21st Century Survival of Rural America

Proceedings of a Regional Conference

October 16 - 18, 1991  Jackson, Mississippi
Sponsors

COUNCIL OF STATE GOVERNMENTS
SOUTHERN RURAL DEVELOPMENT CENTER
NORTH CENTRAL REGIONAL CENTER FOR RURAL DEVELOPMENT
FARM FOUNDATION

The concept and program development of this conference originated with the Southern Legislative Conference (SLC) committee on Agriculture and Rural Development in Atlanta, GA, and the Southern Rural Development Center (SRDC), Mississippi State, MS. State Senator Robert H. (Rob) Smith (Mississippi) served as local host.
21st Century Survival of Rural America

Conference Proceedings
October 16-18, 1991
Jackson, Mississippi

Published by
SOUTHERN RURAL DEVELOPMENT CENTER
Post Office Box 5446
Mississippi State, MS 39762

SRDC Publication Number 157
March 1992
TABLE OF CONTENTS

21st Century: Overview and Needs Assessment Results

Mike D. Woods
Oklahoma State University ........................................... 1

Global Economic Changes

William A. Miller
Legislative Research Commission ..................................... 7

Moise Christophe Mensah
International Fund for Agricultural Development ................. 9

Greg Mahler
University of Mississippi ............................................... 13

J. Norman Reid
Economic Research Service, USDA .................................... 17

Sheila L. Tschinkel
Federal Reserve Bank of Atlanta ...................................... 21

Existing Rural Development Policies at the State Level

Dennis U. Fisher, Ronald D. Knutson and Anna Barrera
Texas A&M University .................................................... 25

Luncheon Speaker

Dick Molpus
Secretary of State, Mississippi ......................................... 41

Successful Rural Development Projects

Take Charge
Robert D. Cole
Iowa State University .................................................... 45
Tourism
    John H. Sem
    University of Minnesota  ...................... 47

Infrastructure
    Gerald A. Doeksen
    Oklahoma State University  ..................... 53

Strategic Planning for Economic Development

    Glen Pulver, Professor Emeritus
    University of Wisconsin  ....................... 81

Congressional Hearing—Strategy Session

    William F. Winter
    Former Governor of Mississippi  ................. 87

Appendix  .................. .......................... 91
21st CENTURY SURVIVAL OF RURAL AMERICA
Overview and Needs Assessment Results

Mike D. Woods
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Oklahoma State University

OVERVIEW

Rural communities are facing many challenges as the 21st century approaches. Sustainable jobs in a global market place, adequate public infrastructure, and health care are just a few of the critical issues with which local leaders must deal. A conference was sponsored by the Council of State Governments, the Southern Rural Development Center, the North Central Regional Center for Rural Development, and the Farm Foundation to address the future of rural America. The conference took place in Jackson, Mississippi, on October 16-18, 1991.

Specific objectives of the conference were to:

1. provide information on effective strategies, educational programs and research-based knowledge regarding rural economic development,

2. promote interaction between public and private agencies as well as between the land-grant university system and local/state officials, and

3. identify promising sources of jobs/income in the Southern region of the United States, as well as other regions of the country.

During the conference, participants, including state legislators, local officials, public and private development agency personnel, and land-grant university research and extension faculty, completed a needs assessment form regarding rural development. A round-table session was also conducted to solicit opinions and ideas from the conference participants. The purpose of this paper is to report the findings of the needs assessment and round-table discussions.

NEEDS ASSESSMENT RESULTS

Conference participants were asked to rank several rural development issues by level of importance. Table 1 reports the results of the rankings. Identified as "very important" were education, training; financing sources; and job creation. Topics which participants tended to rank only "somewhat important" were telecommunications, environmental concerns, natural resource development, and poverty. Clearly, the respondents were more concerned with jobs and financial issues.

When asked to rank the "top three" issues facing rural America, the responses were consistent. The most frequently cited issues were education, job creation, local capacity, infrastructure, health care, and finance. These opinions do not necessarily reflect the priorities of all rural residents but do seem to reflect the concerns and interests of the conference participants.

Finally, respondents were asked what they felt was the "most important message regarding rural development" which states should send to the federal government. Table 2 reports those responses.


<table>
<thead>
<tr>
<th>Issue</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financing Sources</td>
<td>19</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Infrastructure such as Roads, Bridges, Water, Sewer</td>
<td>16</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Health Care</td>
<td>17</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>2</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Job Creation</td>
<td>19</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Local Capacity or Leadership Development</td>
<td>17</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Environmental Concerns</td>
<td>8</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>Natural Resource Development</td>
<td>5</td>
<td>17</td>
<td>1</td>
</tr>
<tr>
<td>Education, Training</td>
<td>20</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>Poverty</td>
<td>8</td>
<td>14</td>
<td>1</td>
</tr>
</tbody>
</table>

**Other:** Child Daycare, Crime/Drugs, Housing, Exporting, Agricultural Development
**TABLE 2. RURAL DEVELOPMENT COMMENTS**

<table>
<thead>
<tr>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural problems will only get worse - cost more.</td>
</tr>
<tr>
<td>Funding for programs must occur.</td>
</tr>
<tr>
<td>Assist but don't mandate.</td>
</tr>
<tr>
<td>Rural development is a national issue.</td>
</tr>
<tr>
<td>Rural areas are worth saving.</td>
</tr>
<tr>
<td>Human capital resources are needed.</td>
</tr>
<tr>
<td>Reduce federal mandates.</td>
</tr>
<tr>
<td>Invest in youth.</td>
</tr>
<tr>
<td>Provide funding for infrastructure.</td>
</tr>
<tr>
<td>Minimize regulations.</td>
</tr>
<tr>
<td>Provide funding for education.</td>
</tr>
<tr>
<td>Form a rural development center-designate state/federal agencies to assist.</td>
</tr>
<tr>
<td>Loss of jobs, global economy is a concern.</td>
</tr>
<tr>
<td>Fund activities in 1990 Farm Bill including Rural Development Administration.</td>
</tr>
<tr>
<td>Make same services available to rural areas as are available to urban areas.</td>
</tr>
</tbody>
</table>
ROUND TABLE DISCUSSIONS

Roundtable discussions were also held during the conference. The general guidelines followed for each topic discussed were to identify the issue, discuss the federal role, and finally to list specific policies which might be recommended. The five roundtable topics were based on the earlier needs assessment: education, local capacity and leadership, job creation and retention, infrastructure and health care, and finance. In the cases of infrastructure and health care, the topics were combined because of joint interests of the group. These five roundtable topics were the most frequently cited by the conference participants as "issues of concern". The following section summarizes the comments made at the roundtable discussions, during which task force members from the Southern Rural Development Center served as reporters.

EDUCATION

The group noted that education is a key rural development issue at all levels of government but indicated that sub-issues must be considered for policy purposes. The education issue is really a set of related problems/issues. Areas noted included:

- education finance,
- student performance/school effectiveness,
- dysfunctional families and implications for student achievement,
- community support for education beyond financial support--community systems/interactions that support/reinforce school outcomes, and
- basic training/retraining for individuals displaced by technology.

Regarding specific policy suggestions, the group repeatedly stressed the need for a unified effort among state and federal agencies and local school systems to address the inter-related set of community/school/family problems. With respect to the federal role, the group called for a clear recognition that there is a role for the federal government in education. Specific policy recommendations include:

1. The federal government should ensure a necessary (but not sufficient) level of school funding. Increased expenditures are justified based on externalities associated with migration and on the generally high returns to investment in human capital.

2. The federal government should develop and fund pilot programs to encourage unified agency responses to problems of dysfunctional families, communities, and schools. Successful efforts should lead to increased state/local funding for education.

3. The federal government should provide additional support to use distance learning technologies in rural areas.

4. Existing agencies with a role in communities (i.e. cooperative extension service) should be linked to local school systems.

5. Increase/develop basic education/training programs for displaced individuals/workers.

6. The federal government should establish/support a creative process setting educational performance standards and developing ways to identify and measure educational outputs.

LOCAL CAPACITY AND LEADERSHIP

The key issue discussed regarding local capacity was concerned with identifying current or potential leaders and assisting them in serving their community. Broadening local participation and expanding the pool of leaders are also critical.

The federal role in local leadership development is somewhat limited but important. Cooperation and assistance could come in the form of coordination of federal agencies with assistance to offer. Rather than "reinventing the wheel" the use of existing institutions was emphasized.

Specific policy recommendations related to assistance and encouragement of strategic planning at the local level. Rural economic
Development is broad, and communities need a link to available resources and methodology for beginning the planning process. Public support through education and technical assistance is critical.

The group also emphasized the need to add time on the human side of rural development. Leadership and local capacity are critical for long-term community opportunities. The injection of new ideas and identification of potential partners for development projects is a part of needed leadership training. A role for the cooperative extension service in linking rural institutions and organizations was also discussed.

D) CREATION AND RETENTION

Two facts regarding the future were that:

- markets are becoming increasingly global in nature, and
- production is increasing in sophistication and training needs.

Under these facts, education and training are at the heart of economic development in the South and greatly impact the ability to compete in international markets. However, education alone may not do the job unless it is combined with other employment creating efforts, primarily financing. Otherwise, education may lead to migration only.

The federal role in job creation and retention falls into two areas:

1. The federal government must make certain that agriculture and related rural businesses in the South have an opportunity to compete on a level playing field with other countries that may maintain trade barriers and/or subsidies as we move forward with international trade negotiations.

2. As trade negotiations advance (e.g. NAFTA), regional economic adjustment problems created by new policies must be addressed by the federal government. Such problems may be significant in labor intensive manufacturing industries throughout the South and in certain agricultural industries such as citrus, fruits and vegetables, and related areas.

Specific policies the federal government should consider include the following:

1. The federal government should fund an independent study on the economic impact of trade liberalization initiatives on agriculture, industry, and employment in the South. Such a study should include identification of those enterprises that are at risk due to trade liberalizing policies. These may include:
   
   a. agriculture: fruits and vegetables - Florida, Texas;
   b. agricultural processing-South;
   c. labor intensive industry-South; and
   d. services-South.

2. This study might be coordinated through the Southern Rural Development Center and involve universities, state, and federal agencies throughout the South.

3. The federal government should enact policies that insure sufficient capital is available to rural businesses that demonstrate potential for growth and profitability. The difficulty in obtaining financing for agriculture and rural businesses is hindering growth and development in rural areas.

4. Retraining programs should be initiated to assist rural people who become unemployed as low skill, low wage industries in the South are displaced by free trade and other federal policies.

INFRASTRUCTURE AND HEALTH CARE

Discussion was primarily concerned about health and care and solid waste issues:

Health Care Concerns and Possible Actions.
1. Help with physician placement in rural areas.
   Federal action could aid in restoring federal rural physician placement program. Emphasis or criteria may have to be changed to insure program is appropriately directed.

2. Hospital Closures
   Encourage feds to have same reimbursement policy for rural and urban areas.
   Help hospital diversify to stay in business.

3. Cost Containment
   Federal government may have to put limit on malpractice suits.

Solid Waste Issues

1. Encourage states to adopt laws to reduce waste stream.

2. Increase funding availability through FmHA. Maybe develop a grant program to help rural areas meet title "D" requirements.

FINANCE

One problem with finance is a lack of capital due to large holding companies drawing funds from rural areas to urban areas. This action has resulted in few loans being made in those areas. Also, capital is short due to the fear of tight federal regulations on credit in rural areas.

Solutions:

1. Banks should form community development corporations.

2. The role of the federal government should be to provide venture capital and fill the credit gap.

   Reform of the U.S. Banking System would be another solution.

3. Each state should fund its own education with only limited federal assistance.

4. Infrastructure-increase federal role.

SUMMARY

The conference was evaluated as a success by the participants. Active involvement in the needs assessment and roundtable session helped to focus issues and discussion with conference presenters. The principal message of the conference was that rural problems will only get worse and cost more to address if neglected. A philosophy of assistance rather than mandates from the federal government was desired.

Developing human capital resources through education and leadership development were noted to be critical topics. Federal roles include coordination, funding, and technical assistance/research support. It was noted that categories such as education, infrastructure, financing, leadership development, and job creation are not independent. Together these topics form the resource base available to rural communities. Specific policies should recognize that linkages exist and a "systems" approach to rural development is needed.

Editor's Note: See the Appendix for Task Force Members List, Pre-conference Questionnaire and Briefing paper.
GLOBAL ECONOMIC CHANGES

William A. Miller
Assistant to the Director
Legislative Research Commission, Kentucky

This session will address global economic changes at the international, national and regional levels which will impact rural America's ability to survive and prosper. With the current budget shortfalls affecting most of our states, coupled with the fact the U.S. economy is not emerging from the recession very quickly, it is certainly gratifying to note we have public and private leaders in attendance today who represent 21 states and Puerto Rico. You are to be congratulated for interest in this extremely important issue of rural development.

I believe we are all in agreement it is absolutely crucial that we focus our attention, our energies, our resources and our commitment to improve both the physical and social rural infrastructure systems, not only in the Southeast, but throughout the United States, as in other areas of the world. Several years ago, when various experts talked about rural development they were often referring to developing transportation systems or links, improving crop output per acre, or saving the family farm. These components are still critical to the rural development equation. However, now we have adopted a much more comprehensive approach which encompasses basically every facet of rural life such as constructing not only vital roads and bridges but also essential sewer and water systems, providing comprehensive health care to all rural residents, developing our natural resources while still preserving the environment, educating and training rural workers as well as emerging leaders so they can compete effectively both in the domestic and international marketplaces, and provide the competent leadership necessary to confront the challenges of the 21st Century.

We are also looking at implementing the cutting edge of technological development and utilizing advanced telecommunications systems and equipment; working strenuously to eliminate poverty; creating meaningful employment opportunities; enhancing the quality of life and the standard of living for rural residents; and last, but not least, identifying which mechanisms or programs are necessary to help us achieve the aforementioned goals and determining at the same time how we will pay for these programs. Most of these goals are not only being pursued by the United States, but also by many nations around the world. Often rural and other problems being confronted in Athens, Georgia; Lima, Ohio; or London, Kentucky; are being wrestled with simultaneously in Athens, Greece; Lima, Peru; and London, England. Although this mutual recognition of and concern about rural problems in this interdependent world is quite heartening and interesting, it is equally interesting to view the rapidly-changing world within which these problems are being confronted. Before we can grasp fully the significant changes, trends, and conditions that exist not only in rural America and in rural areas in many places around the world, perhaps we need to focus our attention for a moment upon the international arena, and the major mind-boggling and geopolitical and economic events that have occurred over the last two or three years.

A few of the obvious, though dramatic, breakthroughs include but certainly are not
limited to:

- the thawing of the Cold War between the United States and the Soviet Union, which has been replaced to a large degree with cooperation rather than confrontation.
- the collapse of Communism and centrally-planned economies which heralded a rapid movement in many areas of the world towards Democratic political systems and market economies.
- a market decline in regional conflicts especially in South and Central America, Southeast Asia and Africa.
- a renaissance for several of the organizations and agencies of the United Nations, in particular the Security Council, to deal more effectively with international problems.

From the economic standpoint we have witnessed the 12 major European countries joining forces to develop one of the richest and largest markets in the world, while other regional markets are emerging such as the United States, Mexico and Canada evolving into the North America Free-Trade Agreement. In addition the southern cone countries of South America, a coalition of Caribbean countries and the association of Asian nations, either have entered or are entering into a regional association. Regional economic, political and cultural initiatives are advancing at a tremendously fast pace.
GLOBAL ECONOMIC CHANGES

Moise Christophe Mensah
Assistant President, Project Management Department
International Fund for Agricultural Development (IFAD)

The concerns of this conference, i.e. the 21st Century Survival of Rural America, can be said to reflect, to a significant extent, the preoccupations of rural communities worldwide. Indeed, the issues related to rural survival and, hopefully, development present the most important challenge to a large number of countries. As we are meeting today, somewhere in Western Europe farmers are pursuing a series of tumultuous demonstrations to ensure a decent level of commodity prices and farm incomes. In Asia, Africa, Latin America and the Caribbean, millions of rural poor are toiling desperately for mere survival. Their fate presents a challenge not only to their governments but also to the international community as a whole. By reviewing some of their problems, aspirations and efforts being made to address the constraints they are facing, we might contribute to adding a global perspective to our deliberations.

Rural population represents 68 percent of the 3.8 billion total population of developing countries. By region, it is 74 percent of the Asian population, 73 percent for Sub-Saharan Africa, 51 percent for the Near East and North Africa, and 29 percent for Latin America and the Caribbean. Those rural people make their living out of smallholder farming, nomadic pastoralism, and artisanal fisheries but about 25 percent of them are landless; about 8 percent are ethnic indigenous populations more or less marginalized by the national indigenous process. Because of domestic strife and regional tensions, 6 percent of the developing countries' rural communities consist of internally displaced or refugee populations. It may be worth noting that about 12 percent of the rural households are headed by women and the percentage goes as high as 20 percent for India and China and 31 percent for Sub-Saharan Africa. To complete the picture, it should be added that 36 percent of the rural population in developing countries live below the poverty line. By region the percentages are 31 percent for Asia, 61 percent for Sub-Saharan Africa, 25 percent for the Near East and North Africa and 62 percent for Latin America and the Caribbean.

Rural people in developing countries aspire essentially to food security, safe drinking water supply, basic education and health services. Food security, defined as sustainable access to adequate food for the household, may derive from production by the household itself or from income generated by gainful employment. In trying to address the issue of food security through agricultural production, the rural household is confronted with a series of constraints in varying degrees, depending on the country or region concerned.

One such constraint is access to land either through ownership or secure tenure. Another is the availability of technology for sustainable exploitation of the natural resource base. Bear in mind that the small farmer or nomadic pastoralist will obviously give priority to survival strategies, which may damage the resource base, over preservation of the environment unless he is offered a technically and financially viable resource base conservation proposal. The inadequacy of institutional support to rural development also constitutes a
serious constraint; in particular, poor access to credit, to markets, weak agricultural research and extension systems and severe neglect of rural infrastructure—especially road networks.

To address these constraints, governments in developing countries, with the assistance of the donors community including IFAD which has a specific mandate on rural poverty alleviation, are trying to explore and implement appropriate solutions. They use approaches which emphasize the full participation of the rural communities themselves in both the formulation and implementation of programs and projects of which they are the beneficiaries. Indeed, past experience has provided ample evidence that resource transfer alone cannot solve the problems of a beneficiary target group if the programs involved are perceived by such beneficiary target groups as irrelevant. For example, tropical crop research has obtained remarkable results in terms of high yielding varieties, but adoption rates by small farmers has generally been very poor because the technology packages proposed were often not adapted to their farming systems which were meant for minimizing risks rather than maximizing profit. That happened because research work was not attuned to farmers felt needs. Therefore, in order to ensure that they are demand-driven, new research and extension activities are being developed through a closer dialogue with the farming communities concerned.

As far as conservation of the natural resource base is concerned, the issue is particularly important in areas with fragile agroecosystems e.g. the West Africa Sahelian belt, the hillsides of Nepal or Bolivia, the tropical forests and woodlands exposed to deforestation. Here again, a participatory approach enables the implementation of programs aimed at halting and reversing the degradation process. Such programs must combine short term gains with long term benefits. The short term gains could be wage-earning activities or other forms of compensation for accepting the restrictions involved in resource conservation measures.

With respect to institutional support, the need for the rural communities to have a greater say in their own development coupled with government’s role is essentially to help rural communities build the capacity to establish and run, over time, their own development institution, e.g. credit or extension systems. The emphasis, therefore, is on training community leaders and members in various necessary skills such as group formation, accounting, agricultural extension, etc. However, government policy should ensure that the bottlenecks on access to the various existing key institutions are removed. Such bottlenecks may relate to security of land tenure or access to credit by smallholders with no collateral, landless people or women.

In support of the rural capacity building process, basic education is now recognized as a must. Illiteracy is a major obstacle to human development in rural areas. Literacy is not only a consumption item but also a productive asset. Therefore, literacy programs are becoming a common feature in many rural development programs as a means of acquiring the skills necessary for attainment of the objectives set by such programs. While literacy programs address essentially the needs of the adults, an increasing effort is being made to provide primary education to the youth, although financial resource limitations often reduce the pace of progress in that area.

