Regional Perspectives in Rural Development
The first four papers in *Regional Perspectives in Rural Development* were presented at a session with the same title during the 76th annual meeting of the Southern Association of Agricultural Scientists in New Orleans, Louisiana, February 4-7, 1979. The fifth paper was prepared for the SAAS meeting.

Papers in this publication deal with the needs of local communities as a response to their development questions, the needs of action agencies in determining appropriate development strategies, the ability of universities to respond to these needs, and problems in responding to community and agency needs.

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Regional Perspectives in Rural Development:
Local Communities Need Answers

Honorable Tony Byrne
Mayor
Natchez, Mississippi

The following quotations were taken from a speech, and I want to ask you if they sound familiar:

"During the past decade, the question of sewage disposal has been brought prominently before municipalities."

"The prevention of the lavish and unnecessary use of water in our cities has been brought prominently before municipalities."

"The question of garbage disposal has come prominently to the front within the past few years, and we have much to learn from European cities in this respect."

"The smoke nuisance has become a great evil. Although several cities have passed ordinances to prevent this trouble, I understand it has been difficult to enforce them."

"I am of the opinion that an official cannot be a good engineer and in addition devote his time to politics. One of the difficulties and drawbacks to the more successful administration of American cities is the frequent change of officers, caused by the almost universal introduction of politics into municipal government."

The only problem about this sounding familiar is that these are excerpts from a speech given by Charles H. Rust at a meeting of the American Society of Municipal Improvements in Indianapolis, Indiana, October 20, 1903.

One of the biggest problems facing local communities, and particularly the smaller communities, is where do we go to find answers? I feel that a lot of the problems facing our cities can be answered with technological help from our universities, the Federal government and organizations such as the Southern Association of Agricultural Scientists. In fact, I strongly suspect that a lot of the questions facing cities at the present time have already been answered by some of these organizations,
but there is a communications problem in getting this information to the cities.

I don't feel that it's anybody's particular fault that this is happening, and I feel that my appearance today as a representative of the cities will help eliminate some of these communication problems.

I think there has been too much of a tendency in the past to have meetings such as this one where scientists talk to scientists and other meetings where politicians talk with politicians telling each other their own problems but not seeking to find the answers from other organizations.

Because of technological problems in all cities, an organization, of which the city of Natchez is a member, has been established to help cities with populations of 50,000 and less to get the technical help that is needed. The name of this organization is Community Technology Initiative Program (CTIP). CTIP was a result of Public Technology, Inc., (PTI) securing funds from the National Science Foundation in order to set up a network of selected local governments of cities under 50,000 population. This was done in January, 1977, and consists of elected or appointed officials from 29 cities and townships and three counties from around the nation. The City of Natchez has a man in Washington who represents our city on a full-time basis. He informed me of the creation of CTIP and suggested that I write a letter requesting that our city be included in the general makeup. This was done, and we were fortunate enough to be selected. We are in a region consisting of Spartanburg, South Carolina; Hope, Arkansas; and Fritchard, Alabama.
Each member jurisdiction was asked to submit a list of problems affecting its community in 10 basic areas:

1. Community and Economic Development
2. Criminal Justice
3. Energy
4. Environmental Services
5. Fire Safety and Disaster Preparedness
6. Health
7. Human Resources
8. Management Finance and Personnel
9. Public Works and Public Utilities
10. Transportation

Each of us was asked to submit our needs in the 10 designated categories, which meant that we had approximately 30 need statements from each community. From this, a Needs Committee was selected to review the approximately 385 needs statements and to select three from each of the 10 categories. Some of the needs statements that were eliminated were found to have already been answered in other communities.

Some of the needs statements, as selected by the CTIP Committee, are:

**Storm water control methods**—Storm water runoff is recognized as a major carrier of pollutants. We realize that a number of studies have been done to identify various measures for controlling storm water runoff in urban areas, but again, information on the cost and utilization of these controlled measures is not available to the municipalities.
Technique for comparing solar and conventional designed housing units—

This was another problem identified and one that could have tremendous benefits in the future to help with energy conservation.

Another problem identified had to do with the information cities receive concerning their population. As all of you know, the census is only done every 10 years, but almost all programs are designed to conform with certain population categories. There is a strong feeling that census data should be collected on a much more frequent basis.

In the field of criminal justice, police productivity was a major problem, along with vandalism control and prevention, particularly in our city parks. We also found a problem in police patrol-vehicle specifications, with many cities changing their specifications each year and not really being able to purchase the cars that give the best service. We are tied down by legal ads and legal bids, which will not allow you to go out and purchase cars that have been functioning on an economical basis for the city.

We found that in regard to energy control many of our building codes give very little consideration to the use of energy efficient materials and construction methods. There is a need to evaluate our existing building codes to determine what changes in minimum standards would best conserve energy. It was also discovered that over 20 percent of the energy consumed in the United States is used to cool, heat and light buildings. Because many of these buildings were constructed when energy was relatively cheap, they are now wasting half of the energy they consume. We feel that methods need to be devised for measuring the energy that could be conserved by remodeling some of these buildings.

It was interesting to note in a recent report to the Congress that when a survey was done of cities and how they secured technical assistance,
the frequency of use for colleges and universities was rated "rarely," 49.5 percent; 45.3 percent occasionally asked, and only 5.3 percent annually asked. It was also ironic to me that consultants led the way when technical assistance was needed from municipalities with a 12.6 percent rating, and that the Federal government only had a rating of 3.6 percent. As a result of this, the Federal government has now started a program under the Office of Management and Budget to determine what support the Federal government should give to state and local government in regard to technological help. It is also interesting to note that the National League of Cities and the International City Managers Association have formed a committee on improving local government management and technology. I think that all of us are finally beginning to realize that we must depend on each other and use the knowledge that we have in our related fields in order to solve a lot of our problems.

