The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

378.778
A4787
460

RETHINKING THE ROLE OF AGRICULTURE IN PUBLIC POLICY FOR RURAL AMERICA

Report of Seminar
College of Agriculture, Food and Natural Resources
University of Missouri-Columbia
November 17-18, 1993

Special Report 460
Agricultural Experiment Station
University of Missouri-Columbia

WAITE LIBRARY
DEPT. OF APPLIED ECONOMICS
UNIVERSITY OF MINNESOTA
1994 BUFORD AVE. - 232 COB
ST. PAUL, MN 55108 U.S.A.

RETHINKING THE ROLE OF AGRICULTURE IN PUBLIC POLICY FOR RURAL AMERICA

In 1993 for the first time in 20 years the Breimyer seminar on agricultural policy addressed issues in policy for rural America. The place of agriculture in the rural one-fourth of our nation is not neglected in the papers published here; in fact, its integral role is clearly noted. But the primary focus is on rural issues.

The 1994 seminar is scheduled for November 17-18. The topic has not been decided on. Suggestions are welcome.

The Breimyer seminar is funded from the University of Missouri-Columbia Development Fund. Contributions are appreciated. They may be sent to Office of Development, 306 Reynolds Alumni Center, University of Missouri, Columbia, MO 65211.

John E. Ikerd, Chairman, Seminar Committee

Contents

Agriculture and the Rural Economy: Past, Present, and Future
Brady J. Deaton — Page 4

Economic Impacts of Agricultural Policies on Rural Communities: Past, Present, and Future
Harold F. Breimyer — Page 12

Social Impacts of Agricultural Policies on Rural Communities: Past, Present, and Future
William D. Heffernan — Page 19

Rural Communities: Places in Search of a Purpose
John E. Ikerd — Page 25

Keys to Enhancing Quality of Life in Rural Areas
John C. Allen — Page 32

Innovations in Rural Education
Vicki M. Hobbs — Page 38

Innovations in Rural Health Care
Harold A. Williamson, Jr. — Page 46

Rural Revitalization in Action
Jane Vanderham — Page 51

Public Policy for Rural Missouri: Reactions
- Innovative Development
  - Tim Kelly — Page 56
- Services and Jobs
  - Joe Maxwell — Page 59
- A "No Free Lunch" Reaction
  - David A. Schafer — Page 62

Does America Need Rural Communities?
Bill Bondeson — Page 66

Critical Trends Affecting World Food Supplies
Abner Womack — Page 71

Impacts of Changing Soil and Water Conservation Programs
Russell C. Mills — Page 77

Impacts of Changing Commodity Programs
Brad Epperson — Page 81

The Clinton Rural Agenda
W. Robert Lovan — Page 84

Seminar Summary and Issues Unraised
James O. Preston — Page 87

378.778
A4787
46 O

RETHINKING THE ROLE OF AGRICULTURE IN PUBLIC POLICY FOR RURAL AMERICA

Report of Seminar on
Agricultural Marketing and Policy
College of Agriculture, Food
and Natural Resources
and
Extension Division

University of Missouri-Columbia

November 17-18, 1993
Columbia, Missouri

AGRICULTURE AND THE RURAL ECONOMY: PAST, PRESENT AND FUTURE

Brady J. Deaton
Professor and Social Science Unit Leader

In this paper I will explore the interrelationships between agriculture and rural communities with an eye toward policy implications and our responsibilities at the University of Missouri as a land grant university.

Interrelationships between the agricultural and other sectors of rural communities warrant our serious and careful analysis even though, in strictly economic terms, we could survive by separating the agricultural economy from rural community life. Indeed, some critics have argued that we have already gone far -- too far -- in this direction. Those critics would say that managing very large farming units that they call factories in the field robs our society of important dimensions of rural life -- dimensions from which not only rural residents derive a good, but the national commonwealth too in terms of aesthetic values and the psychological anchor that is provided in the security of sustenance.

I want to identify the key forces, the intellectual and philosophical ideas, rooted in the Jeffersonian tradition, that bore fruit in the Land Grant System and the scientific revolution in agriculture. Updating to the present, I will highlight briefly the circumstances of today that point to both opportunities and constraints on the actions we can take to revitalize rural America. Thirdly, I will share my thoughts on ways in which we can harness current socio-economic circumstances, overcome constraints, and gain new insights regarding management of technologies of the future.

First of all, I ask why we should concern ourselves with this matter. This question is central because of an uneasy discontent about a number of conditions prevailing in rural America. Among them are increasing poverty, growing job instability, growing rates of crime and substance abuse, and a more fragile infrastructure.

If these conditions do truly prevail, what went wrong with the American dream? Is the answer discernible via the tools of social science inquiry? We ask ourselves whether the private sector and the myriad of public programs at the local, state, and national level adequately address these problems, and whether we can establish a defensible rationale for investing scarce public resources in rural communities, at any level of government. Three questions follow:

- Is our current system of private markets and public institutions working effectively to give us what we want?
- If not, are there market imperfections that can be corrected?

- Are there public goods for which the market will not allocate adequate resources?

The market appears to be working reasonably well, except for obvious imperfections regarding environmental externalities such as the water and air pollution generated by agricultural production and processing. We are slowly adjusting our tax and regulatory system to address those problems.

With regard to the public good, I believe we underappreciate what rural communities can contribute to the social, political, and economic health of our society.

I believe the following is what we all have in mind for rural communities:

> A rural settlement pattern that provides a high quality of life in terms of jobs, services, and community relationships while preserving a natural environment pleasing to the eye and accessible to the broader society and to future generations for recreation, respite, and aesthetic delight.

This vision is rooted in our Jeffersonian tradition and claims powerful political and psychological allegiance. More importantly, it fuels our commitment to build a revitalized, renewed rural environment based on optimal allocation of jobs and people across the landscape. It also carries a negative inference, a cost to non-optimal commitment. Among undesirable consequences of neglect we can name costs of police protection, health care, and underemployment, and deterioration of quality of life generally.

The rural communities that we hope to create and preserve can be achieved only through comprehensive networking, public-private partnerships, and a commitment to excellence nourished by a common ethic of land and resource use.

Lest I be misunderstood, please be assured that I recognize that agriculture remains a vital component of rural communities and a strategic resource and psychological anchor for national security and global power. But I add that interrelationships between agriculture and rural communities often are more critical for cultural, social, and political reasons than for economic reasons.

We need a more clearly enunciated public commitment to a vision of rural America. This commitment should embrace and strengthen the land grant components of our state universities including the University of Missouri. I firmly believe that those universities which don't respond and pick up this educational mission will be replaced by other institutions, including colleges and universities of lower quality and, most likely, less integrity. We have a tradition that should serve us well in this regard.

Our Jeffersonian Roots

My thinking about public investment in rural America was stimulated by Henry Steele Commager's The Empire of Reason: How Europe Imagined and America Realized the Enlightenment. Commager dates the Enlightenment in this country from 1741 with the founding of the American Philosophical Society, to approximately 1826, the year of John Adams's and Thomas Jefferson's deaths. That enlightenment inaugurated a common thread extending from McCormick's reaper to the cotton gin, and then hybrid corn, through the rapid mechanization of the 1950s to the farm crises of the 1980s, and now a biotechnology revolution that will carry us into the future. That thread is to develop and apply new knowledge to the rural economy.

We can note too that the Jeffersonian/agrarian philosophy stimulated the development of a landmark series of legislative acts -- the Morrill, Hatch and Smith-Lever Acts -- which created and extended our land-grant university system, a foundation for shaping modern history.

The resulting agricultural productivity led to an era of cheap food but also to the displacement of rural population. Relatively low cost labor was provided to a rapidly growing industrial sector. Some vitality was lost in rural communities. Declining property tax bases created difficulties in providing adequate, high-quality, public services. Creating new job opportunities was made more difficult, because they depend on appropriate public services. More importantly, the rural tradition and important cultural values were threatened. Thus, rapid scientific and technological change contributed to social instability.

Application of science to practical affairs is very much a product of the Enlightenment that set so much in motion, first in Europe and then in America. The vision of Jefferson and his colleagues was that we could and would make our environment. They planned audaciously to do just that! I suggest that we need to regain a measure of that inspiration to create a rural environment worthy of our dreams and aspirations.

Post-Cold-War Realignments

Recent Roper polls confirm that rural communities remain the desired ideal of our society. If so, why are so many desires remaining unfulfilled? It's partly a matter that we have not devoted sufficient resources to move us in the desired direction. Our actions are too piecemeal, so that a few good efforts are defeated by inaction elsewhere, and we see a steady deterioration of one rural community or small town after another.

We no longer have the Cold War as an excuse for not funding programs that lead to improved quality of life. The spatial distribution of people and jobs is becoming a more critical issue than ever before. Resolving the conflicts associated with

Changes in Farm and Farm-related Employment, 1975 to 1989

Industry	Change in jobs	
	Number	Percent
Nonmetro		
All farm and farm-related	600,455	9.8
Farm production	-589,569	-21.9
Agricultural services	88,304	70.2
Agricultural inputs	-53,507	-19.8
Processing and marketing	35,875	3.1
Wholesale and retail trade	994,702	66.8
Indirect agribusiness	124,650	32.5
Metro		
All farm and farm-related	4,498,573	37.7
Farm production	-190,351	-15.1
Agricultural services	349,978	136.3
Agricultural inputs	-70,949	-25.4
Processing and marketing	-403,597	-17.0
Wholesale and retail trade	4,394,790	71.9
Indirect agribusiness	418,702	25.2

Source: Nonfarm wage and salary employment data from County Business Patterns supplemented with farm production and employment and proprietors data from the Bureau of Economic Analysis.

conflicting resource use, and making appropriate community and human adjustments, must come to the forefront.

However, we currently face serious problems in adjusting to our post-Cold War environment. Currently, we are coping with a national realignment of political and fiscal responsibility. Where rural communities are concerned we are also struggling with an ethic. The ethic I conceptualize would establish conscious attention to the density of settlement patterns, housing inadequacies, and the tradeoff between quality services and scattered population distributions.

Furthermore, rather than depend on our traditional governmental structure we will need to establish a new set of institutional relationships (governmental, fiscal, legal, and administrative practices) based on a land use ethic. Such an ethic must be debated and legitimized by the broader society.

Agriculture in the Community

Since the New Deal, public policies toward rural communities have hinged on farm commodity-oriented programs and conservation practices. Even today, we too frequently hear the assertion, or the implicit assumption, that farm programs will somehow reverse the fortunes of rural communities. That was never completely true, and it's even less often true today!

But agriculture is an important sector of most rural areas, particularly in the midwest. In 1989 farm and farm-related jobs made up more than a fourth (26.2 percent) of all non-metro employment. Three out of 10 of these jobs were on the farm. On the other hand, nearly 71 percent of all farm and farm-related jobs (16.4 million jobs) were in metro counties, with agricultural wholesale and retail trade accounting for about two-thirds of them (Machrowicz, p.31). These jobs provide 15.2 percent of total metro employment, a significant figure.

Employment in farm production continues to decline, as do jobs in industries closely related to farming such as input suppliers and farm equipment dealers. Agricultural services, however, have grown in both rural and urban areas. Data showing what happened between 1975 and 1989 are fascinating (see table).

A study done by Machrowicz indicates that the dramatic increase in agricultural services is tied directly to "the diversity of firms in this category, which encompasses not only firms supplying on-farm services, but also forestry and fishing operations and establishments such as ornamental tree and lawn care companies. Three quarters of the job gains are in metro areas, most likely in residential and business lawn/grounds care, veterinary services for pets, or other services not directly related to farming" (Machrowicz, p.34). Consistent with these trends, my colleague Nicholas Kalaitzandonakes tells me that his studies show that the horticultural industry is the most profitable of Missouri's agricultural industries.

A significant category of indirect agribusinesses encompasses such operations as repair and service shops for tractors and manufacturers of prefabricated metal buildings, all of which may have only minor linkages to farming. Yet the significant interrelationships evident in the data suggest that rural communities must depend on linkages between production, processing, and distribution of raw materials, and other economic sectors. This connection, though, makes rural communities more vulnerable to sudden shifts in the agricultural, national, and international economies.

Bernat's recent analysis found that 17 percent of all nonmetro jobs are in manufacturing, and that since 1970 those jobs have shifted into lower paying durable goods subsectors that bear a disproportionate share of year-to-year fluctuations in employment. Looking toward 2000 and beyond, we can be concerned that manufacturing jobs in rural communities will face a precarious

environment due to (1) increased productive efficiency through labor displacing technological advances; and (2) movement of some industries into lower-wage labor markets abroad.

Looking Toward an Ethic

Our philosophical approach to national development is deeply imbedded in an agrarian tradition of preserving the countryside in a manner that serves us proudly. Space is important to the quality of life of our nation. Accomplishing an appropriate settlement pattern requires vision, new partnerships, and human capital development.

To begin with, we need a working definition of rural development. I submit that it is --

> The allocation of physical, social, and human capital in a spatial pattern that provides the possibilities for (1) adequate income for all families; (2) education for leadership, entrepreneurship, productive and satisfying work, and citizenship; (3) access to health services; (4) new economic opportunities; (5) an organizational structure promising stability; and (6) a healthy and inviting natural and man-made environment.

We should remind ourselves of the extensive "centrally organized and controlled interventionism" required to create our free market of which we are so proud. Polanyi reminds us that strongholds of government involvement were erected in order to insure some simple freedoms--"such as that of land, labor, or municipal administration" (Polanyi, p. 140). So we should not shirk from the enormous task of creating a dialogue that will yield appropriate working relationships, including laws and regulations, to guide the nation's land use and settlement patterns in a desired direction.

One early symposium that attempted to create this dialogue bore the title, "Toward a New Land Use Ethic." This symposium was actually carried out over a two-year period in 1977-1979. Pertinent to our discussion here are the themes it laid out which I believe are essential to guide actions that we can no longer delay in taking, if we are serious about going beyond lofty lip service in realizing a "new vision of rural America."

In a somewhat different delineation, at a symposium in 1979 Graham Ashworth named ten components of the concept of "wholeness." They are --

> Control of destiny; Sense of order; Adequate water, food and clean air; Shelter and privacy; Meaningful and gainful employment; Opportunities for recreation of mind and spirit; Mobility; Experience of visual delight; Being in and contributing to the mainstream of tradition; Social integration.

The national identity and pride reflected in a quality rural environment must become part of our macro-economic and agricultural policies, and definitely part of the public policy education programs of Extension.

Lessons from the flood. The Great Flood of 1993 in the central United States illustrated the need to reassess carefully the structure of support systems for rural areas. Our levee district system along the Missouri River was not sufficiently robust to respond quickly to landowners' and farm operators' needs. Consequently, we risk several years of production uncertainty, inter-jurisdictional conflict, and reduced incomes for many people.

And this is only the tip of the iceberg! Revenue sharing was the significant effort in the 1970s to meet state and local revenue needs while using federal revenue sources. Multi-county and multi-state coordination for planning and service delivery has seen its good and bad days, but will be essential to achieve a quality future. Most likely, we will coordinate in new and different ways.

As public educators, we in higher education, including those in Extension and especially farm management and community development, face a growing challenge. The public dialogue on establishing a desirable land use ethic is indeed a serious challenge and one difficult to resolve. State specialists must provide research-based knowledge on valuing rural amenities, and appropriate educational support. We have our work cut out for us.

A New Perspective on Human Capital

The most significant challenge we face in higher education and with University Extension is to provide the continuing, lifelong education needed for grappling with the problems we have discussed. Extension educational programs must become increasingly focused on targeted groups to address these complex issues effectively. For example, the evidence is overwhelming that the unskilled and untrained will remain outside the mainstream of the economy unless human resource development programs become integrated components of economic development. Also, such targeted programs have proven to be most effective during periods when the national economy was strong and growing. Unfortunately, too many targeted programs of vocational training bear little relationship to the economic development needs of the places they serve.

University Extension has a proud record of leadership training, and its talents will be tested in the future as we move toward a national dialogue on a new land use ethic for shaping population settlement patterns. Many other dimensions of human capital development must be addressed and Extension must take the lead in responding to needs for both formal and informal education.

Several of our faculty, notably professors Osburn, Kaylen, and Hobbs, have recently addressed some of these important human capital issues.

We have learned that investment in primary level education pays. McNamara's (1986) research in Virginia revealed that a 10 percent increase in per pupil expenditures was associated with a nine point improvement in reading scores and a six point improvement in math scores at the eighth grade level. Clearly such expenditures are also associated with local public commitment and leadership. The nature of the spending pattern is also relevant.

In spite of such findings, there has been little Extension effort to carry out educational programs in this arena. Research undertaken in our Unit by professor O'Brien has shown that a principal difference between thriving and deteriorating rural communities is the quality of leadership. We need to know more about the origins of leadership, and to develop a supportive infrastructure for cultivating and nurturing leadership.

I suspect that the future will be marked by a number of important departures from past efforts in public and private education. These could include the following:

- Providing education beyond the classroom, and incorporating satellite learning and other telecommunications systems.
- A return to smaller schools and home-based learning. Future educational systems will take advantage of the workplace, the community, the home, the club, and other places for human interaction. Rural areas could play an important leadership role in carrying out innovative approaches to education.
- Human capital development will be oriented toward educating rural residents to develop new supply systems for some of the needed public services that rural locations have trouble providing, especially health care. For example, there is really no reason why rural residents over 55 years of age should not be trained as practical nurses to address the needs of the rural elderly. With increasing life expectancy, long and rewarding careers still await such individuals.

In concluding, I emphasize that human capital development is the key that will open the door to the resiliency to withstand fluctuations that will likely grow in the future as we move more forcefully into an international market. New educational endeavors would provide an exciting educational opportunity for University Extension and a vibrant future under a new land use ethic.

For references see page 91

ECONOMIC IMPACTS OF AGRICULTURAL POLICIES ON RURAL COMMUNITIES: PAST, PRESENT, AND FUTURE

Harold F. Breimyer
Professor and Extension
Economist Emeritus

As we move into the closing years of the 20th century, which persons of my age possessively call "our" century, it becomes a parlor game to reflect on the dramatic changes that mark the era. On the negative side must be named the two devastating world wars, together with a pervasive feeling at century's end that the world scene remains insecure.

The many positive achievements begin with an incredible array of scientific advances. These surely surpass comprehension. Yet those of us who put moral values ahead of material ones can ask whether our productivity has fueled an ethos of self-indulgence that has betrayed us. Have we become so preoccupied with individual material comforts as to distract our attention from collective problems -- those of society including our capacity to govern ourselves? This is a proper topic for another forum at a different time and place. I mention it because the issue of citizen relationship to government interlaces many political debates these days, including those bearing on agricultural policy.

Politically, beyond all doubt the 20th has been the century of the dominance of the nation-state. As the century began, countries such as Germany and Italy were still solidifying their recent unification. In Africa and part of Asia colonialism was the order of the day. Today, the nation is the universal political institution.

It is therefore something of an anomaly that the terms of nationhood are not yet fully agreed on. In almost all developed nations including ours the processes of government are under more challenge at the end of our century than they were at the beginning.

Because I believe this to be true, and for the further reason that public policy for agriculture and rural America begins with a common philosophy of government, I address that topic briefly.

Issues Regarding the Role of Government

In my seminar paper a year ago (1992) I portrayed the modern nation as an updated version of the ancient tribe. In earlier times the tribe was the governmental and mutual survival unit. Today that unit is the nation.

I digress to point out that countries in the Balkans and parts of Africa today seem determined to revert to tribalism.

I noted last year that the first instinct of the tribe is for its own survival. This involves defending against its external enemies but also protecting and preserving its productive resources. Our country does both. Today's environmental movement clearly fits the second tribal function.[1]

The tribe also administered justice, perpetuated its own lore and mores, and provided shelter, according to its own code, against individual adversity. The modern nation does the same things, even as we debate the terms of doing so.

Although I believe this analogy between the nation and tribe to be interesting and relevant, it will take us only so far. It does not really answer the question of our day as to why we continue to look to central government for the modern equivalent of ancient sheltering even as we shout in loud voice that it's against our principles to do so. In the language of Professor Don Paarlberg of Purdue University, we seem to have a love-hate relationship toward government.

To digress again, the experience following the Great Midwest Flood of 1993 illustrates how ambiguous is citizen opinion. Disregarding the anti-government climate, Congress and several states were quick to vote billions of dollars for flood relief. Rarely has that proffered aid been objected to or turned down -- not even in communities known to be politically conservative.

I cannot go into this subject deeply but I suggest two reasons why, in our century, more responsibilities have been placed on government. The first is familiar. It's the urbanization and industrialization that began so fast in the 1920s and continues even to the 1990s. When people moved to cities and city jobs they could no longer protect themselves during hard times by raising a garden and slaughtering a hog. As yet another digression, today even many farm families have no garden, or a hog. We are moving to where a hog farmer has either 10,000 head or none.

So it was that during the 1930s our country turned, willingly and even enthusiastically, to government programs of social insurance such as Social Security.

A second major change during our century lies in the startling new technologies of communication. They have combined with fluidity of capital financing to convert our economy into one single highly integrated, interconnected trading area. Within it a growing part of our economic activity is concentrated in giant conglomerate firms that not only blanket our nation but reach out into much of the world. These are not our traditional small traders but huge bureaucracies organized much as government is. We don't really like this development, but Warren Buffett and John Malone do not ask citizens before negotiating a merger.

---

[1] Harold F. Breimyer, "Current U.S. Agricultural Policy in Historical Perspective." U.S. Agricultural Policy: from Changes in Washington to Changes on the Farm, University of Missouri Agricultural Experiment Station Special Report 446.

Capital financing enables Wall Street to wheel and deal in billion dollar companies, but I put even more emphasis on communication in merchandising such as the TV hawking of branded goods and services. The country is one market for not only brand-named manufactures but McDonald fast foods, Super 8 Motels, and Hallmark greeting cards. Moreover, Sears, K-Mart, WalMart, and perhaps a dozen other giant merchandisers put small local retailers into the shadows everywhere.