Like education, better health facilities are another basic need which rural communities in developing countries rank very high. Better health facilities, including basic health care, along with clean water supply and sanitation services not only add to the quality of life but contribute to increased productivity. This is being recognized in development financing. When structural adjustment programs call for cuts in government supplied social services, attention is now being given to health as an area which must be preserved under the social dimension of adjustment related activities.

Given the population pressure which leads to more and more fragmentation of farm land and the trend for a higher rate of landlessness, the problem of income generation through non-farming rural activities is assuming an increasingly important dimension with respect to food security as well as rural development in general. Indeed, non-farming rural employment
not only a matter of rural survival but in developing countries with an unsustainably fast rate of urbanization, it is also a key dimension of economic and social development.

Off-farm income generating activities are vital for supplementing the financial resources of smallholder farmers with limited land, but they should also provide gainful employment to address rural people. While keeping people in rural areas, off-farm income generating activities should promote agricultural development by reinforcing those essential activities which are upstream (input supply, equipment) and downstream (transport, processing, marketing) of agricultural production. Hence, the emphasis is being placed more and more on research of rural systems as opposed to farming system research. Special attention and increased support are being given to the promotion of rural enterprises, especially microenterprises tailored to the managerial capacity of various segments of the rural community. Related efforts are made in four main areas: technology development and transfer, training, credit supply and market intelligence.

An area of particular concern for rural development in developing countries is the economic advancement of rural women. Reference was made earlier to the significant number of rural women who are heads of households. Even more significant is the role of women in rural production. They supply over 50 percent of the labor force for agriculture in developing countries, and in Sub-Saharan Africa, they provide 80 percent of the food for family consumption. Rural women not only contribute to agricultural production and family income generation, but also must assume often tedious but important domestic functions related to the family’s health, nutrition and education. The quality of women’s contributions to rural development as well as their workload has often been ignored or at best underestimated. Governments in developing countries as well as external donors now attach value to addressing the needs of women as producers, mothers and housewives. Rural development projects, in particular those designed and implemented with the financial assistance of IFAD, support women in their different roles, identifying them as explicit beneficiaries whose specific requirements must be addressed. In so doing, IFAD ensures in its dialogue with the governments concerned that the development policy framework is conducive to the effective implementation of project components especially designed for women. IFAD’s concern for the economic advancement of rural women has been reflected in a series of regional seminars organized this year is Cyprus, Costa Rica, Senegal and Malaysia. An international consultation will follow in Rome later this month as an experience sharing exercise and process to review and streamline the fund’s own Strategy on Women in Development.

In reviewing the aspirations of and constraints faced by rural communities in developing countries, reference was made to government policy requirements in terms of creating development policy frameworks which eliminate traditional impediments to rural development with special emphasis on rural poor and women. External donor agencies interested in rural poverty alleviation, IFAD in particular, are even encouraging governments to show a positive bias towards those target groups in their financial resource allocation patterns.

However, there are limitations to what governments in developing countries, especially the least developed ones can do in favor of their rural communities under tight budgetary conditions. Under such circumstances, which actually prevail in an increasing number of countries undergoing stabilization and structural adjustment programs, the temptation is great to focus on quantitative growth objectives such as increased export rather than the qualitative aspects of human development. In that connection, considerable thought has been given to the manner in which the social dimension of structural adjustment should be handled with a view to maintain at least a few basic social services. Here comes the need to reinforce international solidarity because for heavily indebted countries going through the adjustment process, the social dimension can better be addressed through highly concessional financing, preferably grant money.
International solidarity, in other words international cooperation for development, is a continuing necessity in a world still going through a period of turbulence due inter alia to severe gaps in economic and social development levels between the shareholders of this planet Earth. Sometimes, the dialogue between the shareholders gives the impression that development cooperation is a zero-sum game whereby someone must lose if someone must win. This is evident, for example, when discussions take place on national and international policies on technology development and transfer, or international trade.

As far as rural development is concerned, there are strong similarities in the process rural communities are going through all over the world in their search for survival and development. There are lessons to be learned from those who, like in the USA, are producing more with fewer farmers to feed more people around the globe. There is evidence if those who find it difficult to feed themselves could increase their agricultural productivity and engage in gainful employment in rural areas, their countries would buy more food from developed temperate Northern countries, as changing food habits in the South create an increasing demand for commodities from the North. But the North should not buy cocoa, coffee, timber and tropical fruits too cheap. Genuine integration of Northern and Southern economies for the benefits of their rural communities, that is the challenge.
GLOBAL ECONOMIC CHANGES

Greg Mahler
Chairman, Department of Political Science
Director of Canadian Studies
University of Mississippi

I think the topic of global economic changes is a very important one as the world is becoming increasingly a smaller place, and our economies are becoming increasingly interwoven. The Free Trade Agreement signed by the President of the United States and the time Minister of Canada in January of 1988 produced a historic linkage between our two economies. Both the United States and Canada had very specific objectives which motivated them toward the Free Trade Agreement. For the U.S., the objectives included, among other things, the establishment of new rules to govern services and investments which would protect American investors against interventionist, nationalist, economic policies of Canada such as developed in the early 1970s when the Canadian government started actually to block American investment in Canada and very strongly regulate the behavior of American-owned multinationals here. It also favored the development of the Free Trade Agreement because it believed it would serve as a building block for broader multinational and multilateral agreements, as well as the resolution of increasing trade and investment problems with Canada specifically, in areas of automobiles and energy.

Given the dependence of Canada’s economy on exports to the United States, something in the range of 70 percent of Canadian exports go to the U.S., the Canadian government had a very strong motivation to reach an agreement on free trade. That motivation was, of course, a guaranteed access to U.S. markets. There was a period of time in the early 1970s when President Nixon imposed some tariffs on imported goods which hurt the Canadian economy tremendously, and Canada wanted to make sure that that did not happen again.

Canada has been an ally to the United States for many, many years. It is a free and independent country working with the United States for generations on the areas of peace, prosperity, and cooperation. The two countries share the longest open border in the world. One of Canada’s problems has been to maintain this relationship and at the same time maintain its identity. This issue came up during the period of discussion about the Free Trade Agreement. Canadians were concerned, being outnumbered by Americans by a factor of 10:1, they would simply be swallowed up by the North American marketplace and Canada as a cultural identity might disappear completely. Canadians still make that argument today.

For the United States, Canada means a dependable market; a home for investment; strategic resources; shared environment; a partner in sophisticated research and development; a favored location for international travel; and a partner in continental defense. Canada has one of the most dynamic of the advanced industrial economies, growing up through 1988 at an average annual rate of about 4.2 percent compared with 3.8 percent for the United States, and 4.0 percent for Japan. In trade, Canada is one of the world’s most trade-oriented nations per-capita more than the United States or Japan when you control for the size of the population.
As mentioned, the major Canadian concern is the overwhelming proportion of its trade that goes to the United States. Seventy two percent of Canada's exports go to the United States; 10 percent to Europe; 6 percent to Japan. Obviously, we are a very important partner to the Canadian Government. Canada, in the other direction, is the single largest trading partner for the United States. Canada takes up 20 percent of the United States trade; Japan takes up 17 percent. Since 1982, bilateral trade between the U.S. and Canada has increased by nearly 50 percent, and the Free Trade Agreement should increase this even more.

Canada and the United States are the most important frequent investors in each others' economies. One fifth of all direct U.S. investment abroad is located in Canada. Similarly, the United States is the most important destination for Canadian foreign investment. Canada is the fourth largest investor in the United States, following Britain, Japan and (formerly) West Germany. The United States is the largest investment target for Canada.

Canada is also the single largest foreign supplier of energy in the United States, although we have to add that this still counts for less than 5 percent of the total U.S. energy use. Virtually all U.S. imports of electricity and natural gas come from Canada, although with NAFTA in place, the Mexican contribution of natural gas will increase considerably, I expect.

The argument has been made that as trade and investment increase, there will be more jobs on both sides of the U.S./Canadian border. According to the U.S. Bureau of Labor, some 1.5 million American jobs are supported by trade with Canada alone. In another realm, just recently the U.S. and Canada signed an agreement working toward the resolution of an environmental problem: Acid Rain. This has been a source of great concern to Canada for many years.

The Free Trade Agreement came into effect on January 1, 1989, and it reflects a joint belief on the part of the Canadian and American governments that they will continue to work together in the future. Basically, the Free Trade Agreement contained a timetable under which tariffs would be phased out over a ten-year period of time. In fact, the proper name for the Free Trade Agreement should have been the Free Your Trade Agreement, because the U.S. and Canada already enjoyed in 1988 the freest trade in the world in terms of the amount of commerce that crossed borders with very little regulation. Overall, the U.S. will benefit from the extensive new trading opportunities because of the increased marketplace in Canada. There will not be tariff barriers. In the early 1970s, Prime Minister Trudeau created an organization in the Canadian Governments called the Foreign Investments Review Agency, which had to clear every significant instance of foreign investment in Canada. The FIIRA started very simply as an extremely powerful action of economic nationalism to regulate foreign ownership in Canada. During a short period of time, there were a number of these very nationalistic activities that took place in Canada. Petrocan—the national gasoline company—and a number of others were created because the Canadians were afraid that Canada would cease to exist. There was the economy-of-scale problem. It costs more to produce a one half-hour Canadian television show than it does to buy re-runs of "All in the Family." And Canadians were tired of watching Archie Bunker. They wanted Canadian content in the media.

Similarly, they were very concerned that given the size of American corporations and the idea of the North American marketplace, many Canadian manufacturers would simply be driven out of business when tariffs disappeared. When Brian Mulroney was elected Prime Minister of Canada for the first time, the very first foreign engagement he accepted was at the Chamber of Commerce in New York City. He went to New York and said, "Ladies and Gentleman, I am pleased to announce that Canada is open for business again." During the period of time that Pierre Trudeau was Prime Minister, about 65 percent of Canadian imports came from the United States and about 62 percent of Canadian exports went to the U.S. Today, that is about three-quarters in both directions. Brian Mulroney has moved toward a greater integration of the Canadian marketplace with the American marketplace. Primarily because he
action as the only way to protect Canada. If the market can get so integrated that it is not indistinguishable, then Canada can never shut out again.

How can we relate the Free Trade Agreement, that has now been in existence a few years, with NAFTA that is now being discussed between Mexico, the United States and Canada? I think there are some points that are similar. The major argument made in favor of the bilateral Free Trade Agreement was that it would be for a more efficient marketplace. Yes, it is true that some smaller Canadian businesses will be driven out of business; they will not be able to compete. But, there will be specific Canadian industries that will not have competitors in the United States that will profit from the increased marketplace of the extra 40,000,000 in the U.S., and they will pick up the displaced labor from the places put out of business. In fact, what has happened in Canada during the past year and one-half is that a lot of Canadian businesses have gone out of business—because American industries came in and undersold them. Canada’s unemployment rate is higher than it has been in a long time. Canadians have yet to see the positive side of this. They have seen the places shutting down; they have not seen the commensurate development in other areas. The Canadian government’s response has been that we have to wait and wait for the retraining.

The one other point I think is especially relevant to this region of the country that might need to be addressed, specifically in relation to Mexico, of course, is going to be labor-intensive industries. With an increased amount of trade going to Mexico without regulation, the concern on the part of a lot of industry in the Southeast U.S. is that labor-intensive industries will move South of the border because the labor is cheaper there. I think this is very likely to happen. Although on the very macro level we could make the argument free trade is a win/win situation, because in the long run everybody’s trade increases. I think it is probably also true that the win/win situation may exist on the national level but not on a regional level. For a while the labor-intensive regions are going to lose and will not directly profit from an increased trade relationship with Mexico.

I think on balance, while there may be a regional negative effect in the American South especially, overall a continental North American marketplace of Mexico, Canada, and the United States will benefit the three countries in terms of energy; in terms of ability to compete with Europe after 1992; and in terms of ability to compete more broadly in the global marketplace.
GLOBAL ECONOMIC CHANGES

J. Norman Reid
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Agriculture and Rural Economy Division
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There are many ways to describe the problems that exist in rural America. We can talk about transportation, water and sewer systems, health, hospitals, law enforcement, income, jobs, all of those things come to mind when we talk about the challenges. But if we had to boil it all down, we would find two themes that are especially challenging today. One is the production of goods and services in rural America that has been transformed—the economy does not work in the same way it did before. A second and very closely allied theme is that competition in the economy has become globalized over the past couple of decades to a much greater extent than it was before.

I would describe rural America at the present time as losing its competitive advantage in many of the industries it has traditionally relied on. Those industries particularly include the natural resource industries—farming, mining, timber production—also low-wage manufacturing, but we are losing our advantage there. That is part of the challenge we are facing rural America today.

Look at the natural resource industry, for example. Over the past two decades the percentage of workers in the rural economy who were employed in farming, mining, and timber production has dropped by about 50 percent—from roughly 18 percent in 1969 to just under 12 percent in 1987. This does not reflect, necessarily, a weakness in those industries; the industries remain important sources of food and fiber to the nation. They are highly competitive, but they have mechanized. They are now using chemical inputs and mechanical inputs that displaced the need for much of the labor needed at another time. We have to begin to look beyond these traditional industries to make a strong rural economy. Look at the consequences of what has been going on in terms of employment. Traditionally, employment was higher in the cities—in urban America. But in the late 1970s, something happened. Since that time unemployment has been consistently higher in rural America, and during the mid-1980s, the gap widened to quite a large extent.

This also shows up in terms of income. Beginning in the late 1960s rural America was beginning to catch up to urban America in terms of income—it rose to about 78 percent of the urban level at the highest point. Since that time things have gone down hill. Rural America is again losing income in comparison to what is happening in urban America. This reveals something about the weakness in the rural economy's ability to keep up. As production transforms, as the economic competition in the world economy intensifies, rural America is running harder and making less time at it. This also plays out in terms of population change.

In my opinion, if rural America is to survive then it must excel at economic competition in the global marketplace. I think that is the challenge. The alternative would be through transfer payments—to support rural
America by transferring money from urban America. We have been through a decade in which we have, I think, decided this is a market economy, and we are not prepared to sustain those kinds of social transfers on the scale that we thought we could during the days of the Great Society. That means, if rural America is going to survive, it is going to have to pay its own way; it will have to become competitive and that will mean change. How are we doing in meeting this challenge?

In manufacturing we are not doing very well. Rural America is much less invested in the complex industries than is urban America. Rural America is basically dominated by the low-wage, labor-intensive operations in manufacturing. And during the 1980s urban America increased its share of complex industries and tended to get rid of the low-wage jobs and add higher wage jobs. That did not happen in rural America. In fact, rural America lost complex jobs and added routine jobs. That is not the kind of trend we need to meet the formula for survival which I have just indicated.

Overall, in the 1980s job growth was much stronger in urban America that it was in rural America—regardless of the amount of education required for those jobs. Most of the jobs were in the higher-education category—college, college graduate, some college or even high school. In rural America it really did not make much difference how much education you had, there was not going to be much job growth. In urban America, it did make quite a bit of difference, and the job growth in the 1980s was mainly in the higher education categories. Because of the stronger economic growth in urban America, people left rural areas to go to the cities to find work. Getting over those problems requires facing up to some handicaps rural America has.

Some of the obstacles that keep rural America from becoming competitive in the way it needs to include:

(1) Isolation—what it means to be rural is that you are not a city; you are outside a city, and many rural areas are some distance from a city. That isolation has hurt; it makes it difficult for rural areas to get the services they need; they are away from what is happening in terms of the cutting edge in marketing, industrial development and technological development. That has been a barrier.

(2) Low density—means it costs more to do things than it does in the cities; public service delivery, for example, may cost more because it is being done on a small scale. The same can be true for manufacturing operations where you cannot get the agglomeration economies that exist in cities. That makes it tougher to produce.

(3) Less skilled work-force—the rural work force is much less skilled than the urban work force, and that limits the range of industrial opportunities that exist in many rural places.

(4) Institutions—rural places lack institutions. There are no organizations ready to help define and carry out alternatives. Rural areas do not have blue ribbon panels to study rural problems in small towns; there is a part-time mayor who has the best intentions in the world, but does not really know how to deal with the communities problems effectively. These are major problems which rural America faces. The question is, what are we going to do about it? And can we succeed?

In terms of responses that are needed, there are two major elements. One is we need to develop effective strategies that will lead us in the direction of improving rural competitiveness. The second is, once we have figured out what we need to do, we need to marshal the resources we have in hand and put them to work to carry out those strategies. What is happening in the federal government right now that relates to that? One thing is an attempt being made to improve coordination among federal departments, to try to marshal federal resources behind a consistent strategy. This is being done through a group called The Economic Policy Council Working Group on Rural Development.
h has pulled together about 15 federal departments and agencies that meet quite regularly to find common ground to smooth out delivery of programs and to undertake some new activities as well. We are also trying to note closer state, federal, local and private sector cooperation. All of those groups have a role to bring to the table in developing new strategies and making them happen. One way we have chosen to do this is on a state-wide basis; we think the action is really at the state level, not in Washington. We think it is a good idea to get things out of Washington; to bring them down to the state level and to ask the federal agencies in each state to work closely with their state counterparts, with representatives from the private sector, and local governments.

We think that is the way things can happen for rural America. A third thing is that we are taking a hard look at how we manage our policies at the federal level, and that is being done by a group called the President's Council on Rural America. This Council was appointed last year and has twenty members from the private sector and government who are going around the country to investigate what is working and what is not. They will make recommendations for the President next year on how the federal government can better get its act together. Finally, the federal government is taking some steps in the direction of building national strategies for rural development which can compliment those that are being developed by the state and local rural development councils. It has been proposed that a Rural Development Administration be created, but that has not yet been done, so the federal government may seek another institutional home for that kind of activity.

These steps are only the beginning; they are certainly not an end. Whether we succeed, I think, will depend on our ability to craft wise strategies; it will depend on our ability to look beyond the way we do things now; to try to think of innovative and effective ways of doing things in the future. I think it will depend on our ability to visualize a healthy, vital future for rural America and to have the patience to wait it out for the long time it may take to achieve the results we want.
GLOBAL ECONOMIC CHANGES

Sheila L. Tschinkel
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There is a very important distinction to be made between economic growth and economic development. While much of the South saw only good growth in the 1980s, not so much in rural areas but in some of the urban areas, a part of that expansion added to our capacity to grow in the first place. Economic development means insuring that we have a capacity to grow in the future and adapt to future growth requirements. Development, implying speaking, increases our potential to grow and improve our living standards. I would like for us in the South to substitute an emphasis on development for one I see that we still have an emphasis on growth. That is, we have to use a lot of our output to invest in human capital and physical and natural resources, as opposed to using that capital, which we so often do, to try to attract an industry or particular plant right now. If we don’t plan for where we want to be in 10 or 20 years, we are going to find ourselves left even further behind by those who have had better strategies for development. In a lot of ways we have to think about leading the nation to do this, since our nation has become the largest debtor in the world with little investment in the past 15 years or so. This is a lesson we in the South need to begin to teach others as well.

In planning, strategies have to be geared to global rather than a national or domestic economy. We have to recognize what has been happening in our nation, and basically how our nation is part of global economy.

As we look over the span of our history in the United States, our nation went from being a source of low cost labor and natural resources to being the economic leader in the world. Now we have to recognize that other nations have also experienced substantial economic growth, and they are more equal partners in this world economy. In fact, we have become dependent on many nations because they are our creditors—our debt now approaches some $400 billion. While global economic integration may bring concerns over losing competitiveness, its benefits far outweigh any disadvantages. Economic activity is simply not a fixed pie with people arguing about the size of their particular piece; the economic integration of real and financial resources among the world’s countries is a dynamic event that makes that pie grow. Everybody’s wedge grows and in fact living standards can increase throughout. But, in order to cope with that, change is necessary, and change means we have to learn new things, and we have to learn how to adapt.

Since the second World War, the United States’ share of both exports and imports has grown very substantially. In 1947 our exports were just over 7 percent of our GNP; right now they are running about 15 percent. Imports over the same time rose from 4 percent to 16 percent. While short run variation in our imports and exports reflect variations in the foreign exchange value of the dollar, the underlying upward trend is fundamentally due to economic growth worldwide. Markets for U.S. goods and services expanded as the Gross National Products of other countries increased. Of course, the increased importance of imports and exports has made our economy a lot more sensitive to
increased importance of imports and exports has made our economy a lot more sensitive to fluctuations in the value of our currency in the foreign exchange markets. For example, the decline in the dollar, from a peak in early 1985, has made our exports far more price competitive, and they have grown substantially in the past four years. They have grown mainly, however, in the industrialized Midwest—the area of the country that people used to refer to as The Rust Belt. They have not grown substantially in the South and the rural South, and that is one of our problems.