CTIP is now providing technological agents to all of the participants in the CTIP program. In our region, our technological agent is like a circuit rider in that he will go from city to city helping with any technical problems that may arise. These are problems that have been identified by the local communities in addition to the overall needs assessment by CTIP.

Our technological agent is Gerald Price who came from the Redstone Arsenal, and he is located in Spartanburg, South Carolina. He keeps the City of Natchez informed by memos, telephone calls and personal visits. CTIP was fortunate to secure a working agreement with a lot of the Federal laboratories, and Redstone Arsenal just happened to be the one to provide the technological agent for our area. Some of the problems that Gerald is
helping Natchez try to solve include recycling of old tires in our city sanitary landfill, helping us have a better routing program for our sanitation and garbage trucks, and helping us find some way to identify the location of graves in the old city cemetery.

Since Natchez is the oldest city on the Mississippi River, we naturally turn to the river for transportation and also for pleasure. At the present time, Gerald is trying to determine if we can't have some better system of docking pleasure boats. He is also helping us with problems involved with our computer and has already solved some of these problems, including giving to me a monthly report of budget figures in the manner that I need in order to continue to oversee the financial structure of the city.

We are going to ask Gerald for help in some of our senior citizens programs, as we are now providing land to be used by the senior citizens for vegetable gardens. The senior citizens can use this land in any way they desire, including selling the vegetables or using them themselves. We feel that there have to be some better methods of production that can be presented to the senior citizens each year before they actually plant their gardens.

Our senior citizens complex is in an old school that has been restored and remodeled, and in the basement there is one of the first indoor swimming pools in the South. Needless to say, it has been abandoned for years, but we are now asking for help to see how this pool can be restored to be used for senior citizens, the handicapped, and even for the young when not in use by senior citizens.

The number one problem concerning most cities—as ascertained through CTIP—is a more permanent patching material to be used for potholes in
streets. It is difficult to find a patching material that will stay under conditions of extreme heat, extreme cold, snow, rain and salt. Following right behind that was the problem of how to rehabilitate our existing paved streets, as some of these streets were paved many years ago and were not designed for the increased traffic load they now are handling. Some of the other problems, as determined by the CTIF survey, included an automated sewerage system monitor which would alert maintenance personnel that a blockage is occurring within the sewerage system, to develop a water leak detector, and to develop an automatic remote meter reading system. Cities are also looking for a way to have a more permanent system to mark pavement. At the present time, most cities are using an oil base paint, which is becoming scarce and more expensive, and even at that, the markings only last from one to three years.

In regard to our fire departments, the biggest problem was productivity of our firefighters, particularly in the area of having something for them to do between emergency runs. We also need to look into standardized specifications for our fire equipment. At the present time most of our fire equipment, particularly the pumpers and ladder trucks, is custom made to highly individual specifications. Also, there is a need to explore the possibility of developing a firefighting foam or other alternatives to water, because in most fires, quite a bit of damage is done by the use of the water to extinguish the fire. Because of stringent Environmental Protection Agency rules, most cities are now having to have a certified landfill, which we used to call a dump. Because of all the new rules and regulations, we need to look into the possibilities and methods of recycling our garbage and trash.

One of the greatest problems facing all city governments has to do with the taxing of improvements to buildings and houses. In order to
help clean up slum areas and to help downtown, improvements have to be made, and when they are made, most city governments tax for these improvements. There is a possibility that we should consider taxing the land value at a much higher rate and the improvements at a lower rate.

There are just a few of the problems facing my community and your community, but as I stated in the beginning, I feel that a lot of these have already been solved by some of you sitting here today. The cities need your help, because we have to have answers for these problems, and I am asking you to help us all by volunteering your services to your community in order that these an other questions can be answered.
Regional Perspectives in Rural Development:
Action Agencies Need Answers

Tom Marshall
FmHA, USDA

The Farmers Home Administration (FmHA) this past year spent a great deal of money in rural areas. In Fiscal Year 1978, we expended $4.995 billion in farm related programs. This resulted in 155,951 loans and grants in areas ranging from emergency programs to farm ownership. In rural housing programs, we expended $3.761 billion for 122,581 loans and grants. In the area of community programs, FmHA expended $2.331 billion on 5,165 community development activities including water and sewage loans and grants, business and industrial loans and grants, etc. In all, FmHA had a total expenditure of $11,088,919,305 to assist applicants in 283,696 loan and grant programs.

To direct FmHA expenditures its administrator, Gordon Cavanaugh, outlined the following policy directions to all FmHA personnel: (1) FmHA shall target resources to the maximum extent possible toward assisting disadvantaged people and distressed communities, and (2) FmHA will increase the effectiveness of community development programs by working closely with other agencies and institutions. The administrator further defines responsibility of his targeting policies as follows: (1) National level will allocate non-farm funds primarily on the basis of need; for example, consideration will be given to the number of rural people in poverty, the amount of substandard housing, and the unemployment level. The state level will develop plans that give priority to the more needy persons and most distressed communities and will reflect the basis of the national level allocations. The state, district, and county levels will provide full information to all eligible persons, especially the disadvantaged and
minorities, about our programs, giving assistance as well as information when needed. The administrator also indicated that in addition to clearly targeting its resources, FmHA would increase the effectiveness of community development programs by working closely with state and local government regional planning organizations and other private and nonprofit groups. FmHA will also work closely and cooperatively with USDA agencies and other Federal programs in the development arena.

