "Here are the risks, benefits and options; you share in the decision-making power," with a focus on pesticides and food safety were tested with focus groups of women in the four regions of the U.S. by Chipman et al. After viewing four media communications, the participants had greater concern for risks, but also an increased confidence in their personal control over exposure to pesticide residues. The message style, which included risk/benefit/option, was liked, but the lack of specific information was criticized. (One source of data is the annual publication by the FDA Pesticide Program of the results of its monitoring studies.)

Since one policy decision is the extent to use an educational approach, the findings in a 1993 FDA study related to foodborne illness are pertinent (Altekruse et al). Overall, there was evidence that specific knowledge of causes of foodborne illness had a positive relationship to application. However, groups with significant discrepancies between knowledge and practice were males, people younger than 30 years, those with more than 12 years of education, and infrequent food preparers. The authors suggested that adequate cooking of meat appeared to be a food preference or risk-taking behavior issue. An Oregon study of food discard practices (VanGarde and Woodburn) found that those respondents who were rated as least cautious on a cautiousness scale were also found to discard the least food as "unsafe." (Correlation to cost of discards was .96.)

One of 15 recommendations made by a recent task force for the Council for Agricultural Science and Technology (CAST) considering problems of foodborne pathogens was, "Given that risk communication is critical

because zero risk is impossible, we recommend that the public be well educated regarding safe food handling, and the relative and changing risk status of individuals." A similar recommendation was made by a task force of the National Live Stock and Meat Board. However, there is limited discussion in both of the bases, techniques and accountability for the consumer aspects.

Food Ambivalence

A broader, social science approach considers that food choices have always carried both anxieties as well as pleasures. Strategies to cope with these conflicts have changed over time. Beardsworth suggests that the current problem of food ambivalence is different because the "stable and taken-for-granted" cultural practices of food intake, which gave confidence, no longer are strong. Weakening of this framework has resulted from globalization, consumerism, removal of food preparation from the household and scientific knowledge, with its accompanying doubt and uncertainty. The future state of foodways may be one of increasing abundance and conflict, or may become a more ordered but pluralistic food-related culture. Science and the food industry can contribute to either outcome.

Conclusions

From our knowledge of current consumer perceptions of risk in our food supply, several policy issues arise. These include:

1. What should be the balance between industry management, government regulation and consumer information/education in increasing the safety of the food supply, making decisions on applications of new technologies, and in increasing the confidence of the public in the food supply?
2. Should the federal government mandate more information and care labeling of foods? What of state and local government policies?
3. If ambiguity is always present in consumers' attitudes toward the food supply, how can confidence be built?
4. What research is needed, and how shall it be funded?

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ECONOMIC ISSUES ASSOCIATED WITH FOOD SAFETY

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Introduction

American agriculture excels at producing an abundant supply of safe, nourishing food for the nation and the world. Despite the productivity and quality of the nation's food system, concerns remain about the safety and quality of the food we eat and the water we drink. In recent years, some well-publicized incidents, such as the contamination of hamburgers with the *E. coli* O157:H7 bacteria and residues of the pesticide Alar on apples, have led to increased public concern about the possibility of foodborne illness and exposure to potentially hazardous chemicals in the food supply. According to the USDA's 1991 Diet and Health Knowledge Survey, 43 percent of primary meal preparers cited bacteria or parasites in food as the food safety issue of greatest concern to them. An additional 22 percent cited pesticide residues in food as their greatest safety concern. In response, the Agriculture Department has begun several broad-based efforts to make further improvements in the safety and quality of the nation's food supply.

This paper discusses the food safety issue from the economist's perspective. Economics has an important role to play in the public debate about food safety. Fundamental economic principles help explain why a food safety problem may exist. Economic analysis of the costs of foodborne disease helps put the overall social burden of unsafe food into a broader perspective. Finally, economic analysis of the costs and benefits of alternative policies to improve food safety supports public and private decision making by allowing us to rank policy options on the basis of their expected costs and benefits.

The next section gives a brief overview of some of the main food safety concerns in the U. S. This is followed by a section on the details of some of the implications of foodborne pathogens in meat and poultry, and a section on estimates of the costs of foodborne disease related to meat and poultry.

Finally, the role of economics in evaluating public policy options is discussed, with an illustrative example of how our estimates of foodborne disease costs can be used to measure the benefits of pathogen reduction.

Overview: The Economics of Food Safety

The food supply in the U.S. is generally considered healthy and safe. However, even the modern industrial food system may result in undesired

or unanticipated outcomes which may pose a health hazard for consumers. Bacteria and parasites may remain in fresh or processed meat and poultry products, which can cause human illness if the food is improperly prepared or handled. Residues of agricultural chemicals may remain on fruits and vegetables, and prolonged dietary exposure to such chemicals may pose a risk of cancer or other adverse health effects. Finally, chemical residues from fertilizers and pesticides applied to cropland may end up in drinking water supplies, again exposing consumers to a risk of dietary exposure to potentially hazardous chemicals.

Consumers make choices about the food products they purchase based on a number of factors. In addition to the price of the product, such factors as appearance, convenience, texture, smell and perceived quality all influence the choices made in the marketplace. In an ideal world, consumers make consumption decisions with full information about product attributes, and so choose the selection of food products which maximizes their well-being.

In the real world, however, there are numerous information problems which complicate the consumer's decision as far as food safety is concerned. All raw meat and poultry products contain some level of microorganisms, some of which may be pathogens. Therefore, handling and processing of meat and poultry unavoidably incurs some probability of fostering the growth of these pathogens, which may remain in food products at such a level as to pose a risk of illness to consumers. However, consumers generally are unable to determine the level of risk of foodborne illness posed by their consumption choices, since pathogens are not visible to the naked eye. Aside from some rather obvious indications (unpleasant odor or discoloration, which may be caused by non-pathogenic spoilage microorganisms), there are, in many cases, no clear-cut ways for consumers to determine that the food they buy may provide a health risk from pathogens or other causes (such as pesticide residues).

Just as consumers do not have full information about the safety of the products they buy, producers have no direct incentive to provide this information. Since it is not clear to firms whether consumers can distinguish among food products of different safety levels, they may not wish to incur the extra cost of providing more than the minimum allowable level of safety in the food products they market. In addition, there may be some concern from a consumer protection standpoint about firms making unsubstantiated health-risk claims in labeling or advertising.

This lack of information on the part of consumers about food safety, and the lack of incentives for firms to provide such information, leads to a case

of market failure. The workings of a non-regulated market may yield a sub-optimal level of pathogens in the food supply, excessive levels of human health risk, and higher levels of illness and mortality related to foodborne pathogens and pesticide residues. In such a case, the public welfare may be enhanced if society chooses to regulate the food processing industry to reduce the level of foodborne pathogens and increase the knowledge of consumers, so they may take personal action to reduce their risk of exposure to foodborne illness.

The economic issue of concern is how best to achieve the goal of a safer food supply. Although regulations governing the production, processing, distribution and marketing of food products may increase the safety level of the nation's food supply and provide benefits of reduced risk and illness, such regulations may also increase costs to producers, and potentially raise the costs of food to all consumers. The task is to ensure that the regulations maximize the net benefits of increasing food safety, while minimizing the costs these regulations impose on producers and consumers.

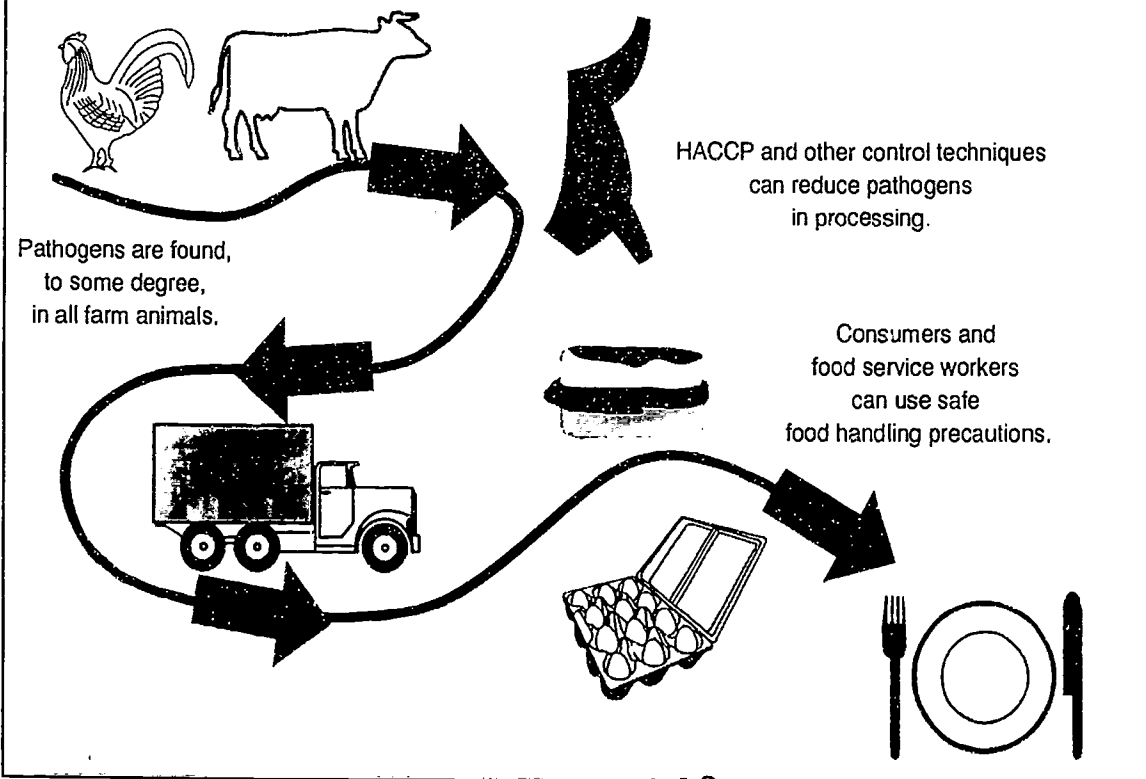
The next two sections show how some of the economic costs of food safety can be determined. We first present a baseline estimate of the extent of foodborne illness related to microbial pathogens. We then present some of the costs associated with these illnesses.

The Extent of Pathogen-Related Foodborne Disease

Bacteria and parasites exist, to some degree, in all farm animals. Most microbes which are pathogenic to animals do not cause human illness. However, some pathogens which remain in meat and poultry products after slaughter may cause human illness under certain conditions. Pathogens may also be introduced to meat and poultry products in slaughter plants, in processing plants, in grocery stores or food service establishments, and at home (see fig. 1). Examples of where pathogens can enter the food chain are through feed, manure management, processing procedures, or equipment and facility sanitation. Improper operating procedures at the processing level, and food handling practices in the home or restaurant, may cause pathogens to survive and grow, which in turn increases the risk of foodborne illness. Among the most frequent problems are inadequate cooking, inadequate cooling and improper personal hygiene.

The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) estimate that, each year, between six and 33 million people become ill from microbial pathogens in their food. Of these, an estimated 6,000 to 9,000 die (CAST, 1994). These figures are estimates based on reported outbreaks and other epidemiological data, and

FIGURE 1 - SOURCES OF PATHOGENS IN THE FOOD CHAIN



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are subject to some uncertainty. First, many foodborne illnesses have symptoms which are similar to other gastro-enteric illnesses, and may not be reported by physicians as foodborne. Second, in some cases, there is a delay of days or weeks between exposure to a foodborne pathogen and the resultant illness; many illnesses that are reported may not be linked to specific foods or pathogens.

Table 1 presents illness and death estimates for seven pathogens for which we have the most reliable information: These include *Salmonella*, *Campylobacter jejuni/coli*, *Staphylococcus aureus*, *E. coli* O157:H7, *Clostridium perfringens*, *Listeria monocytogenes*, and *Toxoplasma gondii*. Illness caused by *Salmonella* is frequently associated with chicken and egg consumption. Symptoms generally occur six to 48 hours after eating contaminated food, and can last from days to weeks. Acute symptoms include abdominal pain, nausea, stomach ache, vomiting, cold chills, fever, exhaustion and bloody stools. Endocarditis (infection of the heart), meningitis (infection of the brain tissues), and pneumonia may follow the acute stage. The pathogen can also cause chronic consequences such as rheumatoid symptoms, reactive arthritis and Reiters' syndrome. Death may result from the illness. A new strain, *Salmonella enteritidis*, can be passed to eggs before the shell forms, if the hen is infected. Fresh shell eggs and their products can be contaminated with *Salmonella enteritidis*. Homemade foods containing fresh eggs, such as ice cream, egg nog, mayonnaise, and Caesar salad, are potentially risky. A recent outbreak of *Salmonella enteritidis*-related illness in the Midwest was traced to ice cream which was transported in containers that previously carried unpasteurized eggs.

Illness caused by *Campylobacter* has been linked to chicken consumption. Symptoms usually begin in one to seven days after exposure to contaminated food, and can last for days. These symptoms include malaise, diarrhea, abdominal pain, bleeding and fever. Other complications may follow, such as meningitis, arthritis, cholecystitis, urinary tract infection, appendicitis, septicemia, Reiters' syndrome, and Guillain-Barre syndrome (GBS)—a major cause of non-trauma related paralysis in the United States. A small proportion of patients die.

Illnesses caused by *E. coli* O157:H7 are less widespread, but have received considerable publicity following recent outbreaks in the Pacific Northwest attributed to undercooked hamburgers in a fast-food restaurant chain. The pathogen is also found in raw milk, unpasteurized apple cider, processed sausage, and home-prepared hamburgers. The latter present a particular risk; the bacteria lives on the surface of meat products and is normally destroyed by cooking. However, when meat is ground to make hamburger or sausage, the organism is distributed throughout the product.