The other big change that has important implications for us in the United States and also in the South, is that the changes in technology we have seen has made all of these changes irreversible. In the financial area—one that is closest to the federal government—serious competitors can, unfortunately, conduct trading and investing on a 24-hour basis. This will continue to spread, also, in terms of labor. There are countries like Ireland; insurance companies based in the U.S. have Irish citizens processing applications and claims because the Irish literacy rate is well over 90 percent, and because technology has made it possible. As soon as the large trans-Atlantic communications cable is complete, look for that kind of business to grow. So, the other important implication of technology is that labor no longer has to move quite as much as it used to, provided it has the skills to work in high-wage industries.

Another part of the global change we have seen, of course, has been more direct investment in the United States—those of us in the South are familiar with transplant plants. This is a natural outgrowth of increasing world integration and an outgrowth of our trade deficits. The U.S. was historically an investor in other countries, and very few investments took place here although the U.S. is clearly the leader in foreign investment. Still, about 3 to 3.5 million Americans are now employed by foreign firms—about 3 percent of our labor force. Also, in the past few years, joint-ventures between countries have become increasingly important.

What this means for us as a nation and as a region is we have to start looking at our comparative advantages. Because of the sheer size of the U.S. and the wealth of our natural resources, we are going to be a part of whatever markets no matter what we do. Our job is to figure out what it is we do best. The implication of these changes, however, is that America can no longer be a source of cheap labor to the rest of the world. Simply speaking, there are people in far poorer economies who are willing to work for a lot less; that is what countries do when they first start to develop. So what the United States did in the Century. It was also the role the South had a-rais the rest of the United States for too long a period of time. We cannot retain the low-wage antiquated industries through the guise of protectionism which is protecting inefficient industries from competition. The kind of activities of machinery and manufacturers that have grown in the past few years are not kinds of things we produce. And to try to sell low-cost, low-wage labor industries only rob our national and local welfare.

What does all of this mean for the South? It may be difficult for us to adjust to the global economy. We have not made a lot of gains in the region as a whole since the beginning of the 1980s, and in the rural areas since the 1970s we exclude the rapidly-growing places like Atlanta and the entire state of Florida, figures for the American South come out pessimistic—largely because we have retained a reliance on low-skill, low-wage industries that are no longer relevant.

We need to prepare ourselves to prosper in a global as well as a national economy. This means we need to concentrate on laying the foundation for economic development; invest in our capacity for the future and reducing our emphasis on short-term goals. To do this we have assessed our strengths and weaknesses in several areas; where we are weak we have to make changes. Important things we have to look at are our labor force; our environment and industry's infrastructure; our financial structure; and finally, our government itself.

Start with the labor force. I think the biggest problem because of the related lower level of education we have in most of our states in the South. We have fewer yea
ooling and a higher rate of functional literacy than elsewhere in the nation. We need to develop a number of programs. Literacy training goes arm in arm with primary and secondary education. The bulk of our investment has to be in primary and secondary education. In a sense that is where we reap the greatest public gains; while I favor higher education, there is a larger private component of it. There are tremendous gains in training adults to read. Technology has made literacy a lot easier. Literacy Action in Atlanta can now use cable television to offer educational programs in 60 different stations around the state. We can do different things, but our main focus has to be on improving the labor force and skills. Remember our previous example; Ireland is able to attract information processing industries because its literacy rate is well over 90 percent.

As far as our infrastructure and environment are concerned, we come out pretty well. The main focus has to be retaining what we have and what attracts people to the South as opposed to letting it get destroyed. I think Florida is discovering that you can sometimes attract too many people and destroy the things that attracted them in the first place.

In the area of banking, we need to get the myth that nationwide banking will take money out of rural areas. Where the return and the prospects are good is where the money goes. Banking is a high tech operation these days; the provider of funds does not have to sit right there in a brick building. The nation is moving towards interstate banking. While there will still be a variety of small and large banks in the next 10, 20, 30, or 40 years, we have to get over the notion that the consolidation taking place in the banking industry now will pull funds from an area. Very simply, banks are like other businesses or anyone that tries to make a profit: if the prospects look good, the money flows there. If prospects do not look good the money flows out of there. I think too often the reforms we need in banking have been misidentified as having negative implications for the rural population. I think a more consolidated banking system in the U.S. will be a healthy banking system.
STATE RURAL DEVELOPMENT INITIATIVES

Dennis U. Fisher, Extension Economist
Ronald D. Knutson, Extension Economist
Anna Barrera, Research Assistant
Texas A&M University

The status of rural development policy in the United States was identified as early as the 1960s as a major concern in the Kennedy-Johnson administration's "war on poverty." The interest in rural development was rekindled in the 1980s as rural areas were particularly adversely affected by increased international competition and depressed energy and agricultural markets. While many states have established special groups and/or commissions to study the status of rural economies, the extent and effectiveness of the resulting initiatives has not previously been studied throughout the United States.

OBJECTIVE
The purpose of the survey was to determine the extent to which explicit rural development policies were initiated within the past decade and the effectiveness of current policies in addressing rural issues.

PROCEDURE
This national survey was taken following a survey of sixteen Southern states that was designed to address the same questions, "State Rural Development Initiatives: The Southern States." Both of these surveys were initiated based on questions raised during a series of four rural policy workshops conducted throughout the United States, "Focus on the Future: Options in Developing a New National Rural Policy." A questionnaire was sent to state extension public policy and rural development specialists. In most states extension staff sought the assistance of appropriate state officials to completed sections of the questionnaire. At least one questionnaire was returned from each state. Some respondents left a few questions blank. The responses will not sum to 50 for these questions. We will look first at the situation, then the policies and finally the possibilities as presented by study respondents.

SITUATION
States did not lack for activity. Respondents from 70 percent of the states reported creation of a rural development commission or study group within the last ten years. See Table 1. This leaves 15 states where no study group or commission was reported. Most of that activity is of recent origin. Of the commissions and study groups created, 88 percent occurred between 1985 and 1990. This may be indicative of a future shift in rural policy. A rural coalition with a clear voice will be required to sustain this activity over any period of time.

The groups studied and provided recommendations in several areas. Half of the groups were created to evaluate rural development needs and recommend strategies to meet those needs. Twenty-eight percent were created to be a liaison and serve in an advisory capacity between federal, state and local agencies and organizations involved in rural development policy. Thirteen percent addressed
agricultural issues. Recommendations were distributed over diverse areas - education (28 percent), employment/business development (36 percent), infrastructure (25 percent), and natural resources (11 percent). Respondents from 21 states indicated that specific action was taken based on the recommendations. This leaves 29 states where no group was established and/or no specific action was taken.

Examples of this activity include Washington State's Rural Development Strategies Project in 1981 and 1982 which focused on six issues: 1) employment and economic development, 2) small farms, 3) public facilities, 4) human services (including health and education), 5) housing, and 6) agricultural land. More recently (1991) the Washington Rural Development Council was established as part of the President's Initiative on Rural Development. This council is designed to identify rural issues and resources and to facilitate and help coordinate the delivery of federal assistance. There are eight pilot states currently in this program: Kansas, Maine, Mississippi, Oregon, South Carolina, South Dakota, Texas and Washington. Other states are being added in 1992.

Respondents from half of the states reported an additional "major rural development initiative" in the past five years. Those initiatives included establishing a state organization or agency for rural development, restructuring current policy, reform in economic development and employment opportunities, and evaluating funding or tax structure.

When asked about targeting, half of the respondents indicated their state's rural development policy was targeted to rural areas. The targeting was found in several places: state laws (18 percent), state appropriations (24 percent), executive declarations (30 percent), and agency declarations (27 percent). The objects of that targeting were as follows: funding to poor/rural communities (41 percent), agriculture (14 percent), education (14 percent), infrastructure (9 percent), and economic development (23 percent). When asked about specific areas, respondents reported little targeting.

Respondents from 10 of the states indicate one agency had the responsibility for seeing the rural development policy was carried out. Respondents from 25 states indicated several agencies shared this responsibility.

There seemed to be general agreement that many rural issues are at the crisis stage. Over half of the respondents indicated their state has a crisis in one or more of the following areas: infrastructure, transportation, rural health, and education. See Graph 1. In the area of education, 50 percent of the respondents believed the state's rural schools were as good as the center city schools, but only 19 percent believed they were as good as suburban schools.

Respondents were asked, What are the three most critical rural problems in your state? See Graph 2. Education was cited most often (20 percent). Health care and infrastructure came in second, each accounting for 14 percent of the responses. Employment and business economic development came in fourth, each accounting for 12 percent of the responses. These results are consistent with the responses of participants in the rural development policy workshops conducted around the United State in the fall of 1988.

Most respondents (74 percent) believe progress was being made in their state. See Graph 1. Only 9 percent believed their state was going backward (deteriorating) in rural development. At the same time only 20 percent believed their state's rural development policy was effective. This may be caused by a lack of focus. Sixty-five percent indicated their state made no distinction between rural and urban policy.

When asked about their state's rural policy the responses were not very positive. Sixty-one percent of the respondents indicate their state had no rural development policy. See Graph 1. When asked a similar question early in the survey instrument, 56 percent of the respondents indicated their state had no rural development policy.

POLICIES

One of the means of insuring that rural issues are addressed is to target specific policies
rural areas. Little targeting was found. See Graph 3. Tax policy was most likely to be targeted. Thirty-six percent of respondents stated it was targeted to rural areas. This followed by tourism policy (32 percent targeted) and health policy (30 percent targeted). Property policy, adult literacy policy and communication policy were the least likely to be targeted. In general very little targeting was noted for specific policy areas.

However, some respondents indicated that rural state policies had a "major positive impact" on rural areas. The areas most frequently cited were economic development, infrastructure and taxation and finance. See Graph 4. Between 18 and 22 percent of the respondents listed these areas. Twelve percent of the respondents listed education policy as having a major impact. All other areas were cited by 10 percent or less of the respondents.

A number of the respondents indicated that some general policy areas had a negative impact on the rural parts of their states. See Graph 5. The most striking was tax policy. Ninety-three percent of the respondents indicated that policy had a negative impact. Between 13 and 15 percent listed economic development policy, education policy and agricultural restrictions as having a negative impact.

When asked to rate their state's rural development policy, twenty-four percent of the respondents indicated it was poor and only two percent indicated it was excellent. See Graph 6. The majority, 57 percent, indicated that it was fair. Eighteen percent indicated their state's rural development policies were good.

Some policies are working in some states. See Graph 7. Twenty-five percent of the respondents indicated their state's economic development policy was working. Twelve percent indicated education policies were working, and 11 percent indicated policies in agriculture, resources and the environment, and strategic planning were working. Thus some policies in some states appear to be effective.

POSSIBILITIES

Respondents were asked to list three feasible initiatives that would make a difference in rural areas. See Graph 8. Fifteen percent of the responses involved education. Eleven percent indicated economic development, training and leadership, and evaluation and strategic planning. The possibilities listed presented a mix of more traditional recruiting and infrastructure approaches to development combined with a focus on human capital development. There seemed to be substantial recognition of the complementarilness between these areas.

CONCLUSIONS

Some states have been actively dealing with rural issues over an extended period of time. However, many are just starting to develop rural initiatives. It is too early to determine the impacts of some of these new initiatives.

Respondents generally agreed that rural issues are at the crisis stage in their states. While the mix of critical issues varies across the country, each state seems to be facing combinations that include human capital development, infrastructure, and business development. The complementarilness between these areas is beginning to be recognized.

Most respondents indicated their state did not have a designated rural policy. With a few exceptions rural areas continue to rely on development policies that are not targeted. Targeting is critical if rural areas are to receive the benefits of development policies.

The number of rural commissions and study groups initiated within the last five years and the President's Initiative on rural development suggest that help for rural residents may be on its way. However, a rural coalition will be needed to exert the kind of political pressure necessary to bring about and sustain a change in policy.
REFERENCES


The President's National Advisory Commission on Rural Poverty, *The People Left Behin*


**TABLE 1**

STATUS OF STATE RURAL DEVELOPMENT POLICY

<table>
<thead>
<tr>
<th>Questions</th>
<th>Frequency</th>
<th>Percent</th>
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<tr>
<td>Respondent's specialty area of work?</td>
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<td>Rural development Policy</td>
<td>31</td>
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<tr>
<td>All respondents</td>
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**Question 1.** Has your state had a rural development commission or special study group formed in the past 10 years?

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<th>Answer</th>
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**Question 1a.** If yes, when?

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<td>65%</td>
</tr>
<tr>
<td>1990 to present</td>
<td>7</td>
<td>23%</td>
</tr>
</tbody>
</table>

**Question 1b.** If yes, what was expected of the commission?

- Address agricultural issues. 4 (13%)
- Jason and advisor among state, local and federal agencies and organizations involved in rural development policy. 9 (28%)
- Evaluate rural development needs and recommend strategy to meet these needs. 16 (50%)
- Other 3 (9%)

**Question 1c.** If yes, what were the commission's major recommendations?

- Education 10 (28%)
- Employment/Business development 13 (36%)
- Infrastructure 9 (25%)
- Natural resources 4 (11%)
TABLE 1 CON’T
STATUS OF STATE RURAL DEVELOPMENT POLICY

<table>
<thead>
<tr>
<th>Questions</th>
<th>Frequency</th>
<th>Percent</th>
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<tr>
<td>Question 1d. If yes, were any actions taken that can be directly traced to the Commission's recommendations?</td>
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<tr>
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<td>Question 2. Aside from your response to Question 1, has your state had another major rural development initiative in the past 5 years?</td>
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<tr>
<td>Yes</td>
<td>25</td>
<td>50%</td>
</tr>
<tr>
<td>No</td>
<td>20</td>
<td>40%</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Question 2a. If yes, describe the nature of the initiative.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishing a state organization or agency for rural development.</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Restructuring of current policy.</td>
<td>8</td>
<td>33%</td>
</tr>
<tr>
<td>Reform in economic development and employment opportunities.</td>
<td>4</td>
<td>17%</td>
</tr>
<tr>
<td>Evaluate funding, taxes etc.</td>
<td>7</td>
<td>30%</td>
</tr>
<tr>
<td>Question 3. What is your perception of the rural development policy of the state in which you reside in terms of the following?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question 3a. State has a rural development policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>19</td>
<td>42%</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>58%</td>
</tr>
</tbody>
</table>
### Question 3b. Rural development policy is explicitly targeted.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>Yes</td>
<td>17</td>
<td>49%</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>51%</td>
</tr>
</tbody>
</table>

### Question 3c. If explicit, where is the targeting policy found?

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>State laws</td>
<td>6</td>
<td>18%</td>
</tr>
<tr>
<td>State appropriations</td>
<td>8</td>
<td>24%</td>
</tr>
<tr>
<td>Executive declarations</td>
<td>10</td>
<td>30%</td>
</tr>
<tr>
<td>Agency declarations</td>
<td>9</td>
<td>27%</td>
</tr>
</tbody>
</table>

### Question 3d. Type of targeting.

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding to poor/rural communities</td>
<td>9</td>
<td>41%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>Education</td>
<td>3</td>
<td>14%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>Economic development</td>
<td>5</td>
<td>23%</td>
</tr>
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</table>

### Question 3e. Does your state have an agency that is explicitly responsible for seeing that its rural development policy is carried out, or is that responsibility spread among several agencies?

<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>One agency</td>
<td>10</td>
<td>29%</td>
</tr>
<tr>
<td>Several agencies</td>
<td>25</td>
<td>71%</td>
</tr>
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</table>
Graph 1
Respondents Agreeing of Disagreeing With the Following Statement

My state has a rural infrastructure crisis. -39% 61%
My state has a rural transportation crisis. 46% 52%
My state has a rural health crisis. -35% 65%
My state has a rural education crisis. -43% 57%
My state’s rural schools are as good as (or better than) its central city schools. -43% 50%
My state’s rural schools are as good as (or better than) its suburban schools. -70% 19%
My state is going backward (deteriorating) in rural development. -9% 9%
My state is making progress in rural development. -22% 74%
My state has begun to become concerned about its rural development policy. -18% 82%
My state makes no distinction between rural and urban policy. -35% 65%
My state’s rural development policy is effective. -46% 20%
My state has no rural development policy. -39% 61%

Negative percentages represent the percent of respondents disagreeing with the statement and positive percentages represent those agreeing with it.
GRAPH 2
What Are the Three Most Critical Problems in Respondent’s State?

- Education (19.7%)
- Infrastructure (14.2%)
- Business/Economic Development (11.8%)
- Employment (11.8%)
- Health Care (14.2%)
- Leadership (7.9%)
- Access to resources (5.5%)
- Poverty (3.9%)
- Other (11.0%)

The percentages represent the relative frequency with which each of the problems was mentioned.
**GRAPH 3**

Respondents Reporting State Development Policies Targeted to Rural Areas

<table>
<thead>
<tr>
<th>Policy</th>
<th>Percent of Respondents</th>
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<tbody>
<tr>
<td>Tax Policy</td>
<td>64%</td>
</tr>
<tr>
<td>Revenue Sharing Policy</td>
<td>73%</td>
</tr>
<tr>
<td>Tourism Policy</td>
<td>68%</td>
</tr>
<tr>
<td>Poverty Policy</td>
<td>72%</td>
</tr>
<tr>
<td>Technical Assistance Policy</td>
<td>72%</td>
</tr>
<tr>
<td>Access to Social Services Policy</td>
<td>68%</td>
</tr>
<tr>
<td>Health Policy</td>
<td>70%</td>
</tr>
<tr>
<td>Development Planning Policy</td>
<td>73%</td>
</tr>
<tr>
<td>Business Education Policy</td>
<td>84%</td>
</tr>
<tr>
<td>Adult Illiteracy Policy</td>
<td>89%</td>
</tr>
<tr>
<td>K-12 Education Policy</td>
<td>89%</td>
</tr>
<tr>
<td>Industrial Park</td>
<td>89%</td>
</tr>
<tr>
<td>Communication</td>
<td>77%</td>
</tr>
<tr>
<td>Water and Sewer</td>
<td>77%</td>
</tr>
<tr>
<td>Transportation</td>
<td>73%</td>
</tr>
<tr>
<td>Infrastructure Policy</td>
<td>84%</td>
</tr>
<tr>
<td>Business Retention Policy</td>
<td>84%</td>
</tr>
<tr>
<td>Industrial Recruiting Loans</td>
<td>89%</td>
</tr>
<tr>
<td>Help With Federal Grants and Loans</td>
<td>82%</td>
</tr>
</tbody>
</table>

[Diagram showing targeted and not targeted responses]
GRAPH 4
Respondents Reporting General State Development Policies Having a Major Positive Impact on Rural Areas

Other: 8%
Tourism: 6%
Education: 12%
Leadership: 6%
Infrastructure: 18%
Economic Development: 22%
Agriculture Development: 10%
Agriculture and Financing: 18%

Percent of Respondents

0% 5% 10% 15% 20% 25%
Having a Major Negative Impact on Rural Areas

Respondents Reporting General State Development Policy

Graph 5
GRAPH 6
Overall Evaluation of State Rural Development Policy

- Excellent (2.2%)
- Good (17.8%)
- Poor (24.4%)
- Fair (55.6%)

Percentages represent distribution of responses for 46 states.
GRAPH 7
What Policies Are Working?

The percentages represent the relative frequency with which each of the Policies was mentioned.
GRAPH 8
What Are Three Feasible Initiatives That Would Make a Difference in Rural Areas

The percentages represent the relative frequency with which each of the initiatives was mentioned.
LUNCHEON ADDRESS

Dick Molpus
Secretary of State, Mississippi

I am pleased to be able to welcome such a distinguished group to Mississippi.

We are excited about your being here and hope that you enjoy your visit. Mississippi is a beautiful state, especially this time of the year.

Special thanks to Senator Rob Smith for the invitation to speak to you today.

First, let me brag on Senator Smith for just a minute. Rob Smith is an excellent example of the progressive, youthful leadership our state and country needs.

Rob begins his 3rd term in the Mississippi Senate this January. He has been an aggressive, independent-thinking lawmaker throughout this career. And he has been willing to support some difficult measures, which I believe have been important to this state’s future.