The administrator indicated that it was the aim of FmHA to be a more effective partner in state and local development efforts and the agency's policies and investment decisions would reflect state and local priorities and support local development efforts whenever possible.

Our Assistant Secretary for Rural Development, Alex Mercure, has written each of the governors indicating the department's support for the preparation of state growth and development strategies. He has expressed our willingness to assist in the development of investment strategies for rural areas and to help implement their priority needs and programs. He also offered to work with them in targeting USDA programs and helping to target other Federal assistance programs to respond effectively to their development strategies for rural areas.

We see the state governments, then, as a primary actor in developing rural areas and in strengthening the capacity of rural communities to plan and implement development efforts. To encourage states to take a stronger role in rural development, we want to induce them to:

- establish state development priorities for rural areas based on local and area priorities and to develop joint Federal/state/local investment strategies for meeting these priorities;
participate in the formulation of national rural development priorities
and the development of guidelines and objectives for Federal invest-
ments; and

- strengthen the fiscal and institutional capacity of local non-
metropolitan governments to plan and implement development programs and
to participate in the development of state priorities and investment
strategies.

In order to perform in this role, the states must have a clear con-
ception of what they want to achieve. There is a need for research in this
area to outline what strategies and priorities should be developed for
each state. There must be information available to the decision-makers
to allow them to make decisions which will enhance the rural development of
the state.

USDA will work to use those state priorities and strategies in our
formulation of national rural development priorities and criteria. We
will work to target our programs in accord with the state priorities and
strategies, within the context of national priorities and criteria. And
we will do all we can to negotiate joint investment plans with the states
and with other Federal agencies in order to help implement the state strategies.

In addition, we are committed to using our extensive field structure
to help states carry out their role. We will do this in two ways.

First, we are currently reorganizing Farmers Home. We are
doing this for two reasons. First, to enable it to deliver all of its
programs in a more effective and responsive way, particularly its economic
and community development programs. Second, to give it the structure that
will allow it to take maximum advantage of the convening authority of
Section 603 of the Rural Development Act.
The second way we will use our extensive field structure to help the states is to strengthen the USDA Rural Development Committee structure in Washington and in the field. The aim is to have this structure respond to state and local investment priorities as well as provide technical support for development planning at the state and local levels.

Under the reorganization, the key operational role in the Farmers Home rural development efforts will be played by the district office. The district offices will administer and service the community development loan programs. Along with the state offices and the national office, they will exercise the convening authority of Section 603 of the Rural Development Act—in this case to bring together local and area-wide officials with Federal and state officials and community leaders to help plan and coordinate rural development efforts in the area. The responsibilities of the district offices will place them in continual contact with community and county government officials and community leaders. This will enable these offices to assist in identifying the needs of these officials for planning, technical, and management assistance.

Our state-related strategy includes establishing strong relations between the district office and town and county governments, area-wide planning and development districts, and other nongovernmental community development organizations, including community action program groups. However, the strategy will place its greatest emphasis on working with and assisting those agencies and institutions designated by the state to assist local development and to integrate local developments on a substate basis. In most cases, this will mean focusing on area-wide planning and development districts. In other cases, it will mean working primarily with counties. And in still others, jurisdictional questions will be unresolved.
Farmers Home has no stake in any given institution at the substate level. Its main interest is in having an organized set of institutions to work with which can set some priorities and develop and implement some innovative programs. Only state government has the authority to set the lines of responsibility among the various institutions and to give them the basic tools to work with. Thus, Farmers Home is committed to work with state government in strengthening or establishing clear lines of responsibility in nonmetropolitan economic and community development.

In those states where districts are unified or where the planning and development districts have been given clearly designated responsibilities for rural economic and community development, the Farmers Home district boundaries will be made coterminous with these districts. Our district offices will encourage and assist substate districts to identify local needs, set priorities, and develop strategies and programs to meet these needs. Further, the district offices will assist them in preparing investment plans to implement those strategies and will negotiate Farmers Home's role in such investment plans. Here again research is needed to supply information and guidelines for development of investment strategies.

Where possible, these investment plans will include integrated program packages from a variety of funding sources. However, they will also include individual programs which can be used to guide the investment of Farmers Home funds in meeting priority needs in the district. Steps will be taken to strengthen the A-95 process so that Farmers Home can give priority treatment to loans directly addressing a district plan priority and can ensure that loan applications which don't directly address a district plan priority are consistent with that plan or at least don't conflict with it.

In those states where counties rather than substate districts have been given primary responsibility for rural economic and community development,
Farmers Home districts will be restructured so as to be coterminous with several counties and will not bifurcate counties into more than one district. The relationships described above will be established with these counties also.

In those states where more than one agency has legally designated responsibilities for rural economic and community development, the district office will establish working relations with each such agency. As stated earlier, every effort will be made by Farmers Home to induce cooperative efforts between these agencies and to encourage the state government to do the same. However, Farmers Home must always reserve the right to carry out its mission consistent with Federal objectives, and there will be cases where the extent of local needs will cause us to fund projects even over the opposition of one or more of these agencies. We hope these cases will be rare, but undoubtedly, those areas without reasonably cooperative institutional arrangements for rural economic and community development will suffer in the competition for limited funds.