This national-market trend carries with it a fading of regionalism. In earlier times each region had an internal diversity that gave it a degree of self-sufficiency and autonomy. That is not the case now. I add, though, that by such a test Missouri is positioned relatively well. Missouri's economy is more diverse than that of most states.

Where Do Agriculture, and Rural America, Fit In?

I suppose that the principal message, or moral, of the ideas I have sketched thus far is that we are going to continue to lodge major social responsibilities with government. It's nice to dream of going back to an economy of many small enterprises competing mainly for the local trade, but it won't happen. Likewise, the appeal of abandoning most government programs for agriculture, letting each farmer buy and sell in the market at his own discretion, is understandable. Trouble is, giantism is enveloping farm product markets too, as is contractual integration in lieu of spot commodity trading.

It follows that in my opinion national policies will continue to have a major effect on the opportunities for farmers and other rural citizens to improve their lot in life.

I turn now more specifically to the topic assigned me, namely, the economic impacts of agricultural policies on rural communities. I prefer to rephrase it in terms of how policies affecting farming and farmers, whether designed exclusively for them or not, bear on the welfare of rural communities.

But even this rephrasing does not avoid the tautology that farmers are themselves a part of rural communities.

Let's put it this way. Some legislation and some administrative rulings apply solely to farmers. Not many do, but a few are that restrictive. A few other national policies are directed to rural communities, farmers and nonfarmers alike. A third category is of policies that hold meaning to all citizens, the body politic. I will treat each of these separately.

<u>Farm Policy</u>. Farm policy is usually thought of in terms of acreage reduction and commodity price support; of soil and water protection measures; and, sometimes, of farm credit. In my opinion, the acreage and commodity programs have given a degree of stability to markets and farmers' income, to farmers' benefit. How have they borne on the community? As a personal judgment, I believe any stabilization of farmers' incomes, however modest, is

positive for local businesses, tax rolls, and such. My judgment is generally favorable.

Some agribusiness firms, notably grain handlers, take an opposite stand. They complain that restraints on production limit the volume of product to be merchandised. Employment is thereby reduced at all levels in the marketing chain including local ones. The net effect, they say, is negative.

Their point of view is persuasive. However, I believe it applies mainly to large or long term reductions in crop acreage, and not to the small annual Acreage Reduction. The latter has not held down the size of harvests very much, as farmers are ingenious in offsetting a 5 or 10 percent set-aside requirement.

But in 1983 I called the idling of 82 million acres under the PIK of that year an unpardonable error in executive judgment. And I have never been an ardent fan of the Acreage Reserve Program. It locks in too much acreage for too long a time. Congress is wise in not insisting that the original quota of 40 to 45 million acres be fulfilled.

Commodity policy has another implication, one that reaches beyond the local community to the entire nation -- to all consumers. I have in mind the food reserve feature of price support. In view of the erratic fluctuations in annual harvests, it would be foolhardy to fail to provide for a carryover of grains, and cotton too, from big harvest years to poor ones. Our granary has not been quite as "Ever Normal" as Secretary Henry A. Wallace asked, but food stocks have proved valuable on more than one occasion. Consumers have benefitted. (So have, incidentally, export traders.)

Who has gained most from soil conservation programs of the last 60 years? They help farmers who have an interest in protecting their land. (Most do, but not all.) The programs surely are supportive of local communities, as they preserve the productive base. But by and large they are general public interest programs. They help preserve the tribe -- the USA tribe.

Credit policy is a significant part of farm policy but these days it gets up-front attention only when something bad happens. My principal objection to past policy is that it has been so inconsistent. The most distinctive credit program is the concessionary credit the Farmers Home Administration makes available to young farmers trying to get a foothold in land ownership. The program is not of a scale to have a major, or even measurable, effect on the total farm or rural economy.

<u>Community Development Policy</u>. In our Extension letter <u>Economic and Policy Information</u> for November-December 1993 I defend the idea that the rural part of our nation including its agriculture has distinctive features that justify modeling some public policies accordingly.

That part of America, I wrote, is "characterized by space and distance, and isolation; by its custodianship of land and mineral resources; and by the large place of agriculture in it." These features account for rural concerns of long standing relating to transport, health service, education, and job opportunities, not to mention various sought-for amenities in rural living.

Obviously, public measures addressing those concerns hold meaning for both farmers and rural nonfarmers, probably about equally. I will touch briefly on a few thrusts in our history relating to them.

The earliest one in history was the funding of means of transport -- roads, canals, and railroads. Both farmers and non-farmers gained from those "internal improvements." Later in the 1800s, farmers protested that railroads were playing games with shipping rates -- games that hurt them. They helped get regulatory laws that lasted almost a century. My judgment is that in the present deregulation farmers and other rural people have been losers, via discriminatory pricing of rail freight and loss of much common carrier service, both freight and passenger, to rural communities.

Public support of education began early in our history. The Northwest Ordinance of 1787 provided for setting aside one section of land per township for public schools. Everyone in agriculture knows about the successive events of establishing land-grant colleges (now universities), agricultural experiment stations, and, later, Cooperative Extension. I think not only rural America but the entire nation was blessed by these. I also regard the current trend in agricultural research toward private instead of public funding, and the slow strangulation of Extension, to be a threat to the principle adhered to so long, that of making knowledge available as a public good.

With regard to public schools at elementary and high school levels, the unevenness of funding surely is a blight. It cannot be remedied solely by local action. Too many school districts lack adequate resources for that to be possible.

I have thought public funding of rural hospitals and a number of health services to be justified; I also believe it possible that some provisions of the Clinton health plan, as now written, are not as readily applicable to rural as to urban areas.

With regard to job opportunities, they surely are a principal focus of rural development. I have myself dipped into and out of that policy field for 30 years and am still perplexed. In a major way the potential for job creation is closely related to two other rural concerns: availability of good, low cost transport, and quality of education. I am dubious about tactics of tax giveaway as a business attraction. A business that cannot pay normal tax levies is of questionable worth for community development.

Professor Melvin Blase, my colleague at the University of Missouri, is excited about the potential for various forms of biomass as a base for local processing of the farmer's product. As such it would also offer local employment. This topic was the subject of our 1990 seminar.[2]

As to amenities in rural living, of course rural residents have long wanted them. The most publicized historically were rural electricity and telephones, and water systems. Desired amenities are still a part of rural development.

The Environmental Debate

Among all the national policies that bear heavily on agriculture and the rural community, yet also embrace the entire nation, the murkiest, most unresolved, and at times most contentious are surely those relating to the environment. Environmental issues were the subject of our 1991 seminar. I have time and space for only a few observations.

Farmers have mixed feelings about the environmental movement. They, to use a term of yesteryear, are caught in the switches. They resent some of the EPA rules on handling chemicals. But they also know they have nothing to gain from degradation of soil and water resources. And so long as action on their part is induced and rewarded by sharing of cost, it would be hard to say they or their communities are hurt by them. But it's all a mixed bag, and we should be careful about making generalized statements. Former Congressman Tip O'Neill of Massachusetts is quoted often as saying, "All politics is local." So are many environmental issues.

Several sources of ill feeling arising from environmental concerns are strictly local. One is the complaints registered by newcomers from the city who find their beautiful country home to be within smelling distance of a hog unit. Zoning issues are another, and waste disposal can be a third.

My last note on environmental matters is to remind of a fact of political life that commodity programs will no longer get legislative endorsement unless they are linked with environmental measures and, probably, food programs too. Environmentalism is where much of the action is and will continue to be. It promises to be the future driving force in policy for agriculture and rural communities.

---

[2] Economic Development Via New Crops/Products from Agriculture. University of Missouri-Columbia Agricultural Experiment Station Special Report 422.

Summary

I have said that however reluctantly we do so, we and all modern peoples accept the nation-state as the political unit within which citizens seek individual fulfillment and collective survival. Here and elsewhere, central government has taken on roles and responsibilities that were not dreamed of when Washington, Franklin, Madison, and others met at Philadelphia to draft a constitution. I have suggested that the change is explained not so much in terms of political theory but by developments in transport and communication that have transformed our country from thousands of communities loosely tied together into a single nationwide market place. Moreover, the market is dominated by a rather small number of giant conglomerate producers and traders. I said that the situation is made to order for a power struggle between the private business sector and government.

I did not acknowledge that a great many small businesses survive and sometimes prosper, just as a million and a half small farmers continue in business alongside the half million who dominate agriculture and its markets. I did point out that new small businesses in rural areas may become feasible as farmers make more biomass products available to them for processing.

Although my assigned topic calls for assessing how agricultural policies bear on rural communities, I did not pursue a sharp distinction between interests of farmers and of other rural people. Except for instances of massive land retirement and on some environmental issues, I believe farm policies have generally been positive for rural places, rendering farm-rural nonfarm distinctions almost meaningless. And I believe farmers and rural nonfarmers have shared in both blessings and occasional burdens of national policies in the four categories of transport, education, health, and job opportunities, together with the important area of providing rural amenities.

My last remark repeats one made earlier. Whether we like it or not we are going to continue to invest government with a major responsibility for individual and collective welfare, including that of farmers and all rural people. Much of the political action henceforth will be colored by considerations carrying the banner of environmentalism. That's not an entirely welcome change in the rules, but I have a lot of confidence in the political adroitness of farm and rural leaders, and their ability to contribute to workable solutions.

SOCIAL IMPACTS OF AGRICULTURAL POLICIES ON RURAL COMMUNITIES: PAST, PRESENT AND FUTURE

William D. Heffernan
Professor of Rural Sociology

Professor Breimyer and historians have convinced me that in the New Deal Era when many of the agricultural policies of today were formulated, the debates included a concern for the social impact of agricultural programs. At that time, a majority of the population in agriculturally based rural communities consisted of farmers, so it was felt that an increase in farm income would have positive economic and social impacts for rural communities. Not all agricultural commodities received equal attention, but because farms were much more diversified than today, the economic benefits were distributed rather broadly.

Within a decade, however, the USDA's interest in social impacts waned. The classic research study of the relationship between the structure of agriculture in a region, which could be influenced by agricultural policy, and social dimensions of agriculture was done by Goldschmidt in 1939. His study focused on two California communities. The community of family farms had more services, both public and private, than did the community where most farmers were of larger than family size. Obviously, this study focusing on two communities had many shortcomings for generalizing its findings to other communities, but scholarly concerns were not the reason the study was never reported by USDA. (The study is reported in a 1978 book by Goldschmidt, As You Sow.) Because some powerful interest groups did not wish to have structural questions raised, Goldschmidt was fired.

The word was passed among social scientists in land-grant colleges that such studies would not be viewed with favor. While in graduate school, however, I was inspired by Harold Breimyer's work done in the early 1960s. He raised questions about social impacts of the vertical integration of the poultry industry. In 1968, using a different methodological approach, I picked up the concern Goldschmidt was pursuing decades earlier.

In the decade that followed my venture into policy issues several similar studies were conducted by rural sociologists. However, our professional journals which are "reviewed by our peers" would not accept articles that drew on them. I was fortunate to have the editor of the Sociologia Ruralis request a manuscript from me. Some of my colleagues were less fortunate. They did not get published, did not get tenure, and were eliminated from the system. It took people like Jim Copp, editor of Rural Sociology, Ron Powers, then director of the North Central Rural Development Center, and Jim Hildreth, director of the Farm Foundation, to help legitimize this area of research inquiry.

While such research was being suppressed, USDA was highlighting the fact that farm numbers were declining and farm size was increasing. This was used as a measure of increased agricultural efficiency. Much of the change in farm size was, of course, the result of policy decisions to fund research and extension activities publicly through land-grant colleges (later renamed universities). However, until the mid 1970s the USDA continued to deny that the structure of agriculture (that is, the family farm system and the agribusiness system that supported it) was being restructured. Changes in farm size, specialization on the farms, and especially the changing structure of the agricultural system, undermined the assumption underlying the commodity programs, which was that increased farm income through government programs would lead to increased economic and social benefit to the community.

In the 1960s, family farms were defined as operations in which the major part of the labor, management, and capital was provided by the farm family. When the farm's expenses were subtracted from the income, economists called the difference "return to labor, management and capital." Since the farm family provided all three, it made no difference to the community how the family decided to allocate the profits among the three factors. The "profit" was mostly spent in the local community. Since most local businesses were also family businesses, they too spent most of their income in the community. Thus, the multiplier effect of a newly generated farm dollar was three to four.

As structural change began to occur in agriculture, such as contractual broiler production, all this was altered. Integrating firms perceived labor as another cost. Like other costs, they sought to purchase it as cheaply as possible. The profit was then allocated as return to capital and management. Since most of these firms were located outside the local community, the returns to management and capital moved to distant headquarters or were invested somewhere else in the world.

Many other businesses in the community also changed to nonfarm organization, and, as in the case of non-family farms, profits from them left the community. In addition, a growing number of farm families traveled to larger communities for their purchases. The consequence was that the multiplier dropped toward one. A dollar of income from government programs now has much less impact on the local community than it once did.

The changing structure of the agricultural system has had a major impact on the social life of communities in another way. It changed the nature of the work setting, thereby directly impacting the social life of the community. The family farm, corporate integratee, and corporate farm-hand production system that we now see in the agricultural system are examples of the three major production systems that have been in existence in Europe since the Middle Ages -- known as the craft, putting-out, and factory systems. Many of the questions concerning the social consequences of changes in agriculture today are similar to the questions that

social philosophers were raising at the beginning at the Industrial Revolution, as they reflected on the production systems of their time.

The theoretical base of these arguments often centers around the increased alienation inherent in the factory system. Alienation is often measured by dividing it into component parts. One set of measurements focuses on the worker's sense of powerlessness in the world. A second set bears on the individual's sense of meaninglessness or what could be called a sense of worthlessness. The final set of measurements centers on the worker's feeling of social isolation. Using measures drawn from the non-farm sector, I attempted to measure the above concepts by interviewing all of the family farmers, contract poultry producers, and workers and managers on larger-than-family farms of one parish in Louisiana. In addition, I used a host of other measures such as those focusing on job satisfaction, participation in formal organizations in the community, participation in informal interaction patterns in the community, and the worker's sense of integration into the rural community.

The results did not reveal large differences among the three categories of workers, but a clear pattern was apparent. Few differences existed between workers in a family farm system and a corporate integratee system, but rather large differences were found between managers and workers on larger than family farms.

Numerous studies conducted in different parts of the country support the hypothesis that agricultural structure, viewed in terms of the relationship among those providing the labor, management, and capital, is related to the social dimension of the community. On the other hand, most studies focusing on farm size do not indicate that size bears a major relationship to social impacts on the rural community.

A summary of the theory and the empirical research suggests that one's work is vital to his or her outlook on life. One's perception of the world is largely grounded in experiences in the work setting. Those individuals who feel they are able to influence the outcome of activities in their work setting also hold views that they can influence activities in the community, either individually or collectively. Workers who have high self-esteem and feel they are making a meaningful contribution in their work also carry such feeling into their family and community life.

Dozens of rural development studies have been conducted, examining a host of independent variables. Results of most studies, however, end up with a residual that is labeled "leadership," which goes far to explain the variability between communities which appear to be socially and economically viable and those which are not. Unfortunately, past research has not been very successful in determining how we alter leadership in the rural community. I suggest that there may be a strong tie between the work setting and community leadership.

As we all know, more of total farm family income now comes from non-farm sources than from the farm. This suggests, of course, that many farm families now spend a major portion of their work time in the non-farm setting. It is not just a matter of what has happened to the structure of agriculture, but also the trends that result in many farm families working in non-farm settings. Most of the non-farm employment is in industrial type settings in which the individual is sensitive to non-farm social/psychological influences that outweigh those associated with a farm setting. In addition, the attempt by many farm families to put together a package of jobs and income flows that can support the family financially results in many farm families' holding down multiple jobs, meaning that they are just "too busy earning a living" to be very involved in the community life.

Historically there has been a qualitative difference between rural communities that had their economic base in agriculture as opposed to rural communities whose economic base was primarily mining or forestry. The difference derived from a different structure of that economic base. Our agriculture-based rural communities are beginning to look and behave more like mining-based rural communities, as the structure of their agriculture changes to become more like that of the mining sector.

As capital and purchased inputs such as chemicals, fossil fuels, and big machinery replaced labor in agricultural production, the farm began to look more like an assembly plant than a production plant. Classical economic theory suggests that labor released from agriculture where it is no longer needed moves to other sectors in the economy where it is needed. However, labor includes a human factor, which has a psychological and sociological dimension; and it is not as mobile as, for example, capital or chemicals. Unfortunately, in the formulation of agricultural policy in past years, little interest was shown in becoming involved in social programs, and no attempt was made to address programs needed to help people in the transition from farming to another job or location. (Former Congressman Coleman's and Chairman de la Garza's addition of Section 1440 to the 1985 farm bill was a notable exception.)

The Department of Labor and other social service agencies were reluctant to provide services in rural areas, and when they did become engaged they used an urban model. For example, they might train a class of 12 persons from an area to be welders when there were opportunities for only one or two new welders in the community. One of the major methods of moving workers from agriculture to non-agricultural jobs was by discouraging youth from returning to the farm. It was often perceived to be the responsibility of the state and local governments to finance rural education to prepare youth for non-farm occupations.

When our agricultural policies were formulated, 60 years ago, serious thought likely was given to their social impact on the community. However, changes in the country and in agriculture soon

rendered early efforts inadequate. Moreover, agricultural policies now bear so little direct relationship to rural community development that many development specialists have lost faith in the ability of agriculture to provide any significant contribution to the social or economic well-being of the local community. I think this is terribly unfortunate because development programs must consider the resource base available in rural areas. In most areas agriculture is by no means a negligible part of that base.

Many Europeans laugh at our agricultural policies, saying we have a terribly narrow view of what such policies can and should do. Many farmers in the United States dislike the agricultural policies of Europe, but anyone who has driven through the rural areas of Europe recently will note the vitality and prosperity of rural communities. This is the case even in the poorer countries of western Europe, and the contrast is sharp between what we see there and the conditions in most of the agriculturally-based rural communities here in our Heartland. The Europeans simply take a much broader view of agricultural policy and they are less inclined to separate urban from rural development. They have a vision of how people should be distributed across their landscape and they use a combination of rural and urban programs to achieve it.

I have been amazed several times during the past couple of years as I participate in meetings involving farm leaders. Often the discussion moves away from agricultural production and marketing to topics that focus around the issue of the community and the environment. Even when the National Research Initiative focus of the USDA's research program pulled together an advisory committee, primarily composed of persons from large agribusiness firms, the committee's report emphasized research needs in the area of community and environment, as opposed to research focusing narrowly on production.

I would give the agricultural policies of this country very low marks on their past record of addressing social concerns of the rural community. There is, however, hope for the future.

The sustainable agriculture movement and the new governmental policies they have led to do focus more attention on the social dimensions of rural areas. In fact, a major effort is underway to link sustainable agriculture to sustainable rural communities. The North Central Region's Sustainable Agriculture Research and Education Program earmarked, this year, a significant portion of its funds to focus on quality of life. The point is that politicians, researchers, and farmers, together with farm organizations and the agribusiness community, are focusing more attention on the social dimensions of rural communities. The consensus is growing that many of these issues cannot be addressed through conventional agricultural programs.

The twentieth century witnessed such profound changes in our country and the agricultural/rural sector that major policy changes

were needed just to avoid retrogression. The growing consensus is that we can do better as we face the next century.

My major concern today is that we are facing a qualitatively different economic and political world than we have ever seen in the past. Many of the transnational corporations have larger budgets and more political influence in the world than do many of the countries in which they operate. They owe allegiance to no country and may operate in over 60 countries simultaneously.

Implicit in my presentation and the seminar itself is the assumption that the national government has the ability to shape major economic and social activities within its borders. That assumption is being reexamined by a growing number of scholars.

Following the Great Depression, this country and much of the western world ushered in what is often called the "welfare state." The welfare state refers to the fact that national governments had the legitimacy to intercede in economic activities of the nation in such a way that the public welfare was protected.

Today, the legitimacy for such programs is being questioned or even lost, in this country and others. This lack of legitimacy comes at the same time that our government faces serious fiscal deficit problems. More importantly, trans national corporations play off one country against another, much as national industrial firms play off one community against the others as they attempt to locate new production facilities. We still act as if national governments determine, through various treaties, how goods and services will flow in the world. The fact is that less than a dozen transnational corporations have a major influence in determining the production, processing, and distribution of food in the world today.

For the past 60 years, which spans the professional life of Harold Breimyer, questions were posed in seminars such as these as to what policies we should have. We were confident we could accomplish whatever objectives we set for ourselves. The questions for the next 60 years may involve not only what policies should be, but our resolve and our ability to carry them out.

RURAL COMMUNITIES: PLACES IN SEARCH OF A PURPOSE

John E. Ikerd
Sustainable Agricultural Systems Program
University of Missouri

People and money can move. Most natural resources cannot. Resources such as land, minerals, landscapes, and climates must be utilized, at least initially, in or near the geographic locations where they exist. Most rural communities were established for the purpose of realizing private and social benefits from use of natural resources located in rural places. People became dispersed across the American countryside because natural resources were likewise dispersed.

Except in mining areas, the historic purpose of most communities in the United States was to develop and gain from the social value inherent in agricultural land. The density of farm population across the nation was determined by the number of farmers or ranchers needed to realize the perceived benefits from managing their land resource. The range lands of the West were sparsely populated because one rancher could manage a herd of cattle roaming over hundreds, even thousands, of acres. Areas suited for truck farming and dairy operations were more densely populated because of the high human input requirement for those enterprises. The Midwest was covered with diversified family farms, with a corresponding rural population density.

Historically, nonfarm economic activity in rural communities has been related closely to numbers and types of farms. Rural service communities evolved into trade centers as early farmers moved away from self sufficiency and began to specialize and trade among themselves. Many rural communities later became agribusiness centers as more people left their farms and the remaining farmers came to rely more on mechanization, markets, and purchased inputs.

