MODELS FOR PROVIDING OPERATIONAL
RESEARCH TO COMMUNITY DECISION MAKERS

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Support for this research was provided by SEA-Cooperative Research of the U. S. Department of Agriculture. Funds were administered under P. L. 89-106, Grant #801-15-94 through the Mississippi Agricultural and Forestry Experiment Station to the Southern Rural Development Center.
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CHAPTER 1
INTRODUCTION

Local government leaders in the United States are constantly being called on to make decisions among alternatives for providing services and facilities for their communities. Often these decisions must be made in a relatively short period of time even though their impact on the communities involved may be long ranging. In the past, these decisions have all too frequently been made without sufficient information on options available to decision makers and on possible impacts of any chosen option.

Local decision makers face numerous problems in seeking assistance in choosing among alternatives for providing community services and facilities. Some of the assistance they need is available from private consulting firms, but often the costs of such consulting services are prohibitive especially to the smaller, more rural local governments. Universities have a vast array of resources which they can bring to bear on problems facing local governments. However, as the problems of these communities grow more numerous and complex and the need for solutions grows more intense, university researchers must develop a methodology for responding more rapidly to requests for assistance.

This study examines university responses to the information needs of local decision makers and discusses ways to improve this university/local government collaboration. The overall project objective is to analyze the potential of university-based researchers to respond more quickly to community-based needs for research information.
Focus of This Story: The Needs of Local Decision Makers.

The emphasis in this research is on the problems and information needs of local decision makers. This focus on "local needs" and local "decision makers," however, needs clarification and explanation. As Robert Wood indicated in *1400 Governments*, there are a wide variety of local entities in existence in the United States. Wood focused on the complexities inherent in dealing with the 1400 units of government in metropolitan New York in 1961, and the multiplicity of types of local units has grown in the intervening years. The 78,218 local units in the United States today provide a variety of structures, functions, and problems for analysis. It is beyond the scope of this study to deal with all these local jurisdictions, and therefore, criteria for selection were developed.

The major criterion for inclusion of a locality in this study is the size of the community or local unit. The focus here is on communities with populations of less than 50,000. By emphasizing localities below the 50,000 population mark, this study is crosscutting traditional urban/rural distinctions in favor of an emphasis on local problems of small to mid-sized American communities.

The second defining characteristic of this study is its emphasis on the decision makers in these local governmental units. "The four major types of units entrusted with public responsibilities at the local level are counties, municipalities, townships (and towns), and special districts." The stress here is on the elected and appointed officials of American counties, municipalities, townships, and special districts with populations under 50,000.
These persons in formal positions of authority in local government units need a variety of reliable information on which to base their decisions. Admittedly, others interested in the affairs of their community may also have need of university resources applicable to local problems, but this study is aimed specifically at elected officials and administrators of local governments. Although the interested local citizen/university resource and local official/university researcher partnerships are not necessarily mutually exclusive, the focus in this research is on formulating mechanisms of the latter type for persons in formal positions of power at the local level of government.

Linking the University with Local Governments

It is the thesis of this study that the university can operate as an effective resource institution for local decision makers who have a wide variety of research needs. The purpose of this study is to identify a number of mechanisms available for bringing university researchers and local officials together to develop solutions to local problems. The prelude to any successful model for university/local interaction is an improved communications process between the academic community and local officials. In addition, a routine must be established so that local leaders know the appropriate contacts in the university and have developed a rapport with them, so that a cooperative relationship exists to deal with future needs of local governments. Such a routine may take a variety of forms: both informal and formal mechanisms within the university can be established to facilitate a university/local partnership. Often, informal ties are developed between interested faculty and
local officials who share an interest in local problems and are willing to work together to analyze solutions. In addition, the administration and coordination of university researcher/local decision maker interactions are typically handled by faculty or department heads, division heads, or deans who customarily do so with the tacit or formal approval of the institution's president. 8

An example of a formal mechanism providing university/local collaboration is the Cooperative Extension Service (CES) of the Department of Agriculture. The CES has long been recognized for the facilitation of university/local interactions on agricultural problems, but in recent years, CES's mission has been broadened, and it has become an effective mechanism for providing university/local collaboration in the development of solutions to local problems. The focus in this research is on the types of problems a university/local collaboration can effectively deal with and on the variety of formal and informal approaches available for the successful organization of university/local collaboration.

Opportunities for Collaboration

Local decision makers require a wide variety of information and research on the many issues affecting their communities. Often local officials need immediate help in dealing with a pressing local problem. University researchers, in this instance, must respond quickly and capably to the local jurisdiction's needs. In addition, local governments are faced with long term planning needs, and university researchers can provide valuable expertise and information on local needs, priorities, forecasts, and planning strategies. Finally, an additional opportunity for university/local collaboration lies in the transfer of innovations.
In this era of change, new technologies offering opportunities for more efficient and effective provision of public services by local governments are constantly becoming available. Through the university/local information linkage, public officials can be appraised of relevant innovations, and together local leaders and university researchers can evaluate the prospects for the optimal use of new technologies in the locality.

**Focus of this Research**

In the following chapters, the problems and prospects for an effective university/local partnership are examined. Chapter 2 discusses the problems and needs of local governments for technical assistance. Chapter 3 examines the resources available at the university to meet these local needs and the challenge before American universities to develop university/local partnerships. Chapters 4, 5, and 6 provide case studies of three current models of university/local collaboration: the Local Government Specialist Model patterned after Pennsylvania State University's Community Development Specialist approach, the Circuit Rider Model currently being tested by the Community Technology Incentives Program (CTIP) circuit riders, and the Local Government Training Specialist Model practiced by the Center for Governmental Technology (CCT) at Mississippi State University. The case studies identify the similarities and differences in the mechanisms available for university/local collaboration. The models present the opportunities and the difficulties involved in bringing university resources together with local officials in the development of solutions to local problems. They highlight the theme of this research: that local decision makers have a great
need for assistance in solving their communities' problems, and universi-
ties have the resources to help meet these needs.
FOOTNOTES
CHAPTER 1


3A continuing theme in this research is that local entities face similar difficulties in acquiring research information on which to base their decisions. This premise applies to the majority of local units in the U.S., but the funding requirements of this study require this 50,000 criteria for choosing types of local units considered.

4The 50,000 figure was not chosen arbitrarily. Traditional studies of local governments have made urban/rural categorizations based on a 50,000 cut-off point. In 1970, the Census Bureau first designated the standard which still serves as our definition of an urban area today: 2,500 or more persons. (See Robert L. Lineberry and Ira Sharkansky, Urban Politics and Public Policy (New York: Harper and Row, Publishers, 1971, p. 2.) David A. Caputo argues that it should be readily apparent that this low population figure has accounted for estimates that approximately 75 percent of the nation's population lives in urban areas...much more meaningful is the concept of urbanized area, which is defined as including at least one city of 50,000 inhabitants plus adjacent closely settled areas. According to this definition...approximately 60 percent of the nation's population is classified as urban. (David A. Caputo, Urban America: The Policy Alternatives, San Francisco: W. H. Freeman and Company, 1976, p. 6.)

In recent years, this definition of a Standard Metropolitan Statistical Area (SMSA) has become synonymous with urban America.

The discrepancy between the Census definition of urban and the SMSA definition is carried over into definitions of "rural" areas. HUD defines rural as under 50,000 in population (thus any community smaller than a SMSA is rural) while the Census definition of rural is at the opposite extreme: under 2,500. The Rural Development Act of 1972 recognized these definitional difficulties and used a variety of population sizes in a number of its programs for "rural" America. For example, less than 2,500; less than 10,000 (33% of total American population in 1970); less than 25,000 (55.3% of total population in 1970); and less than 50,000 (64.1% of total population in 1970). (Implementation of the Rural Development Act: Hearings before the Subcommittee on Rural Development of

In addition, distinctions between urban and rural communities have traditionally not been based on size alone. Louis Wirth's writings are now accepted as the standard on which to base these comparisons. His urban/rural definitions were based on three variables: number, density of settlement, and heterogeneity of the urban population." (See Louis Wirth, "Urbanism as a Way of Life," American Journal of Sociology 44(1938), p. 18; and Lineberry and Sharkensky, Urban Politics and Public Policy, pp. 1-2.)

This study does not attempt to make urban/rural distinctions in communities under 50,000 in population based on Wirth's density and heterogeneity criteria. Our emphasis is on local governments and local leaders in both urban (high density and heterogeneous communities of under 50,000) and rural (sparsely settled and homogeneous communities of under 50,000) settings.

5George S. Blair notes that there is "no commonly accepted definition of what a local governmental unit is in the United States." (Blair, Government at the Grass-roots, p. 12.) The Bureau of the Census has developed one definition of a local governmental unit. It includes

three general criteria which a local unit must meet to qualify as a government. The first holds that a unit must have existence as an organized entity with essential corporate powers. Second, a unit must possess governmental character. Third, a unit must enjoy substantial autonomy as evidenced by fiscal and administrative independence subject only to requirements of state law and supervision." (Blair, Government at the Grass-roots, p. 12.)

6Blair, Government at the Grass-roots, p. 4


CHAPTER 2
PROBLEMS AND NEEDS OF LOCAL GOVERNMENTS

As we enter the 1980's, researchers who provide information to aid local decision makers must recognize the multitude of problems and data needs facing these officials. From pollution to financing, unemployment to personnel management, local officials confront problems that seem to grow daily in number and in complexity. These problems create information needs that range from immediate (pest control, energy conservation) to long term (projections of future demand for a service). Of course each community has its own unique set of problems, but certain generalizations can be made concerning problems and needs of all local governments.

Growth and Decline Trends

One of the major reasons for the increasing number and complexity of problems facing local leaders is a shift in population migration patterns during the past decade. Traditional population movement from rural to urban centers and from central cities to suburban areas is changing, and demographers find new contradictory trends in many localities.

A recent report on trends in communities under 50,000 in population notes that "towns and communities lost an average of 187,000 (people) yearly due to outmigration during the 1960's, but in the first half of this decade, that changed to an annual population gain of 150,000 people for these areas."¹ In a 1977 analysis, the Department of Agriculture
argues that if the present trends continue through the mid 1980's, population gains in nonmetropolitan areas could be more than five million, and by the year 2000, more than 15 million. The report notes that important aspects of the recent migration trends include growth both in the nonmetropolitan counties that adjoin metropolitan areas (and are influenced by such proximity), and in those that are more remote from metropolitan influence.\(^3\)

The new phenomenon of net immigration to nonmetropolitan areas is marked by a sharp departure from past trends in the movement of Whites, but not those of Blacks. Net out-migration of Blacks from nonmetropolitan areas continues as in former years, though at a reduced rate.\(^4\)

Many communities are finding that the trend toward growth is not a panacea to previous outmigration problems. Some localities "have encountered serious problems in managing population and economic growth. Environmental degradation has become increasingly prevalent. Competition for limited natural resources has become commonplace and often acute." Growing communities continually face acute adjustment problems. The issues of adjustment are many: should a locality seek population growth or plan to restrict it? How should the competition between alternative land and water uses be resolved? What changes in the provision of social services and the development of public facilities will be required? What public policies can be used to help ease the population boom and decline trends?\(^6\)

At the same time, overall figures of population growth in nonmetropolitan areas can be deceptive. Small towns and cities are not all experiencing renewed growth. "In fact, many communities are still having great difficulty retaining population. It is in the open country and highway corridors in many areas that the population increases are most
pronounced. Concurrent to the population increase in many localities, approximately 600 (25 percent) of the nation's nonmetropolitan counties are still experiencing a decline in population and continue to have problems associated with that decline. They face a variety of difficulties in obtaining resources and in providing needed services for their residents. There is a continuing concern with poverty and persons disadvantaged in terms of wage levels, median family income levels, employment opportunities, adequacy of housing, access to health care and other essential public facilities and services, and institutional capacity to support local decision making.

According to the Advisory Commission on Intergovernmental Relations (ACIR), these local governments "provide fewer services, exhibit less administrative leadership capacity, suffer from more diseconomies of scale, (and) have weaker financial bases."  

Information Needs of Localities

Whether communities are growing, declining, or remaining static, the demands on decision makers are increasing while their resources and capabilities for meeting these demands may or may not be. George Blair argues that "American institutions of local government are under severe and pressing strain. While they were reasonably well-designed to meet the simpler needs of earlier times, they are poorly suited to cope with the new burdens placed on all governments by the complex conditions of modern life." In a recent memorandum Secretary of Agriculture Robert Bergland noted that "in many instances, (localities) have only limited institutional capacity and technical and financial resources to cope with such changes." Local decision makers "do not have the planning staffs
or technical assistance that are available to larger units of government to evaluate organizational alternatives for community services or to analyze changes in the economic structure.\textsuperscript{13}

In 1955 ACIR argued that there were "too many local governments, not enough local government."\textsuperscript{14} This conclusion seems all too prophetic today. A recent Office of Management and Budget (OMB) study concurs, stating that state and local officials are facing the difficult challenge of integrating complex programs, fiscal sources, and administrative entities into a package of services designed to meet the special needs of their jurisdictions. This integration requires need analysis, goal setting, long-term planning, and evaluation, which are beyond the management capacity of many local governments.\textsuperscript{15}

ACIR's 25-year commitment to improving the management capacity of local governmental units is receiving widespread support as we prepare to enter the 1980's. The organizational structure, leadership style, and decision making capabilities of local governments in the United States have not kept pace with the profound social and technological changes of the twentieth century. Revitalizing local governments is an issue of utmost importance if these units of government are to continue as viable contributors to American life in the coming years. One key to revitalizing local governments is to help local leaders develop the necessary expertise and managerial capabilities so that they will be better able to deal with the issues facing their localities. The emphasis here, then, is to correct the cause of ACIR's criticism that there is "not enough local government."\textsuperscript{16} Our contention is that the development of university resources can provide local leaders with the information, research, and knowledge base necessary to strengthen their expertise in managing local units of government.
Surveys of Local Problems and Needs

A number of recent surveys have found that local officials welcome attempts "to bridge the gap between the efforts being undertaken by local governments and citizens and the resources and tools needed to achieve their goals." 17 Important survey research efforts have been undertaken by researchers at Oklahoma State, ISETAP, HUD, and Georgia State.

An Oklahoma study, "Utilizing Extension Service in Land-Grant Universities as a Technology Transfer System for Environmental Affairs," finds that technical assistance is strongly desired by local officials. In brief, the study argues that technical information and unbiased specialists are the major types of technology transfer assistance needed by local officials (county, municipal, and sub-state planning officials).