TABLE 1
Cases of Foodborne Illness for Selected Pathogens - 1993
(Estimated)

	<u>Cases</u>	<u>Deaths</u>
<u>Bacteria</u>		
<i>Salmonella</i>	696,000-3,840,000	696-3,840
<i>Campylobacter jejuni/coli</i>	1,375,000-1,750,000	110-511
<i>Staphylococcus aureus</i>	1,513,000	1,210
<i>E. coli</i> O157:H7	8,000-16,000	160-400
<i>Clostridium perfringens</i>	10,000	100
<i>Listeria monocytogenes</i>	1,526-1,767	378-485
<u>Parasite</u>		
<i>Toxoplasma gondii</i>	2,056	41
<u>Total</u>	3,605,582-7,132,823	2,695-6,587

Source: Buzby and Roberts, 1995

TABLE 2
Populations Susceptible to Foodborne Illness

<u>Category</u>	<u>Number of Individuals</u>
Elderly	29,400,000
Pregnant women	5,657,900
Neonates	4,002,000
Cancer patients	2,411,000
Nursing home residents	1,553,000
Organ transplant patients	10,370
AIDS patients	135,000

Source: US Dept. of Health and Human Services, 1993

If the sausage or hamburger is undercooked or eaten rare, the bacteria in the center of the meat may not be killed. It takes three to seven days before symptoms occur after eating contaminated foods. Acute symptoms, lasting six to eight days, are diarrhea, abdominal pain, vomiting and neurologic complications. Chronic consequences include hemolytic uremic syndrome (HUS), which is characterized by kidney failure and strikes mostly children under the age of five. Some proportion of patients will die.

Not all segments of the population are equally at risk from microbial foodborne disease. Much of this risk comes through impairment of the immune system; organisms which a healthy immune system may successfully combat may pose a greater risk to some population subgroups than others. These include the elderly, pregnant women, children under the age of one, nursing home patients, and people with compromised immune systems, such as cancer patients, organ transplant patients, and people with Human Immunodeficiency Virus or Acquired Immune Deficiency Syndrome (HIV/AIDS) (Table 2).

Elderly individuals undergo a decrease in immune function as they age. The immune system of neonates and young children is not fully developed. Pregnancy puts a woman and her fetus at special risk of foodborne illness caused by pathogens such as *Listeria monocytogenes* and *Toxoplasma gondii*; miscarriage, stillbirth or fetal abnormality may occur. Since, by definition, the immune systems of people with Acquired Immune Deficiency Syndrome or who have been infected by the Human Immunodeficiency Virus are damaged or destroyed, these patients are also at greater risk of foodborne disease.

Foodborne illness trends, over time, are not consistent across pathogens. Some illnesses may be decreasing over time. Others may be increasing. However, it seems clear that, as the population ages and the number of AIDS/HIV cases grows, the pool of people susceptible to microbial foodborne illness seems certain to increase. Other factors may cause an increase in overall risk as well. One factor, which is critical to preventing foodborne illness, is correct handling of food, and cooking to appropriate temperatures. The USDA, in 1994, required all fresh meat and poultry products to carry warning labels alerting consumers to foodborne health risks, and advising safe handling and proper cooking precautions. Consumers may not be able to take precautions to prevent foodborne illness, however, when food is consumed in restaurants or institutional settings. According to USDA food consumption and expenditure data, between 1970 and 1993, the proportion of food consumed away from home rose from 34 percent of total food expenditures to 41 percent. As more and more food is consumed away from home, consumers will have less control over the safety of their food intake.

Economic Costs of Foodborne Disease

When these people we've just described become ill or die, then society pays a cost for that illness. These costs include those of treating the illness, either outpatient or in a hospital, the costs of long-term care or rehabilitation, and the wages lost when workers are unable to perform their jobs. ERS has examined the costs of illnesses associated with seven pathogens in food. We started with the estimated numbers of illnesses just presented, and examined the nature and severity of the illness. Then, we calculated the medical costs, based on the typical treatment needed for each type of illness. When the illness implied long-term disability or long-term care, we also included the cost of that long-term care, as well as the lost wages the disabled worker could have earned and reduced wages due to lower productivity. Our estimates also took into account the age at time of illness.

Table 3 shows how some of the medical costs add up. For each pathogen we studied, we include both the short-term medical costs, and the long-term costs. These two add up to between \$4 billion and \$8 billion in medical costs each year for these seven pathogens. We include a "high" and a "low" estimate, since some of our cost or illness numbers were only available as estimated ranges.

These estimates include both the inpatient costs, outpatient costs and up-front doctor's charges for foodborne illness. They also include estimates of the lost productivity associated with those made ill or who die prematurely from foodborne diseases. We took a conservative approach to the issue of placing a dollar value on lost lives, using published estimates of lost wages (and implicit value of homemaking) when a person dies prematurely (see Landefeld and Seskin). Essentially, a death from foodborne illness is given a value equal to the present discounted value of lost wages of an average worker at time of death, or value of housework, which yields values of \$694 million to \$1.4 billion for the lost productivity due to illness and deaths associated from the pathogens in question.

It should also be noted that this total medical cost estimate of \$4 to \$8 billion is quite probably an understatement of the true cost. For one thing, many foodborne illnesses go unreported, and the medical costs are based on a 'best guess' at the total number of illnesses. The actual cases of illness may be higher (or lower) than this 'best guess.' Second, these costs are only costs associated with actual illness. Those *not* made ill, however, may place a value on reduction of risk as well. This willingness to pay for safer food is not reflected in these cost estimates either.

In principle, non-market valuation techniques, such as contingent valuation, could be used to enhance our cost estimates by measuring the value

to consumers of safer food, even when they are not made ill. The contingent valuation method involves what Smith calls "structured conversations," where interviewees are provided information about a particular issue, such as safer food, and then are asked to indicate their willingness to pay for one or more alternatives, compared to some status quo. This valuation technique has been used to place values on a variety of non-market goods and services, and has been given qualified endorsement for valuing natural resource damages, such as oil spills. ERS has conducted research using the contingent valuation method to identify consumers' willingness to pay for drinking water free of nitrate contamination, for example. Research is underway at ERS to extend this valuation technique to valuing decreases in the risk of foodborne illness.

Benefits of Safer Food

The role of economic analysis in addressing food safety issues goes beyond calculating the costs of foodborne disease. The cost estimates presented above may also be used to evaluate the cost-effectiveness of public policies designed to alter the status quo and decrease microbial contamination of the food supply.

As an illustration, consider the recent proposals put forth by the USDA to revamp the meat and poultry inspection system. The department is proposing to replace the current 'carcass by carcass' inspection system with one that identifies food safety risks throughout the production process, and creates interventions to prevent contamination. The current system, which relies on sight, touch and smell to identify unsafe food, does not detect the presence of microbial pathogens. The new approach, called Hazard Analysis and Critical Control Point (HACCP), uses a science-based approach to identify points in the production process where pathogens may be controlled ('hazard analysis'), and then determines the best approach at that 'critical control point' to eliminate microbial contamination. (The Food Safety and Inspection Service of the USDA has proposed the HACCP regulations for meat and poultry inspection. The FDA has proposed similar regulations for seafood inspection.)

A detailed study of the proposed HACCP regulations was recently published in the *Federal Register*. The Food Safety and Inspection Service (the agency responsible for meat/poultry inspection.) used as a baseline current estimates of foodborne illness presented above. It was assumed that, when fully implemented over a five-year period, the HACCP rules would lead to a 90 percent reduction in pathogen levels across the board. Using this assumption, our analysts at ERS made a further assumption that a 90 percent reduction in pathogen levels would result in an equivalent decrease in

TABLE 3
Medical and Productivity Costs for Selected Foodborne Pathogens - 1993
(Estimated)

Bacteria	All Foods \$ billion (1993)	Pct. Meat/Poultry %	Meat/Poultry \$ billion (1993)
<i>Salmonella</i>	0.6 - 3.5	50-70	0.3 - 2.6
<i>Campylobacter jejuni/coll</i>	0.6 - 1.0	75	0.5 - 0.8
<i>E. coli</i> O157:H7	0.2 - 0.6	75	0.2 - 0.5
<i>Listeria monocytogenes</i>	0.2 - 0.3	50	0.1 - 0.2
<i>Staphylococcus aureus</i>	1.2	50	0.6
<i>Clostridium perfringens</i>	0.1	50	0.1
Parasite			
<i>Toxoplasma gondii</i>	2.7	100	2.7
Total	5.6 - 9.4	n/a	4.5 - 7.5

Source: USDA Economic Research Service, 1995

TABLE 4
Benefit/Cost Assessment of Proposed HACCP Rules for Meat and Poultry Inspection
(\$1,000)

	Costs	Benefits	
Near Term:			
Micro testing	\$131.9	Foodborne illness avoided: Low	High
Sanitation SOP	88.6	<i>Campylobacter jejuni/coll</i>	\$2,191 \$4,670
Time/temperature requirements	45.5	<i>E. coli</i> O157:H7	1,168 2,419
Antimicrobial treatments	49.7	<i>Listeria monocytogenes</i>	854 1,168
Subtotal	\$315.7	<i>Salmonella</i>	1,751 15,178
HACCP Implementation:			
Plan development	\$37.2		
Micro testing	1,262.5		
Recordkeeping	456.4		
HACCP training	24.2		
Aseptic training	1.9		
Fed. TQC overtime	20.9		
Agency training	0.4		
SOP under HACCP	181.2		
Total	\$1,983.2		
Total Costs	\$2,298.9	Total Benefits	Low High \$6,422 \$23,935

Source: Federal Register, Vol. 60, No. 23, February 3, 1995, Pg. 6872.

Benefits and costs represent present value over 20 years, discounted at OMB suggested rate of 7%. Cost data from USDA Food Safety and Inspection Service. Benefits data are based on figures in Table 3, assuming that HACCP results in a 90% decrease in costs of illness. Benefits were assumed to begin in five years after the adoption of the final HACCP rule.

foodborne diseases and costs of illness associated with four of the seven pathogens described above. When spread over 20 years and converted to present values using a seven percent discount rate, the total annualized benefits are between \$6.4 and \$23.9 billion dollars (see Table 4).

Of course, these benefits must be compared to the costs of achieving this pathogen reduction. USDA's Food Safety and Inspection Service has estimated the annualized costs of the proposed rule at \$1.9 billion over the same 20-year time horizon. Clearly, then, the proposed rule passes a 'cost-benefit analysis' test, in that the benefits of the rule (reduced costs of illness) exceed the costs. This analysis is not complete, of course. A more extensive analysis would compare alternatives to the HACCP rules, and rank these alternatives on the basis of their cost-effectiveness. In addition, there are distributive consequences which may be of interest to public policy officials: there is some concern that the HACCP rules, for example, may affect small processing operations more than large firms.

Conclusions

This paper has given an overview of some of the economic issues associated with food safety. It has been necessarily brief, outlining the economic reasons for food safety problems, and has only dealt in detail with one specific issue, microbial pathogens in meat and poultry.

Much more work needs to be done in this area. First, our estimates of the incidence of foodborne illness are incomplete; for reasons given above, there is much uncertainty about the incidence and prevalence of illnesses related to microbial pathogens. Second, we need more comprehensive and detailed estimates of the benefits of safer food. Finally, more work needs to be done on the economic consequences to producers and consumers of alternative food safety regulations and policy options.

We expect that economics will continue to play a role in public policy decisions in the future. Recent executive branch policies have required accounting for costs and benefits in all regulatory decisions. Recent moves in the Congress to require that all regulations undergo risk assessment and cost-benefit analysis also means that economics will play a larger role in public policy making in this area. Given the uncertainty economists face in measuring the "Ps" (costs of illness) and "Qs" (number of illnesses), doing cost-benefit analysis of food safety programs will require creativity and willingness to make simplifying assumptions. It will also mean that the decision makers seeking information must have a clear understanding of the inherent uncertainty in the information economists supply.

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1995 Farm Bill Update

1995 FARM BILL WILL WE DECOUPLE?

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The farm bill debate began in earnest with Senator Lugar suggesting it is time to "pull the plug" on those antiquated Depression-era programs that have outlived their purposes. Many took up the cause. Leading agricultural economists like Luther Tweeten appeared before Senator Lugar's committee and lent support as did leading agribusiness spokespersons. Some thought the bandwagon would roll. But, it didn't!

Senator Lugar perhaps had the votes in the Senate Agriculture Committee, but missing were Senators Dole and Cochrane, and Mr. Andreas from ADM bolted from the agribusiness coalition.

Chairman Roberts took the House Agriculture Committee on the road in the spring, and they heard testimony from across the spectrum. But, what they heard most loudly and clearly was that "farm country" was in no financial position to ride out a pulling of the plug. With equal fervor the committee heard that farmers wanted flexibility to farm the marketplace instead of farming government programs. The "whole farm" base approach was the answer, declared many. In Dodge City they heard that in the 1990s, 52 percent of net farm income in Kansas came from government payments. This was based on Kansas State University's Farm Management Association data. They also heard that "pulling the plug" would cause 50 percent "decapitalization" of land values in Kansas with a four- to six-year recovery period required.

Economists have argued for years that the benefits of Federal farm programs were capitalized into land values. How can they now argue that we can pull the plug and decapitalization won't occur?

Secretary Glickman issued a "bluebook" of guidelines that generally supported flexibility, but also strongly backed current programs.

Three main factors are driving the debate: budget, exports, and to a lesser extent, the environment. The bitter partisan debate on the budget bled over onto the farm bill. Farm bills are usually not partisan, but given the budget battle that isn't the case this time. The question became "How much to cut?" Mr. Glickman argued for smaller cuts than the Congress, but he was working from a more optimistic baseline which would actually result in less money available for farm programs than the Congressional baseline, even with larger cuts.