Places Without a Purpose

Over the past 50 years many rural communities seem to have lost their purpose. The basic trend during this period has been toward fewer, larger, and more specialized farms. The result has been declining rural populations, shrinking demand for local market outlets and locally purchased inputs, and a resulting economic decay of many rural communities. Some communities have attempted to diversify their economy in order to reduce their dependence on agriculture. Others abandoned agriculture entirely. Industry-hunting became a preoccupation of many small town councils and chambers of commerce. Jobs, any kind at any cost, seemed to be the primary development objective in some declining rural communities. Any lack of a foundation to support sustained development was given little, if any, consideration.

Many rural development activities, in the absence of a solid foundation, were rooted in nothing more than short-run exploitation of undervalued people, capital, and natural resources. Large companies, although they may provide jobs, often pay poorly, are expensive to attract and retain, and are slow to respond to new economic conditions. The number of working poor in rural areas -- workers with full time jobs who live below the poverty line -- has continued to rise. In addition, many manufacturing companies and branch plants that initially relocated in rural areas are now moving overseas where laborers are willing to work even harder for far less money. Efforts to attract low quality, low paying jobs are increasingly regarded as ineffective strategies for rural economic development.

Some new attractions such as tourism, vacation homes, retirement communities, and rural residences can have strong geo-economic foundations in climate, landscape, or proximity to urban employment. They have helped some rural communities survive the harsh reality that they had no major purpose during the industrial era other than to facilitate the forced migration of rural people to cities. However, most rural communities are continuing to search for a new, fundamental purpose for their existence.

The Inevitability of Change

If past trends affecting rural areas continue unchecked, little hope will be found for revitalizing rural communities. But trends never are extended indefinitely. One of the top 20 "great ideas in science" reported in Science magazine (Pool) is that "everything on the earth operates in cycles." Based on the universal cycle theory, any observed trend is, in fact, just a phase of a cycle. In other words, all trends eventually and inevitably reverse.

The theory of cycles would imply that farms do not get either larger or smaller forever, but instead cycle between larger and smaller. If we think back over past centuries and around the globe, we can find examples where control of land became concentrated in the hands of a few, only later to become dispersed among the many. In the United States we can cite the development and later demise of plantation agriculture in the South. The most significant such occurrence in the world at present is taking place in what once was the Communist Soviet Union. Today, industrial agriculture is coming under increasing environmental and social challenges all around the globe. The trend toward fewer and larger farms in the United States might also be a phase of a cycle that is nearing an end.

There have been similar cycles in spatial dispersion of people. Anthropological evidence indicates that people have concentrated in large cities in centuries past, but later, for a variety of reasons, have abandoned those cities and dispersed themselves across the countryside. We can ask whether, sometime in the future, people in the United States will abandon the cities and

suburbs to resettle rural areas. There is nothing in cycle theory, however, which dictates that people will return to the same rural areas they had previously populated.

New Realities of Economic Development

Alvin Toffler, in his book Powershift, points out that many forecasters treat trends as though they would continue indefinitely, without looking into forces that might reverse them. He contends that the forces of industrialization have run their course and are now reversing. Industrial models of economic progress are becoming increasingly obsolete, he says. Old notions of efficiency and productivity are no longer valid. Mass production is no longer a symbol of "modern" business operation. The new modern model is to produce customized goods and services aimed at niche markets, to innovate constantly, and to focus on value-added specialized products. Toffler contends that these are the trends of the future.

He goes on to state that "the most important economic development of our lifetime has been the rise of a new system of creating wealth, based no longer on muscle but on the mind" (p. 9). He contends that "the conventional factors of production -- land, labor, raw materials, and capital -- become less important as knowledge is substituted for them" (p. 238). "Because it reduces the need for raw material, labor, time, space, and capital, knowledge becomes the central resource of the advanced economy" (p. 91). Toffler also provides some insight into the nature of knowledge-based production. He states that separate and sequential systems of production are being replaced with synthesis and simultaneous systems. Synergism is substituting for specialization as a source of production efficiency. Tailoring products to desires of specified customers is replacing low price as source of value. Simultaneity, synthesis, synergism, tailored production; this is the "mind work" of the future.

Peter Drucker, a noted business consultant, talks of the "Post Business Society" in his The New Realities. "The biggest shift -- bigger by far than the changes in politics, government or economics -- is the shift to the knowledge society. The social center of gravity has shifted to the knowledge worker. All developed countries are becoming post-business, knowledge societies. Looked at one way, this is the logical result of a long evolution in which we moved from working by the sweat of our brow and by muscle to industrial work and finally to knowledge work" (p. 173).

Differences in organizing principles may be critically important in determining the future size and organizational structure of economic enterprises and ultimately in determining their optimum geographic location. Other things equal, the smallest effective size is best for enterprises based on information and knowledge work. "'Bigger will be better' only if the task cannot be done otherwise" (p. 260). Small enterprises can be located almost anywhere.

The Rural Renaissance

John Naisbitt and Patricia Aburdene, in their Megatrends 2000, call the triumph of the individual the great unifying theme at the conclusion of this century. They talk about greater acceptance of individual responsibility as new technologies extend the power of individuals. Their "mind workers" are called individual entrepreneurs. They point out that small-time entrepreneurs have seized multibillion-dollar markets from large, well-heeled businesses (p. 324). In fact, in the past 10 years, about two-thirds of all new non-farm jobs were created by small businesses. A recent National Science Foundation study showed that small businesses produce 24 times as many innovations per research dollar as do large business.

Naisbitt and Aburdene talk of a new electronic heartland. They contend that a new breed of mind workers will reorganize the landscape of America. They will be linked by telephone, fax machines, Federal Express, and computers into information networks that span the globe. "Free to live almost anywhere, more and more individuals are deciding to live in small cities and towns and rural areas" (p. 329). Many rural areas are already as technologically linked to urban centers as are other cities.

Cities have already lost much of their purpose as places for people to live. Most knowledge work can be delivered anywhere on the globe almost instantaneously at costs representing a very small fraction of its value. Mind workers are more independent of large organizations and thus require less frequent personal contact. For the first time in history, the link between a person's workplace and his or her home is being broken.

Naisbitt and Aburdene contend that "in many ways, if cities did not exist, it now would not be necessary to invent them" (p. 332).

Strategies for Regenerating Rural Communities

Community economic development strategies are already undergoing significant changes consistent with knowledge-based systems of economic development. As large companies and branch plants leave rural areas and move overseas for cheaper labor, economic development professionals are beginning to concentrate on improving the quality of jobs rather than quantity. The old strategies of industrial recruitment through building industrial parks by offering tax breaks has given way to growth-from-within policies. The new strategies, in line with the business theories of Reich and others, are to invest in mind-workers by encouraging entrepreneurs within the community to build small businesses and strengthen the local economy. Local buyer-supplier projects are encouraged to plug the loss in dollars leaving the community by replacing imports with locally produced goods and services.

However, most communities still seem to be lacking a clear vision of a new fundamental purpose for their existence. They can

no longer depend on agriculture as the primary engine of rural economic development. They realize that industry recruitment is destined to fail for most rural communities. There simply won't be enough American based industries in the future to go around. They turn to promotion of small scale projects such as niche markets, bed and breakfasts, and local festivals; but these are piecemeal, stop-gap strategies with limited long run potential for community development.

Communities are seeking strategies for "sustainable" rural community development. They need development that is linked to local resources, that maintains the productivity of those resources, and that protects the physical and social environment. However, sustainable development must also provide an acceptable level of economic returns and otherwise enhance quality of life. Development strategies that rely solely, or even primarily, on local natural resources are unlikely to fulfill these latter requirements. However, the obstacle of limited local resources can be overcome by those who have a clear vision of the new realities of economic development and a firm commitment to make their community a part of a coming rural renaissance.

Robert Reich, Secretary of Labor, outlines two fundamental strategies for national economic development in a global economy. First, he advocates investment in infrastructure, including such things as roads, bridges, airports, and telecommunications access systems. Infrastructure has two important development dimensions. First, it facilitates productivity by making production processes easier and more efficient. Second, infrastructure is geographically fixed in the country where it is built.

Reich's second, and even more important, development strategy is to invest in people. People who work with their minds will be the fundamental source of productivity in a knowledge-based era of the twenty-first century. If a nation is to be productive in the post-industrial economy, its people must be productive.

With one important added element, Reich's strategy for national economic development becomes a logical strategy for rural community development. Rural communities cannot depend on an alegiance of rural residents to their communities to keep productive people in rural areas. People can and do move freely among communities. During a rural renaissance, it would be critically important for communities to be able to attract new mind workers, if there are to be places where "home-grown" mind workers will want to stay. The primary attraction of rural communities for current and future mind workers will be the promise of a desirable quality of life.

Quality of life is a product of the terms by which people relate to each other, socially, politically, and economically; and the terms by which they relate to the other elements of their physical and biological environment.

The communities that survive and prosper during the rural renaissance will be culturally diverse. Diversity will be an important source of creativity, innovation, and synergistic productivity, and will be an important aspect of quality of life in rural areas. Successful rural communities will be made up of long-time rural residents, bright young people who choose to stay, returning rural residents, those born in urban areas of the U.S., and those born in other countries. They will be Anglo American, Afro American, Asian, Mexican, Canadian, European, South American, Caribbean, and Indian with a healthy mixture of other ethnic groups thrown in. Male and female, young and old, rich and poor, educated and less well educated, may be viewed as different, yet must be respected for their differences in the workplace and in the town halls of rural renaissance communities. Communities that fail to meet the challenges of the cultural renaissance will be unlikely to provide the quality of life necessary to participate in the economic renaissance as well.

Basic Strategies for Rural Revitalization

Successful rural revitalization strategies for the future will be unique to each community. Routinized processes and recipes for success were a characteristic of the industrial era. They are not that for the post-industrial era of knowledge-based development. However, the fundamental principles and concepts outlined above can provide some guidance for those who have the vision of a rural renaissance and the determination to participate in this historic process.

- Invest in people: People are the basic source of productivity in a knowledge-based era of economic development. The "virtuous cycle" of education, increased innovation, increased investment, increased value, and higher wages offers an alternative to the vicious cycle of industrial recruitment, low wages, declining emphasis on education, declining communities, and resulting downward spiral (Reich, 1991).

- Link development to local resources: Natural resources such as land, minerals, landscapes, and climates must be utilized, at least initially, in the geographic locations where they exist. Don't abandon agriculture. Large scale, industrial agriculture provides little local community support. Sustainable agriculture, on the other hand, is a knowledge-based system of farming that depends on the productivity of local people. Agricultural mind work can multiply the value to agricultural products before they leave rural areas and replace many agricultural inputs that are brought in from elsewhere.

- Invest in infrastructure: Good roads and access to airports will be important. However, modern telecommunications systems will be the key element in making rural

areas competitive with urban and suburban areas in an information driven, knowledge based society.

- Invest in quality of life: Help people make the most of local climate, landscapes, and recreational opportunities. Land use planning and zoning can make and keep quality spaces in rural communities, providing quality places for people to live. Make health care an investment in the future. Provide maternity wards and pediatricians, not just cardiac units and nursing homes. Make personal security and safety a top priority. This, as much as any single factor, will enhance the perception of rural communities as a quality place to live.

- Make a commitment of understanding, accepting, and valuing diversity: Quality of life is a product of relationships among people. Communities that fail to understand, accept, and value diversity among people are unlikely to succeed in a knowledge-based era of development.

- Share the vision: A community must share its vision of the future rural America, and what it is doing to shape its own future with others if it is to share in the rural renaissance.

The most important single step toward success may be for residents of the community to develop a shared vision of what they want their community to be. The vision of each person in the community will be distinctive. However, the people of a community must search for and find some common elements among their different visions to provide the nucleus for a shared vision. Otherwise, the group is not really a community but rather a collection of people who happen to live in the same general area. A community that has found a shared vision for the future has made its first critical step toward self revitalization. To paraphrase Jesse Jackson, if they can conceive it, and believe it, they quite likely can achieve it. The future of rural America belongs to those who are willing to claim it.

References

Drucker, Peter. 1989. The New Realities. New York: Harper and Row.

Naisbitt, John, and Patricia Aburdene. 1990. Megatrends 2000. New York: Avon Books, The Hearst Corporation.

National Science Board. 1977. "Science Indicators - 1976." Washington, D.C.: National Science Foundation.

Pool, Robert. 1991. "Science Literacy: The Enemy is Us." Science, American Academy of Science, March 15, 251:4991, p. 267.

Reich, Robert B. 1992. The Work of Nations. New York: Vintage Books, Random House.

Toffler, Alvin. 1990. Powershifts. New York: Bantam Books.

KEYS TO ENHANCING QUALITY OF LIFE IN RURAL AREAS

John C. Allen
Professor of Agricultural Economics
University of Nebraska-Lincoln

The quality of life for people living in rural areas has long been regarded as inextricably tied to agriculture, and more specifically to increased agricultural production and improved profit for producers. This thesis has been translated into an agricultural policy looking toward larger output and maximum producer profits. The policy has differential effects on various categories of farms. It led to rewarding large corporate farms while providing minimal incentives for maintaining small family owned and operated farms.

During the last 10 years, issues of food safety and environmental contamination have begun to influence the federal and state policies governing and supporting agriculture. Congress has responded to pressures relative to them. In the 1990 farm law, the importance of quality of life was codified. Congress defined a system of agricultural production to facilitate high quality of life for rural and urban residents, now called sustainable agriculture. Sustainable agriculture may be regarded as:

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

Congressional Representative Tim Penney of Minnesota clarified the intent of the legislation when he said that quality of life research includes research to "increase income and employment -- especially self-employment -- opportunities in agricultural and rural communities and strengthen the family farm system of agriculture, a system characterized by small and moderate sized farms which are principally owner operated" (Congressional Record, 10/22/90:H11128).

A report prepared by the Sustainable Agriculture Quality of Life Task Force (SAQOL) attempted to further clarify the meaning of

quality of life relative to sustainable agriculture:

> Quality of life is a product of the terms by which people relate to each other, socially, politically, and economically; and the terms by which people relate to other elements of their physical and biological environment. Sustainable agriculture is an evolutionary, integrated systems approach to production and marketing that represents a renewing, socially-responsible partnership of people and place. (SAQOL, 1992).

The legislation currently being implemented is based on the assumption that farm size influences employment opportunities, environmental contamination, and the quality of life of the producers and residents of agriculturally dependent communities. Are these assumptions valid?

Agriculture and Rural Community Linkages

For over four decades rural sociologists have been asking whether the system of agricultural production, especially the increasing corporate structure of farming, has an influence on the quality of life of rural residents, positive or negative (Lasley et al). Lasley and his associates examined previous research focusing on the Goldschmidt hypothesis. Goldschmidt had reported that the type of agriculture and the size of the farms have profound impacts on rural communities. He found that communities with smaller sized farms surrounding them had a higher quality of life for residents, superior public services and facilities, higher rates of social and political participation, less social stratification, lower poverty rates, and a more diverse and stable business sector (Goldschmidt, 1968, 1978).

Since the Goldschmidt studies of the late 1940s, other investigators have found a similar relationship between size of farms and community well-being (Heffernan; Heffernan and Lasley; Korshing and Gildner; Swanson). From previous studies Lasley, Hoiberg, and Boltena concluded that a dozen studies done over four decades in all regions rather consistently showed that "a change towards corporate agriculture produces social consequences that reduce the quality of life for rural communities" (p. 4).

Lobao found that an agricultural structure that was increasingly corporate and non-family owned tended to lead to a smaller population, lower incomes, lower numbers of community services, less democratic participation, decreased retail trade, environmental pollution, greater unemployment, and an emerging rigid class structure (p. 57).

What happens to rural communities when they become unhinged from agricultural production? The number of agriculturally dependent counties in the nation decreased 14 percent between 1979 and 1984 (Henry et al). However, Flora states that "this decline of dependence on agriculture should not in itself be viewed as a

decline in the sustainability of the community, if the community were able to provide alternative mechanisms for making a living and alternative sources of social identity" (p. 344). For many communities, this has not been the case.

Flora suggests that a movement to a more sustainable agriculture will have some potentially important impacts on rural communities. These impacts could include (1) a need for management skills for a more complex agricultural production system; (2) cost minimization as a less capital-intensive, sustainable agriculture releases local capital and makes it available for nonagricultural development, perhaps serving niche markets; (3) a more diversified agriculture -- with its benefits in stabilizing the local economy; (4) more citizen participation in community affairs.

John Ikerd sees "sustainable agriculture, with attention to equity, empowerment, and high levels of management skills [as] consistent with trends in the business world." He believes sustainable agricultural practices may increase food costs only slightly and would have "relatively little impact on [consumers'] well-being" (p. 5).

Community-business Impacts of Sustainable Agriculture

It is relatively easy to learn what happens on farms when sustainable farming practices are adopted. But what is the impact of sustainable agriculture on local businesses, and on quality of life in the community?

To address this question, the University of Nebraska-Lincoln in cooperation with the Center for Rural Affairs in Walthill, Nebraska, and Iowa State University made an exploratory study in an area within a 100 mile radius of Walthill. The 123 businesses were either engaged in by farmers on their farms, or started off the farms by either farmers or non-farmers. In both cases, the business activity often was to make farm inputs available that previously had been purchased outside the community. However, the businesses took many forms, even extending to wholesaling and recycling.

The researchers found positive impacts on local communities (Allen). Seventy-eight percent of respondents reported creating jobs in their communities, while almost 40 percent indicated that their new businesses brought in new community leadership.

Of the jobs created, 78 percent were skilled or semi-skilled, 19 percent clerical, and 20 percent managerial. Fifty-eight percent of the entrepreneurs interviewed said that they felt their business enterprises helped stabilize the local economy.

These exploratory findings seem to indicate that sustainable agriculture may, in fact, have the potential for positive impact on the quality of life of rural residents.

Sustainable Agriculture, Communities, and the Information Age

Taking steps just to change agricultural policy is unlikely to prove to be a panacea, assuring viable rural communities and a high quality of life. For rural residents to exploit the advantages provided by small to medium sized family owned and operated farms, rural residents must also take advantage of the opportunities provided by the information age.

In the mid-1980s futurists began taking serious notice of a phenomenon they identified as the "information age" (Cleveland; Dillman). They described the new information age as one where geographic isolation would no longer be a barrier to gainful employment. They also showed that personal computers, modems, satellite up- and downlink systems, and fax machines now make it possible for rural residents to do work previously tied to large urban centers.

Dillman, Beck, and Allen discuss how "job creation has become unhooked from natural resource industries." They say rural residents will need to move rapidly to participate in the information age in order to survive. Less than 20 percent of the work force is now employed in manufacturing. By the end of the century, Dillman and his associates tell us, as much as 70 percent of the work force could be involved in "knowledge, information, and education jobs" (p. 21). These data do not bode well for rural communities, yet it may prove possible that "many service organizations [will be able to] export from a city or region and [not be] restricted to serving local business or customers" (Dillman, et al, p. 21). Jobs are also more likely to be created by small rather than large organizations. Small size can allow flexibility in marketing; also, small size facilitates developing an ability to meet consumer demands quickly by moving to fill niche markets.

<u>Management of a complex agricultural system</u>. How can a sustainable agriculture on small family owned and operated farms on the one hand, and personal computers, fax machines, and satellite up- and downlink systems on the other, be linked with quality of life? Cornelia Flora has pointed out that sustainable agriculture is a more complex agricultural system and will require superior management. Information age technology plays a useful or even essential role in providing technical guidance to farmers in production and marketing, as well as information on ways to maintain sustainability.

<u>Increased participation in community affairs</u>. Several authors have suggested that smaller farms and participation in the information age can actually enhance community participation by a larger number of people (Allen; Strange; Flora). This is particularly likely if the population in rural areas is stabilized by satisfactory opportunities for local employment. A sustainable agriculture and stable employment augur well for an increased level of participation in community affairs.

Agricultural policy to enhance quality of life. As the research cited in this paper illustrates, small to medium sized family farms are related to a higher quality of life for rural residents. Current agricultural policies seem aimed at larger corporate farms. The quality of life of rural residents would be enhanced most if government subsidy programs were to be aimed at small to medium sized family owned and operated farms.

At the state level, states may want to explore a law similar to Nebraska's Initiative 300 which restricts majority ownership by corporations of farms. While the initiative has supporters and opponents, it is one model of developing a policy aimed at supporting small to medium sized family farms. Inheritance tax laws impacting family farms should be examined. Are these laws consistent with a desire to maintain small family farms and viable rural areas in the United States?

Yet, as I said above, changing agricultural policy alone will not solve quality of life problems in the United States. Attention also needs to be paid, for example, to insuring that telecommunication infrastructure exists in rural areas. Access to information age technology is as important for rural residents today as access to electric power was 60 years ago.

Banking policies need to be examined at the state and federal level. Many local community borrowers find barriers to getting a loan when they are starting a business that employs information age technology.

Summary

There are several keys to enhancing the quality of life in rural areas. They include facilitating the development and maintenance of small to medium sized family farms. Another is to take necessary steps for development of infrastructure, especially the infrastructure of telecommunications.

Quality of life is ephemeral and it is easy to get bogged down in definitional debates. Yet it has a great deal of meaning to rural people. Researchers, extension specialists, and land-grant university administrators who have a professional interest in policy for agriculture and rural regions need to give attention to how any policy, current or contemplated, bears on rural quality of life. After all, doesn't our mandate from the public call for us to do that?

References

Allen, John C. 1992. "Community Level Entrepreneurial Efforts Supporting Sustainable Agriculture." Department of Agricultural Economics, University of Nebraska-Lincoln.

Cleveland, Harlan. 1985. "The Twilight of Hierarchy: Speculations on the Global Information Society." Public Administration Review. Vol. 45, p. 185.