He is a long-time supporter of 16th Section school lands reform—a tough program of change that finally is bringing substantial revenue to public school districts throughout Mississippi.

He also is a self-made supporter of mail-in voter registration. We introduced mail-in registration three years ago, and Rob Smith had his doubts about whether it was a good thing. He did something commendable, which I wish more legislators had the time to do—he did his own research and ultimately came to the conclusion we hoped he would—that mail-in voter registration would work in Mississippi. He joined our fight and in 1991, Mississippi became this nation’s 27th state to allow its citizens to register to vote by mail.

He’s been an effective chairman of the Agriculture Committee and vice chairman of the Corrections Committee. He also serves on other important committees: Appropriations, Education, Environmental Protection, Highways, and Public Health.

Throughout his legislative career, Rob has been a stalwart supporter of education reform and the public schools. Rob and I agree that education is the key to economic development. And we well understand Mississippi’s significant role in developing agriculture for economic prosperity.

My thanks again and congratulations to Senator Smith for continuing to do a good job for his state.

You may wonder why the Mississippi Secretary of State is addressing this group, looking at the future of Rural America. You may be asking what economic development has to do with me and my office. These are fair questions.

We do the usual corporate and business work, supervise elections, regulate the sale of stocks and bonds, and lease and protect some one million acres of public lands. Still the question arises—"Why are you here?".

I am here to talk about an issue that I believe will allow Mississippi, the South, and our entire country the opportunity to grow and prosper in the 21st Century.

But first, I am in public service today because for 10 years as a businessman and as a human being, I saw on a daily basis the waste of human potential everywhere I looked. I saw honorable, decent, hard-working men and women condemned to a diminished life because they could not read or write.

My family owned and operated sawmills in East Mississippi. In the 1970s I saw men and
women desperately trying to earn enough money to feed, clothe, and educate their children. Day after day, I saw men unprepared for the new, more sophisticated computerized lumber business—men who had traditionally worked as lumber stackers and sawdust shovelders.

I'll never forget the anguish in their eyes when they realized there would be no more jobs for them. They were willing to sweat from daybreak to nightfall to earn that meager living, but a will to work no longer was enough. Because of their illiteracy, they were stripped of the ability to enjoy the dignity of work, and I saw many fall into the cycle of government dependence with reduced dreams and self-respect. Those faces from my lumber business days still haunt me. My feelings were of anger that we had allowed this to happen in our state and country.

In 1979, Mississippi elected a courageous governor named William Winter—a man willing to take on the entrenched protectors of the status quo that had given us this legacy of poor schools and illiteracy. He and I sat down in December of 1979 and he offered me the opportunity to be part of his administration. We set about trying to break the cycle of illiteracy, low quality of education, and government dependence. I spent the 80s as an advocate for public kindergartens; compulsory school attendance; reading aids and textbook funding; no-pass, no-play; equity school funding; teen pregnancy and drop-out prevention. I fought the fight to ensure that our children receive a fair price for public trust lands set aside for their benefit. We won the great majority of those struggles, tied a few and lost a couple.

So I stand before you today, not as an expert on the fate of rural America, but as an advocate for change, nothing more, nothing less. I have great respect and appreciation for what you are trying to accomplish at this conference to discuss how rural American can survive in the 21st Century.

There are ominous clouds on the horizon in our country. We see the economic middle class shrinking and the economic underclass growing. We see the disturbing trend of the middle class getting poorer. We see the middle class shrink as our jobs move to Mexico and the Caribbean. An example here in Mississippi is Klinger Electric that established a twin plant in Mexico seven years ago. Klinger is now offering its expertise to other companies in establishing shelter programs.

The reason why: Mississippi labor costs $7.08 per hour; Mexican labor costs $4.14 per hour.

We see the middle class shrink as $10-$12, and $15-an-hour jobs are replaced with $4.25 minimum wage jobs. We see the middle class shrink as small farmers finally give up, family businesses quietly go out of business, and plywood appears on the storefronts all across our nation.

Let's take a look at some of these ominous clouds on the horizon:

- Number 1 is Teen Pregnancy. In 1990, the number of births to women ages 19 and younger was 1 in 5 in Mississippi—21 percent of all births. Nationwide, more than 1 million teenage girls get pregnant each year. Teen pregnancy has risen 621 percent since 1940.

- Number 2 is Adult Illiteracy. In Mississippi, 1 in 4 adults—25 percent—cannot read or write. Approximately 1.8 million adults in the South are illiterate.

- Number 3 — School drop-outs. In Mississippi some 9,000 students dropped out during the 1989-90 school year. We rank 47th nationally with a 32 percent state average. Nationally, the drop-out rate is a disgraceful 28.9 percent. Florida’s drop-out rate is 42 percent; Texas 34.7 percent; and West Virginia 22.7 percent. Nationwide, between 1987 and 1989, 420,000 students dropped out of school each year.

- Number 4 — Per pupil school expenditures. Mississippi ranks 49th nationally and spends $3,322 per child. The national average is $5,208. State averages range from almost $9,000 per year in New York to as low as $2,700 in Utah. In Mississippi, local school district expenditures range from a high $4,800 to the low of $2,500. In New Jersey, the range is from $7,450 to $3,086; in Texas the range is from $9,336 to $3,100. Are we to believe that the children on whom so little is being spent are receiving as good an education as those on
while others from the public schools, and they can not be very well equipped in a storehouse, even through the best schools. They know only to accept it. When in high school, children learn to read, and to solve these problems.

Communities, including Mississippi, are an example of a small community that will be in the future. The communities with the best schools, those with strong public schools. Communities that have strong public schools. Communities that have strong public schools. Communities that have strong public schools. Communities that have strong public schools.

Our material is to isolate our own problems and solutions. Our own problems and solutions. Our own problems and solutions. Our own problems and solutions.

The failure of education, then, presents a situation of the problem. The failure of education, then, presents a situation of the problem. The failure of education, then, presents a situation of the problem. The failure of education, then, presents a situation of the problem.


One of the most important steps we can take is to increase the quality of education and to improve the quality of education and to improve the quality of education and to improve the quality of education and to improve the quality of education.

This is a major step. This is a major step. This is a major step. This is a major step. This is a major step.

We can solve the problem of education, and we can solve the problem of education, and we can solve the problem of education, and we can solve the problem of education, and we can solve the problem of education.

We can solve the problem, but we must stand and transform our society. We must stand and transform our society. We must stand and transform our society. We must stand and transform our society. We must stand and transform our society.

Let us look at what some of these children are doing. We are finding that many children in a poor neighborhood are doing a great deal more than the average child. We are finding that many children in a poor neighborhood are doing a great deal more than the average child. We are finding that many children in a poor neighborhood are doing a great deal more than the average child. We are finding that many children in a poor neighborhood are doing a great deal more than the average child.
have achieved racial balance in several elementary schools in the northeast area where the greatest white flight occurred during the 1970s. The story of Parents for Public Schools now is sweeping the nation, and communities from throughout America are seeking answers to their school problems in Jackson.

Like Parents for Public Schools, we must all decide to be "transformers," as author James McGregor Burns describes those people who are not satisfied with the status quo. Transformers want to change society for the better. "Transactors" are their opposites, satisfied with the way things are—quid pro quo, scratch my back I'll scratch yours kind of dealing.

I believe the transformers are going to win. They must win. Their victory will be bold and visionary. I'm firmly convinced that Mississippians and other Americans are ready to move in new and innovative directions, to make the difficult but necessary choices. We are ready to do what needs to be done. We are ready to say "no" to the naysayers. We can do it if we refuse to let the small-minded, shortsighted, and the peddlers of political pettiness carry the day.

We can transcend the primal forces of politics and soar above the everyday and the ordinary. We can join together to lift up the lives of our children, their children, and all the children who follow.

We can leave a legacy—a legacy that we say to future generations that in our time challenged, THIS generation had the courage and the vision and the will to rise up and change the course of history.
and How do we get there? Each workshop
Where are we now? Where do we want to be? The two basic workshops are:
three basic workshops with a number of
characters and/or small communities can take
section plan with three workshops and understand the
development of key strengths and
characters in satirizing their strengths and
characteristics within a community. Their
important, the human resources, and most
important, the human resources, including a
community’s existing resources, and build on
characteristics of local citizens. Build on
broader community involvement and support
vision of their community, nurture, guide, and
and join and rejoin development strategies and gain
help provide very meaningful leaders explore short
Take Charge has three major phases:

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199. TakeCharge was developed by a team of

Robert D. Cole

Iowa State University
Community Development Specialist
chapter is organized with the purpose, advanced preparation, materials needed, suggested agendas and times listed, followed by detailed workshop instructions. In addition to the three workshop chapters, the manual has an overview and two appendixes. Appendix A is a collection of detailed instructions of all the exercises, handout materials, worksheets, and some relevant reference materials for the Take Charge workshops. Appendix B is a set of visual masters which are often used by facilitators.

The "Where are we now?" workshop is intended to help community participants examine the current trends and characteristics of their community, to better understand the economy of the community, to assess opportunities for economic growth, and to promote community teamwork. It involves a section on advance preparation, including who should be involved on the planning committee, who to involve in the workshops and three suggested agenda options.

The "Where do we want to be?" workshop is intended to help the participants brainstorm, examine and analyze the possibilities for economic development in a community. The outcome will be a selection of economic development strategies. This section features "focused brainstorming" using thirteen economic development strategies appropriate for small communities, along with examples of small town successful programs related to each strategy. It also has a capacity for success evaluation for potential projects identified during the brainstorming, and a voting for projects through commitment to work on the project’s planning committee. The key is commitment to action in workshop three and thereafter.

The "How do we get there?" workshop results in an initial plan of action and commitment to continue after the Take Charge series is over. The session is to organize the project committees and a steering committee, and to develop a plan of action. In this workshop, participants become more formally organized or develop a structure to network with existing community organizations to develop and implement a plan for projects which will lead the community toward future development the participants have chosen.

Take Charge was developed with the philosophy and belief that any community, regardless of size or location, can survive and grow if its residents have a vision, believe in that vision, are committed to that vision, develop a realistic action plan to move towards that vision, and are willing to commit their resources and time to work towards that action plan and vision.

Over 1500 copies of Take Charge have been distributed across the United States and Canada. Many small towns have gone through the Take Charge workshops, either as a self-contained unit or as a part of a larger series of programs, and have successfully identified, planned and carried out development strategies.

Take Charge: Economic Development in Small Communities is available from North Central Center for Rural Development, 216 East Hall, Iowa State University, Ames, IA 50011, phone (515) 294-8321. The authors of Take Charge are Extension Community Development Specialists: Janet Ayres, Purdue University; Robert Cole, Clair Hein, Stuart Huntington and Wayne Kobberdahl, Iowa State University; Wanda Leonard, University of Nebraska; and Dale Zetocha, North Dakota State University.
TRANSPORTATION AND REAL ESTATE SECTORS. JOBS GENERATED IN THE FOOD AND BEVERAGE SECTORS. THE INDUSTRY IS A DRIVING FORCE IN THE LOCAL ECONOMY, PROVIDING JOBS AND GROWTH.

On the other hand, the private sector, often referred to as the leisure industry, does not always attract the visitor and does not necessarily focus on the very goals of the tourism industry. The private sector is responsible for the maintenance of the attraction and not just its commercial success. The private sector focuses on the preservation, protection, and enhancement of the attraction, and not just the commercial success. The private sector focuses on the preservation, protection, and enhancement of the attraction, and not just the commercial success.

The economic development tool is the tourism industry. Despite these challenges, the tourism industry continues to grow and become more profitable. The tourism industry is becoming more profitable and is becoming more attractive to visitors. The tourism industry is becoming more attractive to visitors. The tourism industry is becoming more attractive to visitors.

The tourism industry is now seen as a viable economic tool. The tourism industry is now seen as a viable economic tool. The tourism industry is now seen as a viable economic tool.

John H. Stein
Director, Tourism Center
University of Minnesota
range from entry level jobs often associated with restaurant servers and hotel maids and doormen to high paying jobs of commercial airline pilots. It's the production of jobs, incomes and the taxes generated from these industries that generate the interest by local community leaders to expand the industry.

C. Tourism and travel as an experience: Most retail product or service purchases are considered "point purchases." Consumers buy products or services by going to one business establishment. If problems with the product or service surface, the customer can usually solve the problem by approaching the management of the business.

The tourism and travel experience usually takes place over a two- to fourteen-day time period. Today's average vacation or get-away in the U.S. is only 4.5 days. During this period of time, the customer makes several purchases. A major service or product failure can have a dramatic effect on the total travel experience. Therefore, one business can have a dramatic effect on many other businesses, many which may be unrelated. Likewise, the public sector can impact private businesses through the operation and management of the public attractions. The tourism and travel experience requires much more community cooperation compared to the normal retail purchases.

OBSTACLES TO RURAL TOURISM DEVELOPMENT

Many small rural communities are often faced with extraordinary challenges in developing a rural tourism development program. These areas usually have a low population base in the surrounding area, have limited financial resources, rely on natural resources for their economic base and have a shortage of other important resources. Frequently, small communities are faced with the following obstacles:

A. Natural resource based economies: Many rural communities will continue to rely on agriculture, forestry and mining for a sizeable part of their livelihood. However, this industrial sector has not prepared people for the service sector that is so important to the tourism and travel industry. Lack of these direct customer contact skills can prevent small communities from developing effective tourism programs.

B. Small population base: Small communities often do not have the organizations or professional help that are important in developing the activities and programs important for attracting the visitor. Local leadership is often overworked and cannot spend the time on new development programs.

C. Limited financial resources: Small rural communities do not have access to adequate financial resources needed to develop facilities, service and staff that can be helpful in the development process. Small size is often related to small amounts of financial resources.

D. Isolation from transportation centers and large population bases: Rural communities do not have ready access to major airports or other forms of public transportation. Access to these communities is via the automobile, therefore, travelers can find it difficult and expensive to visit the area.

E. Underdeveloped resources: Small communities and rural areas have resources that have the potential to attract visitors. It may be mountains, forest, lakes, deserts, prairies, etc. that can provide the attraction base for the community. Limited resources and the lack of understanding of needs and interests of travelers can prevent adequate development needed for an effective tourism program.

F. Misunderstanding of the tourism and travel industry: Local community citizens are often afraid that local tourism development will occur in ways that will make the community less attractive. They are worried about low paying jobs, congestion, public service costs, unsightly development and outsiders that may disrupt the community. People often remember unattractive development in communities they have seen.
G. Competing with neighbors: Tourism can be successful if communities in a large geographic area work together. Small communities, however, sometimes have a history of competing rather than cooperating with their neighboring communities.

PRIVATE SECTOR RESOURCES
Most jobs created through the expenditures of visitors and travelers are in the most private sector. Restaurants and food service; accommodations such as hotels, motels, campgrounds and bed and breakfast operations; transportation facilities such as gasoline stations; and retail trade are the major sources of travel and visitor job generation. These businesses offer the basic services people need as they visit and enjoy the attractions. However, the basic motivation for visitors and travelers to come to a community often is provided by the public sector or other attraction businesses. Many tourism and travel related businesses are willing to cooperate with others in marketing and development efforts needed to serve the visitor.

People frequently underestimate the resources that are available in rural communities. Poor resources assessments occur because resources are often classified as cash budget allocations. In-kind support, volunteer help and organizational support are often ignored in evaluating a rural community’s ability to develop and maintain a tourism program. The following are some key resources that are available in most communities:

A. Marketing and advertising budgets: Most small tourism and travel businesses expect to spend between two to six percent of their total revenue on marketing. These budgets are often inadequate to deliver the marketing message to the customer. Businesses are willing to cooperate in joint marketing efforts in order to increase its extent and effectiveness. Community tourism marketing is much more effective if done cooperatively.

B. Joint projects with the public sector: Public sector attraction managers often do not have the budgets or training to provide many of the services needed by visitors. There are opportunities to develop joint projects if the public sector is willing to allow private for-profit development on or near the public attraction. Private development can often enhance the public attraction if it is carefully planned and managed.

C. Community organizational support: All communities have a wide variety of community groups and organizations that are important to the well being of the community. These community organizations have both financial and volunteer resources that can be important to improving tourism in a community.

D. Community festivals and events: Festivals and events are an effective way to develop activities to complement public sector resources. Festivals can provide interpretation of the public attraction and involve the total community in celebrating important resources of the community.

E. Special taxing districts: Many communities interested in tourism development have been given special taxing powers by state government. These taxes are frequently allowed on hotel and restaurant sales to help develop and market the community to the visitor. Approval by local government is needed before these taxes may be implemented.

F. Non-cash contributions: Many businesses often contribute in-kind services to community activities including help with the printing of brochures, allowing employees to work on community projects during working hours, paying for meals or speakers fees for important events or helping building public facilities. Businesses find it easier to provide in-kind services than giving direct donations to organizations.

G. Local government: Local government has important resources that are valuable to the development of tourism. Small community government often provides tax money, employee help and regulation to assist with development of tourism.
H. Tourism organizations: Most states have several formal organizations that work with their membership to improve tourism development in their state. These organizations can help involve others in the larger regional community development and improve service to visitors.

I. Volunteers: Volunteers are a community's most important assets. All small communities rely on their citizens to actively participate in community activities. Poor volunteer support will prevent economic development. Communities often overlook many volunteer groups in their development efforts. Overlooked groups include the community youth, retired residents and professional groups. Volunteer groups can be effective but need organization and support to operate effectively.

J. Area businesses: Visitors are often willing to travel to near-by communities for services and entertainment. People interested in rural tourism development must look to larger geographic areas that include several communities and rural businesses to develop successful programs.

MAJOR CHALLENGES TO THE TOURISM AND TRAVEL INDUSTRY

A. The need to target tourism and travel markets: Today's customer is presented with approximately 2,000 advertisements each day. Most people have developed the ability to ignore these messages. Advertising in the mass market media (television, magazines and newspapers) is becoming very expensive and is often inaccessible for many small businesses. It is now important for tourism and travel businesses to understand their customer base so they can determine the best method to reach these individuals. Many of today's customers only are open to advertising methods when they are preparing to make purchases. The challenge for business is to accurately profile customers and develop marketing techniques that can effectively reach this market.

B. Implementing customer service management strategies: Most all businesses consider customer service as an activity for employees who have direct contact with the public. Management activity usually involves customer service training for these employees. Business must change to considering service as a management function similar to marketing, cash control and employee management.

C. International competition for most tourism and travel businesses: Although most tourism and travel businesses believe their competition is other similar local businesses, other international businesses are fast becoming the competition. I recently compared the cost of flying to London vs. Billings, Montana. The cost for the trip to Montana was almost double the cost of the trip to London. Trips to international destinations can often be cheaper then even in-state or in-country locations. The challenge to many tourism and travel businesses is to identify the unique characteristics of their area and develop programs, products and services that can be internationally competitive.

D. Selling the experiences of the travel: Most tourism and travel businesses market features of their business or the area in which they are located. Features are usually physical features such as pools, room sizes, availability of boats or other recreational goods, lakes, mountains, restaurant features, etc. Very few businesses or organizations market the experience of travel—which is a major motivation for travel. Future marketing strategies will use this technique much more frequently.

E. Organization of tourism: Early in its development, tourism activities were the responsibility of private businesses, and the system was driven by marketing activities. Now that tourism is growing to such a large international industry generating more than three trillion dollars in expenditures annually; tourism is now viewed as a legitimate economic development strategy. Government now must play a much greater role in tourism development. Community organization is needed to coordinate
the complex public and private players in the tourism industry, government services are needed to provide the basic infrastructure needed to serve the visitor and government regulation is needed to protect resources and the environment.

F. Development of the concept of the "carrying capacity of a community for tourism": The concept of "carrying capacity" came from the agricultural sector. Most lands could support only a limited number of animals if its productivity was to be maintained. The need for a similar concept will be needed for many of the attractions and communities involved in the tourism and travel industry. Many of the U.S. parks and wilderness areas are being over used and are sustaining unacceptable damage. Many communities are now suffering from large numbers of visitors and travelers.

A recent study indicated community residents satisfaction with the tourism industry is reached when the tourism industry is approximately 10 percent of the economy and deteriorates when it becomes a larger portion of the economy. The development of this concept will be difficult and implementation strategies could create controversy. However, more communities will become concerned at their ability to adequately serve the visitor while maintaining their quality of life.