Those who argued for "pulling the plug" evidently are convinced the bullish seller's export market can replace farm program payments in the farm income stream without farm income or land values declining. On the opposite end of the spectrum some argue that the export market cannot replace government programs at all and the current programs must remain intact. How much can exports replace farm program payments? Between zero and 100 percent. Where in between these extremes no one knows with any degree of certainty, but that is the essential economic questions behind the farm bill debate.

The 1994 Congressional election results clearly were not environmentally friendly in the eyes of mainstream environmental groups. The CRP and conservation compliance will remain intact, but decidedly more farmer-friendly in the eyes of many farm groups.

As the debate progressed, Chairman Roberts came forth with a whole new approach -- the Freedom to Farm Act. That immediately put him front and center in the debate. But, is Freedom to Farm bold and new, or is it Boschwitz and Boren reinvented? Or, as some suggest, a decoupled environmental payment. It is clearly completely decoupled fixed payments slowly ratcheted down with 100 percent flexibility excluding fruits and vegetables and haying and grazing. (Evidently, free enterprise-thinking cattlemen don't take their philosophy completely serious.) Freedom to Farm is designed to allow farmers to respond to the marketplace, but with a safety net in place.

Battle lines were quickly drawn. Supporting Roberts were the agribusiness community, including prominent analysts like Dennis Avery who see the export market as the greatest opportunity in the history of farming, and many High Plains wheat growers, Corn Belt farmers and several state Farm Bureaus. Opposing Roberts were southern cotton and rice growers and processors. This broke another time-honored tradition in farm bill history, i.e. "you scratch mine and I'll scratch yours." Previously, southern commodity interests supported northern commodity interests and vice versa.

Several myths abound:

1. Freedom to Farm means the end of farm programs. Not necessarily so. At least \$4 billion remains in the baseline at the end of the seven-year period and the permanent legislation remains intact, which will force a debate seven years hence.

2. Freedom to Farm means the end of supply management. Short term, yes. Long term, no. The CRP is likely to emerge with at least 25 million acres in this long-term supply management program.

3. Freedom to Farm means less farm income. Not necessarily so. In fact, it scores at the top on several land-grant university studies and at least one general farm organization and one consulting firm study when compared with other options under debate. This is even true for southern commodity growers.

Why then the vociferous opposition? Many get caught up in a price-price-price mentality rather than looking at the real bottom line, i.e. income. The argument goes: we can't make payments to farmers when wheat is \$5 and corn is \$3. It isn't politically correct. Decoupled payments provide farmers with income when they need it the most, i.e. poor crops and high prices. The current program does the opposite: no payments when prices are high, due, at least partially, to reduced supply. In turn, current programs provide payments when they need them the least, i.e. low prices but bumper crops.

Freedom to Farm transfers the price risk from the government to farmers forcing them to carry the risk themselves or learn to use other available risk management tools.

Freedom to Farm eliminates short-term supply management and could yield close to fence row-to-fence row production. Many remember the last time full production was promoted by the government and the results that followed. So far, historically, farmers and their organizations have not been successful in supply management, only the government has that "successful" track record.

As we go to press, the farm bill is in political limbo. Farm programs are perhaps a pawn in the budget reconciliation debate between the Congress and the President and rest of the package (conservation, credit, trade, research, education, regulatory relief, etc.) languishes in committee waiting until perhaps spring to see action.

Agreement appears to be universal that: (1) budget cuts will occur, (2) maximum possible flexibility is the goal, (3) short-term supply management is dead, (4) long-term supply management is alive and well, and, (5) conservation will remain politically correct, but regulation will be relaxed.

We won't pull the plug or preserve the status quo. Policy is usually determined between the forty yard lines, not in the "red zone." Compromise will occur with neither extreme prevailing.

Will we decouple? From production, yes. From price, at least partially.

NOTE

This paper was the introductory piece to a panel discussion that included Ronald D. Knutson (his paper follows), David Spears, aide to Senator Dole, who gave the Senate perspective, and Ann Simons, aide to Congressman de la Garza, who gave the House perspective.

1995 FARM BILL

*Ronald D. Knutson
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In times of substantially reduced spending, it is unlikely that there will be many farm program participants who are better off as a result of the 1995 Farm Bill. Even farmers and ranchers who do not participate in the farm program will be affected by the farm bill, as acreage reduction requirements are modified, and reduced benefits create the potential for marginal lands being converted to grazing, entered into a reduced CRP program, or simply returned to their natural state. The critical point is that, whereas some farmers and ranchers in the past looked to farm bills to solve financial problems or stabilize prices, this is not a reasonable expectation for the 1995 Farm Bill.

Reconciliation in the past has played an important role in the development of farm policy. Recall that in the 1990 Farm Bill the flexibility/nonpaid acreage provision was enacted as a part of farm policy by the budget reconciliation process. In addition, annual adjustments have been made in farm programs to bring expenditures within the budget reconciliation guidelines. The 1995 Farm Bill, however, will likely expand the role of the reconciliation process in agricultural policy development even further.

What is new and different about the 1995 Farm Bill is that reconciliation appears to be the driving force of the farm bill process—at least so far as mandatory spending related to the major crops and dairy are concerned. Moreover, ideological mandates from the majority leadership, particularly in the House, appear to be driving the process, as opposed to traditional debate and compromise procedures. In the process, authorizing committees appear to be more partisan, and, therefore, relatively less important in farm policy development.

Farm organizations do not appear to have anticipated/adjusted to these changes nearly as well as agribusiness organizations. In fact, agribusiness did its homework early and appeared to be in a position to capitalize on the realities of change itself. This certainly seemed to be true of organizations such as the National Grain and Feed Dealers Association and the International Dairy Foods Association.

Illustrative of the relative lack of preparation and homework by farm organizations is the overwhelming perception that agriculture is prospering and that government payments to large farmers are simply bankrolled as profits. Lobbyists, such as Ken Cook, may not have been as effective in pursuing an expanded environmental objective. However, Cook certainly

framed farm subsidies as strictly wealth transfers to the unneeded, counter-productive, and purely political pork.

To date, in the 1995 Farm Bill debate, the objectives of farm policy appear to be less clearly in focus. However, Congress has never been very good at defining multiple objectives for farm policy, nor, for that matter, policy in general. In 1995, the deficit reduction objective has overwhelmed the farm bill development process. Policymakers and special interests alike seem to have lost sight of other priorities and what it takes to maintain an effective, but economically viable, program. Arguably, the primary House objective was to eliminate government subsidies to farmers. Even then, the House Agriculture Committee Chair denied that the Freedom-to-Farm (FTFA) provisions were transition payments to a substantially scaled-down role for the federal government in traditional program commodities.

House and Senate Farm Bill Options

Tables 1 and 2 indicate the policy proposals that were on the table at the time of the initial FTFA votes in the House of Representatives in late September. They are instructive, because they indicate the very different views on the appropriate policy direction, even as the Committees were scheduled to mark up and vote.

On the House side, the leadership choice was FTFA, a proposal that completely decoupled prices from payments by basing payments on historical levels, and allowing farmers full flexibility to produce any program crops. In the process, the target price, milk price supports and federal milk marketing orders would be eliminated.

The proposal was designed to reach the House budget reconciliation objective of \$13.4 billion over seven years. For larger producers, the proposal had the potential for being even more restrictive by eliminating the three-entity rule, and by attributing payments to uniquely individualized social security numbers. Large farms may have feared these payment limitation changes more than other features of FTFA. Rice and cotton producers were particularly adamant against FTFA because of the elimination of target prices and marketing loan provisions, which have unified cotton and rice producers, and affiliated agribusinesses. The alignment of the entire cotton and rice sectors from input suppliers, to producers, to processors, to community has so far proved a powerful force in slowing the FTFA bandwagon.

Congressmen Emerson (R-MO) and Combest (R-TX) represented their southern commodity constituencies by adapting the Agricultural Competi-

tiveness Act (ACA), introduced by Senator Cochrane to the House budget requirements. This required an increase in the nonpaid acreage (NFA) provisions to 30 percent, while giving farmers flexibility to plant alternative program crops if they gave up payments (OFA). Otherwise, program provisions remained essentially the same as under the 1990 Farm Bill. Even then, it was not clear that the Congressional Budget Office (CBO) would score this proposal as saving the requisite \$13.4 billion.

The Democratic alternative on the House side was designed to achieve only \$4.2 billion in cuts, largely reflecting their and the administration's position against the proposed Republican tax cuts. This proposal was not much different than that of Emerson and Combest, except that it increased the NFA to only 21 percent, from 15 percent under the 1990 Farm Bill.

On the Senate side, Senator Cochran had crafted his ACA early in the debate. It had an initially lower \$5.4 billion spending reduction and 25 percent NFA. This was subsequently increased to 30 percent NFA, once it was clear that the Senate leadership was buying into the Republican tax cut and the \$13.4 billion reconciliation package. This made the proposal initially developed by Senator Cochran essentially the same as that promoted by Congressmen Emerson and Combest.

Although providing public rhetoric in favor of FTFA, it became clear to the Senate Chair that he could not get this type of program out of Committee. He then attempted to pacify the cotton and rice interests by developing a blend of FTFA with 35 percent NFA cotton and rice provisions. While it was never completely clear as to how/whether acreage movements would occur among wheat/feed grains and cotton/rice, this option appeared to die a rapid political death for lack of Committee support.

While the majority was trying to arrive at a consensus, Senate Democrats had been working on a targeted marketing loan proposal. It would eliminate the target price, while setting the marketing loan rate higher for the first level of production, and lower for larger quantities. This was designed to provide differentially higher benefits to smaller producers. Regionally, the Democrats had trouble getting together on this proposal.

A few points regarding the economic impacts of these proposals merit mention:

- With the exception of cotton under FTFA, most representative crop farms that the Agricultural and Food Policy Center analyzed were found to be worse off under these proposals than under an extension of the 1990 Farm Bill. Even with cotton, if the price path projected in baseline analysis

declined by as little as 10 percent, FTFA income would run lower than the baseline, as would other alternatives involving increased NFA options.

- Whether, during the period of analysis, FTFA was better off than the ACA depended on price expectations and the ability to take advantage of flex opportunities. If market prices were expected to be relatively high (presumably reflecting strong export demand), participating crop farmers would be better off with FTFA. If crop prices were expected to be relatively low, farmers would be better off with the ACA proposals.

- Program impacts are always dependent on assumptions regarding implementation. These assumptions are never spelled out in the proposals themselves. For example, the level of CRP generally was stated as a range, making impact analysis difficult and less precise.

- New analytical challenges were presented by options that involve program combinations, such as FTFA/35 percent Flex Blend. One such option, not previously discussed in this article, involves giving farmers a choice between FTFA and ACA provisions. This so-called "People's Choice" option was an analytical nightmare. If it happens to become law, this option will be a farmer's decision nightmare, as well as for those other agribusinesses in the food and fiber system.

- With large changes in policies, acreages that would be expected to go out of production are virtually impossible to predict. Such shifts could materially affect beef prices (cows, calves, stockers and feeders) as well as crop prices.

Reflections on the Contributions of Policy Educators

Despite the difficulties and uncertainties of analysis, it is clear that economists had more input into the political process for the 1995 Farm Bill than on any previous legislation. For example, the AFPC/FAPRI system completed 18 requested studies/reports by late September 1995—more than double previous farm bills. Economists from the University of California at Davis, the University of Maryland, Kansas State University and Louisiana State University are also known to have provided higher levels of analytical input than had been the case in the previous farm bills. Moreover, efforts to conceptualize and crystallize alternatives and consequences involving less spending and government involvement received more than the usual amount of analytical attention.

TABLE 1. HOUSE 1995 FARM BILL POLICY OPTIONS

PROVISIONS	FREEDOM-TO-FARM	HOUSE AG COMPETITIVENESS ACT	HOUSE DEMOCRATIC RECONCILIATION ALTERNATIVE
Target Price	None	No change	No change
CCC Loan	Nonrecourse at 70% of 5-year average or lower to clear market	Nonrecourse at 85% of 5-year average	No change
Flexibility	Full within Total Acres Base (TAB)	30% NFA/ 75% OFA within TAB	21% NFA/ 78% OFA within TAB & Secretary approval
ARP Authority	None	Retained	Retained
CRP	25 - 38 M acres	17 M acres in 2002	32 M acres in 2002
Marketing Loan	None	Retained	Retained
Soybeans	Included in TAB but no support other than loan	\$5.50/bu. loan rate may be reduced to \$5, 25% two-way flex	No change
Payment Limit	Eliminate 3 entity Social Security Number attribution	No change	Reduced from \$50,000 to \$47,000
Transition Payments	Yes	None	None
Budget Savings	\$13.4 B over 7 years	\$13.4 B over 7 years	\$4.2 B over 7 years \$8.4 B over 10 years

TABLE 2. SENATE 1995 FARM BILL POLICY OPTIONS

PROVISIONS	FREEDOM-TO-FARM/ 35% FLEX BLEND	SENATE AG COMPETITIVENESS ACT	SENATE TARGETED MARKETING LOAN
Target Price	Eliminated for wheat & feed grain Retained for cotton & rice	No change	None
CCC Loan	Loan rates lowered to generate \$1B savings over 7 years	Nonrecourse at 85% of 5-year average	See marketing loan
Flexibility	Full for wheat & feed grains Cotton & rice 35% NFA 100% OFA	25% NFA 75% OFA	Transition to full within (TAB)
ARP Authority	Eliminated for wheat & feed grains Retained for cotton & rice	Retained	Retained
CRP	17 M acres in 2002?	17 M acres in 2002	Up to 38 M acres
Marketing Loan	Retained for cotton & rice	Retained but sets wheat repayment to be world market competitive	Two tier, higher for first level of production
Soybeans	25% two-way flex applied to cotton & rice	\$5.50/bu. loan rate may be reduced to \$5, 25% two-way flex	Provides marketing loan
Payment Limit	\$100,000 per person in wheat & feed grain contracts	No change	Repeal 3 entity, resident labor & management, SSN, \$50,000 payment limit, \$100,000 off farm
Transition Payments	Wheat & feed grains	None	None
Budget Savings	\$10.5 B over 7 years	\$5.4 B over 7 years	\$4.2 B over 7 years

***Sustainability and
Industrialization:
Conflicting or Complementary***

INDUSTRIALIZATION OF AGRICULTURE: WHAT ARE THE POLICY IMPLICATIONS?