Creating effective institutional arrangements for rural development at the substate level is beyond the control of the Federal government. However, an integrated USDA service delivery system, staffed at the state and substate level by people with the capability and mandate to invest in responsible and coordinated rural development programs, will be a strong inducement to developing such arrangements.

The district offices will be staffed by directors who will be trained in rural development. They will have the capability to assure that the impacts of given loan applications on various economic, social, physical, and environmental aspects of community life are assessed. They will have
the capability to relate the proposed programs to other planned or ongoing activities. And they will have the skills to assist in developing a sound financial structure for the proposed effort. Research that can be made available to assist the district offices in developing these skills is needed.

The state Farmers Home office will also play a major role in the rural development single service delivery system. I've said that the district office will work closely with local communities, counties, and substate agencies. The state office will work closely with the governor and with relevant state agencies to develop joint Federal/state investment plans. Specifically, Farmers Home will attempt to accommodate its program allocations within the state consistent with State targets and criteria for local investments, and to assist in mobilizing and coordinating other Federal agencies to plan and implement investment strategies. In addition, the Section 603 coordinating role assigned to USDA will be exercised at the state level through use of the convening authority. The state office will encourage involvement of local governments, substate districts, consumer and public interest groups, and the private sector in the rural development policy process. Research is needed to assist FmHA in evaluating the impact of the rural development efforts.

Just as local and substate agencies vary greatly, so do state governments. Some states have taken a lead agency approach and developed strong state planning agencies. Some rely heavily on departments of economic development or community development. In still others, responsibility for rural development is shared among a number of agencies. In such states, there are varying degrees of interagency coordination and several types of structures for policy management and program coordination. Whatever policy planning and
management structure a state may employ, we feel that Farmers Home, because of its decentralized operations, can adapt to, and help to strengthen, that structure.

I should add that the information and experience of the extensive county and district field staff can also be made to serve the state policy planning and management structure. This staff can provide additional and perhaps different perspectives than will be provided by state or local government agencies.

Also, rural development training programs planned for Farmers Home field staff will be extended to include officials and staff from local and area-wide agencies. The state office of Farmers Home will also draw upon the total resources of USDA, particularly state extension, soil conservation, and forestry service experts, to provide technical information and skills to local and area-wide agencies.

At the district level, the district office director will be expected to be a rural developer familiar with the spectrum of problems in rural areas and their interrelationships. And he or she will have to be able to develop and apply area and community development criteria in the approval and monitoring of individual programs. But at the state level, the administration of community facility, business and industrial, and multiple unit housing programs will be separate.

The state office will have a rural development staff whose responsibilities will be to see that rural development investment criteria are utilized in the program and allocation planning process. This staff will also assist the state director in working directly with the governor and state agencies and in organizing the state office's planning and decision process on a coordinated basis. And the staff will help plan and manage
the technical and planning assistance programs for local and area-wide agencies.

The objective is to move the making of grants and loans from a program management framework into a policy and investment framework. This will give more effective guidelines to program decisions and will utilize potential secondary impacts of program decisions as criteria for making such decisions. First, we will be trying to bring policy considerations and development criteria to bear on program decisions, and then we will begin to develop these considerations and criteria into more comprehensive programs and investment strategies.

Farmers Home has spent substantial time and effort determining, in conjunction with its field staff, the changes in the field structure necessary to implement the basic field responsibilities outlined above. State offices are in the process of realigning these functions within the various states. It is obvious that we are asking the district and state offices to take on new responsibilities. Each state is now in the process of assessing the staff needs to be faced in light of these new responsibilities and developing alternative implementation strategies in light of staff constraints. The primary emphasis in the first stages of the reorganization will be to strengthen the rural development capability of the state offices and to phase the strengthening of the district office in terms of the needs and priorities within the various states. One clear implication of our proposed strategy for making Farmers Home an effective rural development delivery system is the need for better trained staff because of the broader responsibilities the agency is assuming. This requires meaningful research which will assist Farmers Home in reaching this goal.

A while back I said that we would also be able to help the states through improving our rural development committee structure. The department
is currently involved in revitalizing this committee structure as a vital tool in field coordination of USDA activities. A series of regional meetings of USDA field staff has been held to discuss coordination of USDA agency activities in energy, land use, and rural development. Emphasis is being placed on state committees that can:

- support the governor's rural development policy management structure;
- assist in targeting USDA interagency rural development activities in accord with state and local policies and priorities;
- support the state-designated substate planning and development agencies; and

- assist local governments and community development organizations to plan and implement programs and, where needed, to obtain the support of the state-designated area-wide planning and development districts.

Most likely, these committees will work through task forces on specific rural development issues—such as economic and community development, energy, and land use—under the leadership of the agency most directly concerned with the issue.

Another tool we are using this year to strengthen rural development planning at the local, substate, and state levels is direct financial assistance, under Section 111 of the Rural Development Act. Regulations for this program were published on April 4 and preapplications are now being accepted at Farmers Home state and county offices. These regulations were published after extensive consultation with public and private interest groups and state and local governments.

If we wish local communities and state governments to assume primary responsibility for balanced growth in their jurisdictions and answer politically for the exercise of that responsibility, and to be the primary
achievers of national objectives, we must find ways to strengthen the capability of these institutions to develop and implement coherent rural development strategies and programs.