Dillman, Don A., Donald M. Beck, and John C. Allen. 1989. "Rural Barriers to Job Creation Remain, Even in Today's Information Age." Rural Development Perspectives. February, pp. 21-25.

Dillman, Don A. 1985. "The Social Impacts of Information Technologies in Rural North America." Rural Sociology. Vol. 50, No. 1, pp. 1-26.

Flora, Cornelia Butler. 1990. "Sustainability of Agriculture and Rural Communities." In Sustainable Agriculture in Temperate Zones. Charles A. Francis, Cornelia B. Flora, and Larry D. King (eds). New York: John Wiley and Sons.

Goldschmidt, Walter. 1968. "Small Business and the Community: A Study of the Central Valley of California on Effects of Scale of Farm Operations." Pages 303-433 in U.S. Congress, Senate Corporation Farming, Hearings before the Subcommittee on Mono-poly of the Select Committee on Small Business. U.S. Senate.

Goldschmidt, Walter. 1978. As You Sow. Montclair, N.J.: Allanheld, Osmun.

Heffernan, William D. and Paul Lasley. 1978. "Agriculture Structure and Interaction in the Local Community: A Case Study." Rural Sociology 43, pp. 348-61.

Heffernan, William D. 1982. "Structure of Agriculture and Quality of Life in Rural Communities." Pages 337-46 in Don A. Dillman and Daryl J. Hobbs (eds), Rural Society in the U.S.: Issues for the 1980s. Boulder: Westview Press.

Henry, M., M. Drabenstott, and L. Gibson. 1986. "A Changing Rural America." Economic Review, Federal Reserve Bank of Kansas City, 71: 23-41.

Ikerd, John. 1993. "Economic and Quality of Life Issues in Sus-tainable Agriculture." Department of Agricultural Economics, University of Missouri-Columbia.

Korshing, Peter and Judith Gildner (eds). 1986. Interdependencies of Agricultural and Rural Communities in the Twenty-first Century: The North Central Region. Conference Proceedings. Ames, Iowa: North Central Regional Center for Rural Development.

Lasley, Paul, Eric Hoiberg, and Gordon Bultena. 1992. "Is Sus-tainable Agriculture an Elixir for Rural Communities?: The Community Implications of Sustainable Agriculture." Department of Sociology, Iowa State University.

Lobao, Linda M. 1990. Locality and Inequality: Farm and Industry Structure and Socioeconomic Conditions. Albany: State University of New York Press.

Strange, Marty. 1988. Family Farming: A New Economic Vision. Lincoln: University of Nebraska Press.

Swanson, Louis. 1990. "Rethinking Assumptions about Farm and Community." Pages 19-33 in Albert Luloff and Louis Swanson (eds). American Rural Communities. Boulder: Westview Press.

U.S. Congressional Record 10/22/90:H11128, Washington, D.C.

U.S. Department of Agriculture. 1992. "Sustainable Agriculture and Quality of Life." Sustainable Agriculture Quality of Life Task Force.

INNOVATIONS IN RURAL EDUCATION:
A Look at Two-Way Interactive Television Technology as a Catalyst to Educational, Community, and Economic Development

Vicki M. Hobbs
Educational Consultant
Columbia, Missouri

A quiet revolution is occurring in rural education in the United States, one so quiet, in fact, that few people really know the extent to which telecommunications technology is redefining the geographic barriers of community, broadening the once limited educational opportunities for its youth, and closing the gap in rural school inequity. I am referring to *two-way interactive television*, a technology that can use copper telephone lines or, preferably, fiber optics lines to unite students in different schools, as though they were in the same classroom.

Unlike satellite downlinks, on which Missouri staked its future by putting a dish atop every school in the state, two-way I-TV is fully interactive, e.g., students and teacher can see and hear each other continuously just as though they were in the same classroom. In satellite classes, students can see and hear the instructor, but the instructor cannot see the students nor can students spontaneously ask questions. In two-way I-TV, without pushing a button or picking up a microphone, students can ask a question of a teacher 30 miles away; students can see a live demonstration or a biology dissection; a student can put his/her artwork under an overhead camera and have it critiqued by a remote teacher; students at one site can act as a mock jury with a student at a distant site performing the role of the judge; expert witnesses can reside at yet a third site. Up to five sites can simultaneously participate in any class, and each site can see, hear and interact with all other sites at all times.

Distance education or distance learning has become the byword in rural education circles, but it is imperative to separate the various technologies included under the broad term of distance learning. Not all distance education classes are the same. Distance learning can involve anything from correspondence classes in which interaction is dependent on the mail; to audiographic computer classes in which students interact with remote students through a computer screen; to instruction by satellite in which interaction is largely one-way, e.g., from teacher to students; to two-way interactive television in which the level of student-to-teacher and student-to-student interaction mimics that of a traditional classroom.

Two-way I-TV technology involves the providing of high school, advanced placement, dual credit, and/or college courses to high school students with a teacher located at any of the network schools and students located at one to four additional sites. Clusters or networks involving 3 to 10 schools then serve as the

joint decision-making entity by which needed classes are identified, teachers are recruited, and student needs are met. Teacher-student communication is two-way and instantaneous -- students and teachers can both see and hear each other at all times.

I would like to focus on two-way interactive television technology as it applies not only to rural education, but also to rural community and economic development. First we ask what the need is. And what does two-way I-TV have to offer?

Although they have only recently come to be appreciated, the benefits of small schools are well documented. Among them are smaller class size; higher student achievement (when data are controlled for socio-economic status); more individual attention; a greater sense of belonging; and many others.

On the other hand, the educational limitations of smallness are significant. The schools involved in the MIT-E Network illustrate the common problems that face many schools throughout rural America. Here too only selected ones are named: difficulty in meeting increased course requirements for college admission; fewer advanced science, math, and foreign language courses offered; inability to attract or retain quality teachers given a non-competitive salary schedule; alternating-year course offerings; inability of students to take all needed courses in a "tight" schedule, e.g., literally having no alternatives in a 4-year high school schedule; and others.

In addressing these educational needs, the MIT-E Network instituted nine two-way interactive classes in the fall of 1993. They were in physics, chemistry, probability/statistics, anatomy/physiology, dual-credit German (for both high school and college credit), dual-credit communication skills (for both high school and college credit), college preparatory English, Spanish, and trans-actional writing/practical composition.

Where two-way I-TV is used. Since the early 1980s Minnesota has led the way in developing two-way interactive television networks. Many other states have since moved forward. Kansas, for instance, has developed 10 I-TV clusters of schools. The potential for immediate and full interactivity is the difference between interactive TV and other distance learning technologies and is why more than half of all states have significant efforts ongoing in two-way interactive TV.

In Minnesota several waves of state incentive funding gave birth to many clusters of school districts. Fifty-eight districts were part of the Minnesota Technology Demonstration Sites program in the early 1980s. Of that money approximately $3 million went to I-TV. Today 39 I-TV networks in Minnesota represent more than 40 percent of the 430 Minnesota school districts. Small independent telephone companies played a significant role in helping form school district clusters and in deploying fiber. But above all,

affordable pricing by telephone companies was the key to widespread adoption of the technology.

Costs involved in two-way I-TV. The costs of putting together an I-TV network are highly variable depending upon the technology utilized, the state in which it occurs, and the telephone companies or other suppliers involved. Three major costs, however, must be considered.

The one-time costs per classroom are classroom modification costs of $500 to $5,000, and equipment costs that run at $20,000-$30,000. Items in the former are window treatments, wall insulation, carpeting, air conditioning, and furniture. The more expensive equipment cost items are monitors, cameras, sound system, and control system.

The third category is of ongoing expenditures. Monthly lease costs can vary from $500 to $5,000 per month and cover lease of transmission lines (T-1 copper or fiber optic cable) and transmission equipment.

Policy insights and key policy makers. There is much in common between the rural electrification efforts of the 1930s and the development of telecommunications technology in the 1990s. The problem is that today we don't have a Tennessee Valley Authority to take the initiative nor a Clyde Ellis to bring a national policy for fiber deployment to fruition.

In 1933, when the legislation creating the TVA was enacted, a giant step was taken in the direction of the rural electrification program. The TVA legislation was important in three aspects: (1) it provided that preference in the sale of low-cost wholesale power for distribution be given to states, cities, counties, and cooperative organizations; (2) it authorized TVA to construct transmission lines to carry the wholesale power to points of need; and (3) it specified that the power should be sold at the lowest possible cost (Ellis, 1966). Today, lacking a similar national public works agenda for fiber deployment, the following private sector initiatives could serve to stimulate fiber infrastructure development and low-cost educational pricing across rural America: (1) selective deregulation of broadband telephone services in order to promote deployment of fiber cable; (2) tax incentives to telephone, cable companies, etc., that provide low-cost annual lease rates for fiber and transmission equipment usage by school district consortiums or telecommunities; and (3) short-term subsidization of educational fiber use through phone bill surcharge or local exchange carrier rate increases.

The likelihood that this will occur, however, is not great. Barriers are several. Currently, state utility commissions hold both ultimate power over the utility companies and over the widespread adoption of educational telecommunications technologies. The problem, of course, is that the public service commissions are more enlightened in some states than in others. The Minnesota

utility commission has been an advocate of widespread adoption of two-way interactive TV since the early 1980s; in 1991 the Tennessee Public Service Commission ordered South Central Bell to discount its (T-1) copper rates by 70 percent for distance learning applications; the Kansas Corporation Commission has in the past three years allowed the widespread deployment of fiber and the setting of subsequent educational rates through "Individual Case Basis (ICB) tariffs" which are, by industry standards, below cost. Kansas has not confronted the rate subsidization issue, but has chosen to allow low-cost education rates based on "excess fiber capacity."

In Missouri, the Public Service Commission continues to insist that any subsidization of educational telecommunications use will not be permitted nor has it shown any willingness to allow alternative educational pricing for telecommunications under any terms.

And finally, state departments of education should become advocates of telecommunications technology and assist schools in its development. Lacking expertise in such technology and alarmed by the anticipated departure from schooling as usual, state departments of education often hinder rather than help the technological transition. Among state departments of education, Kansas serves as a beacon, largely due to the dedication and vigor with which the Commissioner of Education has pursued telecommunications technology in the state.

<u>Required policy changes</u>. Taking Missouri as a case in point, several policies must be changed for widespread adoption of telecommunications technology:

1. The state, through its Public Service Commission, must balance its advocacy of individual telephone customers with that of the public good. The implications of this can be seen in Missouri in Southwestern Bell's TeleFuture II proposal, which is its response to a $150 million excess profits case brought by the Missouri Public Service Commission. The MO PSC is very likely to reject Bell's offer to lay fiber to every middle school, high school, college, hospital, and library in its service area, in favor of a $1.98 rebate" to individual customers. Rather than build on the opportunity that fiber deployment would provide, this opportunity will likely go the way of other lost opportunities.

2. The notion that "subsidized" telecommunications services cannot be provided to education must be relaxed. The MO PSC must adopt a position of support for low-cost educational telecommunications use. Whether the issue be creatively sidetracked, as in Kansas, or confronted, as in Tennessee, the bottom line has got to be affordable T-1 copper and fiber lease costs for education.

3. Statewide T-1 and fiber optic tariffs for education must be approved. A T-1 educational tariff would allow use of existing copper lines for telecommunications purposes to areas of the state in which fiber deployment is not immediately feasible. An educational fiber tariff would allow schools and communities to implement telecommunications technology without being held hostage by initial fiber deployment costs, distance-sensitive charges, or isolation factors. Just as the REA made rural electric power affordable to all, so too would the creation of an educational tariff make a telecommunications infrastructure available to those communities in most need. An annual fiber and transmission equipment lease rate, roughly equivalent to the cost of a full-time beginning teacher, i.e., $18,000, is both justifiable and in line with costs in other states. Because T-1 copper telephone lines are already in place, the T-1 tariff should reflect a rate lower than fiber, e.g., $12,000 annually.

4. The State Department of Elementary and Secondary Education must be willing to allocate technology funds on the basis of district need and commitment to use rather than as an entitlement. DESE's standard policy has been to allocate technology funds on a per school basis. This policy resulted in a satellite dish in every school yard, regardless of whether it will ever be used. Although it is important to maintain equal access to such funds, it is counterproductive to divide the total amount of funds by the total number of school districts. Not all schools need, nor will all utilize, I-TV capabilities. It is a far more rational use of limited funds to provide all schools with the opportunity to access funds, but allocate funds on the basis of demonstrated commitment to usage.

5. The Missouri Department of Elementary and Secondary Education must utilize a portion of Senate Bill 380 Technology Funds or V.I.D.E.O. funds (from video rental sales tax) to fund the one-time classroom equipment costs for two-way interactive television consortiums. A $25,000 one-time allotment would enable each school having demonstrated its commitment -- through formation of an I-TV consortium, joint calendar and bell schedule, tentative course schedule, and an implementation plan and time line -- to implement the technology. Together SB 380 technology funds and V.I.D.E.O. funds will likely amount to $8.5 million next year. Taking only $2 million of that amount for I-TV classroom equipment grants would allow 80 schools to fund I-TV classrooms next year. A similar amount of money made available for two additional years would allow a total of 240 schools to participate in I-TV networks, a number which will likely meet the immediate need among Missouri school districts.

If these five major policy changes are enacted in Missouri, the widespread adoption of telecommunications technology in schools will undoubtedly occur.

Beyond coursework: the creation of a "rural teleCommunity." The scope of benefits accruing from educational access to two-way interactive television technology is by no means limited to the provision of advanced classes for pupils in small high schools. The economic development potential of such a technology is further enhanced by the next step -- the creation of "telecommunities" across the region. Seeing a need for the addition of a second I-TV facility and computer network in each community either within the school or city hall, library, or other public building, the MIT-E network has begun to advance several potential connections. It is in the expansion of "community" to encompass a region (rather than one town) and the viewing of a "telecommunity center" as a dispersed set of interrelated capabilities (rather than a single room), that the excitement of the notion of a "Rural Telecommunity" comes to life. The following represents the potential linkages across six communities in mid-Missouri, as well as a link to the outside world:

1. Continuing education courses/workshops
   - Missouri League for Nursing, e.g., RN's, LPN's, nursing home personnel
   - dental assistants' workshops
   - EMT training/training updates
   - pesticide use training
   - firearms safety training

2. Telecommunications link between a recently purchased small rural hospital and a major regional health facility
   - remote diagnostics
   - medical consultation
   - staff seminars

3. Linkage of a small rural hospital with remote community doctors' offices, nurse practitioners, and clinics
   - medical consultation
   - patient support groups
   - community medical information forums

4. Manpower training/retraining -- private industry councils and JTPA
   - job readiness programs
   - job counseling

5. Linkage with area correctional institute
   - provision of remedial, secondary, and GED classes for inmates

6. Voc-Tech school involvement
   - exploring the provision of some part of area voc-tech school courses over the I-TV network as a way to reduce transportation costs and time

7. Adult evening college courses provided by Central Methodist College
   - degree-program courses offered in each community

8. Graduate-level education courses
   - development of a masters' level teacher education program by

Central Methodist College which will build on and experiment with the role of the practicing teacher in the classroom

9. Joint teacher professional development programming
   - SB 380-mandated one percent of monies to school districts for professional development

10. Linkage of University of Missouri Consultation and Assessment Clinic with participating schools
    - remote diagnostic and assessment services for special needs students, e.g., the learning disabled, etc.
    - parent forums
    - training for school district special services teachers
    - special services aide training
    - direct consultation with school psychologists regarding individual student clients
    - participation of MU staff in remote special services team meetings and IEP conferences
    - linkage with LD Transition from School to Work Project
    - training of and consultation with school Vocational Adjustment Coordinators (VACs) by Missouri Vocational Rehabilitation personnel

11. Linkage with regional, state, national, and international data resources
    - participating in DESE's INTERNET access project
    - exploration of linkage of data access capabilities with I-TV classrooms

12. Linkage with University of Missouri College of Education
    - participation of I-TV schools in the MU/School/Community/Business Partnership
    - serving as "test-plots" for the "One-Stop Centers for Teaching and Learning"
    - designation as "professional development schools" -- part of the network of schools in research and training partnership with the College of Education
    - participation as a site(s) in the Center for Enhancement of Mathematics, Science, and Technology Education effort to implement an "investigative driven mathematics, science, and technology curriculum at the middle school level"
    - linkage with SW Bell's Science Education Center

13. Partnership with Missouri State 4-H Program
    - 4-H leader training
    - intercommunity 4-H demonstrations and project review over I-TV
    - participation in redirection of 4-H for the 21st Century, e.g., 4-H as the integrator of youth services

14. Linkage with the University Extension Service
    - new avenue for linkage of communities with Extension Community Development Specialists, Business and Industry Specialists, Home Economists, Agricultural Specialists (e.g., agronomy, horticulture, livestock, etc.)
    - potential pilot for new Extension Service delivery model
    - building on satellite downlink capacity of each County Extension Office, e.g., using I-TV network for regional discussions of downlinked programming

15. Integration of Human Resource Agency services
    - provision of an impetus for Family Service, Health, Mental Health, Juvenile Justice, Vocational Rehabilitation personnel, etc., to bring joint resources to bear on the individual needs of a child or family through I-TV linkage

16. Business, industry, organization and agency use
- information meetings -- Farm Bureau, MFA, SCS, FmHA, Conservation Commission, ASCS, Federal Crop Insurance Corporation, etc.
- job availability information -- Employment Security
- seminars -- Social Security Administration, Internal Revenue Service, etc.
- insurance company seminars, e.g., State Farm, Shelter Insurance, Federal Crop Insurance, etc. (this would have been most useful during the recent flood disaster)
- member meetings -- MO Pork Producers Association, MO Livestock Association, area historical societies, retired teacher organizations, etc.

Conclusion. Few educational technologies have been of sufficient importance to claim a role in reinventing rural America. Through the provision of advanced secondary and dual-credit courses, as well as interlinking institutions, agencies, organizations, and businesses through fiber "telecommunities," two-way interactive TV may indeed live up to that promise. But the responsibility for facilitating the widespread availability of the technology lies with state policy makers -- state government, the Public Service Commission, and the Department of Elementary and Secondary Education. Unfortunately, those who have most at stake in proliferation of the technology -- namely, the students and communities in which they reside -- have the least amount of input. It becomes our responsibility -- citizens' responsibility -- to make sure that policy makers understand exactly what is at stake.

References

Ellis, Clyde T. 1966. A Giant Step. New York: Random House.

Hobbs, Vicki M. 1992. "The Missouri Initiative: A Proposal for the Development of Interactive Television Capabilities in Missouri" (unpublished).

INNOVATIONS IN RURAL HEALTH CARE

Harold A. Williamson, Jr., M.D.
Department of Family and Community Medicine

If the focus these days is on reinventing rural America, much is to be said about the exciting things going on in rural health. Those of us working in that field see a window of opportunity that comes up only once in a couple of decades. I assume that it is not necessary to explain why rural health is important. I take for granted that all at this seminar share philosophical underpinnings such as that getting and staying healthy is important to quality of life.

Not everyone may appreciate, though, that health services have an economic impact on rural communities. A study from Oklahoma State University suggests that each physician in a community employs about three and one-half persons directly and about 17 indirectly through the hospital. The rural hospital is often the largest employer in town, and in addition has the best salary and wage structure as well as the best benefit package.

Much happened in the early 1970s but the stars of the show have now lined up politically in terms of advances in medical education, and in a health care reform proposal that, as of the date of this seminar, is before the Congress. We really do have a window of opportunity the next few years. That is worth our thinking about, because the state of medical service in rural Missouri is not as good as we would like.

I will sketch a few differences between the situation for urban health and rural health -- that is, the health status of people who live in metropolitan areas and those who live in rural areas. Higher rates of chronic illness in rural areas relate to some extent to the higher proportion of elderly people in most rural areas. In several counties of mid-Missouri, for example, a fourth to a third of the population is over 65 years of age. In general, citizens living in rural areas also have a lower rate of service utilization: in other words, for the same degree of illness they seek consultation with physicians less often, probably because of some "toughness" factor but also because they have less access to services. Rates of medical indigence are higher -- a term applying to people who may be on Medicaid but don't have health insurance or other financial access to health care. That is explained largely by chronic high rates of unemployment in many rural counties. The majority of us get our health insurance through our employers rather than individually; but many small companies in rural areas are not able to provide health insurance to their employees. There also are higher rates of trauma mortality in rural areas. And of course fewer health care providers -- physicians, nurse practitioners, and others -- are available in rural places. In the United States as a whole, about a fourth of the population lives in rural areas but only 12 percent of

physicians locate in rural areas. Unfortunately, about the same distribution applies to nurse practitioners. Only about 15 percent of them are located in rural areas, because opportunities are more attractive in metropolitan areas.

Data have been developed on HPSAs (Health Profession Shortage Areas), of which there are a number in rural Missouri. Various measures of health show up differently in HPSAs. For example, cancer screening tests for women are engaged in less often in HPSAs. In a rural HPSA only a third of women over 50 have had the tests. In a suburban area half have done so. The same picture applies to prenatal care. A study in the state of Washington found 13 percent of complicated pregnancies in rural areas of little prenatal care, and 8 percent in rural counties with prenatal care. Where prenatal care is not readily available the incidence of babies with costly health problems is three times as high as where prenatal care is at hand. When legislators learn of this difference they are interested because they can save a lot of money by spending a little money.

Rural areas generally have less adequate rates of prenatal care than urban areas do.

I have mentioned the higher incidence of trauma in rural areas. Where rural roads lack good vision over hills, have no guard rails, and are otherwise deficient, traffic injuries and deaths are exceptionally high. Complicating the situation is the less ready availability of emergency aid. Even for the same level of trauma, the mortality rate is considerably higher in rural areas.

I comment now on what we foresee as expected changes in health care, changes that promise to make things better. There is now a renewed interest in rural health. Many medical schools, including the University of Missouri's, are trying to get their graduates to practice in rural areas. Tertiary Care Centers are often interested in helping rural hospitals and rural communities, including Centers in Missouri.