G. The need for area wide cooperation: Rural communities must join forces in order to develop marketing power and provide an adequate attraction and service base for the visitor. It is now very difficult for the small community to develop a successful tourism program on its own. New multi-community structures and organizations must be developed in order for this to become an effective tourism development tool.

A PROCESS FOR RURAL TOURISM DEVELOPMENT

Economic development can be a long and difficult process for rural communities. Tourism is often used as an economic development tool. However, to use it successfully can be very difficult—many times more difficult than other economic development strategies. This difficulty results from problems with getting the total community working together, the challenges of coordinating the public and private sector, preparing the tourism committees to use marketing tools effectively and providing quality service to the customer.

Communities can conduct successful tourism programs if they approach tourism development in a systematic manner. The following process can be used successfully in small as well as large communities.

A. Identification of values: Values are the basic building blocks of a community. Tourism programs can bring many visitors and changes to a community. Communities that can identify important community values which they want to maintain can direct economic development efforts such as the Tourism industry and design tourism programs that can be supported by the total community maintaining itself over time. Economic development that starts with the analysis of community values begins by building on the existing strengths of a community, its institutions and its people.

B. Identification and development of attractions: Attractions are the basic building blocks of community tourism. Attractions take many forms such as parks, festivals, historic buildings and places, lakes, rivers and other phenomena that can bring people into an area. Key components of attraction development in- clude (1) a comprehensive inventory of potential attractions; (2) an evaluation of these attractions according to their quality, authenticity, uniqueness, activity base and potential drawing power in the marketplace; and (3) packaging the attraction improvement plan so components fit a larger tourism program and vision.

C. Creating a tourism organization: Tourism development requires the mobilization of community resources. Key resources are the leadership and volunteers it takes to develop and manage a community tourism program, a tourism vision and program that gives the communi-
ty direction in the utilization of resources and the money needed to purchase goods and services necessary to deliver a quality program. Most rural communities have limited resources, so their use and deployment in any economic development effort are critical. Good organization leadership, volunteer management, program development and planning; and execution are the most important element of any tourism program.

D. Creating jobs and income: If tourism is to be used as an economic development tool, it is expected to create jobs and income for the community. Too often, communities spend most of their efforts and attraction development on marketing these attractions to the visitor. Any successful tourism program will aim part of its efforts to help the private sector create the business to provide goods and services to the visitor. Failure to develop a business development and expansion program as part of an overall tourism program will reduce the effectiveness of the economic development effort.

E. Marketing the community resources to the visitor: Marketing is a very important component in any community tourism effort. Rural communities often do not have good visibility in the marketplace, and it will be necessary for a community organization to develop a marketing plan. Marketing is a set of activities focused on providing customer services and products to high potential tourism markets. Marketing includes activities that evaluate the wishes and needs of the customer and designing products and services that satisfy these customer wants and needs. Marketing is much more than brochures and advertisements. Communities that can provide quality tourism products to specific groups of individuals have an excellent chance of being successful in the tourism marketplace.

CONCLUSION

Tourism can provide added jobs and incomes for rural residents and can improve communities' facilities and resources. Careful planning and development of authentic attractions are important if a community is to safeguard its resources and culture. Community values are an important rural resource and can be taken to protect this asset.
INFRASTRUCTURE
logical conclusion that infrastructure attracts private investment and thus promotes economic growth.

Selected research studies will be reviewed to illustrate what researchers have found concerning the relationship between infrastructure and economic growth. In general, research concludes that the task of infrastructure is to generate a "minimum critical size of urbanization" that will act as a core for development (Hansen 1965; Hirschman 1958; as related by Eberts 1986, pp. 18-19). Once growth is underway, regions may need periodic injections of infrastructure to proliferate the expansion; otherwise, they may remain in a "low-level equilibrium trap" (Richardson 1973, in Eberts 1986, pp. 16-17). Firms are attracted to regions where the costs of production are lower and infrastructure is provided at a reasonable price (Helms 1985, in McGuire 1986, p. 10). Property tax rates and industrial sites don't seem to matter so long as other services are available. Factors attracting firms are excess sewer, sanitation and water capacity, as well as well-developed transportation and educational facilities (Kuehn et al. 1979).

A comprehensive review of the literature that looked at the relationship between infrastructure and economic development by McGuire concluded:

"The most striking aspect of this report is the paucity of empirical evidence specifically investigating the linkage between economic development and infrastructure investment. Several well-designed, informative empirical studies with varying degrees of relevance to the linkage were examined. Except for the study by Keefer (1986) on the trucking industry and the regional analysis by Hulten and Schwab (1984), the evidence appears to be that there is a positive and perhaps strong relationship between infrastructure investment and economic development. The studies supporting this hypothesis are by Helms (1985), and Garcia-Mila and McGuire (1986). The studies are neither detailed enough nor designed to answer questions such as: which type of infrastructure is most productive? what is the optimal level of infrastructure investment? which industries are more dependent on traditional infrastructure?" (McGuire 1986, pp. 24-25).

In fashioning economic strategy, policymakers should be aware that voters migrate to areas best meeting needs and preferences (Tiebout 1956). Bergstrom and Goodman (1973) concluded that communities with high employment - residential ratios tended to have more economic activity. To support additional growth, more public services would need to be provided. And "State fiscal policies can and do influence relative state per capita income levels" (Canto and Webb 1987, p. 201).

In attempting to investigate whether public investment (i.e., infrastructure) causes private investment or the reverse, Eberts and Fogarty (1986) constructed a production function with inputs of private capital, labor, and public capital. Results showed that both public and private capital may be endogenous in generating personal growth. To this point, each of these inputs may simultaneously cause the other (in McGuire 1986, p.11). An important requirement for economic stimulation is that public capital must complement private investment. If they are complements, infrastructure would provide a base for the expansion of private capital.

In summary, businesses locate where they can receive increased productivity. Infrastructure provides the necessary, though not sufficient, complementary inputs for increasing production. If public services provide a cost-savings, resources are freed and firms may purchase other inputs - leading to additional output and an increased derived demand for more inputs. Over the long-run, increases in returns to capital and labor should attract other investments. The causal linkages are not clearly understood. But, taken together, these studies lead to the conclusion that there is a positive linkage between infrastructure investment and economic growth (Garn and Ledebur 1986; McGuire 1986, p. 18).
The Condition of Infrastructure

The National Council on Public Works Improvement in a recent study graded America’s infrastructure. Their grade on an academic scale was a scant C- which is barely adequate to support current demands. Specific services such as highways were given a C+, solid waste a C-, and hazardous waste a D. The study concluded: “After two years of study, the National Council on Public Works Improvement has found convincing evidence that the quality of America’s infrastructure is barely adequate to fulfill current requirements, and insufficient to meet the demands of future economic growth and development (National Council on Public Works Improvement 1988, p. 1).

Rural Areas Paying a Greater Share

The problem in many rural areas, particularly in the South, is compounded by the poor economic conditions and the inability of the local and state economy to support additional infrastructure investment. In addition to the poor economic conditions in many rural areas, the financing of infrastructure has shifted to local areas. Since 1977, local government outlays have continued to rise, while state and federal government outlays have fallen. The result has been an increasing shift in responsibility away from the state and federal level toward the local levels. Local governments now provide half of the money spent on public works. This is up from 38 percent 20 years ago (National League of Cities 1987).

Example Infrastructure Study

Decisionmakers in Sequoyah County are considering feasible alternatives in providing solid waste collection and disposal services to the rural areas of their county. They requested the Cooperative Extension Service to estimate the costs associated with some alternatives. The considered options are described in the following sections of this report, and cost estimates for each alternative are presented and discussed, but no recommendations are made.

The following solid waste management alternatives for Sequoyah County are considered

in this report:

(1) collection using two packer trucks with eight-cubic-yard containers in rural areas and disposal in the nearest landfill;

(2) collection using a packer truck(s) and eight-cubic-yard containers in rural areas with two transfer stations and disposal in the nearest landfill; and

(3) collection using a packer truck(s), eight-cubic-yard containers, three green box convenience centers, and two transfer stations with disposal in the nearest landfill. Financing options are presented after the analysis is concluded.

Twenty-seven potential locations for establishing a rural solid waste collection system are delineated and shown in Figure 1. Costs are estimated for a rural solid waste system that places "green box" containers (eight-cubic-yard dumpsters) at each pick-up point and the number of eight-cubic-yard containers needed at each site are presented in the accompanying tables. The total number of rural households is estimated to be 4,556 (individual users are estimated as 15,809). Table 2 shows the weekly volume of loose and compacted trash for each area of the system; accordingly, 131 eight-cubic-yard "green boxes" are needed (assuming once a week pick-up). Tables 3, 4, and 5 estimate the weekly route runs and mileage for each alternative system considered.

A "Green Box" Collection System

Table 6 shows the capital needs associated with establishing a rural green box collection system. Since the collection system requires 131 green boxes (Table 2) and these boxes cost $449.50 each, a total green box investment of $58,885 is needed. Money could be saved if quality reconditioned boxes are used. A 35-cubic-yard packer body costs about $45,113, and a 64,000 lb. GVW chassis diesel truck is estimated to cost about $75,188, so one packer truck costs about $120,301. But because of routing inefficiencies inherent in green box systems (i.e., time spent loading partial or even empty green boxes), one truck will most likely not be able to complete its duties within the time
estimated to run the routes (54 hours, Table 3). Therefore, two packer trucks and two drivers are necessary. Using two trucks and two drivers allows a cushion against down-time or emergencies. Drivers will have time to perform important jobs such as clean-up and maintenance work on the packer trucks and green box sites. Under this option, the packer truck cost is $240,602. Each green box site should be constructed upon a cement slab with a chain-link fence barrier to facilitate control and clean-up of the box sites. This will cost about $2,775 per site for a total fencing cost of $74,925. The total capital investment for this alternative is $374,412.

Table 7 shows the annual capital and operating costs of a green box system. It is important to establish a sinking fund so worn equipment can be replaced; therefore, the capital items are depreciated over time at a given interest rate. If the green boxes and packer trucks are depreciated over five years at a ten percent annual percentage rate (APR), the annual capital costs for these items are $15,534 and $63,470 respectively. Fencing for the sites is $12,194. In all, the total annual capital costs are $91,198.

Operating costs include fuel and maintenance for the packer trucks. These costs are estimated to be $6,702 and $18,394 a year averaged eight miles per gallon and fuel costs $1.00 per gallon. Naturally, this cost varies with the actual price of fuel. The packer trucks would be operated by two men working forty hours per week at $6.00 per hour; accordingly, labor cost is $24,960 a year. Fringe benefits, such as Workers Compensation and Social Security, are about fifteen percent of the total annual labor costs or $3,744 per year. Similarly, an administration cost is calculated as thirty percent of the labor or $7,488 annually. The Cherokee Nations Landfill near Stillwell and other disposal sites, such as landfills near Muskogee, Ft. Smith, Stigler, and Checotah, are used to dump an estimated 30,057 compacted cubic years (578.02 cub. yds. times 52 weeks) or about 11,272 tons (about 30,057 cu. yds. at 750.02 lbs per compacted cubic yard) of waste a year at $12.00 per ton or about $4.50 per cubic yard. (The average costs of disposal in the South is $11 a ton). On this assumption, tipping fees total $135,258 annually. Maintenance on the green boxes is estimated to cost $699 a year. The total annual operating costs are thus $197,245.

The total annual costs of collecting solid waste using a green box system and transporting waste directly to the nearest landfill is $288,443 ($91,198 plus $197,245) or $1.52 per user per month (15,809 individuals), $5.28 per household per month (4,556 households), $9.60 per compacted-cubic-yard ($288,443 divided by 30,057 cu. yds.), or $25.59 per ton ($288,443 divided by 11,272 tons).

Green Box System with Transfer Stations

Sequoyah County decisionmakers are considering placing two transfer stations within the county (Figure 1). Often, transfer stations improve the efficiency of collection and can be integrated with recycling programs (transfer stations are often used as a base for source separation and reduction). However, there are significant capital and operating costs associated with transfer stations that must be considered. If transfer stations are used, total collection costs decrease by $12,462 since the truck(s) travel(s) less miles and has a lower labor cost. The total annual cost for collecting waste using a transfer station system is $226,150 with one truck and $275,981 with two trucks, not including the costs of the stations (Table 8).

Collection costs are lower, but the capital and operating expenses of the transfer stations must be considered. Capital needs of a transfer station system in Sequoyah County include land (five acres per site), site development (fencing, draining, grading, surfacing, and structures), a truck, and eight cubic-yard trailers for hauling the waste from the stations to the landfill. The total capital investment needed for the stations is $271,300 (Table 9).

The annual capital costs of the transfer stations include land ($1,175); site development ($4,698); a transfer truck ($12,206); and trailers ($19,235). The land and site development charges are calculated at ten percent APR for twenty years. The 64,000 lb. GVW diesel truck cost is based on ten percent for ten years, and the eight cubic-yard trailers are depreciated over fifteen years at fifteen percent APR. So, the total annual capital cost of the transfer stations is
$37,314 (Table 10).

The truck used by the transfer stations will make about seven trips a week hauling the delivered waste to the landfill, resulting in approximately 16,328 miles per year. Based on this figure, fuel costs for one year are $2,041 assuming the truck got eight miles per gallon and the fuel cost was $1.00 per gallon. As before, fuel expenses will vary according to the actual price paid. Maintenance for the truck is also based on the annual mileage and amounts to $5,602. Labor costs are divided into truck and station labor. Truck labor is paid $6.00 per hour for 25 hours per week or $7,800 a year. Station labor is paid $5.00 per hour for forty hours per week or $10,400 a year. (The station worker’s time would be distributed between the transfer stations). Fringe benefits are $2,730, and administration costs amount to $5,460 a year. Therefore, the total annual operating cost of the transfer stations is $34,033 (Table 10), and the total annual cost of the transfer stations is $71,347 ($37,314 plus $34,033).

Table 11 combines both the collection system and the transfer station portion to arrive to the total annual cost of collecting waste at the green box sites, delivering it to the nearest transfer station, and in turn, disposing of the waste at the landfill. The annual capital costs are $96,777 for a one packer truck system or $128,512 for a two truck system. The annual operating costs are $200,720 (one truck) or $218,816 (two trucks). The total annual cost is $297,497 (one truck) or $347,328 (two trucks). This amounts to $1.57 per user per month ($1.83 for two trucks), $5.44 per household per month ($6.35 for two trucks), $9.90 per compacted-cubic-yard ($11.56 for two trucks), or $26.39 per ton ($30.81 for two trucks).

Green Box System with Convenience Centers

Convenience Centers are strategically placed garbage collection facilities composed of at least 150 cubic yards worth of green boxes custom designed to appeal and attract rural solid waste disposal. The Centers are constructed in heavier populated areas along well traveled routes, landscaped and manned by an attendant during specified hours. Residents living near-by are required to transfer their solid waste to these centers for disposal. Many of the inefficiencies of collecting waste from partially filled green boxes along routes are eliminated because a packer truck is dispatched to a Convenience Center only after the attendant calls for a full load to be removed. Source separation and reduction are often performed at Convenience Centers. Combination and Compactor Centers have large roll-off containers that accept bulky items. Three types of Convenience Centers are pictured in Figures 2, 3, and 4.

Patrick O’ Connor of the Tennessee Valley Authority’s Waste Management Program identified six basic advantages in Convenience Centers:

1. Cleanliness attendants keep the area clean and help residents in unloading trash.
2. Efficiency - attendants call for trucks only when full-loads are available. There tend to be fewer management problems and public complaints.
3. Cost - after initial start-up costs, they are less expensive to operate due to transportation, routing, site cleaning, and labor savings.
4. Convenience operating hours are adjustable to user schedules, and centers are located near populated areas along major roads. Attendants help the elderly and the handicapped in unloading.
5. Security attendants maintain security and help eliminate scavenging, vandalism, stray dogs, and illegal dumping by residential and commercial waste generators.

Convenience Center Options

Three options, with and without transfer stations, are considered in this section:

1. Standard Green Box Convenience Centers in the areas shown in Figure 1;
2. Combination Convenience Centers at the above sites; and
3. Compactor Convenience Centers at the above sites.

These options require 14 green box sites and three Convenience Centers that (due to their proximity to the Centers), replace sites 3, 5, 6, 8, 9, 11, 14, 15, 16, 22, 23, 25, and 26. The Centers can, of course, be constructed elsewhere, and as long as they are located near the above sites, the analysis will not be seriously affected.

**Standard Green Box Convenience Centers - Without Transfer Stations.** The capital needs of this system include 131 green boxes, two 35 cubic-yard packer trucks (Note: over fifty hours a week is required without transfer stations, see Table 4), fencing for 14 green box sites, three acres of land (one acre for each Center) and site development expenses. Convenience Center development costs were provided by the Tennessee Valley Authority and includes estimate of everything necessary to build a center similar to the one in Figure 2; however, site development costs will vary from location to location. The capital investment for this alternative is shown in Table 12 as $364,337.

The annual capital costs for this alternative is $88,063 (Table 13). The green boxes ($15,534) and packer trucks ($63,470) are depreciated over five years at ten percent APR. The fencing ($5,183) is amortized over ten years at ten percent APR. Land ($352) and site development charges ($3,524) are carried over twenty years at ten percent APR.

The annual operating costs for this alternative is $238,470. Fuel and maintenance charges under this system are $7,508 and $20,607 respectively. Labor for the trucks is $24,960 and labor for Convenience Centers is $23,205. Fringe benefits total $7,225, and administration is $14,450. Tipping fees are, as before, $135,528 and maintenance on the green boxes is $699. Utility expenses of the Centers (electricity, water and telephone) are estimated at $1,520 per Center for a total of $4,560 a year. The total annual operating cost is $238,470 (Table 13).

As shown in Table 13, the total annual cost of a Sequoyah County solid waste collection system using both a green box collection system (with two packer trucks) and three Standard Convenience Centers is $326,533 ($88,063 plus $238,470). This amounts to $1.72 per user per month, $5.97 per household per month, $10.86 per compacted-cubic-yard or $28.97 per ton.

**Standard Green Box Convenience Centers - With Transfer Stations.** If the previously described transfer stations are integrated into the system, the annual cost falls considerably since the mileage requirements of the packer trucks are reduced from 60,060 to 23,348 a year. In fact, it is possible that one packer truck could now make the routes since the time requirement falls about thirty hours a week (Table 4). The capital investment ($271,300, Table 9) and annual costs ($71,347, Table 10) of the transfer stations are the same as before.

Table 14 describes the annual cost of a system using Standard Convenience Centers if transfer stations are used (not including the cost of the stations). The annual capital costs remain at $88,063 (Table 13) if two packer trucks are used. But, if one truck could do the job, the capital costs fall to $56,328. Fuel costs for the packer truck(s) are $2,041 varying according to the actual price of fuel. Maintenance for the truck(s) amounts to $8,011. Truck labor is $12,480 a year for one driver or $24,960 for two. As before, the Center labor is $23,205 a year. Fringe benefits are $5,353 for one truck or $7,725 for two trucks. Annual administration costs are $10,706 for a one truck system or $14,450 for a two truck system. Tipping fees, maintenance on green boxes, utility expenses remain at $135,528, $699, $4,560, respectively. Therefore, the total annual operating cost is $203,189 with one truck or $221,285 with two trucks. The total annual cost using a one packer truck is $259,517 ($56,328 plus $203,189); a two packer truck system costs $309,348 ($88,063 plus $221,285).

Table 15 combines both the collection and the transfer station costs to arrive at the total annual cost of a green box system with three Standard Convenience Centers utilizing transfer stations. The annual capital costs are $93,642 for a one packer truck system or $125,377 for a two truck system. The annual operating costs are $237,223 (one truck) or $255,319 (two trucks). This amounts to $1.74 per user per
month ($2.01 for two trucks), $6.05 per household per month ($6.96 for two trucks), $11.01 per compacted-cubic-yard ($12.67 for two trucks), or $29.35 per ton ($33.77 for two trucks).

Other Infrastructure and Community Service Studies

The Sequoyah County solid waste study was used as an example infrastructure technical assistance study provided by Oklahoma Cooperative Extension Service. A list of other infrastructure and community service studies is presented in Table 16. An important component behind each study is a solid research base. Research is needed to know the alternatives, current costs and to include information on the latest technology. Without current research which provides budget information, the educational assistance that extension provides would not be up to date. Research is the basic foundation of the budget studies and must be current.