In essence, the current funding of the Area Development Assistance Planning Grant Program is being viewed as an opportunity to signal our intent to work cooperatively with state and local communities and to explore ways to involve community organizations and the private sector with local and state governments in the rural development planning process. We have encouraged a cross-section of planning and development organizations to participate in this demonstration. And we have indicated to the governors that we would like to make 10 to 12 grants to give a small boost to those policy management and planning efforts closely tied to governors' offices that reflect a start toward state investment strategies for rural areas.
Regional Perspectives in Rural Development:
Can Universities Meet These Needs?*

Edward O. Moe
Coordinator for Rural Development
Cooperative Research, USDA

The demand for new ideas to help solve major national and community problems is a significant challenge to institutions of higher education. Problems today at every level seem larger, more threatening, and more difficult to solve. At the same time there is a growing feeling that the colleges and universities which should be able to help solve problems are not helping, and frequently seem afraid to try.

I appreciate the opportunity of exploring the question as to whether or not institutions of higher education can meet the research and educational needs of municipalities and Federal loan, grant and technical assistance agencies such as the Farmers Home Administration. While I had not heard the specific problems identified by Mayor Byrne and Mr. Marshall until they made their presentations here a few minutes ago, I have no hesitation in saying universities can meet these needs or most of them. This may sound presumptuous. It is presumptuous, but such is my perception of the research and problem solving capability of the experiment stations, the extension services and the land-grant universities.

What I would like to do in the few minutes I have is speak to these four points:

I. The University and the Functions of Knowledge.

II. Building a New User/Researcher Partnership.

III. The Community Technology Initiatives Program - A Model of a Research and Education/User Partnership.

IV. Some Possible Payoffs.
I. The University and the Functions of Knowledge

Under the conditions of today it is useful to re-examine the functions of our colleges and universities and to project ways in which they might strengthen their partnership with users of new ideas. Colleges and universities see their basic roles rooted in the functions of knowledge itself - the discovery of new ideas and new knowledge in research, the transmission of knowledge and new ideas in teaching, and the utilization of knowledge and ideas in helping solve problems through extension and public service.

The intricate interrelation among these functions is critical. It is in these interrelations that the functions of knowledge are tested, as former President Perkins of Cornell (1965) observed: "Knowledge acquired must be transmitted or it dies. Knowledge acquired and transmitted must be used or it becomes sterile and inert. Even more the chemistry of knowledge is such that the very process of transmission, together with the discipline of application, stimulates and guides those who work at the frontiers of knowledge."

"Knowledge is in many respects a living thing--it grows and changes, and various of its parts are replaced as they become obsolete, but the dynamic nature of knowledge is traceable to this interplay and tension with its acquisition, transmission and application. It is this interaction that creates the needs for new knowledge, that brings inaccurate teaching to account, that shows what could be rather than what is. Taken separately, the three aspects of knowledge lead nowhere; together they can and have produced an explosion which has changed the world." Such pretensions of higher education are more than rhetoric, although there is never any shortage of rhetoric. There is a deep and continuing concern within
colleges and universities about the interplay among research teaching and extension/public service programs. Even when there seems to be an evident lack of concern, there are, at the same time, substantial uneasiness and uncertainty about what new knowledge and new ideas are needed and how to put ideas and the results of research to work to help solve problems and improve the well being of people.

Some Factors Which Limit the Communication of New Ideas

With the great array of problems agencies and communities confront, there are many potential users of new ideas from the sciences, including social sciences, and engineering. Important among them are policy makers at all levels from the local neighborhood and community to the nation, local public officials, administrators of public and private community service programs, administrators of state and Federal agencies, community leaders, consumers--those who use the programs and services and citizens interested in understanding what is happening and trying to improve the quality and effectiveness of services.

Despite the good intentions of researchers, educators and users of ideas, one can readily identify a number of factors which make communication among them ineffective:

- lack of a system which effectively links users and researchers, including a clear identification of who the users are;

- mutual suspicion and distrust between researchers and decision makers on policy and programs;

- researchers designing research projects without direct contacts with potential users, and frequently with little information on their views of what the problems are;

- users not aware of what research is available, and not having had a voice in the formulation of the problems researched;
- difficulties researchers face in accepting the fact that from a
  user point of view partial information available at the time of
  action or decision is better than complete information after that
  time;

- lack of appropriate, periodic research information releases and
  publication for users;

- failure of researchers and research units in universities to
  follow-up significant relationships and exchanges that are initiated
  with users.

- failure to provide technical and educational assistance to users
  for interpretation of findings and for adapting them for use;

- research which has not been made a built in, continuing part of
  the program development and evaluation process; and

- lack of a broad based public education program which builds
  public literacy about social policy issues, policy alternatives
  and improvement of programs and services.

II. Building a New User/Researcher Partnership

What we are confronted with then is a major dilemma. On one hand
there is the great need of users—such as those defined above—for new ideas about
problems and about what might be done. One the other hand there is a
high promise of university research, education and public service to produce
and help put to use new ideas and alternative ways of dealing with problems.
Both groups are frustrated and searching for a better relationship. What
is needed is a new partnership between users and researchers—a partnership
defined by two essential conditions:

1. Involvement of users and potential users of ideas with re-
searchers in exploring difficulties in the functioning of
local governments, social institutions, community services,
and the action programs of state and Federal agencies in
identifying specific issues and problems and in defining
problems to be researched.

2. Continuing user-researcher contact throughout the research
process including feeding back of research findings and
interpretations on problems users helped identify.
User-researcher involvement would be an essential feature of the partnership, but it would be something more. It would be a basic strategy to improve communication and facilitate improvements in programs and services. When users and researchers are jointly involved in the formulation of problems, and where there is continuing contact throughout the research process, interest in research findings is increased. The feedback and interpretation of findings can be more effective. It follows also that the utilization of findings is more likely to occur.