The authors write:

We might summarize the information this way:

A. Ways must be found to put local officials in closer touch with technical help they can use and trust.
B. The expanded technology transfer effort for local officials must, at the outset, be accomplished at no extra cost to them. Now they don't believe they have the resources to purchase the service.
C. Local officials want some system established wherein their views can be voiced on pending research plans regarding their activities.
D. Local officials will participate in activities designed to transfer technology (i.e., workshops, conferences, demonstrations, etc.) if they are tailored to their needs. They are familiar with these types of transfer mechanisms. They have been helped by similar activities in the past. 18

In 1976, the Intergovernmental Science, Engineering, and Technology Advisory Panel (ISETAP) of the Office of Science and Technology Policy (OSTP) initiated a study designed to aid in the
development of the capabilities of State and local governments to apply scientific and technological resources to handle issues with major technological or scientific components; and, (the) transfer of scientific and technical information from the research community to State and local government officials in forms and ways to encourage its appropriate use.  

The ISETAP researchers identified ten policy areas where local officials need technical assistance to solve or ameliorate local problems and where appropriate transfer activities must be developed. The problem areas are energy; community and economic development; health; environment; management, finance, and personnel; human services; public works and utilities; fire safety and disaster preparedness; transportation; and police and criminal justice. (These categories are further defined in Table 1, p. 19.)

The HUD Developmental Needs of Small Cities Study provides complementary information on the data and technical assistance needs of local governments. HUD categorizes severe, moderate, and minor problem areas and identifies the following major problems: the condition of streets and sidewalks; cost of energy; lack of adequate housing for the elderly, handicapped, and low and moderate income families; high cost of housing; high cost of living; and attraction of new jobs to a municipality. (The HUD categories are given in Table 2, p. 21.)

A comprehensive study of the technical assistance needs of local officials was also completed by the Institute of Governmental Administration at Georgia State University. The most frequently rated technical assistance needs of local officials in eight Southern states were in the planning, training for local staff, and management areas. (See Table 3, p. 23.) Small cities (less than 25,000) identified training for local staff, planning, management, and budget assistance as the top four preferred types of assistance.
Mid-sized cities (25,000 to 50,000) stressed planning and assistance with citizen groups as top priorities. (See Table 4, p. 24.) In contrast, small and mid-sized counties in the Georgia State study stressed planning and training for local staff as top priorities. (See Table 5, p. 24.)

In addition, the Georgia study sought information on the perceived needs for technical assistance in the future by local officials:

The participants were asked to respond to a question which was intended to indicate the degree to which lack of skilled or properly trained staff and/or lack of sufficient information influences their management of Federal programs. They were also given the option of listing other, unspecified reasons for the difficulty they encounter. While 32.7% (112) of the respondents chose lack of sufficient local manpower and training, 26% (89) chose lack of sufficient information. Some of the respondents, 7% (24), listed both reasons. An unspecified cause, excessive administrative constraints, was listed by 17% (51) of the respondents.23

In all, 55 percent of the officials responding to the survey expected an increased need for technical assistance, 19.9 percent expected a decreased need for technical assistance, 20.2 percent expected no change, and 29 percent did not respond.24

The Georgia State study offers important comparative data on the views of local officials in cities and counties under 50,000 in population. While researchers often categorize technical assistance needs in terms of economic constraints, local officials stressed functional problem areas, management training, and information needs in addition to financial and budgetary problem areas.

Technical Assistance for Local Governments

These studies indicate the variety of information and research needs of American localities. They also reveal the diversity of meanings of the term "technical assistance." As the Institute of Governmental Administration
at Georgia State University notes, "At present there is no universally accepted definition of the term technical assistance." The Institute identified three basic technical assistance categories which are used in its analysis:

1) Problematic - Assistance that is provided in reaction to a specific problem or policy conflict. Problematic assistance is intended to satisfy a particular need at a given time. It is somewhat crisis oriented.

2) Advisory - Assistance that is of a general nature and has to do with the dissemination of programmatic information through manuals and publications and includes routine staff visits as part of an overall program monitoring effort. Advisory assistance is usually aimed at achieving a smooth, or crisis-free, program management operation.

3) Capacity Building - In the truest sense of the term, capacity building is assistance that is intended to increase the ability of the recipient unit to manage programs effectively using its own resources.

This research integrates these basic technical assistance categories with the broader definition of the technical assistance needs of local decision makers developed by the General Accounting Office (GAO).

Technical assistance is defined as follows:

A term used to refer to programs, activities, and services provided by the Federal Government, a Public Interest group, or another Third Party to strengthen the capacity of recipients to improve their performance with respect to an inherent or assigned function. The delivery of technical assistance requires serving one or more of three functions: (1) transferring information, (2) developing skills, and (3) developing and transferring products.

The GAO discusses three categories of technical assistance: general management assistance, functional assistance, and technology transfer or sharing. General management assistance emphasizes strengthening the capability of local officials to "plan, implement, manage, and evaluate policies, strategies, and programs for a general purpose government. This is sometimes termed 'capacity building.' Functional assistance
is "the provision of (1) management services and/or (2) technical services in support of specific Federal or non-Federal programs, projects or functional operations."29 Many of the same functions performed under functional assistance also apply to general management assistance, but functional assistance provides support for executing specific programs or functional operations. General management assistance, in contrast, provides overall support in planning, implementing, managing, and evaluating all policies and programs.30 Technology transfer is:

A key element in applying research and development to the wide range of domestic problems. It is the process by which existing research knowledge is transferred operationally into useful processes, products, or programs that fulfill actual or potential public or private needs. In our definition, technology transfer or sharing means dissemination of and assistance in making use of technological advances.31

The greatest university research attention has been placed on functional program assistance. Ronald Powers argues, however, that researchers have barely touched the surface of the research needs of local officials for such assistance.32 Another study emphasizes managerial assistance, noting "local officials identified planning, training for local staff, and management as their most important needs."33

Short, Intermediate, and Long Term Research Needs of Localities

The provision of technical assistance for local governments must enable communities to deal with short, intermediate, and long term local problems. In this instance, short term research refers to projects which take three months or less to complete. The time frame for intermediate research is four to 12 months, and long term projects involve a year or more for completion.
Very often, research on community problems is of a long term nature, rather than "quick and useful" studies of immediate interest to local officials. Providing technical assistance to localities is an attempt to improve the capacity of local governments to deal with both "brush fires" and long term problems, but many times the provision of functional assistance, general management capacity building, and technology transfer are viewed only on a long term basis. This is unfortunate because local officials also have a great need for assistance in dealing with short run problems; they need researchers willing and able to assist them in a prompt and expert manner.

Technical assistance efforts can be developed into short, intermediate, and long term university/local collaboration. A greater emphasis on developing a continuing relationship between the university and local officials to provide technical assistance for localities must be emphasized. Local officials need aid and technical assistance, both in solving their short and long term problems and in acquiring the capabilities to enable them to deal with future needs. Universities are in a unique position to be able to provide localities with research on functional problem areas, to provide insights on ways to improve the managerial capacity of local units of government, and to disseminate new technological advances of importance to localities.
Table 1. ISETAP Problem Areas: Where Localities Need Technical Assistance

Energy

1. Energy and Resource Recovery from Solid Waste
2. Alternative Energy Sources

Community and Economic Development

1. Neighborhood Preservation, Including Residential Abandonment and Role of Local Businesses in Neighborhood Stability
2. Policy Analysis Tools for Evaluating Alternative Growth Patterns
3. Retention of Central City Business
4. Urban Recreation Area Standards

Health

1. Alternatives to Institutionalization for Care of the Aged and Other Chronically Disabled Persons
2. Comprehensive Health Screening Services
3. Health Care Cost Control
4. Restructuring of Efforts to Foster a Healthy Life Style

Environment

1. Non-nuclear Toxic and Hazardous Materials
2. Water Management/Land Applications of Wastewater

Management

1. Fiscal Forecasting and Policy Analysis
2. Information Processing
3. Effectiveness and Productivity Measurement
4. Financial Accounting and Reporting

Human Services

1. Evaluation Methodology and Criteria
2. Integrated Social Services Delivery System
3. Research on Services to the Elderly, Including Transportation, Housing, and Alternatives to Retirement

Public Works and Public Utilities

1. Sewer System Rehabilitation
2. Project Control
3. Extending Life of Fleet Vehicles
4. Non-corrosive Methods of Ice Control
Fire Safety and Disaster Preparedness

1. Evaluation of Fire Prevention and Suppression Management
2. Causes and Prevention of Injuries and Disability Among Firefighters
3. Public Awareness of Fire Hazards
4. Disaster Preparation Planning

Transportation

1. Transit System Productivity
2. Transportation Planning and Impact Forecasting Tools
3. Small Community Mass Transit Systems
4. Integration of Para-transit with Conventional Transit
5. Road/Bridge Construction and Maintenance (including permanent winter repair materials)
6. Transportation Financing

Police and Criminal Justice

1. Better Use of Police Personnel
2. Police Effectiveness and Efficiency
3. Improvement of Court Systems
4. Police Vehicles
5. Comprehensive Crime Prevention Program

aISETAP, Results of the Problem Identification Process Conducted by the Intergovernmental Science, Engineering, and Technology Advisory Panel, (n.p.), March 1, 1979, pp. 5-6.
<table>
<thead>
<tr>
<th></th>
<th>In my municipality this is:</th>
<th>N</th>
<th>severe problem</th>
<th>moderate problem</th>
<th>minor problem</th>
<th>none at all</th>
<th>not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Condition of housing</td>
<td>1006</td>
<td>17%</td>
<td>34%</td>
<td>30%</td>
<td>13%</td>
<td>0%</td>
</tr>
<tr>
<td>2.</td>
<td>Crime</td>
<td>998</td>
<td>3%</td>
<td>37%</td>
<td>48%</td>
<td>12%</td>
<td>0%</td>
</tr>
<tr>
<td>3.</td>
<td>Lack of medical care</td>
<td>1006</td>
<td>11%</td>
<td>18%</td>
<td>31%</td>
<td>39%</td>
<td>1%</td>
</tr>
<tr>
<td>4.</td>
<td>Condition of streets and sidewalks</td>
<td>1005</td>
<td>23%</td>
<td>40%</td>
<td>26%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>5.</td>
<td>Unemployment</td>
<td>1007</td>
<td>12%</td>
<td>30%</td>
<td>35%</td>
<td>21%</td>
<td>1%</td>
</tr>
<tr>
<td>6.</td>
<td>Air pollution</td>
<td>1001</td>
<td>3%</td>
<td>10%</td>
<td>31%</td>
<td>55%</td>
<td>1%</td>
</tr>
<tr>
<td>7.</td>
<td>Drug addiction</td>
<td>996</td>
<td>3%</td>
<td>30%</td>
<td>47%</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>8.</td>
<td>Noise level</td>
<td>1006</td>
<td>2%</td>
<td>12%</td>
<td>44%</td>
<td>41%</td>
<td>1%</td>
</tr>
<tr>
<td>9.</td>
<td>Lack of parks and playgrounds</td>
<td>1005</td>
<td>12%</td>
<td>21%</td>
<td>33%</td>
<td>34%</td>
<td>0%</td>
</tr>
<tr>
<td>10.</td>
<td>Lack of child care facilities</td>
<td>1004</td>
<td>11%</td>
<td>23%</td>
<td>36%</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>11.</td>
<td>Inconvenient access to main highways or freeways</td>
<td>1008</td>
<td>10%</td>
<td>13%</td>
<td>19%</td>
<td>57%</td>
<td>3%</td>
</tr>
<tr>
<td>12.</td>
<td>Availability of energy sources (i.e., natural gas, oil, gas)</td>
<td>1003</td>
<td>5%</td>
<td>15%</td>
<td>26%</td>
<td>51%</td>
<td>2%</td>
</tr>
<tr>
<td>13.</td>
<td>Cost of energy</td>
<td>998</td>
<td>29%</td>
<td>42%</td>
<td>22%</td>
<td>6%</td>
<td>1%</td>
</tr>
<tr>
<td>14.</td>
<td>Rapid population growth</td>
<td>1007</td>
<td>12%</td>
<td>19%</td>
<td>22%</td>
<td>47%</td>
<td>0%</td>
</tr>
<tr>
<td>15.</td>
<td>Population decline</td>
<td>998</td>
<td>4%</td>
<td>10%</td>
<td>14%</td>
<td>72%</td>
<td>1%</td>
</tr>
<tr>
<td>16.</td>
<td>Retaining or attracting middle or upper income taxpayers</td>
<td>1005</td>
<td>13%</td>
<td>24%</td>
<td>22%</td>
<td>39%</td>
<td>2%</td>
</tr>
<tr>
<td>17.</td>
<td>Lack of adequate housing for low and moderate income families</td>
<td>1007</td>
<td>29%</td>
<td>34%</td>
<td>24%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>18.</td>
<td>Lack of adequate housing for the elderly and handicapped</td>
<td>1007</td>
<td>27%</td>
<td>38%</td>
<td>23%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>19.</td>
<td>Animal or Pest Control</td>
<td>1001</td>
<td>12%</td>
<td>30%</td>
<td>42%</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>20.</td>
<td>Retaining existing jobs in your municipality</td>
<td>1005</td>
<td>9%</td>
<td>22%</td>
<td>32%</td>
<td>36%</td>
<td>1%</td>
</tr>
<tr>
<td>21.</td>
<td>Attracting new jobs to your municipality</td>
<td>999</td>
<td>33%</td>
<td>34%</td>
<td>19%</td>
<td>14%</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>In my municipality this is:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>severe problem</td>
<td>moderate problem</td>
<td>minor problem</td>
<td>none at all</td>
<td>not sure</td>
<td></td>
</tr>
<tr>
<td>22. Deteriorating natural environment</td>
<td>1002</td>
<td>4%</td>
<td>17%</td>
<td>38%</td>
<td>40%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>23. Racial/ethnic problems or tensions</td>
<td>1005</td>
<td>1%</td>
<td>7%</td>
<td>25%</td>
<td>66%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>24. High cost of housing</td>
<td>1002</td>
<td>32%</td>
<td>39%</td>
<td>20%</td>
<td>9%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>25. High cost of living</td>
<td>1005</td>
<td>36%</td>
<td>43%</td>
<td>17%</td>
<td>4%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>26. Drainage/flooding problems</td>
<td>1004</td>
<td>20%</td>
<td>28%</td>
<td>2%</td>
<td>20%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>27. Presence of blight or other deteriorating physical conditions</td>
<td>1003</td>
<td>12%</td>
<td>27%</td>
<td>35%</td>
<td>24%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>28. Housing units needing substantial rehabilitation</td>
<td>1002</td>
<td>18%</td>
<td>30%</td>
<td>33%</td>
<td>17%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>29. Insufficient amount of new housing construction</td>
<td>1003</td>
<td>20%</td>
<td>23%</td>
<td>23%</td>
<td>33%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>30. Quality of public education</td>
<td>1004</td>
<td>5%</td>
<td>16%</td>
<td>26%</td>
<td>51%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>31. Water pollution</td>
<td>1004</td>
<td>4%</td>
<td>15%</td>
<td>32%</td>
<td>49%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>32. Refuse collection and disposal</td>
<td>1007</td>
<td>8%</td>
<td>18%</td>
<td>28%</td>
<td>46%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>33. Neighborhoods with multi-problems (i.e., high crime, unemployment, deteriorating conditions, etc.)</td>
<td>1002</td>
<td>6%</td>
<td>14%</td>
<td>30%</td>
<td>48%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>34. Lack of commercial facilities</td>
<td>1007</td>
<td>14%</td>
<td>21%</td>
<td>29%</td>
<td>35%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>35. Difficulty in attracting or supporting commercial facilities</td>
<td>1008</td>
<td>23%</td>
<td>25%</td>
<td>25%</td>
<td>16%</td>
<td>1%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Summary of technical assistance needs (absolute frequencies appear in parenthesis)\textsuperscript{a}