Technical assistance programs are available not only to provide information on capital and operating costs and revenue sources, but other questions that arise in planning community services. Some of these include:

1. Where should ambulances or fire vehicles be located to provide maximum protection?
2. How many EMT’s or fire crews should be on duty?
3. What are the most efficient bus or solid waste routes? and
4. How much revenue will be generated by alternative rate schedules?

These programs are made possible by computer models and can assist decisionmakers in answering the above questions.

Summary

It is crucial that community leaders have the latest tools available to them in making their decisions. This paper illustrates that infrastructure planning is critical in rural areas. A solid waste budget study is presented to illustrate how the Oklahoma Cooperative Extension Service works with local decisionmakers relative to infrastructure planning. In addition to budget studies, other tools of routing, optimum location analysis, and utility rate analysis are available. During 1990, the Extension Service responded to over 150 requests for infrastructure planning assistance. The goal of the program is to make the latest information available to local decisionmakers so they can make maximum use of their scarce resources.

Footnote

This is taken from Allen et. al., 1991.

Selected References


O'Connor, P. B., Convenience Centers, (Knoxville: Memphis State University), 1987.


## TABLE 1

**POPULATION STATISTICS**

<table>
<thead>
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</tr>
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</tr>
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<td>MOFFETT</td>
<td>250</td>
</tr>
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<tr>
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</tr>
<tr>
<td>VIAN</td>
<td>1,800</td>
</tr>
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| RURAL POPULATION      | 17,201|
| PERSONS PER HOUSEHOLD | 3     |


Oklahoma Department of Commerce. 1990 Post Census Local Review Counts by County and MSA. Oklahoma State Data Center, Research and Planning News. October 1990.

1Persons per household based on 1980 census data (2.90) adjusted by a projected population growth factor of 1.198 (estimated percentage change in city population 1980 to 1990). City figures are used due to variations among sources of total county population; for example, the Oklahoma Department of Commerce projects the total county population to be 36,000.
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<th>LBS/WK</th>
<th>LOOSE CU YDS</th>
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## TABLE 3

**ESTIMATED WEEKLY ROUTE RUNS AND MILEAGES**

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<th>ROUTE</th>
<th>BOX SITES</th>
<th>WEEKLY</th>
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<th>ROUND TRIP TIMES</th>
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<td>LANDFILL</td>
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<td>30.83</td>
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**TIME LOADING**

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<tr>
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**TOTAL**

|              | 578.02 | 1,031 | 519 | 53.79 | 33.31 |

**Note:**
- M = Muskogee Landfill
- CN = Cherokee Nations Landfill
- C = Checotah Landfill
- FS = Fort Smith Landfill
- St = Stigler Landfill (South of Tahama)
### TABLE 4

**ESTIMATED WEEKLY ROUTE RUNS AND MILEAGES STANDARD AND COMBINATION CONVENIENCE CENTERS**

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<th>WASTE</th>
<th>LANDFILL</th>
<th>TRANSFER</th>
<th>ROUND TRIP MILES</th>
<th>LANDFILL</th>
<th>TRANSFER</th>
<th>ROUND TRIP TIMES</th>
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<td>71</td>
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</tr>
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<td>15</td>
<td>2.12</td>
<td>0.60</td>
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</tr>
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- **TIME LOADING**
- **TIME EMPTYING**

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<th>TIME LOADING</th>
<th>TIME EMPTYING</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.95</td>
<td>2.95</td>
</tr>
<tr>
<td>5.33</td>
<td>5.33</td>
</tr>
</tbody>
</table>

| TOTAL         | 584.71 | 991 | 399 | 47.92 | 24.24 |

OTHER BOXES: 59
### Table 6

**Capital Needs of a Green Box System**

<table>
<thead>
<tr>
<th>Item</th>
<th>Two Trucks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Boxes(^1)</td>
<td>$58,885</td>
</tr>
<tr>
<td>PACKER TRUCK(^2)</td>
<td>$240,602</td>
</tr>
<tr>
<td>FENCING(^3)</td>
<td>$74,925</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$374,412</strong></td>
</tr>
</tbody>
</table>

\(^1\) 131 boxes at $449.50 each

\(^2\) 235 cu. yrd front loader packer at $45,113 each

\(^3\) 64,000 lb. GVW Chassis Diesel at $75,188 each

\(^3\) 27 locations at $2,775 per location
### TABLE 7

**ANNUAL COSTS OF A GREEN BOX SYSTEM**

<table>
<thead>
<tr>
<th>CAPITAL COSTS</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN BOXES$^1$</td>
<td>$15,534</td>
</tr>
<tr>
<td>PACKER TRUCK$^1$</td>
<td>$63,470</td>
</tr>
<tr>
<td>FENCING$^2$</td>
<td>$12,194</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL CAPITAL COSTS</strong></td>
<td><strong>$91,198</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING COSTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL$^3$</td>
<td>$6,702</td>
</tr>
<tr>
<td>MAINTENANCE $^4$</td>
<td>$18,394</td>
</tr>
<tr>
<td>LABOR$^5$</td>
<td>$24,960</td>
</tr>
<tr>
<td>FRINGE BENEFITS$^6$</td>
<td>$3,744</td>
</tr>
<tr>
<td>ADMINISTRATION$^7$</td>
<td>$7,488</td>
</tr>
<tr>
<td>TIPPING FEES$^8$</td>
<td>$135,258</td>
</tr>
<tr>
<td>MAINTENANCE ON BOXES$^9$</td>
<td><strong>$699</strong></td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL OPERATING COSTS</strong></td>
<td><strong>$197,245</strong></td>
</tr>
</tbody>
</table>

| TOTAL ANNUAL COST                          | **$288,443**|

| COST PER USER PER MO.:                     | $1.52      |
| COST PER HH PER MO.                        | $5.28      |
| COST PER CU. YRD:                          | $9.60      |
| COST PER TON:                              | $25.59     |

$^1$5 YEARS AT 10%
$^2$10 YEARS AT 10%
$^3$53,612 ANNUAL MILES, 8 MPH, $1.00 PER GALLON
$^4$53,612 ANNUAL MILES AT 0.3431 PER MILE
$^5$TWO DRIVERS AT $6.00 HR., 40 HR. PER WEEK
$^6$15% OF LABOR
$^7$30% OF LABOR
$^8$30,057 COMPACT CU YRDS AT $4.50 PER CU. YRD OR 11,272 TONS AT $12 PER TON
$^9$131 BOXES, 1/3 PAINTED EACH YEAR, 2 GALLONS REQUIRED PER BOX, $8.00 PER GALLON
# TABLE 8

ANNUAL COSTS OF A GREEN BOX SYSTEM IF TRANSFER STATIONS ARE USED

<table>
<thead>
<tr>
<th>CAPITAL COSTS</th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN BOXES¹</td>
<td>$15,534</td>
<td>$15,534</td>
</tr>
<tr>
<td>PACKER TRUCK¹</td>
<td>$31,735</td>
<td>$63,470</td>
</tr>
<tr>
<td>FENCING²</td>
<td>$12,194</td>
<td>$12,194</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL CAPITAL COSTS</strong></td>
<td><strong>$59,463</strong></td>
<td><strong>$91,198</strong></td>
</tr>
</tbody>
</table>

**OPERATING COSTS**

<table>
<thead>
<tr>
<th></th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL³</td>
<td>$3,374</td>
<td>$3,374</td>
</tr>
<tr>
<td>MAINTENANCE⁴</td>
<td>$9,260</td>
<td>$9,260</td>
</tr>
<tr>
<td>LABOR⁵</td>
<td>$12,480</td>
<td>$24,960</td>
</tr>
<tr>
<td>FRINGE BENEFITS⁶</td>
<td>$1,872</td>
<td>$3,744</td>
</tr>
<tr>
<td>ADMINISTRATION⁷</td>
<td>$3,744</td>
<td>$7,488</td>
</tr>
<tr>
<td>TIPPING FEES⁸</td>
<td>$135,258</td>
<td>$135,258</td>
</tr>
<tr>
<td><strong>MAINTENANCE ON BOXES⁹</strong></td>
<td><strong>$699</strong></td>
<td><strong>$699</strong></td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL OPERATING COSTS</strong></td>
<td><strong>$166,687</strong></td>
<td><strong>$184,783</strong></td>
</tr>
</tbody>
</table>

**TOTAL ANNUAL COST**

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$226,150</strong></td>
<td></td>
<td><strong>$275,981</strong></td>
</tr>
</tbody>
</table>

**DOES NOT INCLUDE COST OF TRANSFER STATIONS**

¹5 YEARS AT 10%
²10 YEARS AT 10%
³26,988 ANNUAL MILES, 8 MPH, $1.00 PER GALLON
⁴26,988 ANNUAL MILES AT 0.3431 PER MILE
⁵ONE (OR TWO) DRIVERS AT $6.00 HR., 40 HR. PER WEEK
⁶15% OF LABOR
⁷30% OF LABOR
⁸30,057 COMPACT CU YRDS AT $4.50 PER CU. YRDL OR 11,272 TONS AT $12 PER TON
⁹131 BOXES, 1/3 PAINTED EACH YEAR, 2 GALLONS REQUIRED PER BOX, $8.00 PER GALLON
TABLE 9

CAPITAL NEEDS OF TRANSFER STATIONS USING A TRAILER SYSTEM

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND¹</td>
<td>$10,000</td>
</tr>
<tr>
<td>SITE DEVELOPMENT²</td>
<td>$40,000</td>
</tr>
<tr>
<td>TRANSFER TRUCK³</td>
<td>$75,000</td>
</tr>
<tr>
<td>TRANSFER TRAILER⁴</td>
<td>$146,300</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$271,300</td>
</tr>
</tbody>
</table>

¹FIVE ACRES PER SITE AT $1000 PER ACRE, TWO SITES
²$20,000 PER SITE FOR TWO SITES
³64,000 LB. GVW CHASSIS DIESEL TRUCK
⁴TWO ,80 CU.YD TRAILERS $73,150 EACH
### TABLE 10

**ANNUAL COSTS OF TRANSFER STATIONS**

<table>
<thead>
<tr>
<th>CAPITAL COSTS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND(^1)</td>
<td>$1,175</td>
</tr>
<tr>
<td>SITE DEVELOPMENT(^1)</td>
<td>$4,698</td>
</tr>
<tr>
<td>TRANSFER TRUCK(^2)</td>
<td>$12,206</td>
</tr>
<tr>
<td>TRANSFER TRAILER(^3)</td>
<td>$19,235</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL CAPITAL COSTS</strong></td>
<td>$37,314</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING COSTS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL(^4)</td>
<td>$2,041</td>
</tr>
<tr>
<td>MAINTENANCE(^5)</td>
<td>$5,602</td>
</tr>
<tr>
<td>TRUCK LABOR(^6)</td>
<td>$7,800</td>
</tr>
<tr>
<td>STATION LABOR(^7)</td>
<td>$10,400</td>
</tr>
<tr>
<td>FRINGE BENEFITS(^8)</td>
<td>$2,730</td>
</tr>
<tr>
<td>ADMINISTRATION(^9)</td>
<td>$5,460</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL OPERATING COSTS</strong></td>
<td>$34,033</td>
</tr>
</tbody>
</table>

**TOTAL ANNUAL COST OF THE TRANSFER STATIONS** $71,347

\(^1\) 20 YEARS AT 10%
\(^2\) 10 YEARS AT 10%
\(^3\) 15 YEARS AT 10%
\(^4\) 16,328 ANNUAL MILES, 8 MPH, $1.00 PER GALLON
\(^5\) 16,328 ANNUAL MILES AT 0.3431 PER MILE
\(^6\) ONE DRIVER AT $6.00 HR., 25 HR. PER WEEK
\(^7\) ONE STATION WORKER AT $5.00, 40 HR. PER WEEK
\(^8\) 15% OF LABOR
\(^9\) 30% OF LABOR
<table>
<thead>
<tr>
<th></th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CAPITAL COSTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLLECTION SYSTEM(^1)</td>
<td>$59,463</td>
<td>$91,198</td>
</tr>
<tr>
<td>TRANSFER STATIONS(^2)</td>
<td>$37,314</td>
<td>$37,314</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL CAPITAL COSTS</strong></td>
<td>$96,777</td>
<td>$128,512</td>
</tr>
<tr>
<td><strong>OPERATING COSTS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COLLECTION SYSTEM(^1)</td>
<td>$166,687</td>
<td>$184,783</td>
</tr>
<tr>
<td>TRANSFER STATIONS(^2)</td>
<td>$34,033</td>
<td>$34,033</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL OPERATING COSTS</strong></td>
<td>$200,720</td>
<td>$218,816</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL COST</strong></td>
<td>$297,497</td>
<td>$347,328</td>
</tr>
<tr>
<td>COST PER USER PER MO.:</td>
<td>$1.57</td>
<td>$1.83</td>
</tr>
<tr>
<td>COST PER HH PER MO.</td>
<td>$5.44</td>
<td>$6.35</td>
</tr>
<tr>
<td>COST PER CU. YRD:</td>
<td>$9.90</td>
<td>$11.56</td>
</tr>
<tr>
<td>COST PER TON:</td>
<td>$26.39</td>
<td>$30.81</td>
</tr>
</tbody>
</table>

\(^1\) SEE TABLE 8  
\(^2\) SEE TABLE 10
Figure 2.
Green Box Convenience Center

Figure 3

Combination Convenience Center

<table>
<thead>
<tr>
<th>ITEM</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN BOXES$^1$</td>
<td>$58,885</td>
</tr>
<tr>
<td>PACKER TRUCK$^2$</td>
<td>$240,602</td>
</tr>
<tr>
<td>FENCING$^3$</td>
<td>$31,850</td>
</tr>
<tr>
<td>LAND$^4$</td>
<td>$3,000</td>
</tr>
<tr>
<td>SITE DEVELOPMENT$^5$</td>
<td>$30,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$364,337</td>
</tr>
</tbody>
</table>

172 BOXES AT CENTERS, 59 BOXES AT 14 SITES FOR 131 BOXES AT $449.5 EACH

235 CU. YRD FRONT LOADER PACKER AT $45,113 EACH; 64,000 LB. GVW CHASSIS DIESEL AT $75,188 EACH

314 LOCATIONS AT $2,775 PER LOCATION

43 CENTERS, 1 ACRE PER CENTER, $1,000 PER ACRE

5$10,000 PER CENTER (SOURCE: T.V.A.)
<table>
<thead>
<tr>
<th>Capital Costs</th>
<th>Two Trucks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Boxes¹</td>
<td>$15,534</td>
</tr>
<tr>
<td>PACKER TRUCK¹</td>
<td>$63,470</td>
</tr>
<tr>
<td>FENCING²</td>
<td>$5,183</td>
</tr>
<tr>
<td>LAND³</td>
<td>$352</td>
</tr>
<tr>
<td>Site Development³</td>
<td>$3,524</td>
</tr>
<tr>
<td><strong>Total Annual Capital Costs</strong></td>
<td><strong>$88,063</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operating Costs</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel⁴</td>
<td>$7,508</td>
</tr>
<tr>
<td>Maintenance⁵</td>
<td>$20,607</td>
</tr>
<tr>
<td>Labor⁶</td>
<td>$24,960</td>
</tr>
<tr>
<td>Labor⁷</td>
<td>$23,205</td>
</tr>
<tr>
<td>Fringe Benefits⁸</td>
<td>$7,225</td>
</tr>
<tr>
<td>Administration⁹</td>
<td>$14,450</td>
</tr>
<tr>
<td>Tipping Fees¹⁰</td>
<td>$135,258</td>
</tr>
<tr>
<td>Maintenance on Boxes¹¹</td>
<td>$699</td>
</tr>
<tr>
<td>Utility Expenses¹²</td>
<td>$4,560</td>
</tr>
<tr>
<td><strong>Total Annual Operating Costs</strong></td>
<td><strong>$238,470</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Total Annual Cost</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost per User per Mo.:</td>
<td>$1.72</td>
</tr>
<tr>
<td>Cost per HH per Mo.:</td>
<td>$5.97</td>
</tr>
<tr>
<td>Cost per Cu. Yrd.:</td>
<td>$10.86</td>
</tr>
<tr>
<td>Cost per Ton:</td>
<td>$28.97</td>
</tr>
</tbody>
</table>

²10 Years at 10%
³20 Years at 10%
⁴60,060 Annual Miles, 8 MPH, $1.00 Per Gallon
⁵60,060 Annual Miles at 0.3431 Per Mile
⁶Two Drivers at $6.00 HR., 40 HR. Per Week
⁷Three Workers at $4.25 Per Hour for 35 Hours Per Week
⁸15% of Labor
⁹30% of Labor
¹⁰30,057.04 Compact Cu Yrds at $4.50 Per Cu. Yrd or 11,271.52 Tons at $12 Per TON
¹¹131 Boxes, 1/3 Painted Each Year, 2 Gallons Required per Box, $8.00 Per Gallon
¹²$1,520 per Center for 3 Centers
<table>
<thead>
<tr>
<th>CAPITAL COSTS</th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEN BOXES(^1)</td>
<td>$15,534</td>
<td>$15,534</td>
</tr>
<tr>
<td>PACKER TRUCK(^1)</td>
<td>$31,735</td>
<td>$63,470</td>
</tr>
<tr>
<td>FENCING(^2)</td>
<td>$5,183</td>
<td>$5,183</td>
</tr>
<tr>
<td>LAND(^3)</td>
<td>$352</td>
<td>$352</td>
</tr>
<tr>
<td>SITE DEVELOPMENT(^3)</td>
<td>$3,524</td>
<td>$3,524</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL CAPITAL COSTS</strong></td>
<td><strong>$56,328</strong></td>
<td><strong>$88,063</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING COSTS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FUEL(^4)</td>
<td>$2,919</td>
<td>$2,919</td>
</tr>
<tr>
<td>MAINTENANCE(^5)</td>
<td>$8,011</td>
<td>$8,011</td>
</tr>
<tr>
<td>LABOR(^6)</td>
<td>$12,480</td>
<td>$24,960</td>
</tr>
<tr>
<td>LABOR 7</td>
<td>$23,205</td>
<td>$23,205</td>
</tr>
<tr>
<td>FRINGE BENEFITS(^8)</td>
<td>$5,353</td>
<td>$7,225</td>
</tr>
<tr>
<td>ADMINISTRATION(^9)</td>
<td>$10,706</td>
<td>$14,450</td>
</tr>
<tr>
<td>TIPPING FEES(^10)</td>
<td>$135,258</td>
<td>$135,258</td>
</tr>
<tr>
<td>MAINTENANCE ON BOXES(^11)</td>
<td>$699</td>
<td>$699</td>
</tr>
<tr>
<td>UTILITY EXPENSES(^12)</td>
<td>$4,560</td>
<td>$4,560</td>
</tr>
<tr>
<td><strong>TOTAL ANNUAL OPERATING COSTS</strong></td>
<td><strong>$203,189</strong></td>
<td><strong>$221,285</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL ANNUAL COST</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>$259,517</strong></td>
<td><strong>$309,348</strong></td>
<td></td>
</tr>
</tbody>
</table>

**DOES NOT INCLUDE COST OF TRANSFER STATIONS**

\(^1\) 15 YEARS AT 10% 
\(^2\) 20 YEARS AT 10% 
\(^3\) 23,348 ANNUAL MILES, 8 MPH, $1.00 PER GALLON
\(^4\) 23,348 ANNUAL MILES AT 0.3431 PER MILE
\(^5\) ONE (OR TWO) DRIVERS AT $6.00 HR., 40 HR. PER WEEK
\(^6\) THREE WORKERS AT $4.25 PER HOUR FOR 35 HOURS PER WEEK
\(^7\) 15% OF LABOR
\(^8\) 30% OF LABOR
\(^9\) 300,057 COMPACT CU YRDS AT $4.50 PER CU. YRD OR 11,272 TONS AT $12 PER TON
\(^10\) 131 BOXES, 1/3 PAINTED EACH YEAR, 2 GALLONS REQUIRED PER BOX, $8.00 PER GALLON
\(^11\) $1,520 PER CENTER FOR 3 CENTERS
### TABLE 15

**TOTAL ANNUAL COST OF A CONVENIENCE CENTER SYSTEM UTILIZING TRANSFER STATIONS**

<table>
<thead>
<tr>
<th>CAPITAL COSTS</th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLECTION SYSTEM$^1$</td>
<td>$56,328$</td>
<td>$88,063$</td>
</tr>
<tr>
<td>TRANSFER STATION$^2$</td>
<td>$37,314$</td>
<td>$37,314$</td>
</tr>
<tr>
<td>TOTAL ANNUAL CAPITAL COSTS</td>
<td>$93,642$</td>
<td>$125,377$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPERATING COSTS</th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLLECTION SYSTEM$^1$</td>
<td>$203,189$</td>
<td>$221,285$</td>
</tr>
<tr>
<td>TRANSFER STATION$^2$</td>
<td>$34,033$</td>
<td>$34,033$</td>
</tr>
<tr>
<td>TOTAL ANNUAL OPERATING COSTS</td>
<td>$237,223$</td>
<td>$255,319$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL ANNUAL COST</th>
<th>ONE TRUCK</th>
<th>TWO TRUCKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$330,865$</td>
<td>$380,696$</td>
<td></td>
</tr>
</tbody>
</table>

| COST PER USER PER MO. | $1.74$ | $2.01$ |
| COST PER HH PER MO.  | $6.05$ | $6.96$ |
| COST PER CU. YRD.    | $11.01$| $12.67$|
| COST PER TON.        | $29.35$| $33.77$|

$^1$ SEE TABLE 14  
$^2$ SEE TABLE 10
# TABLE 16

**INFRASTRUCTURE AND COMMUNITY SERVICE STUDIES**

## I. Budget Studies

A. Emergency Medical Services  
   1. First Responder Systems  
   2. Basic Life Support  
   3. Advanced Life Support  

B. Solid Waste Management  
   1. Landfills  
   2. Convenience Centers and Transfer Stations  
   3. Rural Collection Systems  

C. Fire  

D. Physician Recruitment  

E. Hospitals  

F. Dentist Recruitment  

G. Water  

H. Transportation  

## II. Other Studies  

A. Optimum Location  

B. Routing  

C. Utility Rate Analysis
INTRODUCTION
The economic future of much of rural America is cloudy. The growing disparity between rural and urban well-being has generated great interest in economic development among those with a strong concern for the maintenance of a prosperous rural living environment. The specific actions which can be taken to remedy the situation are not readily apparent. Yesterday’s policy solutions to rural problems provide limited help to today’s concerns. For example, actions focused on improving agricultural prices may help some farm families, but prove entirely inadequate in closing the rural/urban income gap for most nonmetropolitan residents.