Some Steps in Strengthening a User-Researcher Partnership

If we are to move toward a user-knowledge/research partnership, some important relationships need to be strengthened and/or established. Among them are these:

- Building on and strengthening established department, research unit, user contacts. This would obviously include an analysis of what contacts already exist, and what new ones are needed to enable scientists and educators to be more effective in putting knowledge to work.

- Interpreting to users and the public the university's research role and functions.

- Interpreting the existing body of knowledge as it relates to issues, problems, and alternatives of major interest to users.

- Helping identify development and policy issues from the user point of view involving researchers, research administrators, department heads and other college or university administrators.

- Bringing user groups of all types to the campus:
  - to meet with researchers and administrators;
  - to help clarify issues which need to be researched;
  - to make possible direct researcher-user exchanges on the meaning and limitation of findings, implications of findings, and on the possible/probable impact of alternatives.

- Helping define user needs for continuing communication and how various media might be used to get findings to users.
- Helping utilize the instrumentality of extension, the agricultural experiment station, social science research centers and bureaus of applied research as mechanisms through which the university could contribute both to an understanding of and solution to social problems.

- Helping arrange new types of liaison between universities, departments and research units and a variety of significant user groups. Some consideration might be given to setting up new types of joint university-user advisory and technical groups, and having persons from user groups in a liaison capacity on campus for extended periods of time.

III. The Community Technology Initiatives Program: A Model of a Research and Education/User Partnership

Continuing analysis of the non-metropolitan/rural areas of the country has emphasized a number of conditions which effect the ability of smaller cities, towns and counties to apply science and technology to the solution of their problems. The problems run the gamut of water systems/water quality, waste treatment and management, land use, planning and decision-making, health care, including emergency medical services, education, public facilities, financing of public services, public involvement and many others. Among the major conditions affecting policies, planning and decisions about such services are:

1. A continuing flow of new developments in science and technology related to the services.

2. The problems of size and scale—increasingly a small community has the full range of cities from 50,000 to 100,000 or more but the conditions are very different due to problems of scale.

3. Small understaffed local governments and local service agencies which have great difficulty in accessing, assessing, and applying science and technology to their operators.

4. The weakness of or lack of working relationships or linkages to public or private research and development programs built on their specific needs.
What is lacking is a system which links small public jurisdictions to centers of science and technology, and which engages public officials, public agencies, scientists, engineers and educators in the search for and application of solutions to local problems. Such a system would substantially improve the performance capability of local governments and agencies.

The Community Technology Initiatives Program

The Community Technology Initiatives Program (CTIP) is a nation-wide organization established by 31 local governments, small cities and counties, to meet their needs. Public Technology, Incorporated (PTI), a research and development group in Washington, D.C., serves as the secretariat and provides program management. The PTI secretariat strives for maximum institutional interaction of CTIP with existing local government organizations such as state municipal leagues, the International City Management Association, and other regional and local groups. These interactions will be aided through a partnership with the National League of Cities. A grant from the National Science Foundation is the basic source of funding.

First Year Objectives

During the first year, CTIP worked toward these objectives:

1. Establish a needs assessment process for defining common local government issues that relate to science and technology.

2. Develop a priority problem agenda for localities below 50,000 in population.

3. Adapt and implement two pilot science and technology applications based on priority user needs.

4. Develop a program plan for the second and following years of CTIP operations. At minimum, the plan will include strategies for communicating and linking with Federal agencies, industry, universities and other institutions. A strong component of the program plan will be the distribution and utilization of program results.
A needs assessment process has been established using standard problem statement forms to assure consistency and completeness. The 31 local jurisdictions identified some 450 problems. These are being reviewed by representatives of the cooperating jurisdictions. The statements will be ordered in some order of priority. Information and technology will be put together and tested to determine how adequately they meet the identified needs. Appropriate modifications will be made followed by a recycling of the process and further testing.

To link the jurisdictions to each other, seven circuits have been created. These circuits are to be served by "circuit riders" who will establish and maintain communication among the jurisdictions and with potential sources of assistance. The circuit riders will be either scientists, engineers or public officials, who have been recruited under the Intergovernmental Personnel Act. Public Technology, Inc. pays slightly over half of their salary and their travel. Cooperating Federal laboratories or agencies pay about half of their salary. The Science and Education Administration/Extension and the Southern Rural Development Center are cooperating in the support of a circuit rider to be based in Stillwater, Oklahoma.

Why the Science and Education Administration Has Become Involved in the Community Technology Program

The Community Technology Initiatives Program is an imaginative and innovative approach to help small communities use science and technology in solving their problems. It is user based or user driven as some have described it. Users and user needs are linked to the science and education
resources of universities and laboratories in the public and private sector. The flow of information back to users is organized around their needs, and has high credibility because it deals with problems they help identify.

These ideas and other aspects of the CTIP strategy are essential features of the Land Grant model for research and education. Local governments, CTIP, the Department of Agriculture and the Land Grant Systems will gain from the collaboration. We each have much to give and much to learn from strengthening and/or putting in place a workable user-science-technology transfer system.

There is an important gain for research which is not explicit in the statements about the Community Technology Program so far. We are proposing it for inclusion in future revisions of the concept paper. The assumption is made that the research findings and the technology exist in the laboratories and universities and that what is needed is a system for bringing the knowledge and technology together and transferring them to users. This may be the case with many problems. On the other hand, an analysis of the problems identified by users will make it possible to separate those problems for which the research and the appropriate technology does exist from those where it does not, and will show where additional research and development are needed. We hope, in other words, that through a more effective user/education/research partnership to strengthen research planning processes, and to assure that research deals with high priority problems.