<table>
<thead>
<tr>
<th></th>
<th>Percent Circled</th>
<th>Percent Not Circled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>33.0% (113)</td>
<td>67.0% (229)</td>
</tr>
<tr>
<td>Budget formulation</td>
<td>25.4% (87)</td>
<td>74.3% (254)</td>
</tr>
<tr>
<td>Assistance with citizens groups</td>
<td>21.1% (72)</td>
<td>78.9% (270)</td>
</tr>
<tr>
<td>Planning</td>
<td>49.4% (169)</td>
<td>50.6% (173)</td>
</tr>
<tr>
<td>Assistance in goal setting</td>
<td>19.6% (67)</td>
<td>80.4% (275)</td>
</tr>
<tr>
<td>Training for local staff</td>
<td>40.1% (137)</td>
<td>59.9% (205)</td>
</tr>
</tbody>
</table>

(Note: Since respondents could circle as many needs as desired, the percentages do not add vertically to 100%. Also, the vertical sum of the absolute frequencies does not equal the sample size.)

\textsuperscript{a} Intergovernmental Relations in the Southeast: The Federal Role in Technical Assistance, a report for the Southeastern Federal Regional Council by the Institute of Governmental Administration, Georgia State University, May, 1975, p. 43.
Table 4. Preferences for types of assistance

<table>
<thead>
<tr>
<th>Size (Thousands)</th>
<th>Total Units in Survey</th>
<th>Management</th>
<th>Budget</th>
<th>Citizen Groups</th>
<th>Planning</th>
<th>Goal Setting</th>
<th>Training for Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-25</td>
<td>(101)</td>
<td>41/40.6%</td>
<td>37/36.6%</td>
<td>26/25.7%</td>
<td>50/49.5%</td>
<td>23/22.8%</td>
<td>57/56.4%</td>
</tr>
<tr>
<td>25-50</td>
<td>(58)</td>
<td>19/32.8%</td>
<td>17/29.3%</td>
<td>22/37.9%</td>
<td>34/58.6%</td>
<td>18/31.0%</td>
<td>18/31.0%</td>
</tr>
</tbody>
</table>

(Note: Read the table as follows: under "Management" the figures 41/40.6% mean that 41 cities in the 1-25,000 size range listed management as a need; 41 cities comprise 40.6% of the 101 cities surveyed in the 1-25,000 range.)

Intergovernmental Relations in the Southeast: The Federal Role in Technical Assistance, a report for the Southeastern Federal Regional Council by the Institute of Governmental Administration, Georgia State University, May, 1975, p. 46.

Table 5. Preferences for types of assistance among surveyed counties

<table>
<thead>
<tr>
<th>Size (Thousands)</th>
<th>Total Units in Survey</th>
<th>Management</th>
<th>Budget</th>
<th>Citizen Groups</th>
<th>Planning</th>
<th>Goal Setting</th>
<th>Training for Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-25</td>
<td>(77)</td>
<td>9/11.7%</td>
<td>16/20.8%</td>
<td>12/15.6%</td>
<td>49/63.6%</td>
<td>5/6.5%</td>
<td>28/36.4%</td>
</tr>
<tr>
<td>25-50</td>
<td>(15)</td>
<td>4/26.7%</td>
<td>4/26.7%</td>
<td>0/0.0%</td>
<td>8/53.3%</td>
<td>2/13.3%</td>
<td>7/46.7%</td>
</tr>
</tbody>
</table>

Intergovernmental Relations in the Southeast: The Federal Role in Technical Assistance, a report for the Southeastern Federal Regional Council by the Institute of Governmental Administration, Georgia State University, May, 1975, p. 46.
FOOTNOTES

CHAPTER 2

1 "Southern Migration Patterns Defy National Trends," Rural Development Research and Education, 2, No. 3 (Fall 1978), p. 25.


3 Ibid., p. 2.

4 Ibid., p. 2.

5 Ibid., p. 3.

6 Ibid., p. 5.

7 Ibid., p. 2.


9 Assistant Secretary's Working Group for Rural Development, Rural America, p. 3.


16 Commission on Intergovernmental Relations, A Report to the President, p. 47.

17 Western Colorado Rural Communities Institute (Gunnison, Co: Western State College, n.d.), n. page.


20 Results of the Problem: Identification Process Conducted by the Intergovernmental Science, Engineering, and Technology Advisory Panel (ISETAP, 1 March 1979), pp. 5-6.


23 Ibid., p. 66.

24 Ibid., p. 67.

25 Ibid., p. 5.

26 Ibid., p. 6.


28 Ibid., p. 2.

29 Ibid., p. 2.

30 Ibid., p. 3.

31 Ibid., p. 3.

33 Institute of Governmental Administration, Intergovernmental Relations in the Southeast, pp. 42-48.
CHAPTER 3
UNIVERSITY RESOURCES AND PROBLEMS

The need to solve the wide variety of problems facing American localities offers a challenging opportunity for universities to provide expertise for local officials. There is widespread agreement that the mission of American universities lies in pursuing excellence in three areas: research, teaching and service. In recent years the traditional emphasis on research and teaching has been broadened to include consideration of mechanisms to improve the service component of universities' missions. But while the needs of localities are limitless, and the consequent opportunities for university/local collaboration are great, difficulties involved in strengthening the service component of American universities must be considered. Universities have the resources to tackle a multitude of local problems, to propose alternative courses of action, to develop solutions, and to improve the management capabilities of local governments, but barriers to such an increased service role abound. While lip service has historically been paid to the university's three roles as equal partners in the institution's mission, in actuality service has always ranked a poor third to research and teaching. The present university system of research, teaching, and service must be examined, and ways to strengthen all three missions must be developed. Thus, the goal of improving the service role of the university should not be seen as a negation of the research and teaching roles. It is not competition between these three missions that should be emphasized, but
cooperation. As Durward Long notes, "In all cases, the (public service) activities should enhance the instructional and research programs rather than detract from them."¹

Eldon L. Johnson writes:

The dubious doctrine of the equal trinity—teaching, research, and service—has held us in its grip long enough, with endless and pointless debate about preemptive priorities, one part to the exclusion of the others. The last of the triad, service, can gain only grudging acceptance when it is forced to stand on its own feet, because it is by nature dependent, instrumental, and empty of its own content. It suffers from the incomparability which is built into the model.²

Johnson posits two other models: First, James T. Bonnen's categorization of universities into three capacities as teachers, researchers, and socially responsible organizations,'with the public service function lying only where these three rings overlap and interlock with a sharing of some aspects of all three characteristics. This matrix has the merit of showing the interdependence of the three parts, while aiding manageability by forcing some exclusions at the borders.³ Secondly, Johnson notes we can consider the university as a center of learning with the discovery of knowledge and the delivery of knowledge as its two central activities.

In this model, the old ideas of teaching and service become much more alike—one delivering knowledge indirectly, one directly, one to students, one to clients, perhaps institutional clients; one long-run, one immediately; one on-campus, one off-campus...This concept of alternative modes of delivery challenges the inclination to put knowledge into campus protective custody and argues for more extended and more direct utilization.⁴

The 1972 Conference on Institutions of Higher Education as a Resource in the Solution of National Problems concurs with this analysis. The Conference Report, A Question of Partnership, states:

The university's responsibility is changing from that of primary emphasis on instruction and research within the traditional "campus" community, to one of broadened responsibility for bringing the unique resources of the university to bear on major problems of the society which supports it. New concepts of institutions of higher learning are evolving.
The report continues:

There is, however, a critical problem of definition. 'Service' is as ambiguous and inconclusive a term as is the traditional 'extension.' Neither lends itself to a brisk definition. Yet, each is a term heard increasingly in the deliberations of educators and community leaders who are concerned about the directions institutions of higher education are taking. What is being discussed is something other than the 'regular' on-campus teaching and research functions through which institutions of higher education meet and serve their publics--OUTREACH.  

Outreach implies education and service activities are important university functions. The Conference Report states that "if it is agreed that institutional knowledge can be brought to the solution of significant national problems through outreach, then a neglected dimension of higher education is brought forward for new emphasis."  

Durward Long's article, "The University as Commons: A View From Administration," provides an operational definition for university public service outreach activities:

Dissemination of knowledge beyond the campus. Delivery of institutional programs beyond the campus. Applied research for immediate public problems. Sharing of resources, including facilities and instructional and other learning resources and personnel. Public participation in cultural, esthetic, and other university activities. The development of public policy issues and alternatives. Community development and community problem solving.  

Debate on the importance of the service component of the American university's mission continues today and pleas continue from scholars such as Alfred North Whitehead who admonishes that "celebacy does not suit a university. It must mate with action."  

Eldon L. Johnson best states the thrust of this paper:

The nature of our world is forging a closer university relation to problem-solving; therefore, the debate about "whether" is an anachronism. While the relationship is knowledge-based, it now calls for something more direct than teaching the next generation and searching for what is now unknown: It calls for direct service in the alleviation of human problems and, because so widely misunderstood, a restatement of the rationale.
Johnson presents an eloquent justification for university service for local problem solving:  

Why this drive toward a closer society or problem linkage with the university? Faced with urgent needs, society finds that the university has both the basic knowledge and the potential translators of such knowledge. If society wants to know why for policy purposes and to know how for follow-up, it can hardly avoid the pool of talent which is the university. That institution is also presumed to be objective; and it can, in its relative detachment, tolerate dissent and survive error. As a leader in the great disciplines and professions, all of which have outside practitioners, the university is itself a potent system-maker or orchestrator of competencies in an age when systems and sub-systems are needed to bring order out of complexity. The university has an unbeatable "inside tract" in many of the required technologies because it educates those who practice them. It is the logical helper also if the user is looking for understanding as distinguished from action—understanding which must precede action—since that is the university's universally-conceded specialty...11  

Thus, the public service component of the university's role needs strengthening and such a prospect is on the horizon. Eldon Johnson notes:  

"One must conclude that while this service function does not yet take the time and resources the university devotes to teaching and research, it, however ill-defined, is already a major university commitment. It also has a potential far from presently realized."12  

Many opportunities exist for the nurturing of a public service orientation in the mission of American universities, but "the challenge and dilemma...is how to provide the academic/practitioner interface, reduce the gap, cope with our interdependence, and achieve a proper balance between our two worlds in a way that even when there are explosions (they do) not remove the needed access and interface between us."13 Edward O. Moe concurs:  

There exists both internal forces—the acknowledgement of their duty to develop research that is relevant to public problems—and external forces—requests from decision makers for help in understanding social issues, for assessing policy and program alternatives, and for evaluating the effectiveness of programs for a cooperative relationship between researchers and policy makers.14
Although such an increased public service orientation is challenged by some critics, "without question university public service has experienced a phenomenal growth record." In a recent issue of State and Local Government Review, Robert Sellers notes that "many educators and administrators feel that university public service programming will assume an even larger role in the university community due to declining enrollment and public demands for relevance." Questions remain as to the optimal organization of the university for the provision of its public service mission. A discussion of the current university organizational structure, its implications for the development and expansion of the university's public service role, and the barriers to university/local collaboration will be considered in the remainder of this chapter.

The Land Grant System, Public Service Component

Any discussion of the need for an improved service component in universities must recognize the major role of land grant universities' extension outreach efforts. Much of the service orientation of American land grant universities lies in the agricultural extension domain rather than in a local government service orientation. It is often argued that we can learn from the success of the agricultural extension model and work at broadening the extension service orientation to the social sciences. The diffusion of agricultural technology has been accomplished, but as Edward Moe notes, "It should be clear that this model, prestigious as it is, has not and does not now serve the social sciences and social science research to the same degree that it serves agriculture." The Morrill Act passed in 1862 established and "made the American land grant college
a partner in the solution of practical problems of agriculture and the mechanic arts and above all broadened the educational base by asserting that every child should have the opportunity to gain as complete an education as he wished and his abilities warranted."19 John Lederle writes: "At the core of the land-grant principle is the marriage of theory and practice, of conceptualization and application. The university is the only institution which can bring these seeming conflicting elements together."20 As Moe notes, "There is rather solid evidence that the principles inherent in the work with agriculture and specifically the involvement of users apply in the social sciences."21 He argues that "the land grant system research-education-extension-public service, (is) a research application model that works."22

Thus, the land grant system's extension model can promote the groundwork for the extension of land grant university's service emphases in the social science realm, and it also offers an example for non-land grant universities of a mechanism which could be applied to their public service missions. The focus here, then, is on land grant universities' public service efforts.