On a national and state level we see a lot of activity with respect to health service reform. Here at the university a group led by RUPRI (Rural Policy Research Institute) has looked into the potential effect of the Clinton Health Reform program on rural health. Most agree that if the Clinton plan goes through more or less unchanged, improvement will follow in most rural areas of the country. This would be a departure from what has happened in recent years. The 10 percent closing of rural hospitals in the last decade is largely explained by a 25 percent reduction in reimbursements to rural hospitals relative to urban ones, under the diagnosis-related group prospective payment system.

Since the summer we have been working here in Missouri on the Show-Me State Health Reform Program. Much of it relates to improving access in rural areas and in some underserved urban areas, with

an emphasis on primary care. (In most rural areas most of the physicians are primary care; fewer are specialists.) President Clinton appointed a committee composed of persons interested in rural health, whose assignment was to go from committee to committee to ask attention to what impacts would follow on small rural hospitals and rural providers. I think the situation has improved since the days of health reform under Medicare and the prospective payment system of a decade ago.

Also, in any of the health plans including the Clinton one, there will be a lot of emphasis on what are called integrated service networks. That means the physician in a community will be hooked up with other physicians in nearby communities and affiliated with, generally, a tertiary care center -- a group of physicians and hospitals in that area pooling their expertise and interests. We hope that what this means is that there will be fewer providers in small hospitals who lack back-up but will have rapid access to tertiary care linkages, and that this will be true irrespective of the citizens' ability to pay.

Among other expected changes there will be what I call service concentration. I think it unlikely that every Missouri town of 1,500 population will have a doctor. Some communities will, but it's likely that services will be concentrated in communities of 10,000-25,000. Many of the smaller communities that once had one physician may be served by what I call a spoke-and-hub model, meaning that a larger community with a hospital may have a group of 10 to 15 practicing physicians who will support practices within a 30 mile radius. That model has been used in other states much more extensively than in Missouri and has generally proved successful. It is also likely that more nurse practitioners and physicians' assistants will be trained and that we will be able to get them to go to rural areas.

There will be an evolution in hospitals, and no longer will we see rural hospitals that are a mini-reflection of urban hospitals trying to provide a broad array of services. It's more likely that larger communities will have more or less full service hospitals backed up by a tertiary care system; and that towns with small hospitals will reduce their emphasis on in-patient and emergency care and will become the focus for home health services, radiology services, social services, and so forth. That certainly is the trend observable elsewhere in the country. States that saw the handwriting on the wall earlier have helped rural hospitals' transition to a different role rather than let them close completely. We are a little slow in Missouri but the change is coming.

Similar to exciting developments in our schools, in medicine we are seeing some equally exciting possibilities if we can get the tariff and public service commissions on board. At a meeting in Arizona held by the May Clinic Foundation, I was amazed by the demonstrations. One, for example, was of a radiologist from the Mayo Clinic, Scottsdale, putting a needle into a tumor in a man's liver in order to deliver a medication. That is not unusual of

itself; but he was supervised by a world-famed expert radiologist located at the Mayo Clinic in Minnesota. From 2,000 miles away the expert explained how to perform the procedure. Likewise, the primary care physician at the Rochester Clinic in Minnesota did a demonstration consultation on patients with dermatological lesions that reached a dermatologist in Phoenix 2,000 miles distant. The quality of the transmission was unbelievable. I could not have seen the lesion any more clearly if it had been in my own office. A third demonstration was given by an ENT physician who was able to hook up fiber optic instruments in a manner that will enable me to examine a patient's ear in rural Missouri, and the transmission will come over to an ENT physician literally any place in the United States.

Dreamers who are thinking far ahead are visualizing having the setup in one's living room and being able to dial a physician and get a diagnosis in the bedroom.

I think this is some distance away. But the technology is now at hand enabling me in a rural community to examine a patient over a telecommunications link to a cardiologist in a distant site. The cardiologist can examine the x-rays, the EKG, listen to the heart murmur, and not only describe what we should do with the patient but also teach me what I should do the next time I see a similar patient.

All this is exciting in terms not only of direct service delivery but also of continuing medical education.

The Transportation Division in Missouri has projected the location of highways 15 years from now. Whether those highways are to be made of concrete and asphalt or of fiber optic cable remains to be seen, but it is clear to me that if a hospital gets a fiber optic cable and has a link to the university hospital in Columbia it has a tremendous advantage. The university's radiology department is already hooked up with hospitals in Tipton and in Marceline and is able to provide radiological backup to those hospitals. In places where this technology has been used, about 50 to 80 percent of consultations have been able to remain at the local hospital. If you are a rural hospital administrator you can sort of hit the cash register every time that happens because now instead of transfering patients to a tertiary care center you will keep them at the local hospital. And so patients get the benefit as well.

Finally, I mention the kinds of things that are happening here at the University of Missouri. The Deans of the School of Medicine and the School of Nursing are excited about innovations we are planning here. Many of you won't see them for several years down the line, because in order to change a curriculum we have to go through a two-year lag time, and our product -- our graduates -- is even four years behind that. Much is happening now, and the Deans of our schools really are committed to the process. Among things we are working on is a likely change in our admissions policies, leading to our selecting not only more students from rural areas

but those who have certain demographic characteristics allowing us to predict that they will return to rural areas. We are planning summer programs for students from rural areas, so that they can have a health-career experience and can see what physicians actually do and what a medical school is like.

We plan a program to help students from rural areas prepare their dossier when they interview at the medical school. Many of my colleagues on the admissions committee who have never lived in a rural area may have a bias about the way some people communicate. Students from west county in St. Louis are good in communicating in an interview setting, and even though their standardized exam scores might not be higher than others', they are more convincing. Rural education models are to me the most exciting things we are going to do. We are planning to have medical students be educated in their communities rather than in Columbia. Many states, such as Minnesota, have been doing this for a decade and we are only a few years away from doing it here. What this would mean is that students would be educated for a good part of their clinical years in smaller communities with the intent that they would return. In such a program about 75 percent go back, in contrast with only 20 percent who go back from a more traditional curriculum.

We will be providing more and more direct services; already we have cardiologists and pediatric endocrinologists and other specialists traveling to rural communities. We will be doing more of that in the future. We are working on an integrated service network now with a group of hospitals in northern and central Missouri. As we do so we are also helping their physicians with the stresses and strains that they have in professional life, and I think we will be able to provide a lot of support for the kinds of things they are trying to do in their communities.

Community health services development: this refers to our interest in helping small communities make good decisions about the policies that they will pursue in their communities. Do we buy an expensive scanner; do we ensure that women have adequate prenatal care? And so on. And, finally, the telemedicine project: the medical school and the hospital and clinic are ready to move on this and invest the money. We can't afford the tariffs that have been described. The first thing the school hopes to do, because it makes the most sense, is to hook up the rural emergency rooms. We are already doing a lot of telephone work with rural emergency rooms, but our ability to help rural physicians is hampered by the fact that we can't see x-rays and we can't see physical findings, and so forth. We have a long way to go on this and it's not clear how far down the line this will actually be. Some states are doing this now, Kansas and Georgia for example; but their ability to do it has been contingent on their ability to cut deals with the Public Service Commission, as mentioned earlier. That seems to be much more of a problem in Missouri.

RURAL REVITALIZATION IN ACTION

Jane Vanderham
Rural Development Manager
Macon Electric Cooperative, and
Director, Thomas Hill Enterprise Center

The Thomas Hill Enterprise Center was established as a reaction to a condition in North Central Missouri that climaxed with the closing of Missouri's largest coal mining operation in February 1993. Leaders in the region began to work together to develop alternatives in the future for people, for business, for industry, for agriculture, and for communities.

Funds were sought from Associated Electric Cooperative to begin study and implementation of programs that would lead to options for opportunity. This partnership was designed to have a diverse board of directors who could administer programs that would work not only in North Central Missouri but elsewhere too. The board is made up of leaders from the rural electric cooperatives, University of Missouri, State Department of Economic Development, Associated Electric Cooperative, and local business leaders representing an advisory group from the region.

The Center evolved quickly with a viewpoint that a collaborative effort to activate regional participation would strengthen the growth potential for all the communities in the five county area -- Howard, Northern Boone, Macon, Chariton, and Randolph counties.

Development was not seen solely as an attraction for recruitment but included exploring resources of the region that could be used and directed in new ways. New resources are often merely "old resources that are recycled into new dimensions," an adage the Center holds to. Although the mine workers brought about the initial catalyst to open the Center, many factors had already helped to define the need for such an activity. Among them were a gradual rural decline in population; aging infrastructure; loss of an important human resource as youth left the area; plant shutdowns and lay-offs; and the changing scope of agriculture. All these elements were already a plague of situations that existed before a major employer, a long-time industry, made changes in order to comply with environmental laws.

For such long standing problems, there will be no quick fix, but new provisions can be made for the future. A need for Rural Development and an agenda of action have been discussed for some time. It was the intent of the Center to solve the problem of "how" to deliver to a region an agenda of action that would be in harmony with existing programs and deliver tangible results. Such an agenda would require the aid of many partners and networks.

The Thomas Hill Enterprise Center opened on February 15 of this year and began to listen as miners, miners' wives and

community people reflected on the immediate problem, closing of the mine. From remarks of 157 people who came to the Center in the first weeks it became clear that the Center could not be successful if it were simply to give away staff time and provide networking services. The Center could, however, design a program to address the identified needs and work with people to accomplish what it set out to do. This crisis, not unlike the agricultural crisis of the 1980s, was seen as capable of changing the area and the lives of the people forever. The Center was designed to help forestall such an impact and to satisfy a need to raise awareness of the region's development potential.

Because over 71 percent of the 340 workers left unemployed by the lay-off wanted to explore self employment, in May the Center began a pilot project jointly with Small Business Development Centers and the University Extension to see if we could help prepare people generally, not just miners, to meet their economic needs through self employment. Statistics show that in recent years self employment has been the fastest growing sector of the economy. It can offer the best long-term opportunities for community stability.

The pilot project began with a serious evaluation of the trade-offs that a person enters into in the transition from being employed to self employed. It is important to know if the potential entrepreneur has the will and desire to make such a change. From May to the end of September counselors worked with each client, carrying on a learning process. The counselor's role was to insure that information exchanged in the classroom setting was defined for the entrepreneur in terms and conditions relating to his unique business idea. This first step of evaluation of the idea in terms of the participant's background, his will to succeed, and the potential for his success was a very important first step.

Although it was not necessary for the participant to bring a business idea to the training sessions, nearly everyone attending the first pilot session had some notion of what he intended to do. Many had several ideas and were prepared to look at each one. Twenty people began the training at the first orientation course. Of the 20 only 12 were miners. The other participants, arriving from surrounding communities, were wives of farmers or employed workers seeking new alternatives. Fifteen became regular attenders. From the 15, 11 graduated from the training. Five small businesses came into being before the end of the training. An additional five plan to be in business in first quarter 1994. One individual who is currently employed is still considering his choices.

It was the goal of the training program called SET (Self Employment Training) to identify areas of information that would help a small business succeed. The Center promised to provide each participant a written business plan should one be needed.

The Center also offered to help locate funding for the new business if a written plan and proper idea evaluation were provided. If the business idea would not have enough cash flow or if the personal trade-offs were more than the participant could handle, the planning, taking into account each individual's needs and abilities, quickly distinguished a poor idea from a good one. It is better to determine if a business idea for a community promises to be profitable before investments are made.

Topics covered in the sessions were: business planning, bookkeeping and accounting for small business, site and equipment determinations, marketing and advertising, sales and personal selling, time management, financial planning, budgeting, pricing, production, and hiring and employment. Each topic was discussed in a group teaching session. Later during the week, by request, the counselor previously paired with the participant met with the client and determined if any additional information specific to the participant's business idea were required.

Among the businesses started were a graphics and silk screening business, a portable washing business, a flower shop, a greenhouse, and a custom welding shop. Others being planned are a telemarketing business for collectibles, a coffee shop and art store, a bed and breakfast, a boarding kennel for pets, and a black powder business including fireworks displays. Also, one member of the class has a patent on an environmental invention that will be marketed.

All but two members of the first pilot class of SET lived on a farm.

Creating a small business that will succeed over time is not easy; hence, a monitoring system is built into the program. Counselors will continue to monitor and visit the new business as long as the visits are beneficial to the entrepreneur. The support group formed by fellow classmates, teachers and counselors will help make a difficult road seem less lonely in the months ahead.

Perhaps one of the many extras received by this type of training can best be explained by one participant who had no business idea when he began his training but clearly wanted to be his own boss. He was shy and quiet, and he attended regularly. It was difficult to know if he would complete the course work. By luck an idea came to him as a suggestion from one of the Center's board members. He was in business before the end of the training and most recently has been doing his own ads on local radio. He acquired customers even before he had decided on the name of his company. Clearly his desire and will to succeed are an important part of his decision to be self employed.

Another footnote to the SET program has become the new definition of "entrepreneurial." Beyond the use of the word in a business sense, is its meaning in terms of the spirit of the entrepreneur as he becomes engaged in an enterprise and takes the risks

and hopes for the rewards that are associated with it. This spirit is the spirit of rural revitalization, of Rural Development. It is the spirit that changes mind-sets and attitudes of businesses and communities.

At a recent Economic Leadership Conference sponsored by the Center, regional leaders met to compare their situation with that of the Minnesota Iron Range where many mining jobs were lost during the early 1980s. By comparing the Minnesota experience with the local one four areas were identified that a regional center could address. These are: (1) telecommunications infrastructure; (2) a need for venture capital from community foundations or other sources; (3) entrepreneurial activities including the extension of those activities into the schools; (4) and regional leadership development. The Center will consider these areas of assistance and explore opportunities to address observed needs.

Other Center plans for 1994 include a second pilot for SET in February, and a new pilot for existing business beginning in May. Materials to improve the quality and hands-on opportunities are being prepared now. The new program will address the need to raise the awareness of existing business in the areas of cash management, marketing, business planning, and computer programs for the small business.

The Center recognizes that only about 10 percent of the rural population will be attracted to self employment either full time or as a supplement to other rural wage-earning. For this reason the Center has an interest in helping create new industry based on (1) the resources of the area, (2) environmental need, (3) waste stream reduction, or (4) value-added production. To date the Center has facilitated the location of the first Missouri tire recycling plant that will make crumb rubber for products and rubber asphalt paving. Investigation is going on to look, for example, at ethanol production in Howard County; at bio-solids for fertilizers; and at assisting in finding and expanding markets for the use of crumb rubber.

The Center has also helped provide information and facilitation for businesses inundated by the 1993 flood. Many need help in applying for funds and other kinds of disaster relief.

Assistance in continuing the Center's work is now being sought. Funding will provide for program delivery and development as well as set up a revolving loan fund to assist in financing start-up and expansion for businesses with fewer than 50 employees. This "gap" financing is imperative if a small business is to find financing in local banks. Ultimately, the Center hopes to work with area banks to help locate, educate, and give planning aid to small entrepreneurs who will create the types of businesses bankers seek as good investments. The Center will also provide feasibility studies and planning for technology, particularly telecommunications, as part of its 1994 scope of work. We are here to help create a technological balance between urban and rural parts of our

area and to establish a technology that will be the foundation for life's activities.

What is the total scope of the Center? We are working in harmony with existing agencies that are engaged in economic development. We participate in activities that will enhance recruitment to the region, and we provide leadership for new entrepreneurs and businesses that need a new focus for the future. We are available to coordinate community development activities in North Central Missouri. We are teaching that regional community is a geographic location and that community is also an attitude, an awareness of who you are, what you have, and what you can do. We are here for the short term for people who need assistance in disaster and for the long term for people who require continued support.

What really is Rural Development? Why do we need to attend to developing the rural landscape, rural lifestyle, rural communities, and rural people?

America's rural neighbors have always been people in covenant with one another. Rural people have always had a high regard for common good and for diversity. Rural citizens help each other and design lifestyles that are the best example of freedom anywhere in the world. Helping to preserve this freedom and improve conditions of life that effectively meet the challenges of the next decade is Rural Development. When asked for a definition of "rural," Dr. Daryl Hobbs usually answers, "Rural is where a single person can make a difference." Dr. James Preston says, "It is the value of one local champion and the strength of a few."

We are in the worst of times or the best of times but we are all called to harness the common good. If we perceive that change is the only certainty then we are truly in the best of times, pioneering for the future. The early logo for the Center was "Helping People Help Themselves," but I would like to add that we are "Today's Dream, Tomorrow's Design."

PUBLIC POLICY FOR RURAL AMERICA: INNOVATIVE DEVELOPMENT

Tim Kelly
Chairman, Missouri Rural Opportunities Council

I offer first a few comments about the Missouri Rural Opportunities Council. It was created by Presidential Initiative in 1980. We were one of the second wave of pilot states that were brought into what was known as Rural Development Councils. Most states stayed with that name but we in Missouri had been ahead of the game by three years. We had searched for a name and chosen the one we are still using. It lets us convert to the acronym MOROC.

We feel that looking for opportunities in rural Missouri is an exciting challenge for our state.

According to the Presidential Initiative, the state should look for and eliminate barriers to rural development. At this seminar several barriers have been described. Some are pretty big. I think some of the things going on in rural Missouri give us an opportunity, and a hope, for a brighter future than what we visualized through the later 1980s and early 1990s.

Our Council has over 500 members. Anyone can become a member by expressing interest. No membership application is to be filled out or dues paid. Members are expected to come to meetings and to join in some kind of activity. They will join in discussing how to make things better in rural Missouri. We have eight different committees. They have titles such as leadership, education, health and human services; also innovative finance, infrastructure, and agriculture and natural resources.

When someone suggested that we needed a telecommunications committee, my reaction was pretty negative. I was wrong! That committee has been one of our most active committees. We are now planning a conference on telecommunications, which we believe to be highly important to rural Missouri. We need to understand what telecommunications can do and how important it is to development in rural Missouri.

Our telecommunications people are drawn on by other committees, such as rural health. We learned about the experience in Kansas, where it proved possible to make a diagnosis at a distance of 200 miles. Of the first 200 patients treated by interactive video, all but one was diagnosed and treated at the Hutchinson location and did not have to be moved to another hospital. Such a capacity narrows the difference between rural and urban areas in health care. We foresee a tremendous opportunity for us to make the quality of life better in rural Missouri.

Jane Vanderham's committee on education has looked into telecommunications in education. The possibilities are great there too.

As a state legislator I worked with the federal government but rarely heard federal personnel ask how they might improve their service -- how they could reduce the paperwork, for example; how to reduce the barriers; and how to work better with state people. We worked with some capable individuals but we had no avenue for working together to find the barriers and take effective action. The Presidential Initiative provided an opportunity to reach the highest levels in the federal government -- to be in touch with the so-called Monday morning management group. The suggestions we advanced about surmounting the barriers to development could be taken back to department heads in the federal government -- back to cabinet level officials, with the expectation that something could and would be done.

We could say, "What we need is a standard form" for FmHA, for FDA, for all the forms we fill out. Kansas suggested that one form could substitute for 30; and the Monday morning management group was able to get one standardized form.

Some of the issues we are looking at in Missouri, some of the barriers, are rather controversial. One is the prevailing wage, and how it affects development in rural Missouri. That is pretty controversial and it will not be easy to resolve. It does mean thousands upon thousands of dollars spent in rural areas, and it does mean that some development is not accomplished in rural areas because the local government cannot afford to pay the prevailing wage. So we think it is a barrier to rural development and something we should look at; and we are making progress in doing so.

Another issue we are looking at is the purchase agreement. Anyone buying a lawnmower for mowing in the national forest, the Mark Twain forest, is required to buy off the national purchase contract. The mower may come from somewhere in Pennsylvania, or other point a long distance from Missouri. When it breaks down and needs repair, a part will have to be ordered from the place it was made. Lawnmowers can be bought in any rural community in Missouri and they can be repaired there. We think it would be beneficial to be able to purchase such equipment in the local community.

Many issues can be addressed by the Missouri Rural Opportunities Council. All issues are generated locally and they offer the possibility of being dealt with for local benefit. We think all development takes place at the local level. We are not interested in development for benefit of federal or state government or government at any level, but rather in helping people at the local level. So we see exciting opportunities, ways we can go ahead differently than we have ever done before -- ways we can interact with the federal government, with state government, with local government, and with all five of the partnerships. We have five different partnerships, private for-profit, private not-for-profit, and local, state, and federal government. All of those entities are represented on the Council and all have been working through the eight different committees to interact on the issues I have mentioned, as well as others too.

As a response to the question of what is going to happen in rural Missouri, I am something of an optimist. I believe there is a bright future for agriculture and a bright future for our rural communities. It would be naive to say that everything is rosy but I believe many communities are addressing their problems effectively and doing things differently than before. I agree with Daryl Hobbs's confidence, "If you want to make a difference, you can." If you want to make a difference in your community, in your business, in your organization, rural is the place to do it. You can make a big difference, a positive difference in the way things are done.

A lot of communities are doing that. Jack McCall, an economic development specialist, always talks about the Lone Ranger series. We long thought a lone ranger would ride out of Jefferson City, or ride out of Washington, D.C., and come out here and clean up our town, use the silver bullet, and leave. We would all look through the curtains and say, "Who is that masked man who fixed our town?" We all know that will not happen. What will happen is that people who will make a difference in your community are already there. People who have grown up there and live and work there and have an interest in making things better, making the quality of life better, in your community.

I have often said that if we had one job for every cup of coffee that we consumed while we were talking about economic development, we would not have a problem. We would have plenty of jobs and plenty of economic activity. Unfortunately, when the coffee cup is empty and we put it down and go back to our work, our other interests, we do not do the follow-up. Hopefully, the Missouri Rural Opportunities Council can provide some help in that vein. We have no money, nor do we have a program, but we do have an intense interest in making the money and programs that already are available more beneficial, more usable, and more acceptable to rural communities. We think it is an exciting venture, and we invite every interested person to be a part of it.