An agency such as the Farmers Home Administration has much to gain from the Department's and the Land Grant systems' participation in the Community Technology Program. These gains result from what will happen at the local and national levels. Building of capacity on the part of
local governments and their public service departments through more effective application of science and technology to local problems will help assure effective use of Farmers Home grants, loans and other forms of assistance. Knowledge and technology specifically related to the solution of local problems will be available for use in thousands of communities across the country, sharply focusing attention on local problems and making it possible to clarify the Farmers Home Administration's specific research and technology needs—both those which relate to local use of their loans, grants, and planning assistance, and those which relate to the investment strategy from a national perspective. The greatest gain will come from the classification of Farmers Home needs for research and technology and the response of the research and educational system to those needs. I'm happy to say that some very positive things are underway.

IV. Some Possible Payoffs

While it is not possible at the beginning of such efforts as discussed in this session and in this paper to know what the payoffs would be, there are some intriguing possibilities. More effective use of science and technology will help local governments and local public and private agencies build their capacity to solve their own problems. This is a major objective of the Land Grant System and the Department of Agriculture through its rural development programs. Great capacity and productivity in the programs and services of local governments will lead to significant improvement in the quality of life in small communities and rural areas.

The creation of a more effective research and educational partnership with local governments and state and Federal agencies will help sort out the significant issues at each level. It will tend to assure that the existing knowledge base and technology are utilized, and it will help direct research and education to problems of high priority.
Among those who will gain most are scientists and educators. A mechanism—a system—would exist to link researchers to significant users which they would not have to maintain through their effort alone. The Land Grant institutions would support the system. Researchers would likely experience the satisfaction that their work is on significant issues, that it would be used, and that it would have high social value in helping solve important problems. Extension would have the benefit of a stronger research and technology base. There would be the assurance, because of the partnership, that problems would flow from local public officials and agency administrators and staffs to education/research, and new knowledge and technology would flow back to users and potential users. This is the way the Land Grant System is supposed to work and the way it can work.

If we develop the innovations and re-invigorate our partnership with users, universities will be recognized as effective partners with communities, counties, states and the nation in improving the well being of people. And this phrase—the well being of people—is after all the significant end, and the hallmark of what we are about.
REFERENCES


Regional Perspectives in Rural Development:
Responding to the Needs of Communities and Agencies*

Paul D. Warner
Associate Extension Professor

At professional meetings of this type it is a rare opportunity to be a part of a session that systematically addresses the various aspects of a "real world" problem. And it is probably more unusual to have non-sociologists among us to help us focus on the important aspects of the problem from another perspective.

Mayor Byrne, I am very impressed with your grasp of the problems of Natchez. If we had local officials as well informed as you in all of our small towns, we would be well on the way to solving many of our problems. Though it may seem basic, the articulation of the problems is still a crucial first step. From your opening quote from Charles Rust in 1903, one has to question just how much progress we've really made. Problems of water, garbage, sewage, pollution and politics--somehow they sound vaguely familiar!

Your list of problems reminds me of a study we conducted in 1975 where we categorized community problems in 10 categories very similar to those you cite. Just providing that framework is helpful in organizing our thoughts. Various communities have since adopted the categories. Sometimes our greatest assistance is in providing a mechanism by which communities can systematically examine their situations.

*A response to papers presented by Mayor Tony Byrne, Tom Marshall and Ed Moe,
You are very fortunate to be a participant in the Community Technology Initiatives Program (CTIP). It is a very interesting and innovative approach to technology transfer and utilization. The idea of using circuit riders is an excellent one. More and more small towns are going to using professionals who serve more than one community. This is a good alternative to the extensive use of consultants. The arrangement is a lot like having your own community development specialist on a part-time basis. The other big advantage is the sharing of approaches and solutions between cities. It is not necessary for everyone to "reinvent the wheel" over and over again. Problems such as computerized financial management, routing of garbage pickups, senior citizen programs, recycling, sewage, and maintenance of streets and roads are not unique to Natchez.

In Kentucky, much of this role would be provided by Area Development District (ADD) staff (referred to as Councils of Governments, intergovernmental service agreements, regional planning organizations, and special districts in other states). Area Development Districts are mandated to provide basic administration, research and planning services to local units of government. However, even with this regional system, smaller cities report being underserved. In personal interviews with city officials in 81 percent of the 403 incorporated places in the state, 38 percent indicated not receiving any services from the ADD.

The second paper, by Tom Marshall, spelled out some of the areas of needed research in support of an agency such as the Farmers Home Administration. A major shift in emphasis, as I see it, is the expectation that state governments will play a much more active role in rural development efforts. As a result, states will need to be able to establish development priorities and investment strategies for their achievement. Those are expectations that I'm not sure states can presently fulfill. Stating the expectation and the
states' ability to carry out these functions are two different things. I don't think that our state is yet in a position to "establish state development priorities for rural areas based on local and area priorities and to develop joint Federal/state/local investment strategies for meeting these priorities." They will need help in accomplishing those tasks. A capacity for establishing development priorities and the impact of strategies on the economic, social, physical and environmental aspects of rural life is essential. Universities can play an important role in helping to develop that capacity.