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The agricultural sector, particularly the livestock industries, are in a period of major change and transition. This transition is commonly referred to as the industrialization of agriculture. Since Tom Urban popularized this term in an often cited article in *Choices*, many have asked what it really means. What is this threatening, insignificant (or at best not new) or innovative and creative transition (depending upon your viewpoint) in agriculture?

Industrialization of agriculture seems to defy definition (everyone has their own perspective), but let us try to describe it. A short, simple description might be: The application of modern industrial manufacturing, production, procurement, distribution and coordination concepts to the food and industrial product chain.

What are the themes or dimensions of this process? The following discussion will develop seven themes of industrialization: a manufacturing mentality; a systems approach; separation and realignment; negotiated coordination; risk; power and control, and information. Then we will identify seven policy issues that this process will impact and that will likely require new or different policy responses.

The Themes of Industrialization

A Manufacturing Mentality

Manufacturing Food Products vs. Producing Commodities—The transition of agriculture from a commodity industry to one with differentiated products, especially when combined with a focus on the food consumer and a manufacturing approach to production, is a dramatic paradigm shift for the industry. The produce and then sell mentality of the commodity business is being replaced by the strategy of first asking consumers what they want as attributes in their food products and then creating or manufacturing those attributes in the products. This may, in fact, require changes in how the raw material is produced and what it doesn't contain (i.e. chemical residues), as well as what it does contain.

Systemization and Routinization—One of the characteristics of the manufacturing process is systemization and routinization. With increased understanding and ability to control the biological production process, routinization becomes increasingly possible. Tasks become more programmable. Routinization gen-

erally fosters more efficient use of both facilities and personnel, as well as less managerial oversight and overhead. Thus, agricultural production is becoming more of a science and less of an art.

Specialization—An additional manufacturing mentality concept now being utilized in modern production systems is that of specialization, not only with respect to business venture and focus, but also with respect to individual employee tasks or function. This specialization is increasingly feasible because of better understanding and control of the biological process.

Scheduling and Utilization—A further implication of the manufacturing paradigm in agricultural production is increased emphasis on facility utilization, flow scheduling and process control. Many production units have, in essence, maintained excess plant capacity as one means of accommodating the uncertainty of the output of the biological production process. But again, as a result of increased ability to predict and control that process, facility use can be more accurately predicted and controlled, and process control concepts to improve efficiency and reduce cost are more applicable and useful than in the past.

A Systems Approach

Systems/Process Flow—The manufacturing mentality places increasing emphasis on the entire value chain from raw materials supplier to end-user. This system, rather than stage or segment focus, reduces the chances for sub-optimization within a stage or sector and dead-weight losses because stages are not well matched in terms of product flow, characteristics, quality or other critical attributes.

Systems Cost—Although cost control is critical in any production system, the manufacturing approach focused on end-user products recognizes total production and distribution systems cost as being more critical than the cost in each stage of the value chain. And as more resources are out-sourced, the cost structure of the business changes with a higher proportion of the cost being variable in nature and a lower proportion fixed. An industry in which more firms have a higher proportion of their total costs that are variable costs is more responsive to changing market conditions.

Input Packages vs. Mix and Match Strategies—With the increasing capacity to control and understand the biological process through biotechnology and genetic engineering techniques, producers will be more capable of developing optimal input combinations that match chemical and biological attributes to obtain the optimum quality and characteristics of output. For example, crop genetics are being matched to pesticides for optimal pest control as exemplified by Synchrony STS—a seed/herbicide system. In some cases the producer will

purchase pre-specified input packages that are optimized in terms of their biological and chemical characteristics; in other cases the producer will be warned that certain nutritional and genetic inputs respond better when used together, and their performance may be sub-optimal if used in other combinations. But this matched inputs strategy has risks—the risk of reduced flexibility and ability to adjust if supplies of an input decrease and/or prices increase.

Separation and Realignment

Separation of Production Stages—The old paradigm in production agriculture has been to combine various stages of production within one firm—for example, to combine in swine production the breeding, gestation, farrowing, nursery, growing and finishing activities in one firm at one location, and furthermore to integrate these activities with feed production and processing. The new paradigm is geographic and stage separation of many of these stages of production. A further dimension of this separation is in the ownership and operation of the resources. More assets in production agriculture are being out-sourced—for example, 41 percent of the farmland today is owned by a non-operator compared to 22 percent in 1945 (Wunderlich). Geographic and stage separation, in turn, frequently implies larger scale and more specialized capital, labor and management resources at each individual plant site or facility location. Implications of separation for flexibility are unclear—more specialization in resource use decreases flexibility, but participation in only one stage may increase the options for negotiating with other partners in other systems, *if other systems are in the market.*

Partnering and Alliances—At the same time that geographic and stage separation is occurring, the stages are being relinked by various forms of alliances. Increasingly, producers are partnering with other resource suppliers in various ways to expand volume with limited capital outlays. In livestock production, this phenomena is occurring through contracting arrangements; a hog integrator may own the breeding, gestation and farrowing facilities, but contract out the nursery and growing phases. In essence, the integrator is leveraging volume by investing his funds in only part of the total fixed assets needed to produce hogs, while maintaining a high degree of control of the other phases through the ownership of the livestock and the specification of the growing conditions. The critical dimension of such partnering or alliances is that more resources and services are out-sourced, if that is a less expensive technique for obtaining production inputs, and more linkages up the value chain to the end-user are used to capture value in additional stages of the chain.

Negotiated Coordination

Spot Markets—Production agriculture in the past has focused primarily on commodity products with coordination through impersonal spot markets. The

increased specificity in raw material requirements combined with the potential for producing specific attributes in those raw materials is transforming part of the agricultural market to a differentiated product market rather than a commodity product market. The need for greater diversity, more exacting quality control and flow control will tax the ability of spot markets to coordinate production and processing effectively. Open spot markets increasingly encounter difficulty in conveying the full message concerning attributes (quantity, quality, timing, etc.) of a product and characteristics (including services) of a transaction.

Information Flows—Related to the difficulty of spot markets conveying the proper information is the speed of information flows and the rate of adoption with different coordination mechanisms. In general, negotiated coordination results in more rapid transmission of information between the various economic stages, and consequently, enhanced ability of the system to adjust to changing consumer demands, economic conditions or technological improvements.

This ability to respond quickly to changes in the economic climate is critical to maintaining profit margins as well as extracting innovator's profits. Likewise, quickly recognizing erroneous decisions and making appropriate adjustments and corrections are essential to survival and success.

These arguments suggest that, in traditional commodity markets, where specific attributes are not demanded, supplies are fully adequate and can be obtained from various sources, and information flows between the various stages is minimal, traditional spot commodity markets can function quite effectively and efficiently. As one deviates from these conditions—which is increasingly the case with more specificity in raw materials, information flows and fewer potential sources of acceptable supplies—various forms of negotiated coordination systems become more effective and necessary for efficient functioning of the production and distribution system.

Risk

Sources and Strategies—Risk has been a hallmark of the agricultural sector, and the industrialization of agriculture is both a result of, and has implications for, the business strategies that will be used to reduce risk. One risk is that of prices of inputs or products. A common business strategy is to reduce the risk of high prices for inputs by contracting for supplies. A related strategy is to reduce the price risk exposure on products by contracting product sales. Some firms reduce price risks by vertically integrating into the input supply or product distribution channels.

A second source of risk is related to quantity and/or quality features. Food packaging and processing unit costs have become very sensitive to operating at

full plant capacity; thus flow scheduling is critical to being cost competitive. Matching the physical capacity of various stages (for example, hog finishing capacity with packing plant kill capacity, or turkey grower space with processor dressing capacity) is critical to overall efficiency of the system. Furthermore, some food distribution channels may require particular quality characteristics which may not be available in predictable quantities in open, spot markets.

A third source or type of risk in the food chain that has become more serious in recent years is that of the safety and health risk in food production. This risk has two dimensions, the health risk of foodborne disease; and the risk of polluting water, air and land resources in the food production processes. These risks can result in significant direct costs and liability exposure for not only the responsible firm in the food chain, but also firms that supply related inputs and purchase products from the "responsible" firm in the case of strict (joint and severable) environmental liability related to chemical use. Thus, system coordination to reduce or control these risks may be in part a response to the broad sweep of product and environmental liability law.

Relationship Risk—The expanding use of contractual and other forms of negotiation-based linkages between the various stages within the agricultural production and distribution system, and the decline in impersonal market-based transactions, will result in price risk being replaced by relationship or contractual risk for many agribusiness firms.

Niche Markets—The food and industrial use markets for agricultural commodities are increasingly characterized as segmented or niche markets that can appear and disappear rapidly. For many agribusiness firms that are in the food processing and distribution business, the risk of changing consumer preferences or a food safety scare may be a much more critical and important risk to manage than price or availability of raw materials. One reason for a contractual arrangement to source raw materials is to reduce price and availability risk as well as food safety risk from chemicals, and simultaneously obtain the attributes needed in the final product from the specific attribute raw material.

Power and Control

Position Power—Traditionally, discussions of power or control in an economic system have focused on issues of size and the ability to exercise monopoly or monosopy power as a function of volume or size—in essence market dominance. With the increasing importance of the role of information in economic decision making combined with more negotiated coordination systems, the potential of economic power associated with a particular stage in the production and distribution process has surfaced. In essence, the question is whether there is economic power or control associated with a particular stage

in the production and distribution system—is there *position* power as well as *size* power!

Points of Control—The basic argument is that there are two fundamental points of control and one fundamental source of power in a negotiation-based coordinated agricultural production and distribution system. The first point of control is the end-user or consumer and those firms that have intimate contact with the consumer. Consumers are more discriminating in their food purchases, want a broader spectrum of attributes in their food products, and increasingly have the purchasing power to convert wants into effective demand. Those firms that are close to the end-user and understand the increased specificity of his/her demands have a unique capacity to communicate and/or dictate those demands to the rest of the production and distribution chain.

The second point of control in the agricultural production and distribution system is the raw material suppliers. But not all raw material suppliers have the same degree of power and control. In essence, the relative control of raw material suppliers depends upon the degree of substitutability for their input or contribution to the production and distribution process. The one input with the fewest substitutes—the most essential in the agricultural production and distribution chain—is the genetic material in plant and animal production, the seed and breeding stock. Biotechnology and increased predictability and control of genetic manipulation provides additional power to those who control genetic material.

Knowledge and Information—Note that the points of control in the agricultural production and distribution chain are at the beginning and the end—the genetics and the end-user/consumer. The source of this control is knowledge in both cases. By the very nature of their business, retailers or food processors and genetics companies have better access to information at these points of control. Given that the source of control is knowledge and information (not physical resources, not capital, not land), then the only way a firm between the end-points of the end-user and the genetics company can obtain control is through superior information. The implication is that it is very difficult for those in the intermediate stages to obtain superior information and, thus, the power base for control of the system.

At this early stage in the process of shifting from impersonal markets to contract or ownership coordination, there may be a first-mover advantage for very large producers or producers' cooperatives to play the control role. Thus, initiative now by the intermediate firm level may offset the perceived advantage of firms at the end-points. Coordination by producers' cooperatives has the potential for the more traditional producers to retain a more prominent role. But unless such firms make preemptive moves early in the transformation from open markets to closed systems, the opportunity for control will likely be lost.

The Role of Information

An Increasing Role—The increasing role that knowledge and information play in obtaining control, increasing profits and transferring risk in the agricultural sector is occurring for two fundamental reasons. First, manufacturing food and industrial products has become an increasingly sophisticated and complex business in contrast to producing commodities as in the past. This increased complexity means that those with more knowledge and information about the detailed processes, as well as how to combine those processes in a total system (i.e. the value chain approach), will have a comparative advantage. The second development is the dramatic growth in knowledge of the chemical, biological and physical processes involved in agricultural production. This vast expansion in knowledge and understanding means that those who can sort through that knowledge and put it to work in a practical context have a further comparative advantage. Thus, the role of knowledge and information in achieving success in the agricultural industry is more important today than ever before.

Access to Information—The logical question then for individuals in the food and industrial product manufacturing chain is how to obtain access to this knowledge and information. Historically, particularly for the independent producers in the farm sector, this knowledge and information has been obtained from public sources, as well as from external sources such as genetics and chemical companies, feed companies, machinery and equipment manufacturers, packers and processors, etc. In contrast, ownership or contract coordinated production and distribution systems have sourced their knowledge and information from a combination of internal and external sources. Many of these firms or alliances of firms have internal research and development staffs to enhance their knowledge and information base. And the knowledge they obtain is obviously proprietary and not shared outside the firm or alliance: it is a source of strategic competitive advantage.

Integrated Systems—The research and development activities in coordinated systems are more focused on total system efficiency and effectiveness rather than on only individual components of that system: they are focused on integrating the nutrition, genetics, building and equipment design, health and disease control programs, marketing strategy, etc., rather than on these areas or topics separately. And in addition to more effective research and development, such alliances or integrated firms have the capacity to implement technological breakthroughs more rapidly over a larger volume of output to obtain larger innovator's profits. In the case of a defective new technology, ownership/contract coordinated systems generally have more monitoring and control procedures in place, and can consequently detect deteriorating performance earlier and make adjustments more quickly, compared to a system with impersonal market coordination.