PUBLIC POLICY FOR RURAL AMERICA: SERVICES AND JOBS

Joe Maxwell
Missouri House of Representatives

The topic of this seminar is of great interest and is one we have talked about for at least a decade. We can properly ask ourselves what we have accomplished during that decade. When I as a legislator look back I cannot say I am overly pleased with what we have to show after 10 years of talk. I am not sure we have moved forward. I believe organizations and groups and various of the persons attending this seminar, working together, can make a better record in the future -- I know Tim Kelly with MOROC has done an outstanding job and I am sure MOROC will focus in on the key needs.

I will reflect on some of the comments made in presentations at this seminar. First I ask, where has rural Missouri gone? I am a replanted farmer, having grown up on a farm and wanting to farm -- as a youth I was sure that was what I would do. Now, looking back, I reflect that I am not farming now and I ask, "Where has rural Missouri gone?" I think the answer has three parts. First, it has gone to where the jobs are. That is not something new, originating in this decade. Rural Missouri has gone to where the jobs are ever since the early 1900s. In recent years, this has happened because communities in northeast Missouri that have depended on farming as their main economic base also tended to have a single industry that also supported the local population. Whether three factories or only one dominated the community, that pattern of depending on only a few sources of income seemed to be characteristic of northern Missouri.

What has happened to that? Farming turned downward in the late 1970s and 1980s, as we all know. Farmers were sold out at the court house. Single industries no longer provided a good job market. Refactories closed, the steel industry closed down, many companies are now in Mexico, Taiwan, and Korea. It goes back to this idea, I think: that we have gone along with high tech knowledge. Here at the Missouri campus the Extension Service does a tremendous job in giving us updated technology on how to farm better and produce more per acre, with less need of people. So one individual on the farm can produce far more than he did a decade or two ago. Fewer farmers are needed in rural Missouri. Where have the people gone? They have moved to where the jobs are, which often is the city.

What happened legislatively relative to policy? Because fewer people are on farms, there are fewer rural-based legislators in Jefferson City who can be expected to represent the interests being talked about at this seminar. This means that those of us with rural background who are in the state legislature now have a stronger obligation to express and respond to rural concerns.

What is rural? We have reflected at this seminar on the idea that a single person can make a difference in his community. A rural person said that. Those of us who value the rural tradition and respond to rural issues make that kind of statement and believe it to be true.

Go to the city of St. Louis and ask someone what "rural" means. The answer would be "anything outside of St. Louis county." It's "out there." I'm not certain we know today what rural Missouri is. If we in Jefferson City don't know what it is, and fewer of us think we know, and even we who think we know cannot define it, it becomes difficult to do anything legislatively for significant accomplishment. So I think we ought to begin by helping each other; and persons at this seminar can help me as a legislator -- help me to redefine, or to rethink, what rural is.

I think we need to set up our priorities. It seems to me we talk about two basic areas: either services, or jobs. These are the two general categories about which we have been talking at this seminar. I see services, and I see jobs. It seems to me that if we are going to accomplish anything, if we are going to move a policy through, or change a policy, in Jefferson City or local government, I think that perhaps we need to focus on the job situation. I put jobs ahead of services, because if there are no jobs in rural Missouri there's no need to provide services.

In view of the depopulation we have had during the last decade, I think the first objective is to keep it from continuing. My home town of Mexico is looked at as a success story in rural Missouri -- success being defined as being able to hold its own. The population dropped a couple of hundred and the job count stayed about level. Relatively, these days, we call that success. I don't really believe we want to define success in rural Missouri as maintaining the status of a few years ago. I think we should be looking for growth. So I think we have to talk about jobs: sustainable farming fits with that, as do alternatives to farming, and definitely small business development -- what is being done in the Macon area is tremendous. Our objective should be to give individuals who live in Missouri and find themselves displaced either off the farm or out of that main business or economic industry an opportunity to remain there with all the independence small business can offer.

Services should not be forgotten because those of us who live in rural Missouri have a right to the same quality of life as our cousins in the city enjoy.

How would you develop industry in rural Missouri if no services are available? Who wants to put a plant, or send the company's vice president of marketing, into rural Missouri if the education system stinks? That officer's children will grow up and have to attend a poor educational system. Who wants to establish an industry and live in rural Missouri if the nearest physician is 40 miles distant?

Services can contribute to a community's growth in a significant way.

Two new directions or developments mentioned at this seminar are fiber optics and wireless. In think AT&T's new merger is going to give Judge Green in Washington, D.C., a fit because I think AT&T just put itself back together. I think wireless will change fiber optics. I have been meeting with Southwestern Bell on that issue and I know the company is very cautious about this development. I think whether its fiber optics or wireless, we are talking about two-way communication to rural Missouri, to those places that have certain bits of information that we need there. Where we do not have enough population to sustain a doctor in a community, a master teacher, a college, a tech school, a university -- whatever we have in mind -- I think the opportunities for services lie in two-way video communication.

We remember Dick Tracy and the small watch he carried for talking to his chief. That technology is here; what AT&T has done is probably only five years away from the time it will become more of a standard, removed from the comic strips.

Our children will benefit, rural health will benefit. The state of Missouri is getting in line. House Bill 564 (I am a co-sponsor) provides for nurse practitioners in the state. With two-way communication we can put a nurse in an area where we haven't been able to pay doctors to go, in spite of the student loan payments and other attractions we have offered. So we are looking at nurse practitioners who have greater authority under the supervision of a physician to provide at least primary care to patients living in rural Missouri. The kind of technology we have talked about at this seminar plays into that prospect. It will improve our standard of living in rural Missouri.

Senate Bill 380 lays the groundwork to place new technology in our rural schools. A community in rural Missouri centers around its school. If a school is lost so, usually, is its community. As we debated the bill the attitude in Jefferson City was a preference to close down the small schools. It was a hard fight -- I was on the education task force -- to keep some of our city cousins from simply closing our rural schools, requiring our children to ride a bus for an hour and a half to get to a center for education. We need to promote the technology that is available so that we can maintain our rural schools and provide our children the same opportunity as is enjoyed by their cousins in the city.

PUBLIC POLICY FOR RURAL AMERICA: A "NO FREE LUNCH" REACTION

David A. Schafer
Farmer, Green Hills Farm Project

In "Rethinking the Role of Agriculture in Public Policy for Rural America" I touch on:

- How policy is set
- Agricultural policy of this century
- The current situation -- a production treadmill
- Coming changes
- A new vision for rural America

How policy is set. To set good policy requires both a vision for the future and a clear understanding of the existing situation. With a vision of what we want to accomplish policy will be focused; decisions will be made more easily and conflicting regulations will prove less likely to occur. To create new policy also requires a thorough understanding of the existing situation on which the policy will impact.

I believe it is important to bear these two fundamental points in mind as we consider agricultural policy of this century: What were the guiding visions? Was the current situation realistically assessed as policy was made?

Agricultural policy of this century. Trying to distill agricultural policy of this century reminds me of the story of the ruler who called on his wisest advisors to gather all the known information in the world and write down their findings. After several years the advisors brought the ruler a great number of volumes of written work. The ruler cried, "Much too long! Condense it." This scene repeats itself a half dozen times until the weary advisors finally bring the ruler just one line of wisdom distilled from all the accumulated knowledge of the day. The one sentence read: "There Ain't No Free Lunch."

Trying to do the same for agricultural policy, I asked several people to tell me, in as few words as possible, what they thought had been the American agricultural policy of this past century. Here is a list of their responses:

- Reaction
- Supply control
- Perpetuate traditional system
- Acreage reduction
- Subsidy
- Price support
- Soil and water programs
- Farm credit

Among these, we find a set of policies to increase production, such as subsidy, price support, and farm credit. Also, because they bring marginal, erosive lands into production, soil and water

programs belong in the increase-production group. Supply control and acreage reduction serve to lower supply or reduce production.

Was there a clear vision? Which policy group dominated? If you had to condense the increase-production group further, like the ruler's advisors, what words might you use? How about "production-ag," "cheap food," or "free lunch?"

The current situation -- a production treadmill. Surplus production has been both a blessing and a curse for America. Calvin Coolidge, in his speech vetoing the McNary-Haugen bill, said, "The bill will not succeed in providing a practical method of controlling the agricultural surplus, which lies at the heart of the whole problem." He pointed out that the bill would not only fail in lowering the current surplus problem, but by raising crop prices would encourage more overproduction. ("The Social History of American Agriculture," Joseph Schafer, 1935.) Coolidge made that statement in 1927, but it could be said in 1993.

The current agricultural situation has been described as a "production treadmill" on which producers run faster and faster just to stay in place. New technologies and government programs steadily throttle up the RPMs on the treadmill. If we play the scenario out we wind up with just a handful of runners fast enough to keep up. Is this depopulated rural America in the vision of policy makers?

Coming changes. Sooner or later each of us comes to realize that health is the number one priority in our lives. Without it we cannot pursue other interests. We all have known people who drive themselves hard with little regard for their health, only to pay a huge price for their neglect. In the same manner we are coming, collectively, to realize that the health of our globe is the number one priority for our continued well-being and that we have been pushing the limits of production to the point where we are paying a huge price in the form of displaced soil, polluted water, and displaced people.

During the last 30 years we have seen a dramatic alteration in the rules and values surrounding agricultural production and policy. We now have the Environmental Protection Agency, the Missouri Department of Natural Resources, the University of Missouri's College of Agriculture, Food and Natural Resources, to name just a few of the obvious changes. Environmentalism appeared on the horizon only 30 years ago, but it has been steadily coming down the tracks at us, puffing great volumes of white smoke and blasting a whistle we can hear for miles. It is on a crash course with production agriculture.

We need to think about how to minimize the impact. How to offer new track designs to avoid collision. Maybe to run the tracks parallel or even -- imagine it -- put the engines together going the same direction so they work with, instead of against, each other.

A new vision. We have been changing our own farming operation over the past 10 years since we first recognized problems on our land. In 1983 we were shocked to find only two inches of topsoil on farmed land next to eight inches on pasture land. The adjoining cemetery has 15 inches. We have become absolutely convinced of our new vision's rightness for our land, livestock, and ourselves. We must set quality of life goals, then production goals to attain that quality of life, then landscape goals to sustain that production, so all of our engines are pulling in the same direction.

This is a vision not just for our farm, but also for our community, our state, our country, and our entire globe. In it the land is well cared for by a broad foundation of rural entrepreneurs who have a vested interest in their community. They have deep roots and their dollars flow primarily through their community. Their houses and abundant livestock dot the landscape. Soils are enriched rather than eroded; they protect the watershed rather than pollute it; they minimize floods and droughts by absorbing water quickly and releasing it slowly. The work ethic and family unit are strong here. The people are independent and do not ask for government assistance.

A visitor to one of these communities would say, "This is a place where I would like to raise my family." They will want to join the community to share the beautiful natural environment and enviable quality of life.

I would like to share a few images of this vision with you now. A good place to start is on a New Zealand dairy farm. A typical New Zealand dairy has 200 cows that receive no grain. It is a one-family operation. It is a prosperous operation despite milk prices of around $4 per hundredweight -- three times less than the U.S. price. Young people regularly enter the dairy industry there.

Another typical New Zealand farm might have 2000 ewes and 200 long yearling heifers, as did a 500 acre farm I saw in a 30 inch rainfall area. We happened to drive by this farm and stopped and talked with its owner. He had two years' worth of hay in pole barns, was averaging over two lambs per ewe, played golf once a week, and figured he was gaining soil at the rate of one-fourth inch per year.

Now let's jump to Argentina, and its steaks from the pampas. They are recognized by most international steak lovers as the world's best. I ate one with the help of seven other ALOT team members on our international trip this summer, at an Argentine restaurant in the Netherlands. I cut it with a fork and it melted in my mouth. We all agreed it ranked beside or above any steak we could remember. No grain is used in finishing Argentine cattle.

One of my favorite farms is Polyface Farms in western Virginia. Joel Salatin raises poultry and beef, sells firewood, and composts all wastes from the 8,000 fryers he sells annually.

These operations consistently net him $25,000 in six months for a very small investment. People travel over 100 miles to pick up their birds at Joel's farm. He has a waiting list for them, as he does for his forage-raised beef. Joel has written a book about his pastured-poultry production method.

Forage-based farming need not be small scale or low input. Charlie Opitz of Mineral Point, Wisconsin, has one of the largest dairies in the state. He milks 1,200 cows and is expanding. He has nine employees, keeps the milk parlor active 24 hours a day, and pays over $200 per acre in taxes. Obviously, Charlie is an astute business manager, but what he is most proud of is his forage management. A quackgrass sample from his farm had a relative feed value of 312. Skeptics couldn't believe this so they re-sampled and re-tested and came up with 317! Charlie buys light oats hoping they are contaminated with quack since it is illegal to purchase quackgrass seed. Charlie has walnut trees successfully volunteering in his paddocks.

Is Missouri suited to this type of agriculture? You bet it is! Missouri is generally considered as the best state in the country for forage and ruminant livestock production. The Cornett Farm's Forage Systems Research Center in Linneus has more than doubled net return over conventional management. The Center has illustrated how to reduce hay making and feeding through stockpiling forages, mainly fescue. The Center has taught hundreds of farmers and departmental personnel in their perennially sold-out grazing schools.

This is a rural Missouri and a rural America we would all love to see -- people back on the land; protected watersheds; increased soil health; high quality, wholesome products; an increased rural tax base; rural schools with no empty desks; young people returning to the country; and an elevated quality of life for rural and urban people alike. It is there for us to create if enough people share the vision and work toward it.

There is a billion dollar yearly potential beyond what is harvested on Missouri's 12.5 million acres of pasture lands. This datum is found in "The Silent Resource," a report put together in 1991 by the Missouri Department of Agriculture, Missouri Department of Conservation, Soil Conservation Service, Agricultural Stabilization and Conservation Service, College of Agriculture, Food and Natural Resources, Missouri Department of Natural Resources, and University of Missouri Extension.

In conclusion, to develop a clear, far-reaching vision for rural America all policy-making entities must sit down at the same table and define what they want for rural America. They must do this in terms of future quality of life, production, and landscape, so that all trains are pulling together. This vision must be shared by all. With a clearly defined, shared vision, subsequent policies will be complementary and productive.

DOES AMERICA NEED RURAL COMMUNITIES?

Bill Bondeson
Professor of Philosophy

I will address medical ethics first, then turn to matters of rural values. Although it may seem tangential, the first part of my remarks will bear on the ethics of health care. I want to relate the case, a genuine one, of a young woman, a physician, who was born in Italy and whose parents brought her, at the age of four or five, to the United States. She received an American education and graduated from Harvard medical school. Her specialty is internal medicine, and she is what some people would call an intensivist. She works in critical and intensive care units, and she deals with the problems that arise there. She finds herself involved, as do most physicians in such situations, in wrestling with the medical ethics of life support -- its withholding and its withdrawal. And she does this with reflection on the values involved because almost every physician trained in an American medical school has had a course in medical ethics.

The physician I refer to understands not only the complex technology that is involved but some of the values that fuel, and are fundamental to, medical ethics. When she talks with patients about limiting care, or about withdrawing or withholding care, she regards it as essential that she obtain as informed a consent from her patients as she possibly can. She will talk with them about benefits, risks, and the available options. She believes that if patients are to be informed appropriately she must tell them much about what can and cannot be done.

She also respects patients' right to say "No" to treatment. So if a patient decides after a time that the treatment being given is no longer worthwhile, she respects the wish to refuse treatment, provided the patient has sufficient information and is competent to make a judgment. She does all this because she believes it is a fundamental value that each of us has an absolute right to determine what happens to him and his body, the course of his life including how it will end. Individual freedom is a supreme value, along with individual autonomy. She respects the rights of competent patients to make choices for themselves.

On top of that, when she is in difficult situations, such as when families disagree as to how a patient should be treated (or not treated), inevitably she settles such conflicts by appealing to the choice expressed by the patient. She sometimes tells a divided family that she will follow the course the patient wants even though some family members might have a different preference.

To be slightly facetious, Bondeson's second law of medical ethics is that the longer the distance from which the son or daughter comes, the greater the guilt and the more aggressive the treatment that person wants. Applying this law to the young

physician dealing with her patients, individual freedom and autonomy are, for her, cardinal values and the patient's choices are primary.

For whatever reason, the young doctor moved back to Italy. She transferred her practice to Milan. Italian physiology is not different from American; Italians get the same diseases as Americans do. But when the time comes to deal with patients, the Italian story is different. This the physician learned one day when an 85-year-old gentlemen, who was in the intensive care unit with a big bag of problems including metastatic cancer and cardiac failure, had to be told his diagnosis and prognosis. He was very ill but he was competent. The man had a family with whom the physician met before she talked with the patient himself. The family said clearly, "Look Doc, we are a family, a big social unit. We stick together. If bad news is to be told to grandfather, you tell us first. We will then decide how much and when he ought to know." They added, "You will also tell us what the treatment options are, positive or negative, and we as a family will decide what is to happen to grandfather. We will make the decisions for him and let him be a part of it if and when we see fit." In Italy families are regarded as more important than individuals; family name, honor, and reputation are more valuable than any individual member of the family unit. Hence, the dictum was announced that the family would make its decisions collectively. The physician was told, "Your dealing with grandfather will come through us."

In one of my classes we talk about this case as an example of cross cultural medical ethics. The issue then arises as to how the young physician should treat her Italian patients. Decision-making in Italy is far different from that in the United States. Should she follow the adage, "When in Rome, do as the Romans do?" Or should she practice American medicine in Italy? Can our doctors who find themselves in Italy reform the practices there? Or do we say that instead we must respect Italian culture and decision-making and allow families there to play their traditional roles?

I will not comment on how I or my students respond; but the point I want to make which is relevant to our discussion of the values of rural America is that many Americans practice medical ethics by taking individual freedom and autonomy as almost our only determining value. We have operated for a long time, in fact, by treating individual freedom and autonomy as the <u>sole</u> value, letting all other considerations fall into second place or lower.

I have a hunch, though, that such an absolute, categorical ethic does not fit what prevails in rural America. I suggest, in fact, that a concern with rural matters, with rural communities, and with the quality of rural life, can serve as an important antidote to the rampant individualism that is displayed by the young physician. I am inclined to think that moderating our excess worship of the value of autonomy, although not wrong in and of itself, need not go as far as the Italians' worship of familiality, i.e., their total deference to families and their decision-making

process. I think the Italian value system goes too far. Somehow we would like to find a middle ground between our rampant individualism on the one hand, and our notion of being part of a larger social system on the other.

I am inclined to believe that who and what we are consists of the promises, the duties, and the obligations that we have to one another. We simply cannot stay much longer with the notion of the solitary individual self who makes all the decisions for himself or herself and who takes no account of others and effects upon others. It's not that such a stance is wrong; it's just that it needs to be tempered. Do we want to go as far as the Italians do? I rather think not. That somehow seems too collectivist for our own American ethos. I am inclined to think that what we are as selves and what counts for us as persons are the facts that we relate to other human beings, that we are the center of networks of value, and that we are a series of social roles -- roles that tie us one to another. Indeed, we belong in community with others.

And thus the question of whether America needs rural communities is answered, I believe, by answering a larger question, "Do we need communities at all?" If we need communities, as I believe we do, it follows that we need rural communities. David Riesman wrote a wonderful book called The Lonely Crowd in which he portrayed American life as essentially a group of lonely, lost individuals who lack a real capacity to relate one to another. That kind of individualism has pervaded American life for a long time and I think it has even gone so far as to be a part of our frontier ethic: the lonely frontiersman facing the wilds of the West, carrying on and fighting all the good fights. On the other hand, the Greeks were right, as they were many times, when they told us that human beings are essentially social animals. Aristotle said, "Just as the natural habitat for a fish is water, so the natural habitat for a human being is a society." Only in society can we find our good and full development.

The Greeks also taught us in the person of Odysseus. As he traveled those dark seas in his attempt to get home to his beloved Ithaca, he came across a strange group of human beings. You have seen them in the Kirk Douglas movies; they were called the Cyclops. The Cyclops had a single eye in the center of the head; they were huge shaggy creatures and they raised sheep. After blinding one of the Cyclops Odysseus hid under the belly of one sheep in order to escape. They are interesting characters but Homer says the Cyclops are the most barbaric of people on the face of the earth. They are on the lowest rung of the Greek social ladder. Why? Homer says, "Because they live alone." Because they have no society, they have no community, they have no laws, they have no customs; they are the world's loneliest, most isolated individuals. For Homer and many of the Greeks that makes them the most barbaric.

I submit that we all need communities. We all are part of many communities; we define ourselves by the social roles we play. Parent, son, daughter, writer, teacher, speaker, committee member,

Rotarian, on and on. If those social roles are taken away not much is left. To think of ourselves as social beings as the Greeks would have us do is, I believe, to look at our lives in important and interesting ways.

But although we belong to many communities, even communities that extend across the nation or in some cases across the world, we also need a community not only of interest and ideas, but also of place. People who write about agricultural policy, as far as I have been able to understand, have talked about the wonder and the importance of being connected to a geographic location -- about being connected to the land, of being associated with a piece of nature, of being a part of a place or a community that is geographically coherent. That kind of community, I believe, is important and that sense of the geographic community is what rural communities can give to all of us, as an example.

What we don't want is an ethic of radical individualism of the kind that enters too frequently into much of our dialogue. What we don't want, I believe, is a notion we get from the great philosopher at the end of the Renaissance, Francis Bacon, who said, "Knowledge is power. Knowledge is the power to dominate nature and to bend it to our will." That kind of ethic needs moderation. And what do we say about the ethic that comes out of René Descartes? At the end of the 16th century Descartes struck a sharp division between all of nature, which he looks upon as mechanical and machine-like, and the part of us that is mental or consciousness-like and quite different from everything else. As soon as we have called all of nature a great big machine but say we as human beings are the exception to that, we automatically set up the notion that we are better than nature and therefore we should dominate it. I submit that the ethics that comes out of both of those thinkers is the prelude to ecological crisis. As soon as we look upon ourselves as entirely distinct from nature, as something other and different from it, so that we must therefore dominate it and make it work for us, we are in for trouble.