Survey of the Flow of Information Between Academicians and Practitioners

In a recent study, the Southern Regional Education Board (SREB) conducted interviews with state governmental practitioners and university faculty and administrators to find ways to develop closer working relationships between the university and state governments. While the emphasis in their report is on the state level, the questions they pose on the university's public role are applicable to this paper. Over half of the university respondents in the SREB study report a strong commitment to
the concept of public service.23

Similarly, state officials have a positive view of the use of university resources to help deal with state problems. SREB writes: "State agency officials generally regard the universities and colleges in their states as separate, independent units containing a pool of talent that is potentially useful to state government."24

The SREB report also notes the difficulties involved in university/governmental collaboration: "The impediments tend to be solvable through better communications, a more practical orientation of university personnel when working in units of state government, sharper definitions of specific problems confronting state agencies, an adequate procedure for financing projects, and a greater commitment on the part of both government and the universities to the concept of mutual cooperation.25 The report states:

The overall conclusion is that most universities and colleges believe in the concept of public service and are anxious to serve state government to the extent that their research will permit them to do so without damaging their teaching/research programs. Many feel that their faculties have the capability of providing useful services to many types of state agencies and on a variety of problems.26

University administrators and governmental officials agree that efforts at collaboration should be facilitated, but comparisons of these two groups reveal that university resources are not currently utilized to a high degree by practitioners. James S. Bowman's survey of 144 public management academicians and 191 federal government practitioners finds that 28.5% of the academicians view university teachers and researchers as the main source of information and 20.1% of the academicians give practitioners their vote as the main source of information. Conversely, public managers view their peers as the most important source of information (38.7%) while giving university teachers and researchers only 14.7% of their votes.27 (See Table 6, p. 35.)
Table 6. Sources of Management Information\textsuperscript{a}

<table>
<thead>
<tr>
<th>Sources</th>
<th>Respondent Academicians n = 144</th>
<th>Respondent Practitioners n = 191</th>
</tr>
</thead>
<tbody>
<tr>
<td>University teachers and researchers</td>
<td>28.5</td>
<td>14.7</td>
</tr>
<tr>
<td>Government and private industry research and development</td>
<td>17.4</td>
<td>19.4</td>
</tr>
<tr>
<td>Research foundations</td>
<td>0.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Practicing managers</td>
<td>20.1</td>
<td>38.7</td>
</tr>
<tr>
<td>Management consultants</td>
<td>5.6</td>
<td>5.8</td>
</tr>
<tr>
<td>Professional and academic societies</td>
<td>23.6</td>
<td>15.2</td>
</tr>
<tr>
<td>No response/opinion</td>
<td>4.2</td>
<td>2.0</td>
</tr>
</tbody>
</table>


\textsuperscript{b} Based on W. Jack Duncan, "Transferring Management Theory to Practice," \textit{Academy of Management Journal}, 17 (December, 1974), p. 729.
The Traditional Mechanisms for the Provision of Public Services by Universities

The three traditional approaches to organizing the university for its research, teaching, and public service missions are departmental organization, interdisciplinary institutes, and extension mechanisms (the Cooperative Extension Service at land grant universities and varying extension organizations at non-land grant institutions). In the section that follows, these three mechanisms will be discussed, and the advantages and disadvantages of each type of organization for the provision of public services by the university will be considered. Models of alternative mechanisms for organizing the university will be developed in the following chapters.

Initially, however, variations in the organizational styles of American universities should be recognized. As Kenneth Polk notes, "The university of today has responded to a number of different forces and, thus, represents a conglomeration of traditions and a correspondingly complex organization." The departmental, institute, and extension mechanisms discussed in this chapter represent the principal arrangements at universities, though variations on these mechanisms abound.

The traditional view of the American university system conjures up visions of departmental organization throughout the university with individual faculty members pursuing their teaching and research interests in their specializations within their disciplines. The Carnegie Commission on Higher Education notes that there are various types of departmental organization, but usually it involves decentralized departments with inter-departmental lines of communication and hierarchical administrative organization.
Kenneth Polk discusses the departmental organizational structure of the university: "As a bureaucracy, the structure of the university is relatively frozen into an organization of semi-autonomous departments. As a consequence, budget decisions, personnel matters, and much of the routine administration take place within specialized departments." This kind of organization has major implications for the fulfillment of the teaching, research and public service roles of the university.

There is, in fact, some debate about the suitability of departmental organization at the university for any orientation other than teaching. James Perkins writes: "The traditional university structure devised for instruction is largely irrelevant to research and is almost antithetical to serving the needs of society." Perkins emphasizes the compatibility between these three roles of the university, but his point is well taken that they may require different forms of organization for the effective fulfillment of the research, teaching, and public service missions. Perkins' concern lies with the incompatibility of the departmental system originally developed for effective teaching and the more recent research orientations of university faculty. This concern about the applicability of departmental organization to the research role can be expanded to the public service mission as well. University public service or outreach involves both research and training programs for local officials. The need for an effective public service orientation highlights the need for an integrative teaching and research orientation and for organizational alternatives which stress the compatibility of these three missions rather than their differing perspectives.

James Perkins notes that "at least three pervasive organizational deficiencies are perceivable - the first attributed to size and complexity,
the second to specialization and departmentalization, and the third to
the shifting pattern of institutional government."34 He chronicles the
changing emphases in American higher education during the past two
centuries which have "produced specialized departments and professional
schools as basic units for academic affairs,"35 and notes the
consequence of this organizational structure on faculty loyalties which
have become primarily to their disciplines rather than to their institution.36

C. Brice Ratchford also criticizes departmental organization around
discipline emphases. He notes that departmental organizations' primary
objectives involve the teaching of students and the "collecting of scholars
of similar interests into an administrative unit for the purpose of
preserving past and creating new knowledge."37 He continues noting
that departmental organization structure "is far from perfect...flexibility
and multidisciplinary activities are seriously restricted."38 Ratchford
argues that "effective programs in the public service arena often require
not only a multidisciplinary approach but also individuals who are more
broadly oriented than the regular faculty, individuals who can understand
the problems and goals and find the relevant information to help provide
answers."39

Jay Galbraith's discussion of functional organization structures and
the advantages and disadvantages of this type of organization are rele-
vant here. Universities' functional departmental organization facilitates
the training of specialists in their respective disciplines. Galbraith
writes: "It minimizes the number necessary by pooling specialized
resources and time sharing them across products or projects. It pro-
vides career paths for specialists. Therefore, the organization can hire,
utilize, and retain specialists."40 The utility of functional departmental
organization for the teaching mission of the university is well known. Problems arise when the research and public service tasks of the university are introduced. Galbraith notes that

the tasks that the organization must perform require varying amounts of the specialized resources applied in varying sequences. The problem of simultaneously completing all tasks on time, with appropriate quality and while fully utilizing all specialist resources, is all but impossible in the functional structure. It requires either fantastic amounts of information or long lead times for task completion.

These criticisms of departmental organization are reflected in the lack of public service orientation of universities. The emphasis on specialization for discipline recognition results in a research orientation which often times negates public service research and training unless such emphases are recognized as an acceptable discipline pursuit. Examples of departmental public service provision bear this out: an accounting professor may explain the accounting process to local officials, but it may be in the theoretical terms of the discipline and not necessarily in practical terms of utility to the local officials. Such a theoretical orientation often results in the disdain for applied research in social science departments.

On many campuses interdisciplinary institutes have been designed to overcome the deficiencies of departmental organization. These institutes often merge or cross disciplinary lines with emphases common to a variety of fields. Many of these institutes have a strong interdisciplinary research orientation and teaching emphasis. Kenneth Polk argues that such "innovation is rendered more feasible by creating an autonomous unit within the university. While this unit can and does draw upon course offerings and staff from the more traditional liberal arts departments, it can also create its own courses manned by its own personnel where necessary."42

The interdisciplinary institute organizational structure can facilitate
the research and public service missions of the university and can provide an acceptable alternative organizational style for the teaching mission. The Baconian view of scientific research emphasizing research teams pursuing knowledge is one basis for the institute approach. In contrast to the Cartesian model of scientific inquiry stressing the lone researcher pursuing truth, the Baconian method emphasizes teams of scientists bringing expertise in diverse fields to bear on common research problems. 43 The recognition that a research problem may require cross-disciplinary research is also evident in the public service field. The need to bring a variety of university experts together to deal with local problems has resulted in a number of institutes aimed at the university's public service mission.

Galbraith has identified the advantages of the product or project form of organization typified by interdisciplinary institutes in the university. "It facilitates coordination among specialists to achieve on-time completion and to meet budget targets. It allows a quick reaction capability to tackle problems that develop in one specialty, thereby reducing the impact on other specialties." 44 Thus, the project form of organization exemplified by interdisciplinary institutes overcomes the key deficiencies of functional departmental organization: "It (functional organization) requires either fantastic amounts of information or long lead times for task completion." 45 But project organization also has its weaknesses:

If the organization has two projects, each requiring one half-time electronics engineer and one half-time electromechanical engineer, the pure project organization must either hire two electrical engineers—and reduce specialization—or hire four engineers (two electronics and two electromechanical)—and incur duplication costs. In addition, no one is responsible for long-run technical development of the specialties. Thus, each form of organization has its own set of advantages and disadvantages. A similar analysis could be applied to geographically or client-based structures." 46
Galbraith continues: "The problem is that when one basis of organization is chosen, the benefits of the others are surrendered. If the functional structure is adopted, the technologies are developed but the projects fall behind schedule. If the project organization is chosen, there is better cost and schedule performance but the technologies are not developed as well." 47

Galbraith's solution is to emphasize the strong points in both functional and project organization by stressing a matrix of organizational design integrating the two approaches. In the modern university, such an approach is often evident although this organizational matrix integrating functional departmental organization and project interdisciplinary institute organization has not often been arrived at as the result of a conscious decision about organization priorities for teaching, research, and public service. Thus, universities are organized in a variety of ways not necessarily in a manner conducive to the optimal fulfillment of their missions. Clearly the functional departmental organization remains feasible for the teaching role, but as Perkins previously noted, may not be the optimal mechanism for research or public service. These latter missions should prosper under the project form of organization.

The Cooperative Extension Service (CES) offers another existing model of university organization for teaching, research, and public service which integrates both functional and project organization. CES emphasizes its outreach or public service role integrated with the teaching and research missions of the university. Cooperative Extension has been characterized as emphasizing the following characteristics: a broadened program role, more intensive and sophisticated service to agriculture, more development-type programs, increasing specialization of staff, more specific work done
with selected audiences, more in-depth and packaged programming using Extension research teams. In some states, there are continuing increases in applied or developmental research conducted by Extension specialists, community and resource development programs, services for the agribusiness industries, work with low-income segments of the population, and area specialization. Thus, Extension provides various teaching, research, and public service functions. James R. Miller in his doctoral dissertation argues that the Cooperative Extension Services at land grant universities provide the main outreach function of these institutions. Clearly, Extension integrates the university's teaching and research functions into its public service role.

**Barriers to University/Local Interaction**

These traditional departmental, institute, and extension mechanisms for the provision of public services by universities provide examples of the possibilities for university/local interaction, and they also offer information on the barriers which must be overcome if we are to improve the relationship between universities and local governments. The major barriers to interaction involve communications problems, expert/client conflicts, deficiencies in incentives for interaction, and organizational difficulties.

The organizational structure impacts greatly on the character of an institution and on the organization's ability to provide public services to local officials. Reviewing the three traditional organizational mechanisms within the university, it is clear that the departmental, institute, and extension structures each exhibit strong and weak points with regard to
their ability to fulfill the public service mission. Using Galbraith's matrix of organizational design continuum, departmental organization has the advantages and disadvantages of functional organizational design; institutes exhibit the project form of organizations' strong points and deficiencies; and extension mechanisms offer a variety of organizational designs, but often they exemplify the integration of both the project and functional organizational approaches.

David L. Rogers argues that these university organizational considerations can be classified into categories involving "the boundaries between research and policy-making units and...the internal design of the research institution itself." He emphasizes the fact that "research institutions often lack formal procedures for exchanging information" and criticizes the rather narrow definition of institutional domain often held by research institutions. Rogers writes:

The 3rd category of limits relates to the disorganization of research institutions. A critical factor in organizing tasks is how to motivate the actors. As Daft points out, "universities reward originality and sophistication of techniques more than synthesis, application, and conceptualization. Incentives presently being used appear to be misplaced and make it difficult to conduct policy research."

Obviously, many universities are not in the position to be able to evaluate their organizational climate in Galbraith's terms, but administrators are able to consider the implications of their particular form of organization for the effective provision of public services to local governments. The normative emphasis of the project/functional/matrix organizational continuum exists in the framework it provides for the evaluation of university organization and the recognition of organizational problems.

Organizational structure is also an important factor at the local government level. Traditionally city and county governments are organized along functional departmental lines which can, as in university departmental orga-
nization, thwart interactions with city government on policy issues of interest to many city departments. Such functional city organization can also make it difficult for university researchers who are attempting to propose solutions to city problems which may cross departmental lines.

In addition, the structure of the executive branch of local government represents an important organizational consideration. The elected mayor/council and the city manager forms of organization both have costs and benefits in terms of the identification of local needs and the utilization of alternatives as proposed by universities. For example, a strong mayor with the support of the city council may be better able to consider and implement university proposed alternatives than a city manager who is dependent on council support in these considerations. Similarly, a strong department head may immediately utilize a university proposal whereas another department head must continually refer to his superiors in such decisions.

Clearly, the recognition of the type of organizational structure in existence at both the local and university levels is an important consideration in the provision of public services. Major changes in the organizational structure of both sets of institutions may not be feasible, but the recognition of the possible organizational barriers which exist between universities and local governments is crucial to the implementation of the universities’ public service role. C. Brice Ratchford argues that universities’ "administrative structure is a tool to accomplish the program objectives." 53 The effective implementation of the public service role of the university requires the consideration of these organizational barriers within the university and without.

The second major barrier to interaction involves communications diffi-
culties between university researchers and local officials. One study by the Southern Regional Education Board found that both governmental and university officials think poor communications are a very important barrier to the provision of public services to governmental units. They write: "The main point suggested by many respondents was simply that there is very little contact between the two." David L. Rogers writes:

Universities have a great problem-solving potential, but are often prisons of new ideas. Although information is generated through elaborate programs of research, it often is held within the scientific community because of a lack of incentive to transmit it to non-scientific audiences or because mechanisms for disseminating ideas to non-technical groups are inadequate.

Edward Moe identifies a number of factors which make communication among public officials and administrators ineffective:

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

- mutual suspicion and distrust among researchers, extension educators, action agencies, and decision makers on policy and programs.

- researchers designing research projects without direct contacts with potential users, and frequently with little information of 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 publications 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 processes.

-lack of a broad based public education program which builds public literacy about social policy issues, policy alternatives and improvement of programs and services.57

There are a variety of causes for the poor communications which often exist between the university and local governments. The differences in organizational structure are, of course, factors to be considered, but major barriers to better communications commonly involve conflicts inherent in the expert/client relationship. Innovative organizational changes by universities can provide more of a public service rather than discipline research oriented emphasis, but improved communications between the university researcher and local government client are also required for the effective provision of the universities' public service role.