Finding a solution to the economic problems of rural America will require a comprehensive effort on the part of national, state and local governments and the private sector as well. Perhaps the single most important policy action which could be taken to improve rural conditions would be a joint national, state and local effort providing educational and technical assistance in strategic planning for rural community leaders. To be most effective, this assistance needs to be provided on a continuing basis. This kind of assistance is relatively inexpensive compared to major infrastructure investments, capital subsidies, or direct price supports. Such an effort could provide most rural communities with the capacity to take advantage of their unique development opportunities.

THE RURAL SITUATION
Many policymakers who have addressed the economic disparity issue in the past have been inclined to think of rural America as a homogeneous entity. It is often perceived as geographically remote; farm or timber dependent; with limited transportation; high unemployment; poor education and health care; and few modern services. These generalizations may be partially true, but fail to recognize the great diversity which exists in rural areas.

* The great majority of people who live in nonmetropolitan America live within one hour’s commuting time of a city of 15,000 or more people. The economic opportunities of many are closely tied to urban-based industries and institutions. A much smaller number live in relatively isolated rural communities and are economically dependent on nearby natural resources.

* Less than twenty-five percent of America’s nonmetropolitan counties are primarily dependent on farm income (20 percent or more of their wage and proprietors’ income from farming). Nearly 25 percent are primarily dependent on manufacturing (30 percent or more of wage and proprietors’ income from manufacturing).

* Many rural communities are closely connected to interstate highways, are near commercial airports and are tied directly to excellent telecommunications systems. Others are on poorly
maintained secondary roads, hours from any regularly scheduled airline and survive with antiquated multi-party telephone systems.

* Some rural regions have large numbers of relatively poor families. Still others have a high percentage of upper-income residents. The former are generally poorly educated with inadequate health care. The latter are often owners of large natural resource holdings or residents working in nearby urban complexes.

* A large number of counties, especially those in more remote farming or timber regions are losing population. On the other hand, rural counties which are primarily dependent on retirement incomes and recreation are generally gaining population.

* Rural counties are sometimes led by aggressive private business owners and progressive government officials. In other cases local leaders are lethargic at best. Clearly, each specific rural region is unique.

Community development options and prospects are likewise diverse. Each rural community is a special combination of: fundamental resources (soil, topography, water); variables over which the community may have little control (distance to urban centers, interstate highways, regional airports); local infrastructure built in the past (schools, streets, businesses); and human capital created by previous decisions (educational level, social structure, human health). As a consequence, opportunities for economic development differ. Improving production efficiency in farming may offer a prime economic development opportunity in one region. The attraction of tourism may represent the highest probability of generating more jobs in another. A region with a large number of small manufacturers may generate greater economic benefit through retention and expansion of existing firms. The key to survival in other rural regions may be in stimulating business startups or capturing a greater share of consumer purchases. The comparative economic advantages of rural regions are far from uniform nor are state regulations and other institutional conditions. Since opportunities vary among communities, action strategies must be tailored to specific local situations.

DETERMINING THE FUTURE

The future of rural America, relative to its urban neighbors, will be determined by the collective judgements and actions of both public and private decisionmakers. The private sector, in the U.S. scheme of things, continues to play the dominant role in economic decisions. Business leaders decide where they will locate enterprises. They decide whether to expand or contract employment in their firms and where this will take place. They in combination with their financial institutions make judgements regarding the location of new investments. It is individuals who decide whether to take the risk of starting a business and choose the time and place. It is consumers who choose their place of residence and where they will buy their desired goods and services. If choices of industrial location, firm expansion, business startup and consumer purchases are focused increasingly on urban areas, the future of rural areas will grow dimmer.

It is clear, however, that the public sector can play a powerful role in influencing private sector decisions. The national government affects business locations when it decides where interstate highways, harbor improvements, major airports and other infrastructure are placed. It affects regional growth patterns through product price supports, by setting transportation rates, health care payments, tax policies and other regulations which impact on regions in differing ways. The national government has a direct impact through its choices of purchase location. Even macro policies concerning the value of the dollar and international trade affect rural and urban regions differently.

State and local governments also play a strong role in determining the economic develop-
The restriction of capital subsidies to certain types of firms, the siting of job training programs, the location of public infrastructure, research and development subsidies to some industries and not to others, and the more direct effect of the location of institutions of higher learning, health care facilities, state office buildings and government purchases are all important economic influences. If these forces favor urban areas, rural regions suffer. In contrast, if policymakers choose to strengthen rural economies, they have a wide spectrum of tools to use in doing so.

**STRATEGIC PLANNING**

Rural economic development will require a closely knit combination of national, state and local policy with the flexibility to accommodate the diversity of rural America. In the end, however, the major burden for guiding the improvement of economic conditions in specific rural communities lies in the hands of local decisionmakers. Because of the great diversity in local goals, conditions, resources and opportunities, unique combinations of development strategies must be constructed for each rural region. The process of developing and maintaining a strategic fit between a community’s or region’s goals and resources and its changing opportunities is called strategic planning.

When the term "strategic planning" is used in a community sense (as contrasted to an individual business or organization), some form of involvement of the broader community with key leaders is expected in all stages of planning. The participation of local citizens is critical in identifying community goals, resources and alternative development strategies. They must also be active in determining action plans. Without their involvement little is apt to happen. Visioning, goal-setting and futuring techniques are used as mechanisms to gain perspective and direction. Strategic planning nearly always involves some analysis of existing economic, political and social conditions. This is sometimes referred to as an environmental scan. Often this analysis includes serious data analysis including the use of tools such as trade area analysis and industry location quotients. There are a number of workbooks, guides, courses, and kits available which describe varying strategic planning approaches. Examples are those published by the Edison Electric Institute, the North Central Regional Center for Rural Development, Pioneer Hi-Bred International Inc. and the Rocky Mountain Institute. All place significant emphasis on citizen participation techniques.

Unfortunately many communities which have been involved in efforts referred to as "strategic planning" have had something less than positive results. A common reaction is, "We’ve done that before," or "We’ve had one done for us before," and "Nothing has happened." The results of many of these "plans" and have sat on bookshelves or in file drawers unused. If further investments in community strategic planning for economic development are to be successful, a number of fundamental practices must receive greater attention than that afforded in many past efforts.

**INCREASED EMPHASIS NEEDED**

The most basic fact which must be recognized in establishing policy aimed at strategic planning in rural areas is that most of the work involved in any local effort will be done by volunteers. Unlike urban areas where it is possible to employ a staff of professionals in economic development and other problem areas to do the basic analysis and to guide community participants, people in rural areas, if left without external assistance, must do it alone.

Volunteers in rural areas attempting to do strategic planning have several disadvantages. They have limited time to be totally informed about the shifting global economic environment and its effect on their specific locality. They must fit the time spent in planning efforts into their existing commitments to earning a living and other family and civic responsibilities. The knowledge they possess is less diverse than that available in larger urban settings. It would not be uncommon for an urban citizens planning committee to have representatives from a very diverse professional and occupational background. Such is not the case in smaller rural towns. Rural communities have a much smaller revenue base to use in employing the necessary
specialized help on an ongoing basis. Furthermore they are often at much greater physical distance from the specialized knowledge they might need from both the private sector (e.g. venture capitalists, business consultants) and state and national governments (e.g. technical assistance, special funding). If strategic planning is to prove effective, these severe disadvantages must be overcome.

The first step in strategic planning is the proper structuring of the group of people in the community who will be expected to take primary leadership in the effort. The right people must be involved as leaders. They must be active individuals with a capacity to look at the interests of the total community over the long run. It is critical that they understand the importance of involving and accepting the ideas of as many people in the community as possible. The key leaders in the effort must be prepared to commit a substantial amount of time over an extended period. Gathering such a group and gaining its commitment is time consuming. Furthermore, timing is vital. For example, it is often useless to attempt strategic planning when a community is engaged in an internal dispute over a very specific issue. Picking the right time and choosing the right group of leaders is best accomplished by those with special community development skills. Technical assistance in these matters can be very useful especially to the smallest rural communities.

Getting started properly is not enough. Sustained analysis, planning and action over many years is necessary if a community or region is to improve its long run economic well-being. Thus, if public or private investments in rural community strategic planning are to be successful, the education and technical assistance necessary must also be provided over a long time period. To be fully effective some means must be found to provide continuing technical support and education for local decisionmakers. This assistance could also provide the catalytic support which makes the work of volunteers most productive.

Currently, most of the strategic planning assistance provided rural areas is in the form of short term training or in one time plan development. Short term training can be very effective in improving the knowledge and skills of local leaders, but does little to solve the local volunteers’ time and resource access problems. Unfortunately, some of the materials which have been prepared and presented for community use in strategic planning have had little or no pretesting. In other cases strategic planning programs are proposed after one or two short term tests. There have been only a few programs which have operated over an extended time period in many rural communities and with proper evaluation to determine their effectiveness. One time planning help is useful in action planning for current circumstances, but changes occur in the global economic environment on almost a daily basis. The best of strategic plans must be adjusted on a regular basis.

More serious still is the fact that training and technical assistance in strategic planning is currently available to only a small portion of rural communities. Some assistance is available from State Departments of Development, State Cooperative Extension Services, other colleges and universities, power companies and a few private corporations and a number of private consultants. To date these efforts have been far from sufficient to meet the total need.

**THE RURAL SOLUTION**

Serious improvement in long run rural economic conditions requires: strong local leadership supported by sustained education and technical assistance in strategic planning and community economic and business development; and comprehensive state and national policies which recognize the differential impacts of government actions within rural regions and between rural and urban areas.

Agricultural product price policies remain important considerations, especially in farm dependent counties. Agricultural credit, market development, and timber and other natural resource focused policy will continue to influence the incomes of many rural residents. It is essential however, that the rural perspective of state and national legislators and private sector leaders, both farm and nonfarm, be widened to include recognition of the great economic diversity of rural regions throughout
the United States. Rural development efforts must acknowledge the importance of manufacturing, tourism, producer and consumer services, transportation, telecommunications, nonprofits, government facilities and retirement populations to the economic future of most rural regions and respond accordingly.

Critical legislation is needed to provide partnering opportunities in strategic planning for state and national governments and rural community leaders and private businesses. This legislation should provide most rural communities access to the necessary education and technical assistance on a continuing basis. This might best be provided by community development professionals at a multicomunity level backed up by technical experts from state agencies, colleges, universities, other public institutions and private consultant firms. The number of communities for which any professional would be responsible must be limited if the effort is to be fruitful. Funding involving a combination of federal, state and local sources is likely to provide the strongest assurance of program quality and results.

Legislation which provides financial support to sustained leadership training, community economic and business development education, and technical assistance will cost little in comparison to expenditures on infrastructure, product price supports and human safety nets (e.g. unemployment compensation, welfare). Given the chance provided by careful analysis of the unique development opportunities afforded in rural regions, the payoff from investments in rural strategic planning can be substantial.

Careful attention to programs such as agricultural subsidies, investments in roads, bridges, water systems and other infrastructure will continue to be necessary. Capital subsidies to entrepreneurs and other nonfarm businesses may be justified. Concerns for the quality of rural education systems and health care will not go away as a consequence of local strategic planning. Quite the contrary. Effective strategic planning at the local level across rural America will place increasing demands on other public and private programs. What it will accomplish, however, is to better direct local, state and national efforts resulting in wiser use of resources at all levels, more successful rural development, and much less political frustration.

It is imperative as well to remember the importance of continued attention to the rural/urban impact of other regulatory and fiscal policy. These too are vital considerations relative to the future of rural America. A few examples may illustrate their importance. The national monetary policy of the early 1980s resulting in foreign exchange rates especially unfavorable to basic commodity exporters (i.e. grains, timber, minerals and many manufactured products) had a harsh impact on most rural areas. There is strong reason to believe that the deregulation of much of the domestic transportation sector at about the same time also had a strong negative influence on the development opportunities of rural areas. Commercial airline fares between smaller cities and airline hubs are much more costly per passenger mile than between larger metropolitan centers. Bus service has been lost to scores of small towns across the country. The recent bias of federal expenditures toward urban areas as compared to rural regions is another example of the need for more careful consideration of the distributive impact of policies which were intended for other purposes. The current debates regarding reduction in the capital gains tax and the merits of capital subsidies to small businesses vs large businesses are two examples where concern for rural/urban distributive effects is warranted.

CONCLUSIONS

The future of rural America hinges on the degree to which state and national elected and bureaucratic leadership can be convinced of the importance of local leadership development and strategic planning. At the moment there is some evidence of growing national support for public investment in these efforts. In general there is strong recognition by local governments and other leaders in most rural communities of the importance of strategic planning. Many states have fledgling efforts ranging from the direct provision of technical assistance to providing funds which allow communities to employ consultant assistance.
The President has established a rural initiative aimed at encouraging closer federal, state and local cooperation in rural development programming. Several private companies and organizations have made substantial investments in strategic planning in rural areas. The W. K. Kellogg Foundation, the Aspen Institute, the Northwest Area Foundation and Pioneer Hi-Bred International Inc. are prime examples of major private initiatives. Many power and telecommunications companies are also providing some assistance.

More resources are badly needed. Important in their acquisition is the more effective integration of existing resources. In most rural regions there is little focus on the coordination of the existing rural programs of community colleges, technical schools, state agencies, federal agencies, universities, Cooperative Extension Services, power companies, and other private technical assistance providers. These efforts are usually small and scattered. In total they are far from sufficient to meet the needs of any state or region. Nonetheless, a clearer sense of the extent of the total rural need will be more apparent with closer cooperation among those who are already making an effort. It will also provide a clearer indication of the potential impact of effective strategic planning.

It is not enough to say that there are already sufficient programs and funds invested in rural America and it is just a matter of using them wisely. There is little hope of garnering sufficient financial support to fully fund an adequate strategic planning program, either at the state or national level through reallocation of existing funds. Strong entrenched urban and rural interests make the political likelihood of this slim. Some combination of: more effective coordination of existing public and private efforts; some reallocation of funds already committed to state and federal agencies (including Land-Grant Colleges and State Cooperative Extension Services); and additional resources through expanded state, federal and local appropriations and new legislation when necessary.

Finally, academicians and other technical assistance providers who claim serious concern regarding the future of rural America must renew their dedication to acquiring adequate resources to sustain real rural community economic development support systems. It is not enough to create a few short term, poorly tested training and technical assistance systems, which serve a limited number of rural regions, simply because "we don't have the resources to reach all rural communities." In the end rural areas will be better served and resources will come if rural leaders and state and national leaders are convinced that strategic planning results in real rural economic development. This is best demonstrated through the commitment of a larger share of existing resources (time and money) to direct work with a few rural communities over longer time periods and less time spent preparing new workbooks with minor modifications of known techniques. Above all less time should be spent talking about strategic planning and more time spent in proving that it improves the well-being of the people who invest their time and other resources in doing it.
CONGRESSIONAL HEARING—STRATEGY SESSION

William F. Winter
Former Governor of Mississippi

I would first express my appreciation for this privilege of expressing these views regarding the problems and the opportunities that exist in our rural areas.

As you know, we are convened here today in the most rural state of this region. Almost sixty percent of our population is characterized as rural, that is to say, outside any metropolitan area. We are a state dominated by rural communities, and even those who live in the metro areas like Jackson are surrounded and impacted by rural interests and concerns. No one in Mississippi, regardless of where he or she lives, can escape the consequences of what happens or does not happen in the rural communities of the state.

Most of us who live here are products of those communities. I grew up on a farm in North Mississippi—ten miles from a paved road, no electricity or telephone or running water. By today's standards, it was obviously rather primitive. Still there was a vibrancy and stability about the community, and there was economic opportunity and a sense that things were getting better. Today with an infinitely better rural infrastructure—with generally good roads and access to all of the services that are available to folks who live in the cities—there is no longer the sense of economic opportunity. Most of the people are looking elsewhere for their future—especially the younger people.

There is nothing new about this trend. It has been taking place since the mechanization of farming in the 30s and 40s. There followed, of course, a period in the 50s and 60s and 70s where labor intensive manufacturing picked up the slack. Hundreds and thousands of low-skill, low-wage jobs provided employment for so many of the people displaced from the farm. Now those jobs are disappearing just as the farm jobs did. They are now overseas, where the wages are even lower.

The paradox that we are confronted with is that now with the capacity to create a good living style in the rural areas as a result of good roads and electricity and the fabulous advances in telecommunications, we find ourselves facing the continuing decline of what I regard as our heartland—our rural society that is so essential to the maintenance of a stable and vibrant country.

There are some who say we are barking down an empty log when we are talking about sustaining the economic viability of our rural areas. Better to let folks move where the jobs are, we are told, as if there were unlimited employment opportunities waiting elsewhere. The truth of the matter is when we give up on rural areas, we are simply compounding the problems of urban America, which is ill-prepared to handle its own millions of underemployed and unemployed from an earlier generation of migrants from the rural areas. We cannot and we must not resign ourselves to a public policy that makes moving the only option.

What then do we do to stabilize our non-metro areas and provide the encouragement that will sustain those who live there? I have no illusions about the immensity and complexity of the task. I also have no doubt that in this great country, rich still in material wealth and creative ideas, we have the capacity to formulate a
national rural policy—not just a farm policy but a true rural policy—that will reinvigorate this vital sector of our nation.

Where do we start? It will probably come as no surprise to you that I would suggest that we begin with education—with making certain that the children—not just some of the children but all of them—are equipped with the skills that will enable them to be productive citizens. Today that is not being achieved. There is a devastating inequality both in the investment in education and in the quality of education as between the urban and rural areas. It was in recognition of this unhappy fact that the courts of the State of Tennessee recently declared that state's educational system unconstitutional as a denial of equal protection of the laws. That same ruling would undoubtedly apply in many other rural states including this one.