The expanded capacity of integrated systems to generate proprietary knowledge and technology and adapt it rapidly enables the participants in that system to more regularly *capture* and *create* innovator's profits, while simultaneously increasing control and reducing risk. This provides a formidable advantage to the ownership/contract coordinated production system compared to the system of independent stages and decision making.

Value of Information—Because of the increased value of information and the expanding role of the private sector in providing it, the issue of the proprietary nature of, and access to, data and information becomes more important. With the increasing value of information and its use as a strategic competitive advantage, there is less free exchange of data and information. If coordinated production systems have the potential to obtain superior information, how can a producer that is not part of that system obtain access to similar information to remain competitive? Will you need to become part of the system—"in the loop"—to obtain access to the latest information to be competitive?

The Policy Issues

Farm Programs

An industrialized agriculture provides yet another challenge to the rhetoric, if not the substance, of traditional farm programs. The rhetoric of farm commodity programs has long emphasized maintaining family farms and a smaller scale, family-based agriculture. In spite of this rhetoric, most of the farm program payments have been received by larger scale commercial farms, particularly in the cotton and rice sectors, as well as in feed and food grains. A second justification of farm programs has been to provide a safety net for farmers—to reduce the financial risk that they encounter because of both price and yield volatility.

Industrialization of agriculture may significantly undermine both of these traditional arguments for farm commodity programs. An industrialized agriculture will likely involve fewer family-based businesses, and those family-based businesses that remain will likely be operated and managed like many other family-based businesses in other economic sectors that do not benefit from price and income support programs. And the increased use of contract production may reduce or substantially mitigate the price and yield risk faced by industrialized producers, although contract production will likely introduce additional risk such as relationship risk (i.e. the potential for unexpected contract termination or nonrenewal), which is more difficult to manage or transfer to others through formalized exchanges.

An industrialized agriculture will likely be expected to respond and adjust to changes in market conditions in similar fashion as any other industrialized sector of the economy. It will be expected to use private sector risk management strategies to transfer and/or reduce price risk. It would be expected to more readily and effectively adjust to changing market conditions with less support and assistance from the public sector. The public might even expect and accept a higher financial failure rate as is currently exhibited by and politically acceptable for the non-farm, small business sector. At a minimum, industrialization of agriculture will likely undermine the political rhetoric for traditional farm price and income support programs, and may provide further support for payment limitations and other targeting provisions that would focus benefits on family-based rather than industrialized agriculture.

Environmental Policy

An industrialized agriculture is likely to be increasingly treated like manufacturing or any other industry when it comes to environmental regulation. Agriculture has been exempt in many instances from the environmental regulation faced by much of industry, in part because of the difficulty of regulating and monitoring non-point compared to point sources of pollution, and in part because of the small scale of many farm firms compared to the manufacturing complex. But as farming and agriculture become more industrialized, the rationale for exemption from regulation becomes less persuasive. This does not suggest that the agricultural sector will be subjected to more regulations than those encountered by non-agricultural industries; only that farming will be increasingly brought into the main stream of environmental regulation and have fewer exceptions from the environmental law of the land.

The environmental consequences of the industrialization process are not straight forward. As noted above, a larger proportion of agricultural production and resources might be subject to increasingly stringent environmental regulation, resulting in less potential environmental degradation. But with larger scale units, if there is an environmental accident, the consequences are more severe because of the increased concentration of pollutants as evidenced by the recent lagoon accidents in North Carolina and other states (*National Hog Farmer*, p. 17).

Labor Regulation

Similar to environmental regulation, an industrialized agriculture would be expected to be less exempt from current labor regulations that impact most other industries. Production agriculture is one of the more hazardous

occupations in terms of worker safety, yet much of the industry is not regulated by the Occupational Safety and Health Administration (OSHA) and/or under more recent Worker Protection Standards legislation. Largely as a function of increased scale as one moves to an industrialized agriculture, but also because of more complexity in the workplace, an industrialized agriculture would be expected to encounter increased regulation concerning the work environment and working conditions of its employees. Furthermore, industrialized agriculture may include more employees (both skilled and unskilled) and fewer self-employed individuals. An interesting policy dilemma will be how the self-employed and their family members will be treated under worker protection and other labor regulations as they become increasingly applicable to the agricultural sector.

Food Safety

Industrialization of agriculture is in part a response to increasing concerns by food processors and retailers, as well as institutional food service companies, concerning issues of food safety and health as well as nutrition. And as a consequence of the industrialization process, food safety regulations may become easier to enforce and lower cost to implement. One of the significant implications of the negotiated linkages, which are part of the industrialization process, is the ability to more accurately and easily document the processes used in producing agricultural products, including chemical and feed additive use. Such information is increasingly valuable to comply with nutritional labeling requirements, as well as to document compliance with food safety and health regulations that are increasingly imposed along the entire food chain. Although industrialization of agriculture may not suggest policy changes in this area, it is expected that the industry will be more responsive to these regulations, and some segments of the industry might view changes in policy and legislation in the food safety and nutrition arena as providing opportunities to differentiate products and obtain a sustainable competitive advantage.

Information/Technology Transfer

The public policy issue of the role of the public sector in making information a public good that is broadly available to all potential users, and the more general issue of intellectual property rights, become critical with industrialization of agriculture. The intellectual property rights debate has historically focused more on research and development and new innovations protectable under patent or copyright law. Particularly in agriculture, the public sector has played a major role in the research and development activity, and thus provided broad access to new technology and ideas. In this context, part of the public purpose was developing and disseminating new

ideas in a sufficiently broad fashion that a wide spectrum of users benefited, and so that individual firms could not restrict access and capture the value associated with the new idea. The public sector role was that of leveling the playing field so that all participants competed on the same grounds vis-a-vis access to new ideas and information.

But as more and more of the research and development and thus new ideas come from private sector firms compared to the public sector, and more of the information dissemination system becomes privatized, individual firms have more potential to capture value at the expense of end users. They have the potential to restrict access to new ideas and information to particular users, thus favoring some producers and excluding others from the ideas, technology or information necessary for them to be competitive. The concepts of intellectual property rights, including patent and copyright law as applied to agriculture, were developed in an era of domestic markets and national firms; a relatively large public sector research, development and information dissemination system, and a limited role of information as a critical resource. These concepts should be reevaluated in the current context of global markets and multi-national business firms; the shrinking role of the public sector in research and development and disseminating information; and the increasing importance of information compared to other resources as a source of strategic competitive advantage.

A related policy issue is the funding of public information services. The tradition has been to provide most extension programs on a free or nominal charge basis, premised on the argument that public funds have been used to support the information development and dissemination system; and that charging for services would require users to pay again, and would also discriminate against those who do not have the ability to pay. In recent years, many extension services have faced tighter budgets and are implementing fee schedules for some information programs. Most of these fee schedules are based on partial or total cost recovery. Thus, in the context of economic principles, these pricing decisions are supply or cost-driven.

But information, like any resource, has a supply and demand function. And consideration of the demand or value function can be useful in resource allocation decisions. Market-driven pricing based on the demand function provides information on the value of information, and is thus useful in making decisions about how to allocate scarce extension resources to various forms of information programming. Markets provide signals and incentives to do the right thing, so pricing for services may not only assist in recovering cost, it may provide significant information that can be used to allocate resources to the highest payoff extension program. In that context, pricing extension programs might make a significant contribution

to a demand/consumer driven public sector information system, as contrasted with the current supply/provider/cost-driven system of determining the proper types of programs.

Clearly, one must always be concerned about issues of market failure that would allow firms to capture excessive profits or exercise monopoly power in the information markets, and an important role of the public information system is to mitigate the impacts of those market failures. But one cannot ignore the potential failure of non-market allocation systems that do not recognize relative value in providing their product or service—in this case information services. Markets and prices do provide extremely valuable data that can be used in making socially optimal resource allocation decisions, and this data should not be summarily ignored.

Regulation of Structure

Finally, probably one of the most contentious policy issues precipitated by the industrialization of agriculture is that of the appropriate regulation of the structure of the industry. The public policy issues here are far-reaching and complex, including the implementation of anti-trust policy to an increasingly concentrated and integrated food industry; the regulation of the ownership of farm land, livestock facilities, and other resources used in production agriculture; state and/or federal legislation and regulations on the appropriate form of business organization (corporate farming, contract production, limited partnerships, etc.) and who are appropriate participants in such business arrangements; contract protection provisions which specify the rules and the protections available to various contracting parties; and even local county and township zoning regulations which influence the ability of individual producers to construct new facilities or implement various farming practices. Concerns about market power and concentration in the agricultural industry might result in increased scrutiny under anti-trust laws and regulations, although the current posture of limited enforcement under these rules makes that unlikely. More likely, state legislators, concerned about the future of family farmers and threat of corporate farming, may constrain forms of coordination arrangements such as contract farming or integrated ownership of various stages of agricultural production. Note, however, that such limitations are more likely to influence the geographic location of various activities in the food production and distribution chain, rather than the method of coordination, unless such legislation is national in scope.

Several broad policy options are available to deal with the structural change that is occurring in the agricultural industry. One option would be to do nothing—to let the changes take their course within the state and federal

laws already in existence. A second option is, as suggested earlier, to prohibit various types of activity that are deemed socially undesirable. This option precludes institutional innovations that may have significant economic and social costs and benefits in favor of the status quo. A third option is to impose better "rules of the game" that would level the "playing field" or maybe even give some participants an advantage; or to define the relative "rights" of various parties in contracting, ownership and other negotiated linkages, where the potential for unfair treatment or exploitation is a concern. Prompt payment and custodial account provisions under current legislation for livestock buyers and grain merchandisers are examples. Other "rules" might relate to contract length, compensation if a contract is terminated early or without cause, and escape clauses for both the contractor and contractee, for example. A public policy response of providing educational programs, legal advice and mediation or negotiation services to help parties evaluate and resolve contractual or other business linkage conflicts might also be appropriate.

In attempting to regulate the structure of agriculture, particularly as it relates to the production sector, public policy makers should obtain satisfactory answers to the following questions:

1. Do we want to prohibit contracting, vertical integration or similar activities by any and all parties, or do we only want to prohibit firms over a certain size or with other characteristics from engaging in these activities? One way for the public to favor smaller agricultural enterprises over larger ones would be to enact some sort of progressive tax, where the rate increases with size of the enterprise. Perhaps a progressive tax on volume of production could be used.

The impact of restrictions on existing firms may turn out to be less than first thought. Firms already engaged in activities covered by the restrictions may be able to restructure in ways that circumvent the restrictions. The \$50,000 limit on federal crop subsidies and the 160-acre limit on subsidized irrigation water in the western states are two examples of restrictions that some farms are reported to be circumventing through such techniques as setting up multiple business entities.

2. Are there ways to protect market access for independent producers, other than restricting vertical integration or vertical linkages? One way might be to require processors to purchase some minimum percentage of their daily kill on the cash-spot market.

3. Is the important question whether the alternatives available to a producer are cash-spot markets or contract alternatives, or is it the number of alternatives available and the market power of each? In other words, is

there really any fundamental difference between a producer choosing among two or three packers to sell to, or signing a contract with one of two or three contractors? One obvious difference is that the choice of packers is made every week or two, while the choice of contractors is only made once a year or once every few years, depending on the length of the contract.

4. Is it more desirable for cooperatives to engage in contracting with producers or to vertically integrate than other corporations or large privately held firms? One apparent concern with allowing existing cooperatives to contract or integrate is that they might use equity capital built up from independent producer members' contributions to help other contractee producers start or expand, such that they compete with the independents. Would it be more desirable to allow new cooperatives to form, which would take advantage of economies of size, but using only contractee capital? If there are efficiency advantages of larger operations, would it be more desirable for groups of farmers to own and operate the operations than others? Do farmers "wear whiter hats" than others, in some sense?

5. What activities are to be restricted or prohibited? It appears that a major concern is who will be in control of strategic decisions in the agricultural production and distribution industry. Specific activities should be evaluated in relation to their roles as instruments of control. How do owning livestock or buildings, financing, providing feed and other inputs, or marketing relate to control?

6. What is a "contract?" How is "ownership" of livestock to be defined and rules about it to be enforced? Could a contractor circumvent a prohibition on ownership by selling the animals and feed to the producer with an agreement to buy back the market animals under some preset terms? Are "profit sharing" or financing arrangements to be prohibited or restricted? Market access is a key and legitimate concern.

7. Many producers are concerned about risk, and contract production is one method to manage risk. What other strategies might producers adopt to manage risk? Marketing contracts, futures and options trading, and contracts that simply guarantee access to a slaughter facility are possibilities.

8. What are the constitutional limits on regulatory activities of this type? It is clear that state and federal governments may impose restrictions that limit activity contrary to the "public good." But what is "good" and for whom in this situation? How will agriculture commerce be affected?

A Final Comment

The structural changes that will impact agriculture over the next decade will be profound. These changes will include both technological and institutional innovations. Production agriculture has been very accepting of technological innovations—farmers have generally been eager to try new hybrids, new chemicals, new tillage practices, new feeding regimes, new equipment, etc. Institutional innovations or new ways of doing business have been accepted with more resistance, possibly in part because they change relationships and frequently substitute interdependence for independence in the decision making process.

But the economic benefits of the dual dimensions of industrialization of agriculture—implementation of a manufacturing approach to the food and industrial product production and distribution chain, and negotiated coordination among the stages in that chain—are expected to dominate the economic and social cost, resulting in a rapid movement of the livestock sectors (particularly pork) followed chronologically by the grain sectors to an industrial model of production and distribution. The implications of this industrialization process for agricultural policy are profound. In essence, the underlying policy questions can be stated simply: (1) Should the industrialization of agriculture be allowed, or should public policy limit or shape this process so that the end result is more compatible with what is perceived by some to be a more acceptable structure of the industry; and (2) if industrialization of the agricultural sector does occur, can one justify unique policies, like price and income supports, and exemption from other policies such as worker safety and environmental regulation, for an industry that is no longer different than other manufacturing and industrial sectors of the economy.