A prerequisite for local/university collaboration is the identifi-
cation of problems of importance to communities. Effective researcher/ client interactions require the development of basic communications pro-
cesses where problems and mutual interests can be identified. Often communications problems are viewed solely in terms of the need to communi-
cate university research results and information to local officials.58 As Moe's comments indicate, the burden may lie more on the need for uni-
versity researchers to develop an increased emphasis on interactions with local officials in selecting projects of mutual interest and less on the necessity of researchers communicating research results to local decision makers. If local officials perceive the need for research projects and work with univer-
sity researchers to identify problems, then they will be more likely to utilize the fruits of the researchers' labors. One wonders why university researchers are often puzzled when local officials are not interested in research they did not request and which was not designed for their use.
Once research projects are based on mutual interests and needs, then the communication of university research results can become automatic and useful. Similarly, often the issue of the lack of implementation by local officials of university research findings is raised. Again, mutual collaboration in the community interest from the beginning of the research project should only result in research of use to communities. Often local officials who fail to implement researchers' proposals were not involved throughout the research process and thus feel disenchanted, disillusioned, and disinterested in the research results.

An emphasis on communications between university researchers and local officials can help eliminate the problem of communicating research results. For technical assistance in general management capacity building and technology transfer modes to be effective, ongoing interactions must be developed. Whether we view the problem of poor dissemination of research results as one of inadequate technology transfer mechanisms or as a reflection on the research orientations of academics whose research is not useful to local policy makers, the cause of the problem is the same: poor communications between the university researchers and local officials.

Public officials often believe university faculty members lack interest in governmental problems. Officials frequently cite faculty credibility and they may doubt that university or college professors would or could perform in a capable manner. An 'ivory tower' or 'impractical' image of university personnel was held by a number of agency respondents. Typically they felt that university faculty do not know how to deal with the kinds of practical problems facing state agencies and would therefore be useless to them. Others cited instances of poor past performance and slow reaction time as reasons for not asking local universities for assistance.
Often university researchers don't speak the same "language" as decision makers and so university resources are under-utilized. Lynn M. Daft identifies seven conditions of research user interaction which represent important communications insights aimed at alleviating these problems. He writes: "To be influential, information must...be perceived by the policymaker to have relevance." Secondly, timeliness is an important factor: "If the information is not available or is not introduced during the brief period for which the issue is on the agenda, and receiving attention, its policymaking value is greatly diminished." Third, the credibility of the university's information must be considered. Also, "clarity is another of those obvious requirements for effective communication." And related to clarity, conciseness is also important "for it precludes the use of lengthy exposition." Sixth, information coverage is important for the policymaker. In order to make an informed decision, policymakers must receive integrated information on a variety of economic, legal, social, and political factors. Finally, accessibility is the "connecting bridge between the policymaking process and those who produce the knowledge. In absence of this two-way linkage, knowledge producers act without knowledge of an important market while policymakers make decisions unmindful of important informational inputs."

Researchers must interact with local officials and identify local needs which are in turn of interest to university researchers. The researchers cannot go to communities with preconceived ideas for research topics which, although of scholarly interest, have no relevance for local decision makers. Studies have consistently shown that expert/user interaction must begin with the problem identification stage and continue throughout.
the research and discussion of proposed alternatives. As Huie argues, "Community information needs require research that is issue oriented, not discipline oriented."\(^{67}\)

Expert/client conflicts will often arise, but they can be recognized and dealt with effectively. Many of these problems can be eliminated initially by a clear cut discussion between local officials and university researchers about their perceptions of the researcher's role. Is the university researcher considered a facilitator hired to assist localities in identifying their own problems and in finding solutions to their needs, or as an advocate defining community problems and offering externally developed solutions?\(^{68}\)

Tied to this issue of the university researcher as a facilitator versus advocate in the expert/client relationship is the debate over the respectability of applied policy research by social scientists. Ronald Powers argues: "It seems clear that there is a gap between the kind of information and data needs of decision makers at all levels and the kind of information and data that social scientists are providing or are willing to provide."\(^{69}\) Often university researchers unconsciously undertake the advocate role studying their pet theories about communities and end up with research of little or no value to local officials. The facilitator role by definition involves more initial interaction between the local officials and the researcher to determine local priorities, but the advocate role can also be based on a mutual interest in local problems if the university researcher/advocate is willing to take the time to become immersed in local issues and to learn which alternative solutions to local problems are plausible for the particular community being studied. Such an orientation emphasizing the uniqueness of each community and the need to develop
alternative solutions to local problems which are tailored to each individual locality often contradicts the emphasis in the social science disciplines on theory building through generalizing from the similarities among communities. When applied social scientists stress the in-depth analysis of a community, its problems, and possible solutions for these problems in this community's situation, they are taking a case study approach which is often counter to the comparative theory building efforts. Local officials are not interested in theories about American communities; they are interested in solutions to local problems. For the university researcher, the choice does not necessarily have to be between theoretical and applied research, but the researcher must make an effort to deal with local officials and pursue research of mutual interest which can provide alternative solutions to local problems and answer theoretical questions about American communities.

Social science disciplines continue to reward theory building efforts rather than applied studies for local governments. Thus, an additional barrier to university/local collaboration is the lack of incentive structure in the university for applied social science research. Faculty members pursuing applied research for localities are bucking a reward system in their respective disciplines which promotes and gives tenure to department members for basic research rather than applied studies. Sometimes faculty members can be credited with public service efforts when they pursue research for local officials, but often support for applied research is not forthcoming from departmental peers. As Huie argues, "We must increase the relative rewards for research output that communicates directly to the policymaker. Also, we must provide incentives for persons to become involved in joint multidisciplinary research efforts."
Those arguing for an increased emphasis on applied policy research for local decision makers are not seeking an end to the traditional departmental basic research orientation, but rather a beginning of an acceptance of applied research as an integral part of the social scientists' research emphasis as well.

Clearly, one reason why Powers finds a lack of social science research which provides information needed by decision makers is that university faculty receive few rewards for such applied research. In fact, incentives for departmental promotion lie almost solely in the basic research realm. It is completely rational for faculty members to pursue basic research interests which offer discipline and tenure rewards. While communities need issue oriented rather than discipline oriented research, university researchers cannot be expected to pursue applied research interests for local officials if no incentives and, in fact penalties, for such research activities are forthcoming.

The burden of overcoming these barriers to university/local interaction lies largely with the university. Local officials are eager for assistance in solving local problems. Inasmuch as some local decision makers are leery of university researchers, these relationships can be easily improved by the development of a genuine interest in local problems on the part of university researchers. The university must work to improve its relations with communities. The major organizational reward system, communications, and expert client relationship barriers to successful university/local collaboration can be dealt with by universities interested in improving their public service missions. As John Huie states, "It is time we made the commitment and began to make the internal changes necessary to get the job done."
In the following chapters three models of university/local collaboration will be discussed: Penn State University's Title V Rural Development assistance to Pennsylvania communities, the Community Technology Incentives Program (CTIP) circuit rider approach to city management, and Mississippi State University's Center for Governmental Technology's training and technical assistance efforts for local officials. These programs represent efforts at land grant universities--through the Cooperative Extension Service--to overcome the barriers to a university/local partnership and improve upon the provision of public services by the university.
FOOTNOTES
CHAPTER 3

1 Durward Long, "The University as Commons: A View from Administration," New Directions for Higher Education, 18 (Summer 1977), p. 82.


3 Ibid., p. 29.

4 Ibid., p. 29.


7 Ibid., p. 15.

8 Long, p. 82.

9 Johnson, p. 27.


11 Ibid., pp. 27-28.

12 Ibid., p. 27.


Ibid., p. 64.


18Moe, p. 33.


20Ibid., p. 69.


22Ibid., p. 33.


24Ibid., p. 7.

25Ibid., p. 9.

26Ibid., pp. 10-11.


30Polk, p. 7.


33 Ibid., pp. 212-13.
34 Ibid., p. 215.
36 Ibid., p. 218.
37 Ratchford, p. 79.
38 Ibid., p. 79.
39 Ibid., p. 79.
41 Ibid., pp. 439-40.
42 Polk, pp. 68-69.
43 For elaboration on the Baconian and Cartesian models, see Joseph Haberer, Politics and the Community of Science (New York: Van Nostrand Reinhold, 1969).
44 Galbraith, p. 440.
46 Ibid., p. 440.
51 Ibid., p. 232.
52 Ibid., p. 233.
53 Ratchford, p. 79.

54 Southern Regional Education Board, p. 27.

55 Ibid., p. 27.


59 Southern Regional Education Board, pp. 27-28.


61 Ibid., p. 10.

62 Ibid., p. 10.

63 Ibid., p. 11.

64 Ibid., p. 11.

65 Ibid., p. 11.

66 Ibid., p. 12.


70 Huie, p. 30.

71 Ibid., p. 31.
CHAPTER 4
COUNTY LEVEL SPECIALIST FOR
LOCAL GOVERNMENT MODEL

Penn State Community Development Specialist

Pennsylvania State University's implementation of Title V of the Rural Development Act of 1972 provides one example of an effective way to organize the university for university/local interaction. The Penn State program is designed to overcome a number of barriers to university/local collaboration. The program philosophy integrates a concern with improving the expert/client (university researcher/local official) relationship with an emphasis on coordinating research and extension efforts.

The Penn State Title V project emulates the traditional Cooperative Extension model by providing educational assistance to clients at the county level. However, the Penn State arrangement differs from the traditional model in that a CD specialist with campus-based departmental ties is assigned to the county staff. Under this arrangement the CD specialist's focus is on both research and extension activities.

The Penn State research-extension integration is organized through a Title V coordinator (Dean, College of Agriculture) and a Title V project leader who are responsible for both the research and extension aspects of the program. In addition, the CD specialist's position is structured into a joint staff appointment with the Departments of Rural Sociology and Agricultural Economics as well as the Cooperative Extension Service. The joint research-extension appointments provide colleagues and support from both the university departments and the county extension office. Thus the CD specialist is afforded both local and university ties.
Geraldine Weilacher argues that an effective administrative and advisory structure contributes to the success of the Title V program. She writes the program organization includes seven elements from the land grant university: 1) the state coordinator; 2) the program leader; 3) a community development specialist in the field; 4) a research-extension specialist at the university; 5) college (of agriculture) advisory board; 6) ad hoc departmental (agricultural economics and rural sociology) committee on rural development; and 7) faculty advisors and consultants from the Department of Agricultural Economics and Rural Sociology, two state-wide councils, a major linkage with Indiana University of Pennsylvania, and contacts within the target area. The target area elements reflect the traditional CES model: the county extension staff, a local advisory council, local officials, and citizens all provide direction for the community development specialist's technical assistance efforts.

The goal of improving local governments' capacity to deal with local problems is undertaken through an integrated research and service effort. The melding of the research and extension functions of the university is the theme which underlies the Penn State Title V effort.

The program stresses an organizational design necessary to implement the joint research/extension emphasis. Joan S. Thomson and Kenneth M. Martin argue that one person acting as a project director and doing both research and extension efforts enhances coordination better than the system of having two persons, one for research and one for extension. They seriously question the advisability of developing separate appointments which may result in the lack of integrated research/extension orientation. Under this organizational arrangement several states have essentially developed independent research and extension programs rather than coordinated funding and programming efforts. As Weilacher notes, "Pennsylvania repeatedly
recommends this joint administration of resources for promoting flexibility of resource allocation and for a conscious integration of both the research and extension functions of all areas of programming.\(^3\)

Penn State's initial Title V demonstration project involved Indiana, Butler, and Armstrong counties, which were chosen on the basis of financial need and potential for economic development. In addition, "they sought three contiguous counties with the same sub-state planning-and-development district."\(^4\) The Penn State CD specialist helps with small or large problems for short or long term development. Technical assistance is provided by the specialist to the three counties for long term rural development capacity building as well as functional and technology transfer assistance needs.

The philosophy behind the Penn State program stresses local communities identifying their own problem areas and university researchers working promptly to help find solutions to these local needs. In brief, "Title V works side by side with residents in a small geographic area, helping them learn to deal with immediate pressing problems."\(^5\) Penn State's staff acts as facilitators assisting local efforts rather than as advocates or decision makers determining priorities for communities. The emphasis is on improving the local capacity to undertake rural development efforts and to solve local problems. Thomson and Martin write:

> At the local level, the relationship between research and extension was linked by the Community Development Specialist located in the target communities who acted as a facilitator with local clientele groups (usually county or sub-county) in defining additional information needs and assessing whether this information could be made available through research.\(^6\)

The coordination of research and extension work and the role of the CD specialist were carefully considered to optimize community efforts with university assistance. In the initial study, the CD specialist worked in
each of the three counties to identify needs through a needs assessment citizen survey and meetings in each county soliciting citizen views. Once a working relationship had been established and local needs identified, the CD specialist then worked as an objective consultant providing technical assistance to meet local needs. Thus, the specialist acted as an educator, meeting organizer, motivator, objective third party, expert, researcher, and a consultant with access to technical information. Noticeably absent from this listing is an emphasis on specific policy areas of expertise such as water resources, housing, or personnel policy. The specialist role was designed to be responsive to the issues and needs of communities, and those varied from community to community. The specialist assisted on a variety of local needs rather than singling out one issue orientation. The Penn State objective is to be able to help the community define the issue before it, consider alternatives, and help in the resolution of the issue through the chosen alternative.

A continuing theme in the Penn State program is its emphasis on the nonpolitical nature of its Title V efforts. The CD specialist acts as a nonpolitical, third party consultant. The specialist can be objective and neutral because he is apolitical. Similarly, political considerations were minimized in the selection processes for the three target counties. Geraldine Weilacher writes that

the process of choosing...was in keeping with the program's philosophy of being as non-political as possible and relying chiefly on objective data. In order to develop and maintain a collaborative relationship between the university and local officials, Title V staff "should remain non-political and avoid taking adversarial positions."  

Following these guidelines, the specialist began working to provide technical assistance in Indiana, Butler, and Armstrong counties. Important
issue areas identified through the needs survey included health care, outmoded and inefficient water systems, housing rehabilitation, public transportation assistance, and leadership training in the areas of land use, public finance, taxation, population analysis, and communications skills. Various issues were accentuated in each county though the health related needs were identified in all three counties.