The Ed Moe paper examines the University's role in meeting the needs identified by communities and agencies. From my perspective as one who tries to bridge the gap between the academic institution and the "real world," I find the paper very insightful. Though I generally agree with the 10 factors listed as limiting communication of new ideas, I think it is necessary to go back one step further in order to understand the very basic features of academic institutions. First of all, universities view teaching and research as their primary goals. The majority of their professional staff are paid to pursue these two academic functions. Applied research and service activities are of lower priority and prestige within the institution of the university and among professional peers. Professors are thus primarily rewarded for the quality and quantity of their research and their effectiveness as classroom teachers. That setting does not encourage university faculty to involve themselves in the solution of such problems as have been suggested in the first two papers. This statement is supported by the evidence presented in the first paper that only 5 percent of the cities reported turning to universities for help. Let's face it. Universities are not servicing the needs of cities and public agencies. Or when they do, they want to make a five-year,
$100,000 project out of it; they want to do another survey; they talk in language that can't be understood, or they turn over a 300-page research report that is impossible to interpret.

A community or agency needs immediate answers in a form that can be understood. Communities are action oriented. They are interested in doing rather than studying, with specific recommendations rather than alternatives, with the product rather than the process. A common expression is "We don't need another study or survey. The problem has been studied to death. What we need is action."

The language, jargon and terminology of the university professional is a barrier in itself. Different disciplines can't even talk with each other, let alone effectively communicate with community officials and leaders.

There is no coordination of specialized input that might be available at the university. Universities are discipline-oriented, whereas community problems are multidisciplinary in nature. There needs to be a coordinating mechanism, a team approach, across disciplines.

Another constraint of the university system is its inability to respond in a timely fashion. There is seldom a sense of urgency in a professor's research program, except maybe in the interest of his own professional advancement. A project with a duration of several years is the norm, not the exception. That time frame is completely unacceptable to the elected official with a term of office of only two to four years.

Though I agree with the concept of a closer user/research partnership as is described in the Moe paper, I'm not so sure but what it is an idealistic dream that is in reality beyond what we can reasonably expect to occur. I am convinced we need a system that links users and researchers,
but I've come to believe that requires someone who can bridge the gap between the two. Someone who can speak, or at least understand, the language of the researcher, and yet is sensitive to the needs of the users. This allows for the interpretation and adaptation of technical knowledge, as well as feedback in the design of research topics. In reviewing the history of the Land Grant universities' service to agriculture, I would conclude that the system has been effective at transferring technology from researchers to users as it relates to agricultural production problems. One must recognize that in that system there exists a comprehensive research staff, extension or service-oriented specialists, and field representatives (county agents) trained in agriculture. We have never had this type of support in the solution of community problems.

Now a few remarks about the CTIP program. It seems to me it is an innovative approach in the application of technology to the solution of problems of towns and cities. Much of our discussion has been concerned with the university's response to cities and agencies, though I'm not sure CTIP will strengthen that relationship. It seems possible that help is merely being acquired elsewhere. An objective of the program states that "the plan will include strategies for communicating and linking with Federal agencies, industry, universities and other institutions." I see this element as crucial to the success of the linkage. One would have to wonder whether this program is in effect creating a new structure because the existing ones (universities, council of governments, etc.) haven't served this client group effectively. Is this, in fact, true? Or is CTIP supplemental to the existing systems?
A BRIEF REJOINDER TO DR. WARNER'S PAPER

Edward O. Moe

Dr. Warner's paper appropriately recites the traditional view of the role and function of universities and of the gap that exists between them and the "real world." It is certainly true that despite some recognition of extension/public service functions most universities, including land grant universities, tend to view teaching and research as their primary goals. The general policies, levels of support, salary schedules, other non-salary forms of recognition and rewards, and peer recognition conform to this view. These are powerful constraints. So too are the disciplinary orientation, the problems of communication, the need for rapid response and many other factors. These constraints must be taken into account in designing new institutional frameworks for user/education/research partnerships.

The issue is not the existence of the constraints. They have been there from the founding of the Land Grant institutions, and particularly since the emergence of the Land Grant concept of a public university with the addition of the extension/public service mission. The issue is the response to the problems of people, governments and agencies in the non-metropolitan parts of the country, and whether or not we will respond and how.

There is a widespread agreement that Land Grant Universities have been effective through a research/user partnership in developing and transferring science and technology in agriculture. The evaluation of community resource development programs and Title V programs (Rural Development Act of 1972) in various states clearly indicates modest to high success in responding to a wide array of community problems such
as those described by Mayor Byrne and Tom Marshall. The record shows clearly that universities not only can but actually are respond- ing, at least on a modest scale, to the needs of local governments and public groups.

The question is do we as scientists and administrators in Land Grant Institutions think it important to respond to such problems? Do we really want to respond? If we do, our experience in both agriculture and community resource development and the growing body of knowledge and current research in institutional development provide the ideas.

One way of defining our alternatives would be as follows. We could:

1. Continue the current modest, highly selective attempts to help solve problems confronting non-metropolitan people, agencies and communities.

2. Strengthen the research/user partnership with local governments and public agencies in the ways indicated in my paper.

3. Design into the Land Grant Institution, particularly the Experiment Station and Extension, greater institutional capacity to respond to such issues and seek the support for the additional research, additional community technology specialists and the community technology transfer agents needed to implement the plan.

Perhaps we are at a point in relation to community technology where we can't stand still. We may need to get more involved or to get out and let someone else respond. We could move on alternative 2 now, and build toward alternative 3. By doing so, we could, and possibly would make an "idealistic dream" a reality.
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