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**SUSTAINABILITY:
OBSERVATIONS, EXPECTATIONS
AND POLICY IMPLICATIONS**

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The end of this decade could reveal that two major revolutions occurred in American agriculture, industrialization and sustainability. Both would have important implications for farmers and ranchers, and anyone touched by the production, processing or marketing of their products. Their impacts, however, will depend on their extent, their interaction, public preferences and the associated public policies. What seems inevitable today may change tomorrow. Policies could be implemented in the future to curb industrialization if it competes with sustainability, or perhaps the terms sustainability and industrialization won't have much meaning by the year 2000.

We explore the concept of sustainable agriculture (SA) in light of industrialization. We are neither supporters or opponents of SA, but we do see a disturbing lack of understanding about what the term means, and consequently, what its contributions have been. While the goals of sustainability are laudable, the term SA is only the most recent catch-all phrase to address externality problems in agriculture (Hoag and Skold). Like other terms which preceded it, the term SA is not likely to endure. The issues and concerns of its proponents are too diverse and intractable to unify. However, new terms or phrases will arise, because the concerns bundled in SA are important, and they will persist. It is in the definitions of SA that people express their concerns about agriculture. And it is these concerns that need to be addressed, whether it be through SA, the latest catch phrase, or through narrower, more targeted programs.

We will attempt to persuade the reader that the worthy goals of SA can be and are better accomplished through other, more problem-specific programs and policies. Furthermore, industrialization will play a part in addressing many of these issues. SA's search for its identity has left an awareness about some problems which may need to be addressed, but the market will deal with many of these without the need of government policies. If and where the market fails to ensure the level of sustainability that the public demands, policies may be required. The trick comes in knowing when market signals are not correctly reflecting society preferences.

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What is Sustainability?

A sensible place to begin an exploration of SA is in its definition. Unfortunately, this is problematic. Hundreds, perhaps thousands, of definitions have been written, but they vary significantly (Gold). Some, try to be very *specific*, emphasizing a particular agenda or concern, such as environmental conservation (U.S. Department of Agriculture), use of regenerative inputs (Rodale), rural economic health, family farms, or economic health and the ability to feed the world (DowElanco). A second, *all-inclusive*, approach is to incorporate everything into one list, as the following definition from the Food, Agriculture, Conservation and Trade Act of 1990 (Section 1603, Title XVI) demonstrates:

an integrated system of plant and animal production practices having a site-specific application that will, over the long-term: (1) satisfy human food and fiber needs; (2) enhance environmental quality and the natural resource base upon which the agricultural economy depends; (3) make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; (4) sustain the economic viability of farm operations; and (5) enhance the quality of life for farmers and society as a whole.

The third approach to define sustainability is *holistic*. A widely quoted definition given in 1987 by the World Commission on Environment and Development is that, "the needs of the present are met without compromising the ability of future generations to meet their own needs." Very similar definitions have been expressed by Dicks and Victor and adopted at the 1992 United Nations Conference on the Environment and Development in Rio de Janeiro.

There are many definitions of SA. Therefore, *anyone* can say they are sustainable, and *everyone* does. A farmer that pollutes may believe he is sustainable, because it is the only way to continue his livelihood. His actions, however, are not sustainable to an environmentalist. From their unique perspectives, each is correct in thinking they are sustainable and that the other person is not. Through all of this confusion, we believe the central issues of SA are either intratemporal or intertemporal externalities associated with current patterns of input and resource use. It is easy to confuse even these two categories, however. For example, the poor of today may not think that intertemporal reallocations to future generations are sustainable, and intratemporal reallocations from poor American farmers to help the farmers of other countries is widely unpopular with American farmers

Is SA Sustainable?

It is clear that SA has not been successful at establishing an operating definition which encompasses the activities of all of its proponents (Nagy; Schuh and Archibald; Helmers and Hoag), but is it important to have a precise definition of SA? The answer is yes. Effective policy cannot be made if there is no agreement about how to differentiate between farming systems that are sustainable and those that are not (Hoag, Weber and Duffy). By what yardstick is progress measured?

The SA movement has lacked focus because it has tried to be inclusive of too many decision makers and too many goals, often regardless of their scientific basis. Consider the following comments in a 1994 letter from the president and executive director of a leading SA support group called the Henry A. Wallace Institute for Alternative Agriculture (Heller and Youngberg, p. 2):

We were troubled by the ambiguity which continued to surround the concept of agricultural sustainability. Sadly, from our vantage point, after nearly 10 years of awareness-building regarding its importance, little if any progress had been made toward specifying the empirical content and characteristics of a sustainable agriculture, or operational means needed to achieve those ends....it is not enough to proclaim that a sustainable agriculture be productive, economically-viable, environmentally-sound, and socially-just. Such proclamations, made routinely in 1994...provide little policy guidance."

Is SA sustainable? Given its past, we believe that the answer to this question is no. The term SA introduces more confusion than communication. As Solow said about sustainability (p. 179), "the less you know about it, the better it sounds." And as indicated above by the Wallace Institute, experience has indeed lead to disillusionment. We think that there are at least four inherent problems that make SA unsustainable:

- Conflicting objectives;
- Competing decision makers;
- Lack of information;
- Increasing specialization.

Conflicting Objectives

The objectives cited in the various definitions of SA, no matter how desirable, cannot all be achieved at one time. In cases which involve decisions, trade-offs will be unavoidable (Skold). Profits will have to be

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traded against the environment or one environmental goal, such as soil conservation, may come at the expense of another, such as reduced chemical use. True, profits will sometimes rise with environmental enhancements. Nevertheless, win-win situations, where two or more concerns are improved and none are made worse off, are not the problem. It is when trade-offs occur that society is not clear about its objectives. How much tax money or how big a sacrifice in profits is justified to purchase wildlife habitat or clean water? Who should pay for a public good that is desired by only one element of the population? Which is more important to control, soil erosion or chemical leaching into groundwater? Society has not been forced to address these trade-offs, because SA leaves the impression that a solution has been found.

Competing Decision Makers

The second conflict is between decision makers. Boundaries on time, space and culture determine, to a large extent, what is and what is not sustainable (Hoag, Weber, and Duffy). To a farmer, sustainability means farm survival. One farm's survival may be at odds, however, with economic efficiency and community objectives. Likewise, the sustainability of a community may be insignificant in the federal landscape. *Sustainability is in the eyes of the decision maker.* For this reason, society has failed to value trade-offs; it has too many decision makers. Trade-offs imply gainers and losers. It is doubtful that the losers in any action will think it is sustainable.

Lack of Information

The third reason the use of the term SA will diminish is due to a lack of information. Confusing or unclear information can exasperate already diverse viewpoints. Consider the case of pesticides. There is little agreement about whether they help (Avery) or degrade (Rodale) the environment and pose risks to human health. Consequently, there is division about their role in helping the environment. Should the government provide information and let the market sort out consumer preferences, or should pesticides be more heavily regulated?

Increased Specialization

The fourth and final problem has to do with diversification. Sustainability is often associated with diversified systems (Rodale), but the economy our society is moving increasingly toward specialization. Since SA is loosely defined, it is not necessarily contrary to specialization. Technology can be the driving force behind "systems," as has occurred in improved technologies for crop rotations and the use of animal manures. Even the

Wallace Institute letter acknowledges that it is unclear whether technology supports agricultural sustainability (Heller and Youngberg, p.3). Nevertheless, a clear trend toward specialization (Drabenstott) seems, on the surface, to challenge the systems banner that many SA advocates fly.

Why the Interest in Sustainability?

If the term SA is merely a passing fad, why has it generated so much interest? We believe it is because SA has been very successful at problem identification. SA's articulation of concerns about environmental degradation, the disappearance of the "classical" family farm, and the decline of rural communities, to name a few, have touched a sensitive nerve of society. Everyone must be for SA. After all, it promises to fix everything bad about agriculture, without having to give up anything. However, SA's inability to achieve a consensus about a prioritization of goals, its failure to accept that there may have to be trade-offs between goals, and its sometimes willingness to accept less than scientific approaches and results, has contributed to its limited success.

The details may be at the heart of its failure, but they also tell policy makers many important things about how people want agriculture to change. It is here that SA has made its largest contribution. The details tell of issues and problems that people perceive in agriculture. Havlin (p. 66) offers a list of such problems that is common throughout the literature. These include:

1. "Natural resources are being degraded in quantity and/or quality at a rate that will significantly compromise resource availability to future generations;
2. Waste products of human activity are accumulating to levels which compromise future use of the environment;
3. The variability in biological systems and, thus, biological stability, is being reduced at a rate that threatens nonhuman life and future of the biosphere;
4. Present societal arrangements often produce social problems related to overcrowding, stress, pollution, etc.;
5. The current policy and program infrastructure may not provide sufficient means to protect the environment, natural resources and biological diversity;
6. Agricultural sustainability is continually challenged by an(sic) increasing demand for food supply associated with continued population growth."

These issues, and many others, have driven many people to conclude that the current system of agricultural production, processing, distribution and marketing is not sustainable.

Havlin also offered a list of resulting goals to address these problems that includes: ecological, biological, economical, resources, survival and social needs. Three themes that can be seen throughout various attempts to define the goals of SA are that a system must be economical, environmentally sensitive, and socially just (e.g. Heller and Youngberg; CAST). We reiterate: SA is too amorphous to address all of these goals, but its concepts should be investigated and pursued where appropriate, on an individual or more limited basis. This view was supported by many participants at a recent conference on SA (CAST), and is implied by the Heller and Youngberg letter, which cites numerous examples of individual successes at addressing problems in agriculture, while at the same time expressing disappointment with the overall progress of SA.

Industrialization and Sustainability

Industrialization is "the increasing consolidation and integration among the stages of the food and fiber system" (Council on Food, Agriculture and Resource Economics, p. 1). According to Drabenstott, industrialization is occurring because consumers are more demanding, and because producers have a "panoply of new technology and management tools that enable food to be engineered—from the farm to the dinner table" (p. 14). One of the most important forces driving industrialization is increased technology. Drabenstott identifies two sources of technology that have been important in recent years, biotechnology and information technology.

Industrialization is a product of the market system. Sustainable agriculture is an institutional goal aimed at addressing market failures, some of which result from industrialization (Skold). Industrialization is associated with production specialization; SA promotes production diversity. Industrialization is a threat to the traditional structure of agriculture; SA seeks to retain that structure. Industrialization results from the pursuit of economic efficiency; SA places emphasis on environmental and resource protection. Generally, since the market drives industrialization, policies may be used to limit its undesirable outcomes. These policies, which have the effect of suppressing industrialization, promote SA.

Industrialization is a clear competitor to SA in many cases. However, that competition does not necessarily pit sustainability against nonsustainability. Technology can make a contribution toward long-run sustainability. It does not require social equity or environmental protection, but neither does it

automatically conflict with these objectives. SA and technology each try to sustain our ability to meet future needs. Over time, if society is not careful, the quantity of resources can be consumed at a rate greater than investment, or the quality of the resource stock can be degraded. In essence, society can consume its capital rather than reinvesting it. SA seeks to preserve our resource base, so this does not occur. Technology, however, raises our ability to produce goods and services with the same amount of inputs. Therefore, SA seeks, in spirit, to preserve resources in order to maintain production. Technology increases output for any given level of input. Each intends to make society better able to meet its needs in the future.

Economists have a long history of not being able to account for the future impact of technology on economic potentials (Robinson). Nevertheless, we will sustain our ability to meet future needs, as required by the broad definition of SA, as long as we leave behind substitute technologies or resources for future generations. In his efforts to examine generational equity and optimal growth, Solow carefully argues that one generation does not owe any particular resource to future generations in order to leave them as well off as we are; only that we leave them with the same means to make themselves as well off. He also asserts that one generation cannot paralyze itself with inaction, worrying about whether we are over-consuming. People 100 years ago, he argues, could not have envisioned what we have today, and it could be argued that they left us more than enough since we have a better life-style. "You choose policies to avoid potentially catastrophic errors, if you can. You insure wherever you can, but that's it" (p. 182).

Finally, it could be argued that technology does not account for the social and environmental elements of SA. This can be true if technology is left to proceed on its own. But there are many checks and balances. First, policy can be designed to encourage "appropriate" technologies. Technology may be driven by consumer demand, but it can also address its own failings when they appear. For example, when water quality became a highly public issue, scientists made tremendous strides in re-engineering chemicals which are more benign, applied at lower rates and less vulnerable to transport. Innovative rinsing technologies were introduced and quickly adopted to reduce pesticide contamination of wells. Integrated pest management practices provide a number of successes at reducing chemical use. The strategies may involve substituting information (e.g., pest scouting) for prophylactic treatments, development of pest resistant cultivars, adopting alternative cultural practices or implementation of biological controls. And many other examples can be cited (e.g. DowElanco).

It is not correct to say either that industrialization increases or reduces SA. For example, the impacts of the rapid adoption of confinement facilities

in the swine industry are not uniform. On one hand, the movement takes animals off farms, reduces diversification and hurts rural economies. On the other, it provides new opportunities in rural economies that stimulates jobs and helps the rural economy. Environmental impacts are also diverse. Odor is becoming an increasing complaint as confined operations are moved into new areas. However, large confinement facilities may have scale economies and greater technical feasibility for waste management.

Implications for Agriculture and Policy

SA has been successful at increasing awareness among the scientific community and the general public about issues with which we should be concerned. However, SA has too often lacked focus, or it has tried to accommodate too many, and often conflicting, goals. Its policy achievements have been limited. Policies to address the goals of SA will have to be separated to be successful. SA cannot be the panacea for all the ills of American agriculture, and future policies should recognize four points.