Weilacher outlines the procedural tactics used by the Title V staff to most effectively meet these local needs: "They planned activities so as to (1) establish visibility and credibility as soon as possible, (2) stimulate citizens to Title V with their own requests, (3) draw on local resources, and (4) encourage local people to control projects themselves." The Title V emphasis is on communicating community needs and resources in the solution of local problems rather than trying to solve problems for the community. The CD specialist helps coordinate local efforts of bringing citizens, local officials and agencies together to work with each other.

The Title V rural development efforts were not equally divided between Indiana, Armstrong, and Butler counties. Indiana County received quantitatively much greater assistance in its water, housing, transportation, health, sewage facilities and survey research needs than both Armstrong and Butler counties. Also, qualitative evaluations of Penn State's Title V rural development efforts confirm a major focus on Indiana County and a greater success rate there.

The major benefits of the Penn State Title V program occurred in the health care and water systems areas in Indiana County. In both instances needs surveys of all residents regarding their water usage, the CD specialist began organizing community meetings and providing information on funding sources. These efforts eventually led to a Farmer's Home
Administration (FmHA) grant to the Indiana County Municipal Services Authority (CMSA) for funds to renovate the county water system.

The other major project, building a medical center, also was undertaken following a survey of local residents. The health needs survey indicated the need for a physician and access to medication in the rural area. The CD specialist "served as Board consultant, provided information on by-laws, fund raising, and funding sources, helped write and distribute newsletters, and sponsored visits to other medical centers."\(^{11}\)

In addition to the physical results of the water and health care projects, there were major organizational outcomes and an increased capacity for rural development, what Weilacher terms "the acquisition of problem solving skills or the building of new organizations to facilitate future development."\(^{12}\) The CD specialist had organizational and planning skills which assisted community groups and local officials in dealing with local problems. The resulting development of confidence in the communities' own decision making capabilities represents a continuing benefit from the specialist's efforts. For example, "The Center's Coordinator wrote that Title V personnel instilled confidence and leadership into those people directly involved with Mahoning."\(^{13}\) Other comments provided by Weilacher support this view: "We want to thank Title V and the Penn State Extension Service for helping us help ourselves," and"Title V staff have been and continue to be one of the most important 'spark plugs' to our project."\(^{14}\)

The discrepancies among the results of the Title V CD specialist's work in the counties must be examined. Moe found the results in Indiana County were dramatic but the outcomes in the other counties studied were less dramatic and less direct.\(^{15}\) Tankersley concurs noting the project was highly successful in one county and only slightly successful in the
other two counties. Moe and Tankersley both cite the fact that the CD specialist worked out of the Indiana County office as a minor explanation of the differences in success in the three counties. Of major importance is the tradition of cooperation between local groups, officials, and agencies in Indiana County. Also, the Indiana County extension program has stressed assisting county residents in meeting their needs.

Moe quotes a Indiana County resident's observation: "It is as if Indiana County started ahead and with the headstart accomplished more." Clearly the initial communications processes were already in evidence in Indiana County. The CD specialist could act as a facilitator of interactions among local people, officials, groups, and agencies already open to such collaboration. In Armstrong and Butler counties, however, the specialist needed to begin to build the initial cooperative linkages within the community before rural development efforts could begin. Thus the Title V goal of improving local governments' capacity to deal with local problems requires a flexibility on the part of the CD specialist to meet each county's capacity building needs.

In addition to the capacity building benefits of Title V to the three Pennsylvania counties, the organizational design of the Penn State Title V Program also has been found to be successful. The research/extension focus of the Penn State program has been important in the delivery of technical assistance to Indiana, Butler, and Armstrong counties. Howard C. Tankersley goes so far as to argue that this research/extension "Integration, in fact, is easily identified as one of the factors or conditions critical to the success of the project." Edward Moe concurs, noting the critical role played by applied research which responds completely and quickly to the research and information needs of Title V type programs."
In fact, Moe asks whether the same results could have been obtained with a different organizational design for university/local collaboration. The answer given by the local officials Moe questioned is clear: The Penn State/County Extension organization was effective and "the results would not have been the same had it been placed elsewhere." 20

**County Level Specialist Model**

The county level specialist model incorporates a dual research/extension focus into the traditional CES county agent approach with the aim of helping communities help themselves through university/local collaboration. Such a research/extension orientation is consciously organized through the joint staff appointment of the county specialist with support coming from the university departments and CES. At the university level, the research and extension aspects are coordinated by a project leader. Thus, rather than the traditional research/extension divisions, this model requires the integration of these functions at the university level for the effective provision of assistance by the county level specialist to localities. The county level specialist learns to know and understand the communities within his jurisdiction and develops a rapport with local people, officials, and groups. The county specialist can then draw upon his personal and university expertise to provide technical assistance to the localities.

The traditional agricultural extension organization on which the county specialist model is based has agents operating in each county in a state. It is clear that funding limitations may restrict the opportunity to establish a CD specialist in each county, but the Penn State experience indicates that two or three counties may realistically be the maximum number of counties for the county CD specialist to feasibly serve.
Possibly, of more importance to the success of the local government specialist's efforts are the inclination and interactions within the county people, groups, and government personnel rather than number of counties with which a specialist deals. The support of local officials and extension personnel are integral to university/local collaboration of the county local government specialist model. These factors must be considered in any model for university/local interaction: a county local government specialist must initially categorize the readiness of a community for collaborative efforts. Does a cooperative relationship exist within the community with an interest in working to solve local problems? If not, the specialist's initial efforts may need to be aimed in this direction.

The necessity of working to develop local community interactions prior to any technical assistance efforts pertains to both community officials, group agencies, and the CES personnel. The county specialist must develop strong ties with the pre-existing mechanisms in the community to further develop the extension/local ties in the solution of local problems.

The county local government specialist's role is as a facilitator stressing community action in the solution of its own problems. The emphasis is on improving the capacity of the locality to deal with its problems. This orientation necessitates a flexibility in the specialist's role because the local determination of community priorities may result in a wide variation of issue areas from county to county with which the county specialist must deal.

An initial indication of the university's commitment to providing technical assistance for local governments is provided by housing the local government specialist in an office in the county he is assisting. In addition to funding the specialist's position, however, the university must
be ready, willing, and able to assist the specialist in these efforts. The project organizational design provides the needed organizational support for the flexible response of the specialist to various local technical assistance needs by giving the specialist access to both CES and departmental expertise. The specialist is afforded the full range of university resources which he can call on for help in his technical assistance work. The specialist working with a coordinated research and extension emphasis in CES can undertake needed research projects for communities and disseminate research results of significance to other localities. The specialist can both promptly respond to technical assistance requests and work to improve the long term capacity of the community to deal with local problems. The short, intermediate, and long term technical assistance needs of the locality can be provided through the integrated research/extension network of the county CD specialist and the CES university backup.
FOOTNOTES
CHAPTER 4


3 Weilacher, pp. 284-85.

4 Ibid., p. 293.

5 Ibid., p. 282.

6 Thomson and Martin, p. 27.

7 Weilacher, p. 293.


9 Weilacher, p. 295.

10 External Evaluation of Title V, pp. 18-30.

11 Weilacher, p. 299.

12 Ibid., p. 298.

13 Ibid., p. 299.

14 Ibid., p. 301.


16 Howard C. Tankersley, Pennsylvania State University: Title V Program Review: Interpretive Notes, December 7-10, 1976, p. 3.

17 Moe, p. 10.

18 Tankersley, p. 3.

19 Moe, p. 8.

20 Ibid., p. 9.
CHAPTER 5
THE CIRCUIT RIDER APPROACH TO ASSISTING
LOCAL GOVERNMENTS

The CTIP Circuit Riding Technology Agent Example

The Community Technology Incentives Program (CTIP) integrates an emphasis on scientific and technology transfer for local governments with a circuit rider approach to furnishing needed technical assistance. The CTIP stress is on the common needs of communities under 50,000 in population and the opportunities for collaboration in efforts to solve local problems.

The CTIP approach focuses on the shared needs of localities and "the strengthening of local government's capabilities in applying science and technology to critical issues."¹ The CTIP program guidelines reflect the belief that local officials can solve many of their common problems through the coordination of objectives and strategies that would result in practical scientific and technological solutions.

Background on CTIP

The Community Technology Initiatives Program (CTIP) is a nationwide organization which has been established by 31 local governments below 50,000 in population to address their common scientific and technological needs. Public Technology, Inc. (PTI) is a national research and development effort for local and state governments that acts as the CTIP secretariat and provides program management for CTIP.
CTIP consists of elected or appointed officials who are drawn from 28 cities and townships and three counties from across the nation. All jurisdictions are below 50,000 in population. A nine-member steering committee serves to develop the overall policy and organization of the program. The program membership meets periodically and exercises critical program responsibilities relating to problem definition, review and priority setting, requirements definition, and task force participation.

In its capacity as Secretariat to CTIP, personnel from PTI are responsible for day-to-day management, conduction of all work for the development of products, and all necessary publication, dissemination, and utilization efforts. 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 (ICMA), and the Southern Rural Development Center (SRDC) and local innovation groups. These interactions are greatly aided through a partnership with the National League of Cities (NLC).

The NLC membership is vast and diversified, consisting of over 15,000 municipal governments. NLC involvement in the CTIP program includes national and regional NLC meetings which are made available for CTIP presentations, assistance with information dissemination, assistance with needs assessment, and help in planning and evaluating CTIP activities.

**CTIP Circuit Rider**

The use of a Federal laboratory employee engaged under the Federal Intergovernmental Personnel Act as a circuit-riding technology agent is a major CTIP activity. The technology agents are assigned on-site to three to five communities. As a Federal lab employee, the technology agent is provided technical back-up by member labs of the Federal
Laboratory Consortium. The basic function of the circuit riding technology agent is to assist the CTIP jurisdictions in problem solving, technology transfer, and technology utilization. In essence, these technology agents will link the users in CTIP jurisdictions with Federal lab capabilities, with the private sector, and with other sources of science and technology support.

The technology agent reports on the progress of CTIP in the three to five communities he is assigned to assist. During the first year, these communities will hold a series of meetings to develop and review problem statements, establish their priorities, develop a user-needs agenda for small local governments, and establish performance requirements for the solutions being sought. The technology agent works with local officials in the following manner:

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. Some examples might include fleet management systems, more effective ways of locating public facilities, land use techniques, and improved methods for solid waste collection and disposal.

4. Develop a program plan for the second and subsequent years of CTIP operations which will include communicating and working with Federal agencies, industry, universities, and other institutions and disseminating program results to other local governments.
The list of the CTIP top priority needs for 1979 includes community and economic development, criminal justice, energy, environmental services, fire safety and disaster preparedness, health, management, finance and personnel, public works and utilities, and transportation. These problem areas are reviewed and arranged in order of priority. CTIP then works to prepare technology bulletins adapted to the specific needs of smaller jurisdictions when knowledge about potential solutions can be matched to problem statements. CTIP also designates task forces to initiate and monitor research and development projects based on priority problem statements.

The CTIP emphasis on common problems and possible solutions allows the technology agent serving four or five communities to assist these localities in the problem areas and to transfer the knowledge gained in the circuit communities to other localities. The emphasis is on smaller local governments acting in concert to stimulate innovation, technology sharing, and greater research and development capacity with direct benefits to problem solving and the delivery of public services. The goal is for the results of CTIP activities to benefit government operations in hundreds of other municipalities, townships, and counties in the United States.

Organizational Design

The CTIP technology agent program attempts to coordinate governmental, industrial, and university resources toward the solution of local problems. Since CTIP is a nation-wide organization established by 31 local governments with common scientific and technological needs and aimed at transferring information about possible solutions to local problems to governments across the nation, the program stresses the placement of
Table 7. CTIP Top Priority Needs

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<tr>
<th>Community and Economic Development</th>
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<td>a. Land management tools</td>
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<td>b. Storm water control methods</td>
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<th>Criminal Justice</th>
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<td>a. Vandalism: control and prevention</td>
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<td>b. Police officer productivity</td>
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<td>c. Burglary prevention</td>
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<td>d. Police patrol vehicle specifications</td>
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<th>Energy</th>
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<td>a. Public awareness</td>
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<td>b. Retrofitting buildings</td>
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<td>c. Energy efficiency in housing</td>
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<td>d. Alternative energy sources and street lighting</td>
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<th>Environmental Services</th>
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<td>a. Solid waste management</td>
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<td>b. Resource recycling</td>
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<th>Fire Safety and Disaster Preparedness</th>
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<tr>
<td>a. Alternatives to present insurance rating system</td>
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<tr>
<td>b. Standardized procurement specifications for fire apparatus</td>
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<tr>
<td>c. Firefighters' productivity</td>
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<td>d. Arson information system</td>
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<th>Health</th>
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<td>a. Alternatives to institutionalization for care of the aged and other chronically disabled persons</td>
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<td>b. Emergency medical services</td>
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<td>c. Stray dogs and cats</td>
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<tr>
<th>Management, Finance and Personnel</th>
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<tbody>
<tr>
<td>a. Computerized financial package</td>
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<td>b. Complete use of computer technology in government</td>
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<tr>
<td>c. Risk management and insurance purchasing</td>
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<td>d. Work measurement productivity</td>
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<tr>
<td>e. Federal grant fund accounting</td>
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<td>f. Computer software and hardware</td>
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<th>Public Works and Utilities</th>
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<tbody>
<tr>
<td>a. Automatic remote meter reading</td>
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<tr>
<td>b. Pavement marking paint or substitute</td>
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technology agents with responsibilities in four or five localities and the
access of technology agents to national labs, universities, industry, and
their counterparts at the local level. Information about innovative solu-
tions in the one locality can be translated to other communities with
similar problems through the technology agent/university/Federal lab
liaison mechanism. These dual communications from the local level up
and from the technology transfer mechanisms down to the localities are
the essence of the CTIP design. Technology agent efforts in the 31
communities in CTIP must be disseminated throughout the country and the
understanding and solution of common local problems must be the result
in order to legitimize CTIP's technology transfer mission.