It seems to me -- and here I borrow from some of the reflections of Daryl Hobbs -- that rural communities can give us some ideas and some concepts that will make an enormous difference for us all. On the one hand, they can give us the idea of food security, We are concerned these days with the notions of production because so much of the world is not able to achieve high productivity. We, fortunately, do not have that fear, at least not yet. Nevertheless, in terms of our own lives food security is crucial.

Let me digress into another issue. I am amazed more and more these days at how much violence there is in our cities. That is not news to anyone but a recent Today show presented physicians in medical centers of large urban universities who come to their daily tasks fully armed. One of the physicians was asked why he brought a gun to the hospital. He answered simply, "Because the patients have them and I need one to protect myself." That is surely a

horrifying vision of what we have come to; perhaps it explains one of the reasons for the exodus from the cities to the country. It may be a search for not only security of food production but for personal security as well.

Secondly, rural communities can give us a new respect for the land, for nature, and for all that surrounds us and makes this planet livable and workable. If you take the Cartesian and Baconian notions, nature is here for us to run for our own pleasure. If you take a more moderate notion you say, "Nature is here not to be dominated by us but for our cooperation. We are the stewards of the land, not its owners and certainly not its dominators."

It is interesting to reflect on past history, as to how people have viewed the land and non-human-populated areas. If we go back to medieval times, the wilderness was regarded as a place where devils lived. It was a place a traveler tried to get through as fast as he could, in order to get to the safety of a walled town. If, on the other hand, we take a romantic point of view, we say wilderness is the place where we are closest to nature and therefore closest to God. I suggest that both of those views are extreme and what we really need is a model of our community as being a part of nature, and of ourselves as stewards of the land, caring for that resource as our privilege.

Thirdly, it seems to me that rural life adds to diversity of American life. We stand in great need of having different kinds of lives and different kinds of life styles. Thus, rural life can be self-justifying because it stands as such an interesting and important alternative. On that point let me add a personal observation that, I admit, is open to challenge. I spend a lot of time driving Missouri's highways, and get the impression that the state's small towns have all been "Caseyfied." Every town has Casey's convenience store. I'm not so sure that is great and wonderful. I don't believe the homogenization of the convenience store across small town America is a great good. I think it runs counter to some of that great diversity I mentioned above. Small towns should have real character and real integrity. One of the towns, incidentally, that I believe has this distinctive identity is Pella, Iowa.

We need more Pellas. I think we stand in great danger of homogenizing our culture, and rural life can be a source of a correcting diversity.

Finally, I think rural America can be a source of innovation, because rural places can have sufficient flexibility to permit interesting changes to be tried out. It can be a place for social experimentation. I believe rural life can tell us also about how really close we are to one another and what that closeness can mean. Rural life can tell us about how really interdependent we are in the great scheme of nature. Those values are eminently worth preserving. I do not have the technical expertise to tell

anyone how to restore or reactivate rural communities. I am not trained in the social sciences. So I leave the implementation of the ethics of the rural community to more qualified persons.

Let me end with a list of epigrams that is marginally related to my theme, but is a favorite of mine. Everyone has heard about the seven deadly sins -- lust, gluttony, envy, sloth, and the rest. Mahatma Gandhi gave us another list of the seven deadly sins that I find profound. They are:

- Wealth without work
- Pleasure without conscience
- Knowledge without character
- Commerce without morality
- Science without humanity
- Worship without sacrifice
- Politics without principle

To those seven deadly sins a friend of mine has added one that applies to all of us who are in the field of education. It is

- Talent without achievement

If, in the policies that guide how we relate to one another and to the land, we can avoid those sins, we all will be doing very, very well.

CRITICAL TRENDS AFFECTING WORLD FOOD SUPPLIES

Abner W. Womack
Co-Director, Food and Agricultural
Policy Research Institute

Each year the Food and Agricultural Policy Research Institute (FAPRI) makes a longer run assessment of U.S. and world agriculture. This assessment is designed to produce a baseline set of projections that can be used to evaluate or compare policy options of interest to the U.S. Congress. My comments are strongly conditioned on this analysis. However, not all the data had been assembled at the time this paper was written. Hence, some observations are more or less speculative on my part.

This outlook process involves a large-scale econometric model. Supply and utilization balance sheets are projected for all major importers and exporters in the world food and fiber markets. Data on economic conditions entering into the model are those projected by Wharton econometrics on the assumption that current economic policies will be continued.

Significant Factors Influencing World Food Supplies

Restructuring of eastern regions. Approximately 200 million people in the former Soviet Union (FSU) are currently experiencing a depression worse than ours of the 1930s. Our Gross Domestic Product (GDP) dropped about 30 percent from 1929 to 1933. The FSU's real GDP is down 38 percent in 1993 from 1990. And recovery will be very slow.

Outside the FSU, Eastern Europe with about 150 million people also is caught in a depression that is only a little less severe than the FSU's. Taken together, these drastic economic conditions are being felt around the world.

An immediate impact has been a dramatic decline in the region's imports. Normally the FSU imports about 40 million metric tons of major crops. Current estimates indicate a decline to about 25 million metric tons in 1993, a downtrend likely to continue the rest of this decade.

These reductions in buying have turned the U.S. crop market lackluster. Prices have generally floated on the low side since 1991. They were slow to show significant strength even in the face of our record 1993 flood.

Eastern regions' expected slow turnaround will stress global economies for several years. It is also likely that substantial outside assistance will be necessary. All of these conditions fuel instability and civil unrest in the new Eastern republics, with a potential for very unstable governments there.

Less U.S. government support. U.S. agriculture continues to march slowly toward reduced government supports. Part of this path came about by design. In 1983 the infamous Payment in Kind (PIK) program was traded for frozen target prices that were at the time escalating at 4 percent per year as guaranteed by the 1981 farm law. In the 1985 farm bill a more dramatic step was taken. Target prices were reduced moderately but loan rates that had traditionally propped up world prices were lowered significantly. This market-oriented path was sustained in the 1990 farm law and carries substantial momentum for 1995.

A second factor has crept in -- budget constraints. In August-September 1990, well into the final debate of the new farm legislation, agriculture was assigned a cut of about $13.6 billion over a 5-year period. This $2.7 billion per year reduction resulted in a mandatory payment restriction on 10 percent of program acreage across the board. Frozen target prices, frozen program yield, and mandatory payment restrictions have resulted in a very slow march toward a free market agriculture.

Recent cuts by the Clinton Administration continue this path, with an additional $2.5 billion in total cuts slated for initiation in 1994 and lasting through 1998. Commodity and general farm organizations lobbied hard to prevent deeper cuts. Our research

institute ran several options containing cuts for the four-year period that were actually in the $4.5 billion range. Several of these scenarios suggest that by 1998-99 little difference could be expected in net returns between program participants and non-participants.

By 1995, the next farm bill year, agriculture will likely again find itself at the whittling table. If it does, the notion of support to agriculture that has endured since 1933 will be very close to its final stage.

Many concerns prevail and will be addressed. One that creeps in and hasn't been felt since the early 1970s will be the balance between deficit reduction and food security. Our weather patterns are complicating this issue, but a more significant factor is that a more market-oriented agriculture carries less government stocks. With a considerable amount of land idled in the CRP, fairly low stocks, and more erratic weather, it is very likely that consumers will be vulnerable to more serious shortages than will be publicly acceptable.

Also in this reduced budget environment, U.S. agriculture is outpacing competing countries around the world in loss of government support. Negotiating strength with trading partners in the GATT and NAFTA agreements is compromised. A further major concern is the likely effect on the conservation thrust. Limited monies make farm programs less attractive and reduce participation. Mandatory conservation rules suddenly become more likely.

U.S. and global economic growth. The U.S. federal debt is approaching $4.0 trillion with 17 cents of every tax dollar going for interest on the debt. The deficit is at or near record levels. Fiscal concerns might weigh down the economy to the extent that recovery proves to be slower than in the past.

Unfortunately, this problem is complicated by the situation in the former Communist bloc countries. But other developed economies also are experiencing difficulties. Japan is at or near a major recession, and the European Community is struggling with high unemployment and slow growth.

The major bright spot in the world is the Pacific Rim countries, where economic growth continues. World agricultural markets continue to be heavily dependent on trade with them.

Population growth and lagging economies point to a worsening of the world food situation. Government aid to deal with hunger will be required in many places.

The more optimistic side of this situation is the ending of the Cold War. Economies formerly burdened with heavy military obligations can now concentrate more on improving their infrastructure.

Erratic weather. Given the current tight situation of land and of food stocks in the United States, weather could be a dominating factor in the 1990s. The Northern Hemisphere has experienced long periods of reasonably good weather. That was apparently the case from around 1940 to 1973. However, a change occurred around the mid-1970s, and the weather since then has been more erratic, with greater risk of drought. Should this pattern continue, the 1990s will mark a return to extreme price variability -- much greater than experienced in the 1980s. Government programs are generally called on to modify or counter these shocks. This is generally carried out by attempting to balance adequate carryover stocks with available surplus land. In the event of a drought, both are used to return markets to a more stable environment.

As mentioned above, a free market does not carry stocks in the manner a government program does. Food-supply risks are now shifting to the marketplace. Livestock and crop producers, and importers, might well consider steps to minimize risks. Prudent decisions could be made to develop profitable strategies. The starting point is to understand that the 1990s do not carry the high levels of buffer stocks and reserve land experienced during the 1980s. Much more erratic prices should be expected if weather patterns of the last 20 years continue.

Trade agreements. GATT agreements focus on reducing trade barriers. The terms of a draft agreement, as of the fall of 1993, set a base for reduced production that puts the United States in a position to gain trade share. We have already outgunned our competition in pulling the U.S. government out of agriculture. But for many reasons, including Europe's wrestling with its Common Agricultural Policy, the chances of getting a new agreement remain clouded.

In NAFTA, midwestern agriculture is a clear winner in most of the trade arrangements. But border states may not be so fortunate. Moreover, in all trade agreements there are losers. Unless those who lose are sufficiently compensated by those who gain, major pressure will be felt. This is apparently the case with regard to our trade with Mexico. A hard-pressed economy here in the United States puts a high priority on job security. The American labor force is not convinced that it will gain under NAFTA.

Growth in technology. IN the past, technology has been embraced as a savior for U.S. agriculture. Billions of dollars have been spent on better genetics for hybrid feedgrains that march along with greater output each year on the same amount of inputs. Lower costs are passed along to a livestock industry that churns out meat products at prices that take relatively few dollars of the consumer budget.

But a new era has arrived. New technologies such as bST for dairy and pST for pork meet resistance. Smaller farmers are not convinced that they will be better off. The Food and Drug Admini-

stration and state legislators play a stronger role. The process is slowed, falling under greater scrutiny and leading to greater costs of research.

Society is demanding cleaner and safer foods. Technology may meet this test only at a high cost. The desire for, and march toward, higher quality foods will continue as long as food prices are not increased greatly. In other respects we can foresee some uncertainty.

Regulations. Regulatory issues cover conservation, environment, wetlands, production inputs, animal welfare, food quality, water quality, and still others.

Agriculture has suddenly taken on many outside partners. But issues often are not well defined and therefore require new data and research to get at reasonable assessments of consequences.

Regulations in agriculture that move too swiftly may place the smaller farmer at higher risk. This is especially the case with regard to animal waste measures and environmental concerns.

Likely implications and conclusions. The Clinton Administration seems to be on a track that calls for attention to the total rural community before new legislation is enacted. Winding down the Cold War and reigning in costs for Medicare and Medicaid may provide more funding opportunities. But it is almost impossible to predict what will materialize. All this is happening at a time when risks in agriculture and the rural community are as high or higher than at any time in the past.

Many outside factors now bear on rural policy. I mentioned above the problems in Eastern Europe and the former Soviet Union. Stagnant economic growth in many countries of the world brings pressure for greater government support for the poor. It is likely that the United States will be called on often to help out various countries during the remainder of this decade. The issue isn't whether we can produce the food but rather whether nations will have the capacity to buy.

The risk factor is likely to stay with us during the 1990s. Free market agriculture with less government continues to lead as the major contender for the 1995 farm bill. The budget has been a driving force, but farmers in general have been less than enthusiastic about heavy-handed government controls. A change in policy direction brings new risks. Safety nets are lower; in the event economic conditions deteriorate, food security becomes more critical. Smaller stocks mean less buffer against erratic weather. So we could move into an environment where food prices may remain lower on the average but climb uncomfortably high in some years.

The smaller buffer stocks carried by a free market agriculture, alongside support prices that are lower here than in importing or other exporting countries, are certain to bring more risk into the domestic market. The possibility of erratic price swings is illustrated by the recent experience of Japan, which protects her rice farmers yet had to change policy and import grain when her crops were short.

Another complicating factor is the fast pace toward a cleaner environment via conservation practices. U.S. agriculture seems to be adapting but monies that sustain current programs are fast eroding. Unless new funds are found, mandatory rules may be turned to. Small farmers and farmers carrying debt will very likely be at a disadvantage.

Some regional shifts also can be expected. Propped up less by government support, monocultural grains such as wheat will be subjected to greater risk and some relocation is likely.

Dairy is an industry where rapid structural changes are emerging. California may soon be the leading milk-producing state. Regional turfmanship will certainly evolve, in attempts to maintain the status quo. Regional disparities will necessarily be taken into consideration in commodity legislation of the future.

Finally, does this mean that agriculture is in for hard times? The answer lies in subtle but major structural shifts. The input cost side of the farm-income equation is more favorable than the sales revenue side, especially for farmers paying interest on debt. This cushions the effect of weaker global demand. Net farm income for agriculture is likely to hold at current levels, averaging higher than in the early 1980s.

But the 1990s carry a great deal of risk. It can best be dealt with if better understood. Fallback measures from government will be less reliable. There will be more dependence on the marketplace and the managerial skills of the farmer. Managerial skills will be further tested by a new set of players, many of them arriving via the environmental route. One nation's agriculture, once considered the domain of the farmer, now finds itself involved in broader societal interests.

IMPACTS OF CHANGING SOIL AND WATER CONSERVATION PROGRAMS

Russell C. Mills
State Conservationist, U.S. Soil Conservation Service

In the November/December 1993 issue of the Extension letter Economic and Policy Information for Missouri Agriculture, is found the observation that "President Theodore Roosevelt may have been the first conservationist President but in his era the possibility of environmental damage from farm technology was unheard of." "Not so today," is the follow up comment, and Sandra Batie, professor of agricultural economics at Michigan State University, is quoted, "Scrutiny of science and technology is one of the major forces pushing our future." The letter then points out that principal focus of that scrutiny in rural America today is environmental protection.

With this in mind, one might conclude that the beginning of some of the most significant conservation legislation during the 20th century was included in the Conservation Title (Title XII) of the Food Security Act of 1985 and the Food, Agriculture, Conservation, and Trade Act of 1990. The Acts contained two subtitles that had a significant impact on the owners or operators of highly erodible cropland. They were the Conservation Reserve Program (CRP), and Conservation Compliance.

CRP was designed to reduce cropping activities on highly erodible cropland. Conservation Compliance was designed to significantly reduce soil losses from erosion on highly erodible cropland through the full implementation of a conservation plan by December 31, 1994. Failure to carry out the plan would mean forfeiture of USDA program benefits.

How will impacts of the Conservation Reserve Program and Conservation Compliance be measured in rural areas? It is estimated that Missouri's total erosion on 1.7 million acres of Conservation Reserve land was reduced from 19.8 to 1.2 tons per acre per year. Did this meet the intent of Congress? I would say it did. The question of production control via CRP, however, I will leave to someone else.

When enacting the 1985 farm law, Congress intended that, through Conservation Compliance, soil erosion on highly erodible cropland be reduced significantly. Through the adoption of what we refer to as the "benchmark" system, we estimate that the before and after soil losses should be reduced by about 60 percent. In Missouri, did this meet the intent of Congress? Again, I would say "yes," in the short term, especially as Congress did not design the provision to assure long-term impacts (beyond 10-15 years).

Many persons, however, will disagree with my statement that the intent of Congress has been met. As to the Conservation Reserve Program, many will argue that some of the most highly

erodible cropland was not enrolled and that little is known about future intentions after the contracts expire. They reason that it is too early to predict how economic and budgetary conditions at the time contracts expire will bear on future use of land. A number of developments could be conceived of that will influence commodity demand and land use.

The success of Conservation Compliance will sometimes be judged by looking at the denied benefits or the number of tracts SCS found out of compliance. Inadequate data on before and after conditions will lead to different judgments on what level of erosion control should have been accomplished, and what materialized.

The 1985 and 1990 laws changed agricultural conservation policies significantly. Congress declared that soil erosion should be reduced, for public benefit. But what the overall environmental, social and economic impacts will be will probably remain, for the most part, unknown.

Next we ask what factors will bring about changes in soil and water conservation programs.

- The nonfarm public will insist on more improvement in environmental quality in urban, as well as rural, areas.
- Agriculture will be asked to improve conservation and environmental performance, but with less public support. Budgetary considerations will be a major concern.
- Watershed management concepts will be translated into legislative directives -- for example, in the reauthorization of the Clean Water Act. Soil erosion will be named a major problem because of effects on off-site resources such as large water bodies. This watershed concept will redefine the erosion problem in a number of geographic areas.
- Environmental technology will become more sophisticated, including the ability to measure environmental damage in parts per million and billion.
- Society's growing call for "no risk" in environmental and health issues will be complicated by a limited understanding of our food supply system.

I foresee no reversal of current trends. As we enter the 21st century, agriculture will face increasingly complex and sensitive environmental issues. The future will bring more environmental challenges -- not fewer. The Clean Water Act, Endangered Species Act, Safe Drinking Water Act, and the 1995 farm bill will impact all landowners with many environmentally-sensitive issues.

In my opinion, one important piece of federal legislation heading agriculture's way is the Clean Water Act. This new law will, among other things, zero in on agriculture's non-point

pollution. The likely focal point of the new law will be directing conservation programs toward certain impaired watershed areas, where they will be expected to deal with soil erosion as well as agricultural pollutants.

The Clean Water Act will allow states to determine the best way to protect water quality and rely on voluntary, cooperative projects. Conservation Compliance provisions of the 1985 and 1990 farm laws will be the forerunner of a more site-specific plan with required measures doing double duty -- protecting water quality and reducing soil erosion.

Many persons in the agriculture community feel that conservation compliance plans are having an impact on cleaner water and should go a long way toward meeting new clean water standards. I am reluctant to take a position on this issue.

Now a word about a site-specific plan or an all-inclusive conservation plan. Representative Glenn English (D, Oklahoma) introduced the Site-specific Agricultural Resources Management Act of 1993. He is concerned about the increasing number of conservation and environmental requirements on farmland. Within the Department of Agriculture, 15 programs call for separate plans relating to soil and water conservation. Mr. English would like to telescope them into a single comprehensive site-specific plan. Priority would be given to developing site-specific plans requested by land users or targeted to specific watersheds -- for example, those identified by the state as part of the Clean Water Act.

One positive side of the English bill is that producers who develop and implement such plans would be given liability protection. Addressing chemical runoff and including water quality measures in one plan makes more sense than requiring a separate water plan as may be required in any clean water legislation.

For the past year SCS in Missouri has been looking at how it can best gear up for the single site-specific approach, helping those farmers who voluntarily request assistance to develop an economic, workable plan that meets state and federal program requirements, is environmentally sound, and is acceptable to the producer. A tall order!

What have we learned from current soil and water conservation programs that would make for a better transition into emerging soil and water policies?

- First, are program tools available to treat highly erodible areas that often dominate the pollution problem? For example, the CRP makes no attempt to single out those portions of highly erodible cropland where pollution constitutes a problem. Linking state water quality activities with CRP could provide a combined focus on the worst situations. Is CRP a potential tool for state water quality efforts as well as a farm policy tool?

- Second, economic and social policy must guide public investment for addressing environmental issues. The SCS has an agreement with FAPRI at the University of Missouri-Columbia to develop a modeling system for evaluating the impact of national resource policies on representative farms.

  Producers bearing the costs will resist too tight a standard; while those benefiting from abatement without directly bearing the costs will prefer a high standard of environmental quality. We must, therefore, face the task of measuring costs and benefits of each public and private expenditure for environmental quality improvements.

- Third, we need better information about current conditions and the desired level of benefits -- better estimates of before and after conditions.

- Fourth, decisions made at the farm level in selecting a management system play an important role in the success of soil and water policies. Producers will be asked to improve their conservation performance, probably with less public support. They should, therefore, be allowed maximum flexibility to keep costs down.

- Fifth, we need to answer questions about whether certain measures are in the best interest of the land user and whether they are economically and environmentally acceptable. Research is needed so producers can be given the most accurate, site-specific information on the costs of addressing environmental issues.

- Sixth, non-point pollution control can have major economic and social outcomes. Economists and sociologists should be brought into the evaluation of non-point programs.

The benefits of improving environmental quality come from reducing environmental damage to human health, plants, animals, and water bodies. Some benefits are difficult to measure and, often, the measures cannot be converted to dollars or social impacts on rural areas. In the case of measuring abatement costs for water pollution, costs are often arrived at on the assumption that treatment will be confined to the water treatment facility. In fact, it is often cheaper to control pollution through a combination of practices on land in the watershed.

Conservation Compliance is the starting point for implementing the non-point portion of the Clean Water Act. We must move beyond relying on Compliance and CRP just for erosion control. But in doing so, we must have a better understanding of the impacts on the producer and rural areas. We need to consider the social, economic, and environmental consequences of future legislation on producers and rural areas.