1. Decisions are not difficult when practices result in both economic efficiency and environmental enhancement (win-win). Conflicts arise when solutions require decisions about trade-offs between production efficiency and equity, or profitability and environmental protection. Analyses are needed to more fully account for all costs of production, to link production response functions to environmental damage functions, for example (Schuh and Archibald). Methods are also needed to help policy makers evaluate and rank trade-offs when they occur.

2. Technology which leads to farm enlargement or industrialization may not be conducive to sustaining family farms and, perhaps, rural communities. Consumers and producers receive value from industrialization, but externalities may accrue to the community or the environment. Information about trade-offs between technology, and farm and community survival will result in better policies.

3. It is probably inefficient, at best, and likely infeasible, to design a policy which meets all the goals of SA; for example:

- If we want sustained and growing rural communities, policies which directly address rural development are more likely to be successful than trying to achieve rural development through SA. Our rural development colleagues tell us that a healthy, and even strengthened, value-added agriculture has only limited potential for rural development. Most believe that rural communities need to broaden their resource base beyond agriculture.

- If we want improved water quality, policies which directly address production practices which pose the greatest threat are likely to be more successful than SA production technologies designed to achieve a broad spectrum of benefits.

- If we want to sustain family farms, or preserve a particular structure for production agriculture, policies which directly address these goals will be more efficient than policies to promote a desired agricultural production system.

4. Industrialization does not necessarily conflict or compete with SA objectives. Industrialization is the result of market forces at work, and the market can respond to the goals of SA. And, it may happen that the goals of SA are best met through industrialization of some production processes. It is appropriate, however, to seek to understand the implications of each technical and structural change to the objectives of SA. Only with this knowledge can society make the decisions about the kind of agricultural sector it wants.

Each of the above are implicit calls for more information about the trade-offs underlying resource use. As public policy specialists, we need to work with our research colleagues and other suppliers of information for programs, and to develop understanding of the trade-offs and complementarities between the alternative policy goals. The desire to be holistic and system-wide must be weighed against our ability to analyze problems. We are not at the point where we can even evaluate the technical interactions of several options at once, let alone deal with diverging social interests. In short, *we need to specialize a bit more*. While this may not be a popular notion in this politically correct age, it is a practical one. Many solutions to environmental and other SA concerns have already come through advances in technology, and many more will arrive. This is not to say that lofty and loosely defined goals have no role in policy; only that smaller, specifically-targeted efforts are more likely to result in policies which address the concerns of society.

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UNDERSTANDING THE CHANGING STRUCTURE OF AMERICAN AGRICULTURE

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The purpose of my paper is to examine what structural changes, short of basic land reform, might occur which would:

- Check the drift toward concentration of land ownership,
- Bring in needed income from non-farm sources, and
- Open up farming opportunities for qualified young persons, in addition to those who stand to inherit a going farm operation.

I list three such institutional changes.

Go for Off-Farm Income

Off-farm income is one way to solve the problem. If a farmer has substantial off-farm income, it helps him in three ways:

- It brings in needed money.
- It generally has greater year-to-year stability of income than farming.
- It permits him to get by with less capital.

Part-time farming is so attractive that more and more farmers go this route. In 1992, according to USDA's Fact Book (1994, p. 32), net cash farm income was \$18.3 billion. Total off-farm income from all sources was \$74 billion, four times as great as net cash farm income. Any of these off-farm dollars will buy as much goods and services, and pay as much taxes, as a dollar earned by the sale of crops and livestock.

Unlike the commodity programs, off-farm income is of most help precisely to those farmers with small-acreage, where the overall income problem is greatest. The great farm policy debate on commodity programs relates to products that supply about 15 percent of agricultural income, and that to the largest farms.

Part-time farmers had a better record of survival during the stress of the 1980s than did the full-time farmers

A farmer who earns \$20,000 a year from an off-farm job can succeed on a farm that requires half as much capital as needed by a full-time farmer. He doesn't need as much land. He can hire much of his machinery needs.

We need to reexamine the popular idea that part-time farms are inefficient, high-cost operations. Part-time farmers may look on country living as a good way to raise a family. Work on their farms may be seen as having recreational value, and so a zero or a negative cost. For part-time farmers, we need to consider costs and returns as they do, not by the conventional accounting methods developed for large-scale, full-time farmers.

Full-time farmers contend that part-time farmers subsidize their farming operations with off-farm income, and thus are an unfair form of competition. Properly viewed, however, part-time farming is an overlooked income-earning opportunity. It might be better to think of part-time farming as a new and growing enterprise, capable of helping develop a new type of family farm, rather than considering it an intruder into the historic concept of what a farm should be. We have long thought of part-time farming as a transition into or out of farming. We may come to see it as a stable, viable, enduring institution.

Opportunities for part-time farming are admittedly poor in the Great Plains, where off-farm jobs are few. But we should be wary of characterizing the entire income-earning opportunity by what is clearly a sectoral problem.

Vertical Integration or Contract Farming

I consider vertical integration and contract farming to be synonymous terms, using the two indistinguishably. I distinguish contract/integration from direct-operation, large-scale farming corporations, modeled on the industrial form. I also distinguish contract/integration from family farming corporations, which are similar to ordinary family farms, but are incorporated for tax purposes and for facilitating the transfer of title between generations. Typically, the public makes no such distinction, labeling and indicting all these farms as corporate farms.

The old order in agriculture involved distinct sectors: the suppliers of input items, the farm operator, the processor of farm products, the grocer and the final consumer. Each of these sectors—indeed, each individual unit in each sector—made his or her own decision as to what and how to produce. Title changed hands between each of these sectors at a price independently and competitively determined.

The theory was that the consumer would express his/her preference through competition, bidding up the prices of preferred items. The message, reflected in price, would be passed back to the processor, then to the farmer, then to the supplier of input items, all of whom would respond to the price

signal. The consumer, being supreme, would thus dictate the kind and type of product offered. Consumer sovereignty, it was called.

But all this worked slowly. The producer of "spring chickens" 50 years ago never got the message. Producers of hogs and beef clung to the old pattern, turning out animals with excessive fat. Dairymen, under the influence of price supports, continued to produce milk with more butterfat than the consumer wanted.

So now has come a new concept—centralized decision making responsibility, not under a government agency, but by private entrepreneurship. Integrate these formerly separate decision making sectors. Prescribe the input items, the production items and the flow to market. Instead of leaving to farmers the total initiative as to what and how to produce, begin at the other end, with the consumer's wish for product, and work backwards, using contracts to assure compliance, prescribing the decisions regarding inputs and production practices. The revolutionary consequences of this system are clearly evident. It is probably the most profound structural change that we agriculturalists have witnessed.

There are, of course, numerous variants of the contract/integration system, with the man on the land having a variety of roles as regards the supplying of input items, the use of production practices and the selling arrangements. The one indispensable attribute of the system is that the person on the land foregoes some of his/her free discretionary power. If the terms of the contract are unwise, the person on the land may become little more than a piece-worker. But this need not be so.

This system has already deeply invaded the old agricultural paradigm of the farm operator as independent decision maker, provider of all the factors of production.

Already in 1963, Ronald Mighell of USDA (1972) reported the following percentages of crop and livestock production that were then under integrated and/or contractual arrangements:

Milk for fresh market	95	Potatoes	40
Broilers	95	Fresh vegetables	30
Vegetable seeds	90	Dry beans and peas	25
Hybrid seed corn	75	Eggs	20
Sugar crops	75	Cotton	15
Citrus fruits	65	Cattle on feed	6
Processed vegetables	60	Hogs	6
Turkeys	50		

The contract/integration system has gone forward rapidly since then. By 1970, 22 percent of United States agriculture was under contracts or vertical integration. For eggs, cattle and hogs, the recent increase has been spectacular:

Contract/Integration as a Percentage of Total U.S. Farm Production

	<u>1963</u>	<u>Recent</u>
Eggs	20	85
Cattle feeding	6	50
Hogs	6	33

The increase in contract/integration appears to have advanced most rapidly where certain circumstances prevailed:

- Where there was unexploited knowledge, known in the laboratory but not applied on the farm, as in the poultry industry;
- Where there were potential economies of scale, as in the production of hybrid seed corn;
- Where standardization and steady flow to market of an improved product offered much promise, as in pork production;
- Where repetitive operations permitted the use of supervised, low-cost labor, as for processed fruits and vegetables;
- Where new products could be developed, not envisioned by the man on the land, as for potatoes;
- Where there was opportunity for product differentiation, as in brand names for canned peaches;
- Where the family farming tradition was weak, as in the far West and the deep South.

Very likely, contract/integration will proceed most rapidly where these conditions prevail. By the same token, it is likely to advance more slowly where the aforementioned forces are less influential—the great field crops of the Midwest—corn, soybeans and wheat.

A young man who has mastered his technical skills, and who has little capital, can sign an agreement with a contract/integrator, who may supply him with input items, guarantee him a per-unit return on his product, and reduce price risk to a minimum. The attractiveness of this system to a person with limited capital is entirely clear. He may be willing to surrender some of his decision making prerogatives in exchange for such advantages.

The growth of contract/integration may reach a point at which historic marketing institutions are virtually eliminated. This has already happened for broilers and eggs. And if alternative opportunities are closed out, an overly aggressive contractor/integrator may beat down the terms of the contract. Farmer-bargaining associations may help counter this threat.

The growth of contract/integration is said, by its adversaries, to deprive the farm operator of his right to make decisions. But the right to enter into a contract is a legitimate right for any decision maker.

Resistance to contract/integration will continue to come from those farmers who hold to the old idea that the farmer should supply all the factors of production. It will come from villages and rural people who resent the odors that come from confinement feeding of hogs and cattle. It will come from environmentalists who protest monoculture and the pollution associated with concentration of animal wastes. It will come from advocates of animal rights. It will come from people who dislike agribusiness and what they consider corporate farming. And it will come from people who think that agriculture might be monopolized, and that the monopolists would then jack up the price of food, or beat down the price to the farmer to make exorbitant profits. The case of the poultry industry, now almost totally integrated, with resulting reductions rather than increases in the consumer price of eggs and broilers, should allay such fears.

Public reaction to contract/integration appears to vary, dependent on the product involved. It appears to have become accepted in the poultry industry. Resistance appears to be greatest with regard to hog production.

The issue concerning contract/integration has to do with the decision-making role of farm operators, with the scale of operations, with the efficiency of the farming system, with environmental issues, with the cost and quality of food, with the ease of entry into agricultural production, and with the access to agriculture of off-farm capital. It has little to do with the probable number of farm operators, though the circumstances of the man on the land will be radically changed. Most forms of vertical integration involve some degree of entrepreneurship for the man on the land.

Perhaps no structural issue is more contentious than that of contract/integration.

Abolish the Corporate Farm

Unfortunately, the public tends to lump together all forms of corporate farms. In this section, I focus on direct operations owned and run by people outside the farming tradition. The nearest available quantification regarding such units is given by statistics on farming corporations with more than 10 stockholders. According to a report (1978) of the U.S. Congress, in 1969 there were 1,797 such corporations. Undoubtedly the number has increased since then. They totaled less than one-tenth of one percent of the total number of farms and produced three percent of total farm sales. Most of

these corporate farms were in California, Texas, Hawaii and Florida, where the tradition of family farming is weakest.

The financial record of this type of corporate farming is not the best. Among the failures: Black Watch, Gates Rubber, CBD Agronomics, Multiphonics and Great Western Land Company (Paarlberg, 1980, p. 194). The Bonanza Farms of the Red River Valley disappeared. The huge Campbell Farms of Montana ran into trouble.

Large-scale corporate farms have major handicaps. Farming corporations often have to pay union wages for their laborers, who lack the motivation of a self-employed family operator. They have less resilience than a conventional family farmer, who has a higher ratio of income to cost: if times get hard, the family farmer is better able to take in his belt than is the corporate farmer. Farming is a biological operation. Much of it is less responsive to systemization than is a mechanical enterprise. In addition, farming corporations have to pay corporate taxes on their earnings, which a family farmer escapes.

There is smoldering resentment against farming corporations, against contract/integrators and against a wealthy hereditary landowning class. There is a remedy to check such drift: progressive inheritance taxes stiff enough to require the breakup of huge farming units in order to pay the tax. There is little inclination to do this. A few years ago Congress enacted legislation making it easier to pass big farms, intact, to the next generation.

If we are willing to accept the drift toward huge farming units and a wealthy hereditary landowning class, little need be done to modify existing agricultural institutions. We are on a track that leads inexorably toward that result.

What would be the effect on agriculture and on the cost of food if corporate farms were to be prohibited? Research shows that, at least in the Midwest, for most types of farming, the majority of farming efficiencies of size can be achieved on a farm with a labor force of two persons. If a farm is really large, it earns more income, not so much because of a lower unit cost of production, but because the operator receives the revenue from more acres. The operator has an interest in having a huge farm, but the society has no such interest. It is common to consider individual gains as synonymous with societal gains, but, in the language of the old spiritual, "It ain't necessarily so," Adam Smith to the contrary, notwithstanding.

The elimination of corporate farms, as I define them, would have little effect on the efficiency of farm operation or the cost of food (Paarlberg, 1986, p. 76).

The question regarding the prohibition of corporate farms, or a limitation on contract/integration, or curtailing the drift toward a wealthy hereditary landowning class, is not so much a question of efficiency as it is a social, ethical, political issue. Mainstream economists are qualified to comment on efficiency, but not on the deeper issues that are central to the problem. I am an institutional economist, so I am not limited to considerations of efficiency. I admit social, ethical and political considerations into the decision forum.