The coordinating organizational structure with CTIP and PTI empha-
sizing national coordination of local priorities and a technology agent on
the local level dealing with these priority problem areas offers the benefits
of a combined program (CTIP) and project (circuit rider) design. The
technology agents respond to local needs in the CTIP specified problem
areas, and they are then free to provide technical assistance to their
localities. The technology agent gets to know his three to five localities
and helps them identify problems. He offers solutions based on input
from CTIP supporting mechanisms. The "circuit rider responds to needs
expressed by individual CTIP communities with analyses and reports.
He refers inquiries from local officials to sources of help and arranges
to bring in outside specialists to deal with priority issues when appropriate."²

Technology agents familiarize themselves with the supporting resources
available from universities, industry, Federal labs, and others. They take
advantage of resource networks, technology transfer mechanisms, and data
banks containing up-to-date information on innovations available in dealing
with local problems.
Each technology agent is headquartered in one of the communities he serves. He must know the local officials, the needs, and the priorities in each community. To this end, the technology agent acts as a facilitator helping localities identify problem areas. In addition, the technology agent moves beyond the facilitator role to that of CTIP advocate for studying and solving the problems which exist in all the CTIP communities. This comparative perspective allows the technology agent to play the dual technical assistance role of facilitator identifying local problems and advocate proposing alternative solutions in his communities. The combined Federal laboratory and industry resources give the technology agent broad based comparative information on effective solutions to local problems across the country. Once the initial trusting relationship is established by the technology agent in his communities, then the search for solutions and the discussion of options relevant to his localities can proceed.

This discussion of the technology agent's role within and without the communities on his circuit points up the broad based technical assistance provided by the CTIP model. Not only does the technology agent provide general functional assistance on priority community problem areas, but also, through the CTIP network, he disseminates results of these efforts to other communities. Thus a key ingredient in these technical assistance efforts is technology transfer within the 31 CTIP jurisdictions and beyond to localities throughout the United States with similar needs.

Clearly, the CTIP administrative support is integral to these technology transfer efforts. Without sound backup support the technology agent cannot effectively assist the four localities on his circuit, let alone share knowledge gained with localities throughout the U. S. The National
CTIP support provides the flexibility needed for nationwide technology transfer mechanisms.

Region IV CTIP Target Communities Experiences: The First Year

One circuit riding technology agent is currently serving CTIP Region IV: Stillwater, Oklahoma; Ottawa, Kansas; Clayton, Missouri; and Bryan, Texas. Table 8 (page 78) presents the extent of his assistance to local officials from July 1979 to present.

At the local level, the Region IV technology agent receives support from the Cooperative Extension Service at land grant universities in communities on his circuit. He is provided office space and assistance at the university on his circuit and, thus, has direct access to university resources. By his actions in the communities on his circuit, he contributes to university/local/industrial/Federal lab collaboration. The CTIP mechanism coordinates these activities, but it is the technology agent’s responsibility to initiate local contacts, help define problems, to propose solutions, and to work to share information with other localities.

Circuit Rider Model

The circuit rider method of assisting local governments is based on the premise that many small communities do not have the budgetary capabilities needed to support a full time city manager who can undertake both necessary technical assistance and managerial duties for the locality. Instead, these needs can be more efficiently met by the hiring of one circuit riding city manager whose services can be shared by a few small communities.

The scheduling arrangements for the circuit riding city manager model can vary according to the wishes of the communities involved. For example,
three communities could share a circuit riding manager one-third time each or one-half time for one locality and one-fourth time for the other two. In Pennsylvania, for example, CES is funding a circuit riding manager for small communities. Their shared manager arrangements finds the circuit rider spending one day a week in four Pennsylvania communities with the fifth day of the week spent doing research and planning work.

In addition to the flexibility of scheduling these arrangements, the circuit rider approach can be developed emphasizing various role orientations for the circuit rider. The circuit rider can operate as a facilitator helping the community identify its own needs and dealing with these problems or the circuit rider can act as an advocate noting areas where he thinks the community can benefit from his expertise. Alternately, and perhaps more realistically, the circuit rider can both help identify local problems and address what he views as pressing needs as well.

The key emphasis then is on the opportunity for a flexible interaction and useful communications between the circuit rider and local officials. Since the circuit rider is based in the community rather than on the university campus, the opportunities for local interactions are increased. The circuit rider must be adept at developing relationships with local officials in two or more communities at the same time and at juggling the various priority areas which are stressed in each locality. Dealing with many localities at once requires an individual possessing great flexibility and expertise and interest in a variety of areas.

Although located at the local level, the circuit rider should have access to various university resources and facilities. As in the Region IV case, this circuit rider model is designed to integrate needed financial
Table 8. Calendar of Work, July, 1979-March, 1980

**JULY**

- Stillwater
  - fire department argon bottles refilling information
  - finance and data process departments assistance
  - utility meter reading
  - computer information
  - sand grain size for icy roads information
  - asset management and inventory control
  - technology transfer on false alarms for police

**AUGUST**

- Stillwater
  - information about wood chipper
  - cost effective methods of water and electricity meter reading
  - information on annexation and financial impact analysis
  - fleet management for police

**SEPTEMBER**

- Stillwater
  - information on water leak detection/Location, meter reading
  - information icy roads optimal sand grain size
  - information on reducing peak period consumption of electricity
  - meter reading systems evaluation
  - asset management information

- Clayton
  - vehicle fleet management
  - information on preventing concrete scaling
  - information on developing performance benchmarks

- Bryan
  - motivational factors of municipal employees

- Ottawa
  - safer lighter-weight breathing apparatus for firemen
  - thermograms for determination of levels of residential heat loss

77
OCTOBER

Stillwater
- information and demonstration of meter reading aids
- information on cost/revenue forecasting in annexation plans
- load management information
- information on water leak detection

Ottawa
- information on infrared thermography to detect heat loss in residential buildings
- supplied concepts on residential solar heating

Clayton
- land use planning information
- supplied information on concrete scaling

Bryan
- employee motivation information

NOVEMBER

Stillwater
- fiscal impact analysis information
- obtained reference manual for meter readers
- information was requested for efficient methods of refuse collection costs
- information on fixed asset management and implementation strategies
- information on computer output microfiche

Ottawa
- obtained software for population prediction model
- information on detection of lead-based paint

Clayton
- information concerning management by goals and objectives, performance measurement

Bryan
- supplied information on meter reading
- information on self insurance approach to employee health plans
DECEMBER

Stillwater

- continued cost/revenue forecasting work
- information on prevention of street sign vandalism/theft
- fixed asset management information

Ottawa

- information on strategy to utilize fixed asset management

Clayton

- information on methods for coping with high rate of false burglar alarms
- information on NASA initiated development of fuel cell-powered energy system
- information on automated fuel dispensing to improve control of fleet vehicle use and improve vehicle maintenance scheduling

Bryan

- information on prevention of street sign vandalism/theft
- automated fuel dispensing information

JANUARY

Stillwater

- continued cost/revenue forecasting work
- information on use of electric cars for city vehicle fleet
- more work on utility meter reading
- located equipment to detect voids under concrete road surfaces
- information on cash management

Bryan

- investment program for idle cash funds

Ottawa

- gathering information on economic and engineering considerations of constructing a plant for cogeneration for fuel alcohol
- information on fixed asset management system
- information on low cost solar heating system

Clayton

- worked on possibility of phosphoric acid fuel cell
- information on recreational facilities
FEBRUARY

Stillwater

- proposals are being received for fixed asset management system
- information on more efficient and less expensive street cleaning equipment
- information for resource recovery plant for the city and fuel alcohol plant
- information for developing a cost/revenue forecasting model

Ottawa

- information on fuel alcohol production
- continued work on fixed asset management system
- continued low cost solar heating system work

Clayton

- information on prevention of concrete scaling
- information supplied on fuel cell

Bryan

- information on motivation of municipal employees
- information for improving data processing techniques
- implemented utility meter reading system

MARCH

Stillwater

- information on street sign vandalism/theft
- information on automatic transmission kit, to increase performance and durability of autos
- studies for energy and resource recovery plant
- information on asphalt recycling

Ottawa

- feasibility study and alcohol plant discussions

Bryan

- dialogue on improvement of the EDP operations, data processing

Clayton

- continued work on fuel cell
- obtained information on concrete scaling
- additional information on high density recreational facilities

\(^a\)Gary Holland, Circuit Rider for Region IV (Stillwater, Oklahoma; Ottawa, Kansas; Clayton, Missouri; Bryan, Texas), Monthly Progress Reports for July, 1979-March, 1980.
support and resources from the university, industry, local governments, Federal laboratories, and CTIP. The university connection is an integral resource for the circuit rider in this model since it provides access to needed information and researchers who can assist on the solution of local problems.

The dual university/local orientation in the circuit rider model allows for a flexible organization design to meet the needs of the particular locality and university involved in these efforts. A project organization design at the local level allows the circuit rider to target his work toward the interests and needs of local officials. At the same time, however, on the university level, a more coordinating functional organizational design can effectively link circuit rider activities with data banks and university resources in addition to Federal laboratory support. The university can play as major or as minor a coordinating role as inclination and resources warrant, as long as it is capable of handling short term requests for information and assistance from the circuit rider.

The circuit rider's ability to offer wide ranging technical assistance is thusly tied to the support from the university. The university's commitment to the circuit rider approach can effectively integrate its teaching, research, and service missions through the circuit rider's actions and the backup support the university provides. The dual benefits of this approach are assisting localities with their pressing problems and disseminating alternatives and results from one community to other localities in similar circumstances. In addition, important long term capacity building benefits can be developed by a circuit rider dealing consistently with local officials, even on a part-time basis. This approach can effectively improve the capacity of local officials for dealing with local problems and managing
public resources, departments and programs by transferring information on relevant technical innovations to localities and then training local officials and employees on the use of these innovations. Thus, the circuit rider model stresses capacity building with local governments doing it themselves after initial circuit rider technology transfer efforts. The goal of the circuit rider model is thus, to provide local governments with information on innovations of utility for their community and then to train localities in the innovative techniques so that the long term management capacity of the community is strengthened.
FOOTNOTES
CHAPTER 5


2CTIP TA/Steering Committee Meeting Agenda, CTIP Advisory Committee Meeting, Natchez, MS, May 3-4, 1979, p. 10.
CHAPTER 6
LOCAL GOVERNMENT TRAINING SPECIALIST MODEL

CGT Local Government Training Specialist

Another approach to university/local collaboration is the extension local government training specialist model. One example of this approach is the Center for Governmental Technology (CGT) of the Cooperative Extension Service at Mississippi State University. CGT reflects the research/extension/education emphases of the Cooperative Extension Service, and it was established to provide innovative programs to assist local governments in Mississippi.

The Center emphasizes training programs and the dissemination of research findings to governmental officials. Workshops, seminars, and technical assistance are stressed. CGT personnel offer programs and assistance in a wide variety of policy areas identified by local officials in Mississippi: training for Mississippi city clerks, assessors, and tax collectors; seminars on local government financial management, county records management, road maintenance, computer procurement, and personnel administration; workshops for members and trustees of school boards, school attorneys, superintendents of schools, mayors, and newly elected supervisors; and training seminars on jail operations and guidelines for handling inmates.

These efforts are undertaken with the joint goals of research/extension/education for local officials in Mississippi. In addition to responding to the needs of local officials for training and technical assistance, CGT also acts as a clearinghouse for new information and
disseminates information on innovations of interest to local officials in a variety of publications. CGT exhibits a dual focus on providing training programs and technology transfer to meet the technical assistance requests of local officials for useful and practical information.

Establishment of the Center for Governmental Technology

In 1970 a Special Projects office was established in Mississippi in the Office of the Director of the Cooperative Extension Service to explore, establish, and test a variety of non-traditional programs. A major emphasis was placed on programs for local governments after numerous requests were made for such assistance.

Since the CES has traditionally focused on agricultural issues, gaining acceptance for local government programs was enhanced with the development of an identification of the Special Projects office with a local government emphasis. Visibility was increased through the interactions of Special Projects state level extension specialists with local officials, and the additional step of developing a sub-unit with an identifiable name and logo that would relate directly to the governmental function. As a result, the Center for Governmental Technology was formed in 1975.

CGT's rationale for effectively assisting local governments is based on the extension system approach of the land grant university/agricultural experiment station/extension service complex. CGT specialists hold a CES state level specialist designation and operate through the traditional county agents as well as providing direct assistance to local governments in Mississippi. CGT is thus able to take advantage of the CES linking mechanisms throughout the extension system by enhancing the two way flow of information with county agents facilitating in the identification of problems and needs at the local level and CGT specialists working to
respond to these local needs. The field networks available through the CES, the research provided by the experiment station, and the assistance from the land grant university all result in a unique backup support for CGT operations. Thus, the field delivery system of CES provides allied county professional support as well as district and state-level support. In turn, these specialists link into the research base of the university system as well as with the professional technological resource base in the state.

CGT's organization within the Cooperative Extension Service allows for the advantages of project organizational design with its prompt response to local requests and trained specialists in local problems, and CGT has managed to avoid the pitfalls of project design by employing, side by side, functional issue area specialists and generalists trained to provide technical assistance. This mix of expertise provides CGT with skilled government training specialists and also offers the opportunity to utilize other university departmental resource persons in the provision of technical assistance for local governments.

Types of CGT Assistance

Three examples of the educational programs offered by CGT are providing computer assistance for local officials, making available immediate technical assistance on pressing local problems, and planning and developing training workshops and seminars. The programming of workshops, clinics, and seminars to train and inform local officials in the innovative techniques, procedures, and processes related to local government operations has been the traditional CGT focus.
CGT employs government training specialists who meet with educational committees of local officials and their various associations (for example, the Mississippi Municipal Association; Mississippi City Clerks, Assessors and Tax Collectors Association; Mississippi Association of Supervisors; and the Chancery Clerks Association) and develop educational objectives and agendas for meetings, workshops and publications providing information on current events, activities, regulations, and various other topics which affect local government officials in Mississippi.

Computer assistance is an example of one issue area which grew into an ongoing CGT emphasis following an initial workshop for local governments on data processing and computer technology. In 1978, CGT government training specialists responded to local officials' requests and held the first "Computer and Small Local Governments Workshop" in Mississippi. CGT brought in a nationally known expert on computer technology for local government, John Scoggins, from the Institute of Government, University of Georgia. Scoggins explained the fundamentals of basic computer technology and alternatives available to local governments in satisfying their computer technology needs and requirements.

In the months following the workshop, CGT specialists began responding to requests from communities for technical information on various computer options. These requests were met with prompt assistance, and in time an increasing number of localities have come to CGT for computer information. These computer assistance requests require immediate short term assistance in educating local officials and identifying alternative computer systems applicable to each locality, and additional long term assistance is provided to increase the capacity of local officials to deal with and utilize developing technologies.
The provision of computer assistance by CGT's government training specialist exemplifies the combined training and technical assistance approach of CGT. Specialists coordinate workshops on topics of current interest and importance to local officials and also offer ongoing assistance once the initial workshop communications have been developed.