IMPACTS OF CHANGING COMMODITY PROGRAMS

Brad Epperson
State Executive Director
Agricultural Stabilization and Conservation Service

First, let me introduce myself in my new position of State Executive Director. I am a farmer, raising wheat, corn, soybeans, hay, and pasture in Ralls County, and having a 200 cow/calf operation. Upon completion of college in 1977, I served as a legislative assistant to Congressman Volkmer and was involved in writing the 1977 Farm Bill. In 1978, I came to work for ASCS to help administer the bill that was just written. As a farmer, I participated in the programs. I find the experience helpful to see law from its conception to enactment and the effect it has on citizens.

In April of this year, I was appointed State Director of Missouri ASCS. One accomplishment thus far is my having visited, by September 16, all 114 county ASCS offices.

Missouri is a big state. The terrain is diversified. Its agriculture is diversified, and its farmers are diversified. I am proud to be a part of ASCS in that we serve farmers all over the state, and many commodities -- from cotton and rice to tobacco and peanuts, to wheat and feed grains, to beef and dairy cattle. Our programs are voluntary. If the farmer doesn't want our services, he doesn't have to talk to us. Most persons attending the seminar know what we do in ASCS; however, not everyone knows our operating record. In 1992, for example, Missouri ASCS put over $300 million into the state economy. The statewide cost of doing so averages about 5 cents on the dollar. In other words, out of the taxpayer's dollar we charge 5 cents for rent, utilities, supplies, salaries, etc., and this leave 95 cents that actually goes to our clients.

Let's shift gears and talk about specific programs, starting with the Conservation Reserve Program (CRP). We have had 12 signups. The total number of contracts for Missouri is 23,870. The total number of CRP acres is 1,704,601. The annual payments statewide total $105,323,143. When we add all payments made so far for CRP in Missouri, we come up with $625,050,489.

On September 30, 1995, contracts for signups one and two expire. They cover 157,902 acres. On September 30, 1996, another 734,500 acres will come out of the CRP. What's going to happen to these acres? I don't know. The Secretary has the authority to extend contracts. However, with the annual nationwide payout being $1.8 billion, I doubt seriously that he would leave Congress out of any decision. If the land is brought back into production, what happens regarding the producers' conservation plan? If the land is left in grass, how many more cows will be needed to graze this extra pasture? These are but a few of the questions that must be addressed and resolved before September 30, 1995.

The jury is still out, as of mid-November, on 1993 deficiency payments; however, Missouri farmers received $101,048,038 in advance payments for all commodities statewide. Individual producers received almost $76 million of this $101+ million. Corporations received $12 million, and general partnerships received $8.6 million. So in Missouri, the individual farmer is still receiving the most aid through our farm programs. With the local farmer receiving the benefits, most of the federal dollars are likely to circulate within the community.

The participation rate for Missouri crops in 1993 was 73.7 percent of total cropland base. Broken down by crops, wheat is 68 percent, rice is 96 percent, cotton is 91 percent, corn is 77 percent, and grain sorghum is 72 percent.

The crop loss disaster program here in Missouri covers virtually any crop grown for commercial purposes. We have paid $40 million to producers so far this year, and we will be taking applications until March 4, 1994. To give an example of how important this program is to producers, an average corn disaster payment for someone who lost his total crop, i.e., a strictly bottom land farmer, would be about $100 per acre.

The last of our programs that I want to talk about is the Emergency Conservation Program. The damage caused by the 1993 Flood has destroyed not only crops, but also cropland. The most severe damage has been to the Missouri River bottoms. Some of this land has been so badly damaged that it may never be farmed again. So far, we have ECP requests in excess of $38 million. The state of Missouri has been allocated $9.5 million. I feel we will receive more funds, and these funds will be used to restore agricultural land back to production.

There is much talk about writing the new 1995 farm bill. What will new legislation look like, and what will it do for agricultural production? I don't know. However, the Agricultural Act of 1949 has been amended by Public Law 103-66 to extend current provisions of the Acreage Reduction Program through 1997. This also extends target price coverage and gives the Secretary the authority to set acreage reduction percentages. The set-aside for the wheat crop has been set at 0 (zero), and the set-aside for corn was announced this week also to be zero.

Let's shift now from programs to the subject of reorganization of the USDA. As of November 1993 here are how things look. (Keep in mind, this may not be the final face of USDA.) In Missouri, we have 114 county offices. A proposal has been sent to Washington to cut back to 100 USDA Service Centers. Co-location of agencies is the first big push. Here in Missouri, we are virtually 100 percent co-located now, meaning that the ASCS, SCS, and FmHA offices are in the same place.

A year from now, I may no longer be the State Director of ASCS as there may not be an ASCS as we know it. The Secretary is pro-

posing to consolidate ASCS, Federal Crop Insurance Corporation (FCIC), and FmHA into a new Farm Service Agency. His goal is to reduce duplicating services, enhance communications, and provide overall better service to farmers. I support his goals. I have stressed to Missouri ASCS county office staffs that the most important person in the office is the farmer, and that farmers must get the most timely, accurate information possible. That was no easy task this year, as the deadlines and procedure changed almost daily.

Whether we are called ASCS or FSA, when the farmer walks into the Service Center, the program assistants will still call him by his first name and pull his folder just as they have done for years. Service will still be in our name! And the agency will still view that producer as the most important person in the office.

The Secretary is committed to making changes at the Washington level first. Once those are in place, we will proceed to work on the field level operations. The time frame for all of this is unclear. Many of the proposals require Congressional action; others can be implemented administratively. I can assure you of this: these actions are not being taken lightly, nor are they being rushed into. The Secretary is doing his best to streamline the USDA, while at the same time improve service to agriculture.

THE CLINTON RURAL AGENDA

W. Robert Lovan
Staff Director, National Initiative on
Rural America, Washington, DC

First I reflect briefly on Professor Breimyer's Extension letter, Economic and Policy Information of November-December 1993, published as background for this seminar. The Country Life Commission report of 1908 provides a perspective for looking at rural program initiatives of today. Another date is 1972, when the Rural Development Act challenged the USDA to take rural development seriously and to put in place a government-wide rural development program. One outcome was the setting up, with the help of then-Deputy Secretary Peter Myers, a rural development information center. The 1972 act funded a number of programs for rural development but the principal outcome may have been to induce the Department of Agriculture and the states to activate themselves relative to rural development.

Secretary Espy says the Department has three missions. He has not departed from concern for production agriculture but he has added, with emphasis, human food and nutrition and rural development.

Professor Breimyer's article also stimulated thinking about the definition of "rural." A continuing problem is what is meant by rural areas and rural development. The various legislative authorizations for rural programs do not offer a clear definition. A definition of rural surely involves population. It is sparse. Secondly, space is a part of it -- distance. Thirdly, the level of essential governmental services is sub-standard. What, then, are the challenges for rural development? I suggest there are three: diversity, complexity of rural needs and issues, and fragmentation in delivery of services.

Diversity takes many forms. Rural places demonstrate diversity in terms of culture, geography, ethnicity, color, gender, race, organizational perspective. There is tremendous diversity in rural America and I think the hallmark of our accountability is how well we embrace all that diversity in a policy action system.

The second challenge is the complexity of rural needs and issues. Individual interest groups typically press for a single kind of policy action. But a narrowly limited action will rarely deal satisfactorily with complex problems.

Thirdly, we recognize the fragmentation in the way we deliver services: fragmentation among federal, state, and local governments; fragmentation between public and private agencies.

We need a policy action system to facilitate the effective delivery of resources in a diverse, complex, and fragmented society, which rural America is.

Next I touch on changing relationships within government, focusing on federal government relations as a model for all levels of government. Admittedly, dollars will not solve every problem. But it's normal to suppose that when a problem arises, dollars can be found for dealing with it. We have to acknowledge that dollars will often be scarce, in the present fiscal setting.

Everyone pays homage to the local level in problem-solving, and I concur that many policies do have to be crafted at the local level.

There will, however, be some dollars that can be focused on a particular issue and therefore governments at all levels have a leadership responsibility, not in terms of manipulating dollars but in acting wisely in applying them to the kind of projects that are being dealt with.

Yet another area worth brief mention is that the Clinton Administration has indicated that it will not disregard one-fourth of America, the rural fourth. Nor will it ignore the need to be able to provide leadership. So we ask what the operational concepts for this new relationship may be. I think there are three. They must be innovative, collaborative, flexible relationships. One concept is collaborative partnership. We need fewer stovepipe solutions and more collaborative joining together. That means we also have to share. I treat collaboration as win-win, not one side's giving up something to someone else. Collaboration is open, non-threatening. It is possible that some of the public interest groups have much to learn about collaboration.

<u>The effectiveness test</u>. For many activities in rural development the proper test is effectiveness, as opposed to efficiency. It is often easy to set a good track record on being efficient. A low level of default in FmHA lending, for example, is great. But it is possible to be efficient and do the wrong thing. That is what effectiveness is about. Effectiveness, in turn, can be achieved by being innovative, entrepreneurial, and flexible in use of public dollars. I admit, too, that it is necessary to take risks, and accept a few disappointments.

<u>The rural development agenda: what is going on</u>. Within the U.S. Department of Agriculture rural development is one of the three major missions, the other two being production agriculture and human food and nutrition. The Department will be organized to facilitate activities to carry out the three missions.

What may not be so well known is that a developmental focus in the USDA, applied to rural America, is part of an Executive Office-wide emphasis on economic and social development. The Secretary of Housing and Urban Development, for example, is in touch with the Secretary of Agriculture, as Secretary Cisneros talks with Secretary Espy about development issues generally. Moreover, Assistant Secretary Cuomo of HUD and USDA Under Secretary Nash are part of a

committee effort headed by the Vice President. Enterprise zones are an example of a policy direction that can be urban or rural.

Four rural development themes are coming out of the Clinton Administration. One is communities in transition. Perhaps the most prominent example is communities that are losing a military base or a munitions plant. Some munitions plants, it so happens, are located in rural areas. In the midwest in 1993, many communities found themselves in transition owing to flood waters. A fallout from NAFTA will force some communities into a difficult transition.

The second theme is people and places in poverty. Of the four themes, this ranks highest within the Clinton Administration. The objective, of course, is to make developmental opportunities available. Enterprise zones are an example of an approach that will be tried, although timidly at first. An entirely different approach is an 1890-university outreach, intended to help 1890 institutions reach out to disadvantaged minorities. Lincoln university is Missouri's 1890 school.

The third theme is high value development. Legislation has been in process to make developmental financing available to quasi-governmental organizations (CBFI). Aid in research and technology that is offered in connection with the closing of military bases can be a part of high value development.

The fourth theme applies to isolated communities. A number of communities in Missouri can be so identified. This fourth theme links into the advances in telecommunications that have been highlighted at this seminar. As the University of Missouri is a land-grant institution, I only point out that service to isolated communities fits with its mission.

<u>Possible additional initiatives</u>. I could name a number of other kinds of effort that are being either undertaken or considered. One is sometimes called the Dorgan zone, a kind of enterprise zone. Senator Dorgan of North Dakota would like to draw on program resources now available for community development, applying them to some of the Plains states. The National Rural Development Partnership involves a development council here in Missouri (MOROC). There is talk about a Project Hope, a housing project for rural America. A group in USDA is putting together a National Rural Service Corps.

My closing comment begins with a challenge to the land-grant university system. Land-grant institutions have outreach as a reason-for-being. But rural development involves asking all interest groups, public and private, to be collaborative and innovative in order to help solve the problems of rural Missouri and the rural United States.

SEMINAR SUMMARY AND ISSUES UNRAISED

James O. Preston
Missouri Rural Innovation Institute
University Extension

It is virtually impossible to summarize adequately the excellent seminar presentations. I will review selected points made by speakers and participants, then will add observations of my own.

Brady Deaton stressed that space and settlement patterns matter a great deal in terms of rural policy and development. He pointed out, however, that land-use ethics is laden with psychological and emotional energies. He also reflected that the major forces that have shaped today's rural America are (1) the Jeffersonian-agrarian philosophy; (2) the Morrill, Hatch, and Smith-Lever Acts; and (3) the enormously successful scientific revolution in agriculture. He added, however, that these same forces have contributed to a culture (rural life) at risk.

Dr. Deaton also suggested that we must examine carefully all the various interrelationships of the market-driven dimensions of our society that impact the common good. He concluded by saying we must bring under control the cost to communities, counties, and states of tax concessions and other attractions to industries that look for the highest bidder before making relocation decisions.

Harold Breimyer pointed out that this past century has been one of astonishing accomplishments, especially in technology. Politically, he views it as the century of the nation-state, which he regards as the modern version of the ancient tribe. Where the tribe sheltered its members from adversity, so does the nation-state from unemployment, crime, natural forces, etc. We have evolved, however, to a condition where big government and big business are in constant struggles with each other.

Professor Breimyer stressed the importance of education for the common good and views Extension as a major education player.

He observed that farmers and rural non-farmers can and often do agree on general issues but environmental issues often bring discord and dissension.

Bill Heffernan pointed out that in past years social issues were discouraged as a focus of study at land-grant universities and experiment stations. However, that reluctance to address problems of society is slowly changing.

He stated that structural changes in agriculture have drastically altered rural economies and society. Following scientific advances, fewer farmers now buy inputs and sell products locally, at whatever market or dealer gives them the best price. This development has wrecked local economies.

Professor Heffernan also spoke about the psychological and social value of family farming operations -- about people who feel good about what they do and who feel they exercise a reasonable measure of control over their own destiny. They approach family, church, and community obligations positively. Heffernan sees a strong tie between a person's feelings about what he does and community leadership.

He also observes that there is some reason to be optimistic, because more and more agricultural discussions focus on community and its sustainability. Even so, we must recognize the consequences of thinking too narrowly -- of focusing on single entities. Just as the nation-state can ill afford the notion that it can "go it alone," neither can the individual or the community.

From a discussion among a panel of Deaton, Breimyer, and Heffernan interacting with the audience, certain points are noteworthy:

> Highly specialized, large operations tend to inhibit innovation and entrepreneurship.
>
> No clear national rural development policy or plan exists and we're not even close to having one. Instead, incremental solutions are applied to specific situational needs.
>
> The term "residency escapism" was offered to describe people who move to rural areas for the rural quality of life but don't want to pay for the amenities or become a solid part of the community.

John Ikerd said that as a consequence of agricultural industrialization rural communities have lost their fundamental purpose in relation to agriculture. He pointed out too that much of the manufacturing moving to rural areas has been exploitive through seeking the largest tax and other incentives and then moving when incentives are better elsewhere.

Ikerd spoke about the "theory of cycles" of events. This, simply put, suggests things don't continue on the same path forever but instead run in cycles. He suggests the "mass production industrial model" is fading and is being replaced by the specialized, smaller "niche" model. In relation to this theme, he spoke of Alvin Toffler's "Mind Work" or "Integrated Simultaneous Systems."

He concluded by saying that agriculture must remain a fundamental player in a future movement for economic sustainability of communities.

Selected remarks from a panel of John Allen, Vicky Hobbs, Harold Williamson, and Jan Vanderham were:

- Larger farms are associated with a lower quality of life in rural areas.
- Larger organizations are not able to adapt to change and respond as quickly as smaller ones.
- A quiet revolution is underway across the land through interactive TV distance learning.
- A similarity is seen between the REA (rural electrification) development of the 1930s and the present telecommunications movement. However, no clear national agenda or advocate such as TVA (Tennessee Valley Authority) has yet emerged to champion the movement.
- The Public Service Commission in Missouri must establish a balance between individual and "public good" needs, in order for telecommunications to realize its potential.
- While approximately a fourth of the U.S. population lives in rural areas, only about 12 percent of physicians practice there. This situation will likely continue, as most physicians are located in communities of 10,000 or more population. More use will be made of nurse practitioners and physician assistants to provide primary care in sparsely populated rural areas. Telecommunications will likely play a major role in future health care.
- The Thomas Hill Enterprise Center strives to promote the entrepreneurial spirit. It assists in the creation of new businesses and industries based upon the resources of the region.

Bill Bondeson pointed out that we are the result of our obligations and relationships to and with others. We define ourselves by our social roles, i.e., father, brother, son, teacher, etc. Our good and full development can only be found in society. We cannot exist as "rampant individualists." (As we think about rural life in terms of the bigger political economic goals, carefully thought out ethics must guide our choices -- JOP.)

Abner Womack, Russ Mills, and Brad Epperson helped us look at where we've been, where we are, and where we're probably headed in terms of the agricultural economy, the USDA organizational history and structure, and programs and services to agriculture.

Now I share some perspectives on agriculture's role in public policy for rural America as offered by two separate sources.

Sheila Martin and Stan Johnson cited work by R. D. Norton in their introduction to the 1992 "Industrial Policy for Agriculture in the Global Economy" conference at Iowa State University. (Martin is with Research Triangle Park, North Carolina; Johnson is Director of the Center for Agricultural and Rural Development at Iowa State University.) They refer to industrial policy strategies identified by Norton that are commonly employed: (1) Modernization or Picking Winners. This accelerates the movement of resources into industries having considerable potential for future growth and competitiveness (e.g., the telecommunications industry); (2) Preservationist, a strategy that calls for trying to prevent the

collapse of a declining industry and the unemployment that may accompany it (e.g., Chrysler); (3) Stabilizing or Transitional, the object of which is to accelerate the flow of resources to their most productive use (e.g., defense conversion and industrial extension). Martin and Johnson suggest that the current U.S. policy toward agriculture and rural communities is in many respects based on the technologies, social structures, and markets of a half century ago. The consequently piecemeal approach to agricultural policy has resulted, particularly in the past two decades, in an increasingly preservationist strategy that seeks to maintain obsolete institutions, industry, and community structures, with their associated economic and social relationships. (D. Gale Johnson, Professor of Economics, University of Chicago, says, "There is some truth to the statement that the 1980, 1985, and 1990 farm bills were nothing more than a collection of discrete and uncoordinated pieces of commodity legislation.")

I turn to another source for observations on rural policy. A 1993 publication, "Strategies for Rural Competitiveness: Policy Options for State Governments," by Thomas W. Bonnett with copyright held by the Council of Governors' Policy Advisors, considers a number of issues related to rural development in America, mainly national ones. Bonnett says, "Rural advocates have sought a comprehensive rural development policy and an adequate level of federal resources based on both the history of the federal government's rich involvement in developing its rural areas and the moral claim that the federal government is responsible for improving the quality of life in existing places." He quotes Osha Gray Davidson in opposition to relocation advocates (<u>Broken Heartland: The Rise of America's Rural Ghetto</u>). In rural America, we are now making the terrible, and yet wholly logical, leap from marginalizing individuals to marginalizing whole communities, and perhaps even to rendering an entire region superfluous to the flow of American life. As politicians profess a deep and abiding love of the heartland values, thousands of small towns spread out across the American countryside are left to wither on the vine. Bonnett further argues that several of the domestic programs created during the New Deal and the Great Society eras established an expanded federal role in place-oriented policies, e.g., the Tennessee Valley Authority, the Appalachian Regional Commission, and various grants-in-aid programs for local government (as Federal Revenue Sharing).

A 1992 Roper survey for the National Rural Electric Cooperative Association indicates that "Americans continue to have an enduring admiration for rural Americans. Rural Americans continue to be thought of as family oriented, friendly, honest, responsible, religious, and less stressed than their urban counterparts. Another enduring impression is that urban and suburban problems do not affect rural America or constitute an important threat...The public still does not recognize or think about the poverty and social problems prevalent in rural America. Rural America itself may have changed but the way in which most Americans view it has not. In the eyes of most Americans, rural America has an embarrassment of riches, not problems."

The problems of inner cities have received more attention from national political leaders than the problems of rural areas. One member of Congress observed after the Los Angeles riots in 1992, "The alienated and discontented in urban areas sometimes cause riots, but the alienated and discontented in rural areas never riot."

Bonnett concludes his discussion on a rather sober note. Even though to all Americans wherever they live, rural means a place with all the familiar attributes related to quality of life, the federal policy strategy seems to be shifting away from place orientation. A significant milestone came in 1980 when President Carter's Commission for a National Agenda for the Eighties observed that contrary to conventional wisdom, cities are not permanent. "We forget that cities, like all living things, change." The commission advocated a shift from urban (place) policy to social policy -- a federal strategy of funding the needs of people instead of places. I would submit that even though their focus is rural in general, the state Rural Development Councils are a second wave of this changing federal policy strategy.

Certainly federal policies are important to rural development. Will a policy focused on people rather than place (if indeed this is a real trend) affect state and local efforts on behalf of rural development? If so, can we influence the re-posturing of federal policy? I believe the answer is a resounding Yes! Why? Because just as has been demonstrated at this seminar, bright, talented, and sincerely caring people are coming together to address the issues. Let's not stop!

Continued from page 11

References

Ashworth, Graham. 1981. "Toward a New Land Use Ethic for the USA." Toward a New Land Use Ethic. Piedmont Environmental Council, Warrenton, Virginia.

Bernat, Jr., G. Andrew. "Manufacturers' Restructuring in Non-Metro Areas Contributes to Lagging Pay, Job Instability." Rural Development Perspectives. USDA ERS, Vol. 8, No. 1, pp. 32-33.

Commager, Henry Steele. 1978. The Empire of Reason: How Europe Imagined and American Realized the Enlightenment. Anchor Press/Doubleday, Garden City New York.

Machrowicz, T. Alexander. 1993. "On Farms Jobs Decline, But Farm-related Jobs Rise." Rural Development Perspectives. USDA ERS, Vol 8, No. 3.

McNamara, Kevin T. 1986. Ph.D. Dissertation, Virginia Tech, Blacksburg, Virginia.

Polanyi, Karl. 1944. The Great Transformation. Octagon Books, New York.

WAITE LIBRARY
DEPT. OF APPLIED ECONOMICS
UNIVERSITY OF MINNESOTA
1994 BUFORD AVE. - 232 COB
ST. PAUL, MN 55108 U.S.A.