The major threat to the moderate-sized farm is not the few corporate farms; it is the many unincorporated super-large farms which, with the help of government payments, gobble up the smaller farms. Payment limitations are no help; the super-large farms are split up—on paper—so that each of the sub-units gets the maximum payment. The county committees are run by the big farmers, and are co-conspirators in evading payment limitations.

The attack on corporate farms results from an erroneous diagnosis of the problem. "Should we eliminate the corporate farms?" is the wrong question. It is hard to give the right answer to the wrong question.

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UNDERSTANDING THE CHANGING STRUCTURE OF AMERICAN AGRICULTURE

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My assignment to address the issue of the structure of American agriculture is something of a reprise. As long ago as 1962, in a *Journal of Farm Economics* article, I reflected on the differing degrees of industrialization in what I called the three economies of agriculture. Two years later, at the annual meeting of what was then called the American Farm Economic Association, I discussed structural issues and advanced the apostasy that the driving force in structural change is not technology but finance-capital requirements and, more importantly, "the pressure to integrate farm production into the product differentiation struggle" (Future Organization and Control..., pp. 938-939).

After 31 years, I still regard that interpretation of 1964 as valid. I will say several times in this paper that I view the restructuring now underway as essentially the drawing of agriculture into a product differentiation contest among ever fewer giant corporations, many of them conglomerates. It's a power struggle that is reshaping the food economy on the one hand, and rural society on the other. To view it in any lesser terms would be a mistake.

During the 1970s, I joined extension economists, particularly of the North Central region, in putting out a series of reports on various aspects of the structural question (e.g., *Who Will Control U.S. Agriculture? — Policies Affecting the Organizational Structure of U.S. Agriculture*). I still write on the subject occasionally. I even get into the debate on hog factories.

Much of the argument about structural change in agriculture, to be sure, turns on how the topic is characterized. The late Kenneth Boulding, a seminal thinker if ever there was one, chastised economists for their bent toward trivialization. We get bleary-eyed aiming our microscope at small matters, he said, while overlooking the big ones. Boulding would almost certainly view agriculture's structural change issues in terms of what we once called comparative economic systems or, in different phrasing, forms of social organization. They concern the institutions of the land, and of the market, and of the consumption function too, insofar as the consumer is an exogenous actor, as in our neoclassical theory we postulate him or her to be.

In order to emulate Boulding I prepared for this session by climbing Mt. Olympus, hoping to observe from that elevation some of the all-encompassing considerations against which to judge the restructuring that is now in

process. I will confine myself to two panoramic philosophies that I believe to bear. The first is common, even liturgical. The second is different; the temptation will be to reject it, because it is so disturbing.

The easy one is the familiar proposition that the differentiating factor among forms of social organization is not technical but moral. It involves the values that we as a people hold.

My observations about values are conventional. Surely in our culture the crucial values are not material. They are not the maximization of output or minimization of cost. Heavens! The United States of America is not on the brink of privation, in agriculture or generally. Relative to agriculture and the food system, it is true that we want to make a nutritionally adequate diet available to all people, but our ability to do that is not at risk. Any undernourishment today must be attributed to ignorance or poverty.

Furthermore, insofar as the doctrine of minimization of cost and maximization of consumer satisfaction is taken seriously, the responsible economist must follow the lead of the Nobel Laureate Douglass North in looking into the big wastage of transaction costs. If we were truly concerned to treat our consumers as well as our resources permit, we would find a way to deliver products to them without all the hoopla and ballyhoo that are the mark of today's merchandising. Also, we would manage somehow to cut back on huge payoffs in the financial world that often arise in chicanery and legerdemain. North alleges that transaction costs absorb 45 percent of national income (Wallis and North). That's a lot!

In a similar vein I reject the often-heard line that current structural changes in agriculture and the food system are consumer driven. I turn that line bottom side up. The system is driving consumers, or trying to, about as much as consumers drive it.

If our rich country does not put material productivity at the pinnacle of our national aspirations, what do we value most? I suggest that our most treasured goals are highly personal. They begin with the individual, and have to do with status and satisfaction value in daily living, and in opportunity and security and a sense of community. I wonder how many extension economists still draw on the works and ideas of the late philosopher-economist John Brewster. Brewster insisted that once the minimum needs for food, clothing and shelter are met, "men the world over strive for an ever finer image of themselves in their own eyes and in the eyes of others.... It is the most spiritual of all treasures. You can get no photograph of it...[and so on]" (p. 9). Brewster might add today that in no way can these values be put into mathematical equations.

I add one word more on our non-material goals. In our culture they are, and must be, pluralistic, universal. They are not class-preferential. In agriculture and the food system, they apply equally to all participants, from the man on the land to the consumer, and from the lowliest employee in food processing to the million-dollar-salary nabobs of food firms.

I move now toward my second observation from Olympus. As I said above, it is likely to surprise and may shock. It has to do with the buzz word of our day, which I have already used a couple of times—namely, industrialization.

Years ago Roger Gray wrote about economists' tactic in casting ideas in either "purr" or "snarl" terms. We choose purr words for what we approve of, and snarl for what we don't. In current agricultural economic literature, industrialization is a rarely challenged purr word. I suggest to you that it has snarl characteristics too.

Almost 30 years ago, I wrote a paper on the topic of industrialization of agriculture that was delivered at an international symposium in Paris. I quote my opening lines of March, 1966:

To agriculture, industrialization has been benefactor and villain, an agent of progress and a cause of discontent, a source of release from ancient bondage, but also a threat of decline into a new subservience.

Industrialization is an essential companion to modern agriculture, but it could transform agriculture to the point of [institutional] oblivion (p. 1).

I still stand by those words. But I am about to report on my second view from Olympus, and it is not confined to agriculture. It relates to all humanity. I philosophize briefly on what industrialization means and what it portends.

What is the essence of industrialization? I call it the designing and imposing of systematic order; that is to say, management, on all economic processes. Intricate, sophisticated, precisely controlled management. To be sure, industrialization in both manufacturing and agriculture depends heavily on mineral resources, usually depletable ones. It employs sophisticated tools. Industrialization is often tagged in those terms, but they are secondary and not definitive. The crucial feature is controlled order, not the materials used. And man does the controlling.

An industrial system is implicitly regimented, privately and publicly. Its internal interdependence is so intricate as to straightjacket both processes

and persons. Precision in manufacturing processes. Worldwide assembly of raw materials and distribution of products. Computerization of almost everything, it seems. And overlying it all, a legal structure, a litigiousness, private and public, that defies comprehension.

My paragraph of Paris 1966 is apropos:

Industrialization is a creation of man. It puts human welfare more under the control of, and more dependent upon, the individual and collective human wisdom.... Appropriately, German scholars applied to the entire evolution the term, rationalization (p. 2).

Replacement of Open Trading Markets

The salient feature of industrialization of agriculture and the food system is that it replaces the time honored system of markets. It substitutes centralized management for open exchange markets as the principal, though not exclusive, coordinating instrument. In the Boulding sense of putting first things first, that is the heart of what the argument is about. As might be surmised by now, I am a defender of the market system and warn that it should not be abandoned without cause.

In my first draft of this paper I turned allegorical. I wrote that at the beginning there were the farmer and the consumer. The farmer delivered food to his consumer client. In our era, dating from a century or two ago, the middleman was introduced, only to be reviled from both ends, farmer and consumer alike. But that was anthropomorphic. What was established and depended on was a system of markets—open markets.

Economists of my generation were reared on the attributes and functional requirements of markets. We took the system for granted and did not give much thought to its merits. Now that it is threatened with extinction, it is time to give such thought.

Functionally, in a market system successive transfers of title to product provide linkage and coordination to the entire sequence from raw material supplier to the consumer. The system ranks as one of mankind's most ingenious institutional creations. Ideologically, it incorporates the precious quality of being democratic. That attribute is often overlooked. Let me explain. I visualize an open market system as a tier of platforms, each at a stage in marketing: local and central assembly; processing; wholesaling and retailing. At each platform, proprietary buyers and sellers interact as political equals; by definition, (and, in our day, by the law too) there can be no discrimination or preemption. The system, in its pure form, has nothing of the hierarchical structure that so characterizes the corporate integration that is now enveloping our economy.

Economists were quick to set forth the necessary conditions for such a system. We all can recite them. The first is numerological—many buyers and sellers. Also prerequisite are uniformity of product and saturation with market information. I earned my living for many years helping to provide these aids.

In the idealized version of the system, a functioning market yields an equilibrium price, and the value so arrived at is the marginal value product.

Why did the system come under challenge, and why is it vulnerable to replacement? Economists' knee-jerk explanation is that it failed to exploit economy of scale. I disagree. I put it in different terms. I find whimsy in the idea that the market equilibrium price that economists eulogize pleases only them. Rarely are participants in a market transaction happy with the outcome. The buyer wants a lower price, the seller a higher one. To put it differently, entrepreneurs don't care for a normal profit; they want more than that. Anne Kreuger, building on Tullock, insists that what enterprisers work so hard to get is rent. "Present-day society," she writes, "[is] 'rent-seeking,' everyone out for incomes in excess of what can be earned in a competitive market" (Breimyer, 1991, p. 101).

Rent was first sought by means of naked monopoly power in a standard product, the Andrew Carnegie syndrome. Our century proved more clever. It went the route of product differentiation and monopolistic competition. I surely do not have to labor the point that differentiated oligopoly dominates our economy today. A large part of it is in the hands of conglomerate firms, many of them transnational. The new structure, which I sometimes call industrial feudalism (does anyone have a better coinage?), is enveloping farm products and agriculture at a rapid pace and the race is on as to whether it can encompass most of that sector by century's end.

To put it more bluntly, the industrialization of agriculture and the food system that we are now seeing is not a nibbling at the edge or something superimposed on an otherwise solid base. It is total reconstitution of a system. Individual landholding might survive but proprietary control would not, with the single exception of a fringe of niche operations such as pick-your-own strawberries or ostrich farming. As I have already said, market exchange would be replaced by administrative directive within differentiated oligopolies that are typically extending their power through a vertical reach into the sources of their raw material supply. That is to say, into agriculture.

Disappearing in total reconstitution of our food system would be the successive platforms where market negotiation gives direction to the

system. Open markets for farmers' bulk products will have become an icon of history.

I repeat: the structural issue we are facing is a choice between two essentially opposite systems. I find it interesting to apply an idiom from geometry. A market exchange system is horizontal and democratic. The oligopolistic integration that has become the hallmark of industrialization is vertical and hierarchical.

Why does all this matter? Should we care? How do we judge? Picking up again my first view from Olympus, I suggest that the system toward which we are moving pell mell—and any other system for that matter, including the one being abandoned—is to be evaluated first of all in terms of the aspirations of the men and women who comprise it. I give fully as much attention to those on the producing side as to consumers. Industrialization alters dramatically the status of farm-level participants. Except for the niche people and maybe a few cowboys, all farm proprietors would disappear. Of the current 400,000 or so commercial farmers perhaps a few thousand would find managerial posts. Otherwise, if they stay in agriculture their status will be similar to that of the Georgia broiler grower who complained to me, "All I need to do is make sure the automatic feeders and waterers are working, and pick up the dead." No challenge there, or satisfaction value. And no reason to get a B.S. in agriculture.

Let me say once more that the final judgment on what is happening rests on one's value system. It is standard classroom instruction to declare that values are a given, not to be challenged. By no means are the various consequences of industrialization of agriculture to be disregarded, but I leave a final judgment to each person's value system, which by definition is inviolable.

I still have not revealed my second observation from Olympus, which I warned would be a blockbuster. It is an observation on what is happening to all society. Put in fewest words, it is that the discontent and distrust that is so obvious in our nation today can be viewed as a revulsion against the disciplines that industrialization imposes, both directly and via the instrument of government.

Human beings can be too clever for their own good. They can victimize themselves. They can build systems of organization so sensitively intricate as to contain their own seeds of collapse. It's the Midas allegory. Or maybe I regard the trade-off between promised riches and the tight regime imposed in order to get them as something of the Faustian bargain.

On the surface, many of the protests today are against the role of government. Overlooked is the fact that industrial processes invite and even

mandate a matching regime of social protections and counterbalances. We make those protections necessary, then rebel when they are imposed. Agriculture, as we all know, is a case in point. Farmers are overjoyed to use chemicals to control weeds and bugs, but the chemicals that kill bugs will kill people, too. So we have an elaborate and clumsy set of publicly enforced precautions against their misuse, and a matching protest against enforcement.

What we are seeing in national politics today involves a lot more than the Democrats and Republicans playing tic-tac-toe with each other. It is much more ominous than that. It seems to me that Americans are resisting the collective ethic that industrialization requires. We are a raw-boned people that still hold to a frontier individualism.

That is my second view from Olympus, and it carries more than a little foreboding.

The political turmoil that I foresee as continuing unabated through the rest of this century and into the next will forestall any significant effort to guide or restrain the restructuring of our agriculture. Industrialization will proceed apace.

But not indefinitely. Early in the next century the picture will be scrambled. A new restructuring will begin, as trends of our day are reversed.

The key to the longer future is energy. Scarcely advertised in all the press agency about what is now going on is that most industrial processes in agriculture depend on energy as almost a free good. As soon as Middle East oil begins to show signs of depletion, energy prices will double, quadruple.... Our agriculture will move quickly into biomass. Four-fifths of today's animal agriculture will disappear. I give mega hog farms 10 years, or maybe 15. No harm will be done. After all, it's the silliest of processes to put good human food, such as corn, through the gullets of hogs or steers, losing perhaps 80 percent of nutrient value, just to get a food that can be duplicated by Worthington fabricators.

I think it highly likely that a biomass agriculture will revert to small landholdings. Such an agriculture will be much more labor intensive than today's. It will, of necessity, be nearly sustainable. Young people of today could witness, within their lifetime, a recycling of agriculture and the countryside into what we now regard as traditional structure and culture. Cyclicity is, indeed, characteristic of mankind's history.

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