Finding a solution to this problem may seem to some to be solely a state obligation. There must, however, be a sharing of national resources in this. It must include an extension of Head Start and Title One programs to those, who because of the remoteness of their location, or the lack of awareness of their plight, are getting overlooked. It should also include some form of equity funding.

I recognize the present fiscal constraints on the federal government, but I also see this poorest state in the Union losing ground everyday because of a shortfall in our own resources. While it may be outside the scope of this hearing, may I suggest a reallocation and reappraisal of our national spending priorities in a way that will see the defense of our nation through improved education begin to take the place, at least in part, of defense through the accumulation of more military hardware.

But having educated our rural youth to the best of our and their ability, how you ask does that impact the rural crisis? Obviously that alone will not solve the problem, and it certainly will not stop the migration of many of our best and brightest. What having good schools in every rural district will do, however, more than any other one thing, will be to guarantee the survival of rural communities. People will not move to nor indefinitely stay in places with inferior educational opportunities for their children. Having a strong public school must be the first order of business for any community seeking to compete. Those that do not are simply not going to make it.

There are obviously other strategies that must form a part of a rational rural policy. A part of this lies in the approach that we take to the implementation of these ideas. Perhaps, the most important beginning point is a genuine concern for the integrity and worth and dignity of rural people. We tend to put the pursuit of profit and power ahead of the needs and feelings of ordinary people.

The most foreboding words in the English language to many rural people are, "I'm from the government, and I'm here to help you."

There has to be a recognition of the element of empowerment in this process. It cannot be legislated or conferred by official decree.

The secret is to focus on the human side of rural development. The great human qualities that have contributed so much to the building of the value system on which our society was built exist in great abundance in rural America—a commitment to family, a sense of community, a love of the land and a spirit of self-reliance.

These values must be recognized as vital components of any public as we seek to find the means of strengthening the ability of rural people to meet the demands of a changing world.

There is much unrecognized and untapped leadership in rural America. Helping that leadership, particularly young leadership, women, minorities, to understand their opportunities, their choices and their responsibilities is an important part of the process.

Ultimately, though, it will be through job creation and the enhancement of economic opportunity that we will sustain and restore our rural areas. This may prove to be the most daunting task. It will certainly require a degree of resourcefulness and creativity that we have not known before.

No longer can we look to a flood of low-wage manufacturing plants from the Northern and Eastern cities to save us. As I have already noted, they are hard-pressed to save themselves. As someone has pointed out, the buffalo hunt is about over. Just as the Western plains no longer
are happy hunting grounds for herds of buffalo, the old manufacturing heartland is not a source of new plants to be moved to the rural areas of the country.

What this simply means is rural communities are going to have to rely more and more on their ability to create new sources of job creation. More often than not, that will take the form of new products, new services and new markets. A rural policy that will provide help in the identifying of these new opportunities is essential. We have numerous models of how this already has been done successfully.

There is no better example of how this has been accomplished than that of the catfish industry here in Mississippi. This was the result of a remarkable collaboration of effort and ideas between local farmers and the public research and experiment capabilities of Mississippi State University.

A similar success story is that of the furniture industry in Northeast Mississippi where local entrepreneurs beginning in small storefront operations have now created the second largest furniture market in the country. The result has been to provide new life for many small rural communities that otherwise would be struggling to survive.

Many other communities have a great variety of untapped economic opportunities, some of which have not even been identified. The identification and development of these assets must be the basis for our future economic strategies. Retirement and recreation will increasingly be a source of new investment in the benign and inviting rural South. Advances in telecommunications will enable many small cities in rural areas to compete successfully with the cities for financial, accounting, and publishing enterprises looking for lower operating costs and a less stressful lifestyle. The access to natural resources and raw materials will continue to attract processors, but even greater effort must be extended to the location of new resources and the developing of new materials.

The bottom line for many communities will be their access to enough capital to make the investments necessary to create the new sources of wealth. This is where more national emphasis must be placed. Now over sixty per cent of all new businesses get their initial capital from the individual entrepreneur, his family or his friends. Additional sources of venture capital must be available—not in the massive, obscene amounts that marked the scandalous savings and loan giveaways but in modest amounts that are justified by careful planning and professional oversight. The irony is that for a modest fraction of the amounts now required to bail out the failed savings and loans, we could have in place a viable capital pool to create the long-term small businesses that could save rural America so rewardingly.

Finally, in suggesting a course for the rural South, there are two other things that need to be said. The first is we must understand that those forces that determine national economic policy can overshadow and cancel out the best-laid strategies and decisions made at the local level. Federal fiscal policy, interest rates, inflation, defense spending, domestic assistance programs, farm policy, deregulation, migration, and foreign trade policies all singly and interrelatedly will have a critical impact on the future of the rural South. This is why those committed to the interests of rural communities must mobilize to influence policy at the national level that will be mindful of the precarious economic balance that exists in these areas. National policies that are not sensitive to the region's special needs can wind up creating an irreversible decline for many rural communities in spite of all that may be attempted at the state and local level.

Still, the difference for many communities will lie in the quality of local leadership. This may be the most influential factor of all. Too often we have permitted the least creative and the least visionary to make the strategic decisions. We have fallen behind in many cases because we have relied on the "good ole' boys" on the one hand or the "I've got you in mind" defenders of the status quo on the other. It is my observation that those communities which are doing the best are those which are led by bright, creative, unselfish business and political leaders who understand the realities of the world around them and who are willing to make bold and innovative choices. If that leadership does not automatically emerge in a community, strategies should be developed through organized
training programs such as the McLean Leadership Institute in North Mississippi.

The rural South, having put behind it the old, bad days of racial segregation and political isolation, must now devote its full attention to recognizing and attacking its remaining social and economic problems. With a new generation of able and nationally respected state political leaders who have in most Southern states demonstrated a rare combination of idealism with a can-do ability to get things accomplished, the region, after more than a century of outside exploitation and inside bungling, has the capacity and I believe the will to put it all together. In creating a more economically viable state and region, we shall serve not only the interests of those of us who live here, but in the final analysis, we shall serve the interests of the nation as well. For what is more important to our future national well-being than the maintenance of that historic cultural and social balance between a vibrant rural and urban life that is a basic and fundamental strength of the American experience.
SOUTHERN RURAL DEVELOPMENT CENTER
TASK FORCE MEMBERS

STRATEGIES FOR JOB RETENTION AND CREATION IN RURAL COMMUNITIES IN THE SOUTH

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PARTICIPANTS "21st CENTURY SURVIVAL OF RURAL AMERICA"

You have pre-registered for the October 16-18, 1991 rural development conference sponsored by the Council of State Governments, Farm Foundation, Southern Rural Development Center, and North Central Regional Center for Rural Development.

One goal of the conference is to identify potential policy and recommendations which can assist in rural development efforts. A congressional hearing is planned following the conference to present these recommendations.

You can help by responding to the attached questionnaire. During the October 16-18 conference our intent is to refine these issues and develop a set of recommendations.

A briefing paper has also been attached to aid in your preparation for the October 16-18 conference. Several critical issues have been identified in past conference efforts. We hope to identify specific actions or programs related to the issues discussed in the briefing paper.

Attachments: Pre-conference Questionnaire
Briefing Paper
**PRE-CONFERENCE QUESTIONNAIRE**  
21st CENTURY SURVIVAL OF RURAL AMERICA

1. Please rank the following issues in terms of importance for rural development in your state.

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<th>Issue</th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
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<td>Financing Sources</td>
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<td>Other (List)</td>
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2. What are the top 3 issues facing rural America?
   (1) 
   (2) 
   (3) 

3. What is the most important message regarding rural development which States should send to the Federal Government?

RETURN TO:

Mike D. Woods  
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BRIEFING PAPER
21st CENTURY SURVIVAL OF RURAL AMERICA: CRITICAL ISSUES

- FINANCE
- INFRASTRUCTURE
- HEALTH CARE
- TELECOMMUNICATIONS
- JOB CREATION
- LOCAL CAPACITY
- ENVIRONMENT
- NATURAL RESOURCE DEVELOPMENT
- EDUCATION
- POVERTY
Finance

For economic development to occur in rural America, the funds to make investments in people, businesses, and community infrastructure must be available. Without a ready source of funds, good ideas will remain only good ideas and not accomplishments. Access to credit at a reasonable cost has long been a concern of rural America. Indeed, many of the federal government programs that assist rural areas are credit programs. The Farmers Home Administration provides credit for agriculture, rural housing, small businesses, and community facilities; the Small Business Administration provides financial assistance to small businesses; the Economic Development Administration provides funds for community projects and business assistance; and funds are available from Housing and Urban Development for similar uses. However, the amount of federal funds available to communities and businesses has declined in the last decade, and states have not offset the decline.

At the same time, rural communities are facing pressures to increase their investments in education and job training, to upgrade water and sewer systems to meet environmental and health standards, and to provide assistance for new and expanding businesses. All of these investments promise a good rate of return, but they all require the expenditure of funds now. For many rural governments, these funds are not readily available. In part, this reflects state government restrictions on local government sources of revenue and borrowing patterns. It also reflects changes to the federal tax code that limited the use of tax-exempt finance. The growing national and international competition for funds that is driving up borrowing costs is also emphasized.

Rural business faces similar pressures. Financial deregulation has resulted in community banks being displaced by regional banks that have less incentive to make local loans. In addition, recent concern over the condition of banks has led to increased restriction on their lending practices and requirements that they increase the ratio of capital to loans. These two factors, combined with the recession, have limited the availability of funds to rural business. Changes in the tax code have reduced the benefits from investments, since depreciation schedules have been lengthened and investment tax credits have been abolished.

In the 1980s the financial sector of the nation began a period of major change, the first since the 1930s. Changes have taken place in financial institutions like banks and thrifts, the types of financial instruments available to savers and investors, the role of the federal government as supplier of funds, and the nature of tax provisions favorable to investors and savers. Few of these changes have taken place with any concern for the impact on rural areas. As a result, rural America is playing catch-up as it adjusts to a new financial environment.
Infrastructure

Leaders in rural areas are attempting to diversify their economies as a method of promoting economic growth and development. Before economic growth and development can occur, a certain amount and quality of infrastructure must be available. Providing adequate infrastructure under poor economic conditions has been difficult for many rural leaders. The problem is extremely critical because: (1) without infrastructure, economic growth may not occur; (2) local areas now have to pay a greater share of the infrastructure costs; and (3) the current infrastructure is in poor condition.

In a recent study, the National Council on Public Works Improvement graded America’s infrastructure. Their grade on an academic scale was a scant C- which is barely adequate to support current demands. Specific services such as highways were given a C+, solid waste a C-, and hazardous waste a D. The study concluded, "After two years of study, the National Council on Public Works Improvement has found convincing evidence that the quality of America’s infrastructure is barely adequate to fulfill current requirements, and insufficient to meet the demand of future economic growth and development."

The problem is often compounded by the poor economic conditions and the inability of the local and state economy to support additional infrastructure investment. In addition to the poor economic conditions, the financing of infrastructure has shifted to local areas. Since 1977, local government expenditures have continued to rise, while state and federal government expenditures have fallen. The result has been an increasing shift in responsibility away from the state and federal level toward the local levels. Local government now provides half of the money spent on public works. This is up from 38 percent twenty years ago.

Finally, research evidence appears to indicate a positive relationship between infrastructure and development. A comprehensive review of the literature concluded, "The evidence appears to be that there is a positive and perhaps strong relationship between infrastructure investment and economic development." Because of this relationship, the condition of current infrastructure and the shifting of the financial burden, it is imperative that state and local policy-makers address the many critical infrastructure issues.

Health Care

A critical concern in rural areas is access to health care for all residents. In rural areas, health care services are less abundant with fewer physicians, hospital beds, and auxiliary services per resident than in urban areas. Rural hospital closings and lower rates of physician recruitment and retention threaten to worsen this problem. The health care infrastructure in rural America is inadequate to meet
some of the important challenges of the 90s, including increased spread of sexually transmitted diseases, the aging of rural America, and mental health problems, and among others. This lack of health care infrastructure can hinder attempts to promote rural development. Policy-makers must decide on minimum levels of access to services, which types of alternative (non-physician) services to promote, and how to ease conversions of full-care hospitals into alternative sources of health services.

At the same time, rural residents find themselves increasingly hard pressed to pay for health care. Poor insurance coverage, excessive time and travel costs associated with doctor visits, and lower incomes mean that rural residents pay a disproportionately high percentage of their incomes for out-of-pocket health care.

While there is some agreement that the federal government must take leadership in the areas of public insurance and medicare and medicaid reform, state and local input into these decisions will help shape the final solutions. States must take some leadership in providing information to communities on such subjects as physician recruitment, alternative sources of health care, and planning for hospital closure. Finally, the state and federal governments must enter a dialogue about plans for cost containment.

Telecommunications

Communications technology may be the infrastructure of the 1990s. This type of technology involves the interaction of computers and telephones and allows processing intelligence as well as data-information transmission. Telecommunications equipment and computers are linked for voice, text, data, and video transmission. Telecommunications technology offers the potential for business activity outside major urban centers. Distance and space can be overcome. High quality telecommunications capability is becoming a major factor in business location decisions.

Business firms have very sophisticated needs. Data transmission and exchange have become critical factors in product distribution, financial analysis, transactions, operations, and customer service. If rural areas are to be competitive, this type of sophistication will be required.

Telecommunications also offers possible solutions for overcoming distance and low population density in the areas of education and health care. For example, many rural schools can expand curriculum offerings (math, foreign languages) through the use of video classrooms provided by universities or others.

A recent Office of Technology Assessment report identified key issues related to rural development and telecommunications:

- "Will technological advances be available in a timely manner to rural America?"
- "Does information-age technology involve economies of scale and scope that will enable rural businesses and communities to adopt these technologies?"
- "Can rural America expect to be competitive in serving national and international markets for the goods and services of this new era?"

**Job Creation**

Job creation in rural America, either through expansion of existing enterprises or attracting new activity, is a mainstay of most development efforts. State and local programs for expanding employment intended to create new jobs and retain existing jobs are common in all states.

Despite these programs, rural communities in the South and Midwest have struggled to maintain employment levels during the last decade. The collapse of the energy exploration industry, a financial crises in agriculture, and manufacturing plant closings have caused community leaders to look to alternatives for basic job creation. Failure to do so creates problems of maintaining rural land and capital values as well as public service provision levels, such as schools, health, and infrastructure.

As the 21st century approaches, it is evident that competition for job creating enterprises is becoming worldwide. Global economic changes are creating challenges never before experienced in rural America. New institutional arrangements among countries will, at the same time, create employment growth opportunities and increased competition for jobs for rural communities. The development of strategies to capitalize on these challenges and opportunities will significantly influence the future economic character of rural communities.

**Local Capacity**

Local capacity focuses on how well a community uses available resources to achieve economic or social goals. While decision-making capacity already exists in many communities, it often needs nurturing and conscious support. Local decision-makers must understand and interpret changing external circumstances that create (or eliminate) development possibilities. They must also understand the local economy and how it may be altered. Finally, they must aggressively search for ideas to translate into actions that will influence the evolving economy.

Local capacity development for rural leaders implies providing the tools and the ability for them to help themselves. A rapidly evolving economy creates many challenges for rural leaders related to issues of the environment, natural resources, health care, job creation, and infrastructure. Often these rural leaders are volunteers with little background in the public policy area. Specific goals of local capacity development could include: (1) increasing local participation in public affairs in small or
medium sized communities (expanding the pool of potential leaders); (2) improving problem solving and leadership skills; (3) increasing awareness of and the ability to interact with local, state, national, and international issues; and (4) ultimately assisting rural leaders in revitalization efforts at the local level.

Environment

Environmental protection is an increasingly important component of all planning processes including economic development in rural areas. Environmental regulations relating to endangered species, air and water pollution, wetlands, safe drinking water, toxic and hazardous waste disposal, and use of natural resources significantly affect development patterns. In the next century, environmental issues may be expected to intensify and to dramatically influence the nature and form of growth and development in rural areas.

Much of the traditional employment and personal income in the rural South and Midwest are tied closely to the quality of their land, water, and other resources. Important rural industries such as tourism, commercial and recreational fishing, agriculture, timber, and others depend directly on continued environmental quality. Use of natural resources for recreation and pleasure also contribute to the quality of living for Southern and Midwestern residents.

It is inevitable that economic development and protection of the existing environment come into conflict at times. Such conflict may be acute in rural communities that are unable to analyze and monitor environmental impacts of proposed economic developments. It is important to recognize that alteration of the existing environment is not necessarily degrading either to the future health of the environment or the quality of life for humans. Yet, many environmentally sensitive areas do exist throughout rural America. A balanced approach is required between orderly economic development and maintenance of environmental quality.

Natural Resource Development

Two fundamental questions arise regarding natural resource development. First, what is the potential for increased employment and income through more intensive use of soil, water, and forest and mineral resources? Specific concerns regarding this fundamental question include:

What economically valuable but unutilized natural resources now exist that could increase employment and incomes?

Would utilization degrade other environmental and natural resources within the region in such a way that other development potentials are reduced? (Example: Recreational, industrial and domestic water by pesticides, soil erosion, and strip mine runoff.)
If these are non-renewable resources such as minerals, for how long would they last and what would be the future impact of their exhaustion on employment, personal incomes, fiscal problems of the communities affected? What substitute employment/income generating activities are available, if any?

Are there economic potentials for value-added processing of agricultural products and raw materials within the area?

Second, what potential problems created by impacts of local economic growth on available renewable and non-renewable resources? Specific concerns include:

What are present and potential agricultural, industrial and domestic waste disposal problems? (Solid and hazardous and the special problems they involve.) Ground and surface water pollution? Air pollution, including that from solid waste combustion?

What industries create the most serious waste and pollution problems? Should state and local location incentives for them be discontinued?

Do state and federal laws and regulations preclude any of the otherwise feasible activities that utilize natural and environmental resource?

Are some of these problems beyond the scope of local or state control and solution, hence, requiring Federal regulations or fiscal resources? Which ones?

To what extent do federal regulations impose high cost solutions to local environmental problems, when similar results could be achieved at lower cost?

To what extent do national priorities for environmental protection determine the path of local economic development? Are any of these not now regulated by Federal legislation and administrative action likely to be regulated in the foreseeable future? (Example: Pesticides and fertilizer contamination of surface and groundwater supplies.)

**Education**

At the national level, education has been identified as a critical issue to those interested in economic development, and serious concerns are being raised about the quality of American education compared with that of our major competitors in international markets. In rural areas, education-related concerns differ only by a matter of degree. Educational problems (functional illiteracy, high school dropouts, and general levels of educational attainment) are more severe in rural areas. Observers also note the more widespread incidence of conditions (i.e. poverty, unemployment, inadequate health care, etc.) which interfere with access to educational programs and impede the performance of individual students.

Programs to improve rural education may require both efforts which focus directly on improving school quality and efforts designed to alleviate social and economic conditions in the community which
imperil educational performance. Rural schools will benefit from general efforts at the state level to improve education (i.e., increased funding, improved teacher training, dropout prevention programs, etc.), but they may require additional consideration such as funding equalization, distance learning technologies, and other approaches which consider the unique needs of rural areas. School improvement may also be dependent on programs designed to address other needs (i.e., health care, nutrition, housing, employment, etc.) of rural students and their families.

**Poverty**

Rural America, for purposes of this discussion, is defined as an area having less than 50,000 population located outside an urbanized or metropolitan area. Using the definition, rural America is home to about 27 percent of the U.S. population.

Economic conditions in rural America declined during the 1980s. Several reports of conditions in rural America have identified significant rural problems associated with poverty. These include:

- Rural unemployment rates are about 31 percent higher.
- Rural per capita income averages 25 percent lower.
- Rural poverty is one-third higher.
- Children in rural areas are more likely to be poor. Thirty percent of women giving birth in rural areas have incomes below the poverty level.
- Rural school dropout rates are higher.
- The rural population has a higher proportion of younger inhabitants requiring higher expenditures on education.
- A slower cyclical economic recovery in rural areas as compared to urban areas has resulted in widening the gap between rural and urban income.
- Rural areas have a higher cost for delivery of services.
The SRDC is one of four regional rural development centers in the nation. It coordinates cooperation between the Research (Experiment Station) and Extension (Cooperative Extension Service) staffs at land-grant institutions in the South to provide technical consultation, research, training, and evaluation services for rural development. For more information about SRDC activities and publications, write to the Director.

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