Similarly, requests from one local official for prompt technical assistance on a pressing community problem often result in the dissemination of information relevant to local governments throughout Mississippi through training sessions and CGT publications. In a recent instance, a city clerk asked for a local government training specialist's assistance in solving an urgent personnel problem. Information was needed on the acceptability of paying sick leave to a fire fighter who had fallen from a ladder during a fire and broken his back. The city attorney had ruled sick leave could not be given. The city clerk needed information on other communities' personnel systems relevant to this sick leave issue. A CGT local government training specialist responded within 24 hours with the information needed by the city clerk. In addition, within one month's time, the specialist had included this information in an orientation session for municipal officials. Whenever possible, technical assistance efforts are disseminated beyond the initial requesting locality to other officials throughout the state. In addition, information on successful programs in one local government is shared through various means with other local governments within the state.

Thus, the CGT mechanism incorporates the best flexibility features of project organizational design. Specialists can respond to pressing local issues and offer programs or seminars to a statewide audience of local officials. The emphasis is on sharing knowledge and innovations
throughout the state's counties and municipalities with a focus on problem solving and issue areas which can be generalized beyond one specific community. In this effort CGT can draw on experts from throughout the university and other organizations to develop training programs and to provide technical assistance.

The government training specialists play dual facilitator/advocate roles in different situations. Often the CGT specialists clearly respond to local requests and act as facilitators helping to arrange programs and to identify innovations and important alternatives for local officials to consider. At other times they advocate issue areas and topics for local government workshops which they believe are needed in Mississippi. Often there is a fine line between the two role orientations as evidenced by the CGT local government computer specialist who may on the one hand act as advocate for computer technology for local governments, while on the other hand may provide educational services and objectively help local officials evaluate various computer vendors' proposals for serving a community. In any case, the CGT approach recognizes that it is up to the decision makers to make the final determination based on the most up to date information available.

Thus, CGT's approach to facilitating university/local collaboration stresses the dissemination of timely information from throughout the university through workshops and training sessions for local officials. CGT determines training needs through needs assessment surveys of local leaders, evaluation forms from workshops, and the initiation of local leaders, state agency personnel, and the heads of local government associations in Mississippi. CGT specialists act as a referral service to bring others together to share information about pressing local problems.
They are generalists emphasizing workshop planning and the coordination of resource people.

The CGT role of developing workshops for local officials is centered on two aspects of the Office of Management and Budget (OMB) technical assistance definition: technology transfer and general management capacity building with an additional result being greatly improved communications processes between the university and local leaders. CGT's various training seminars held periodically (often yearly) with interested groups of local officials provide a continual mechanism for interactions between CGT personnel and local leaders. CGT specialists know local officials, and they have developed a rapport which facilitates the transfer of information. These positive interactions lead to the effective dissemination of current research findings applicable to local governments in Mississippi.

CGT stresses a dual focus on developing educational programs for the dissemination of new knowledge to local officials and providing assistance to these decision makers in the utilization of relevant problem solving techniques. Technology transfer is perceived at CGT as just getting information out to local officials without caring what they do with it. The CGT focus, in contrast, is jointly aimed at educating local officials and facilitating their utilization of innovations.

Technology transfer alone is not enough. Education must take place so that the ability of local officials to manage in the future is enhanced.

The goal of the CGT effort is the diffusion of innovations to Mississippi localities through both training programs and individual technical assistance efforts for local officials. CGT is involved throughout the innovation-decision process, integrating a knowledge of the locality
and the perceived need for an innovation with information on the possible advantages and disadvantages of the innovation to enable local officials to make an informed decision on the innovation; and in addition, providing continuing assistance in the implementation of the innovation. (See Figure 1.)

These communications between CGT training specialists and local officials, their association leaders, state agency staff, and university experts are the key to the training and technology transfer actions of CGT. Although CGT professionals are housed at the university and not at the local level, they have developed an effective dissemination mechanism through coordinating university, government, and business resources to provide information to meet local officials' needs.

One reason for CGT's training success is its organizational location within and support from the Mississippi Cooperative Extension Service. Convinced of the need for the provision of assistance to local officials and of the relevance of the CES research, teaching, and service missions to this goal, CES has provided CGT with funding and direction. CGT's organization for government training specialists parallels CES's state level specialists' organization design. Housing CGT at the university gives the government training specialists access to important resources for the development of training materials for local leaders, and it also insulates the specialists from the politics of local governments. In this manner, CGT specialists can serve as objective professionals offering training programs both for newly elected and incumbent officials on issues of significance to the operation of their localities. The university location also aids CGT specialists in finding answers and promptly referring technical assistance requests from local officials on pressing local problems. Although CGT emphasizes training program activities rather than staffing to handle
Figure 1. Paradigm of the Innovation-Decision Process.


For the sake of simplicity we have not shown the consequences of the innovation in this paradigm but only the consequences of the process.
special requests for assistance, the CGT specialists do refer these requests to relevant university experts. The CES specialist positions and the university location, thus, allow CGT the resources and flexibility needed to provide up to date technical assistance to meet the needs of local officials in Mississippi.

Local Government Training Specialist Model

The local government training specialist model for university/local collaboration involves the development of full-time extension staff positions for State level local government training specialists headquartered at the university. These staff members would enjoy access to university, national, state, and local resources. The local government training specialists would have the ability and the inclination to quickly respond to local technical assistance needs. Such an approach can easily be implemented at land grant universities through the CES support of local government specialist positions or through other extension mechanisms at non-land grant institutions.

The technical assistance efforts of these state level local government specialists would emphasize all three categories of the OMB technical assistance definition: functional programmatic assistance, general management capacity building, and technology transfer. The focus would be on quickly responding to local needs for information and technology transfer mechanisms with the recognition that such assistance could develop into long term capacity building efforts to meet local needs.

The dissemination processes by which local government training specialists deal with local needs are twofold: through training programs for technology transfer and more specialized direct technical assistance
efforts by request. Such efforts provide short, intermediate, and long
term assistance for community leaders by integrating the training and
direct assistance approaches. Local government training specialists can
promptly respond to a request from a local official for immediate technical
assistance in his community, provide continued assistance in the imple-
mentation of an innovation, and also develop long term training plans
from information gained in the one locality. Effective innovations from one
community can be transferred through the training conference process to
other localities throughout the state.

Flexibility would be the key orientation of the local government
specialists. The ability to respond immediately to local needs for
technical assistance requires a project organizational design which can
undertake new local training projects when requested and also continue
with long term training commitments. The project organizational design
orientation allows quick and useful short term responses and longer term
efforts at implementing and capacity building.

In addition, a continuing variety of issue areas would be dealt with
by the local government specialists. Local officials could contact the
specialists with problems of concern to their communities. Also, surveys
of the needs of local officials could be used to determine technical
assistance priorities. In contrast, other situations may require that the
specialist identify a problem area for local governments in a state and
then offer training seminars and publications. Thus, the role of a local
government specialist can vary from that of objective consultant to an
expert notifying a locality of certain problem areas and suggesting
training sessions on relevant topics. The advantage of such a dual
training specialist role orientation is that specialists can at the same
time act as objective planners of training sessions for local officials and as experts knowledgeable about governments and proposing issues of potential interest to local decision makers.
CHAPTER 7
SUMMARY AND CONCLUSIONS

The University as a Resource

It can be readily observed that local officials are faced with growing information needs in their daily community decision making. Often these pressing local problems require immediate answers and prompt technical assistance. In addition, long term assistance is needed to help improve the capacity of local governments to deal with ongoing activities and to provide information on important innovations of interest to them. Universities represent an important reservoir of needed technical assistance. Although the barriers to university/local collaboration are many, the potential is great for these partnerships to result in important assistance efforts for local decision makers.

Tapping university resources to solve local problems will necessitate a strong commitment on the part of the university to strengthen its public service orientation. A combined focus on all of the three missions of the university (teaching, research, and public service) is integral and basic. A university must be truly committed to its user-university partnership so as to be creative enough and innovative enough to provide the necessary administrative support for success.

To develop a working partnership, it is necessary to understand the three customary approaches to university organization for its research, teaching, and public service missions: (1) Decentralized departmental organization (The traditional approach to the teaching and research roles of the university. Departmental organization facilitates the training of specialists in their respective disciplines but deemphasizes the coordination
of specialists needed in many research and public service efforts.

(2) Interdisciplinary institutes (Institutes' research, teaching, and public service activities are designed to overcome narrow specialization. They reflect a project organization design which facilitates coordination among specialists, but which may also reduce the long term development of the specialties); (3) The Cooperative Extension Service (another existing model of university organization for teaching, research, and public service which integrates both functional and project organization designs).

Traditionally the extension efforts of land grant universities have represented the major public service component of American higher education. The land grant emphasis on theory and application has provided a sound basis for a strengthened public service role.

While the concept of public service is integral to the land grant agricultural system, the focus on assistance for local officials needs further development to improve university/local collaboration. Even though the CES integration of both project and functional organizational designs provides the opportunity for specialization as well as coordination of technical assistance efforts, a stronger emphasis on public service assistance for local officials is needed.

**Barriers to University/Local Collaboration**

The major barriers to increased public service efforts involve communications problems, expert/client conflicts, deficiencies in incentives for interactions, and organizational difficulties. The organizational design of both the university and the locality have a major impact on these interactions. In addition, communications problems are often inherent in the expert/client relationship and require the development of basic
communications processes whereby problems and mutual interests can be identified. Finally, the lack of incentives for university researchers to undertake applied research to assist local decision makers hinders the development of university/local partnerships.

Universities are attempting to overcome these barriers to university/local collaboration. The organizational reward system, communications, and expert/client relationship barriers to successful interactions can be dealt with by universities interested in organizing to improve their public service missions.

Three Models

These three examples presented in this research show the diverse mechanisms currently available within universities to aid in the solution of local problems. The goal of the Penn State Title V Program, the CTIP technology agent approach, and the Center for Governmental Technology is to establish a collaborative relationship between university resources for teaching, research, and extension and local leaders with problems demanding assistance. In all three instances, the emphasis is on providing quick responses to local needs as efficiently and effectively as possible. The aim of integrating the teaching, research, and public service missions of the university is continually stressed, and, although operationalized in a different manner in each example, each mechanism has been effective in providing technical assistance to its stated clientele.

The Penn State experience with the community development specialist for local government approach has been very rewarding to both the locality and the university. The clearly delineated integration of research and extension appointments, administration, and support provides a specialist
at the county level who can give both technical assistance and functional program assistance while initiating new research projects directly applicable to the needs of the localities.

By incorporating a research focus into the traditional county extension model, the Penn State county level specialist receives support from both university departments and the county extension office. With an office in one of the three counties he serves, the specialist has access to county extension staff, local advisory councils, local officials, and citizens who provide program direction. The county level local government specialist works side by side with residents in a small geographic area helping citizens and local officials learn to deal with pressing problems themselves. The specialist is a generalist assisting communities in dealing with a wide variety of local projects in the short, intermediate, and long term, and ultimately transferring the knowledge learned in these communities throughout the state.

The CTIP technology agent focuses primarily on small cities (28) and counties (3). As in the county local government specialist approach, the circuit rider serves as the linkage between a small number of communities (3 to 5) and universities, federal labs, and private sources of scientific and technical support.

The CTIP technology agent approach is strongly oriented towards the transfer of scientific and technological innovations to small local governments. Since it is a national program, CTIP's circuit riders not only assist their assigned communities, but they also work to coordinate objectives and strategies for solving similar problems to benefit hundreds of municipalities, townships, and counties in the United States.
Thus, initially, CTIP circuit riders follow much the same path as the county local government specialist model in identifying community needs, but the CTIP national program inserts an additional step of comparing these needs from its 31 target jurisdictions and developing priorities from the national listing which are returned to the 31 target localities. This effort is designed to stress the similarities in problem areas between communities and to compare and transfer successful solutions across jurisdictions. A circuit rider approach without the national coordinating CTIP direction would in all likelihood resemble the county level local government specialist model to an even greater extent. Both approaches stress transferring knowledge gained from the specialists' efforts, but the CTIP approach has the resources for the attempt at a nationwide transfer of scientific and technological solutions to local problems. CTIP circuit riders are charged with preparing technical bulletins adapted to the specific needs of smaller jurisdictions when knowledge about potential solutions can be matched to problem statements.

The CGT local government training approach also emphasizes the dissemination of innovations for local governments to communities throughout Mississippi. The local government training model differs from the previous approaches in its approach, organization, and audience.

The CGT state level local government specialist model is aimed primarily at local officials throughout Mississippi. Training programs are developed for newly elected officials, and ongoing relationships are sought so that officials will contact CGT in the future for assistance on local needs. In this manner, CGT specialists can plan and update workshop programs and transmit information on innovations of relevance to local officials.
Local officials also learn to know the CGT staff and will call CGT personnel should new issue areas or problems arise. The specialists will transmit relevant information for problem solving as well as plan workshops so that many more officials in Mississippi can have access to and utilize the information.

Since the state level local government specialists are part of the CES and headquartered at the university, they can continually emphasize local contacts through extension county offices as well as tap university resources. In turn, local officials can afford themselves of the CES county agent's linkage to the university and CGT or take advantage of the central location of the CGT specialists at the university. CGT provides a central training source and a technical assistance information linkage.

The state level local government specialist approach offers the flexibility needed for prompt responses at various local officials requests for training sessions on important topics. In addition, the specialists have ongoing program commitments from year to year with specific associations of local officials in Mississippi, and thus, they are able to continually update program components in light of new information on innovations for local government. With both workshop training and followup technical assistance, these specialists at the university are able to offer valuable help to local governments.

Conclusions

A summary of the major similarities of these models for university/local collaboration is included in Table 9 (p. 104). The key ingredient in each technical assistance effort for local governments is a university
commitment to university/local partnerships in the solution of local problems. Each model also reflects Rosenbloom and Russell's requirement that university specialists and local officials work together defining needs and discussing alternatives. Experts cannot impose innovations on localities. Decisions are made instead by the local leaders with or without university experts' advice and consultation. In the communities served by the Penn State community development specialist, the CTIP technology agents, and the CGT local government training specialists, decision makers can take advantage of specialists' assistance in dealing with the problems of their communities.

Universities vary, communities vary, local problems vary, and attempts at interaction between universities and localities will necessarily be as diverse as these institutions of higher learning and government. Lessons clearly can be learned, however, from effective instances of university/local collaboration. Of major importance are the organizational design of the university mechanism, the problem identification by local leaders of their own community needs, the closely coordinated efforts of local officials and objective experts in considering alternative courses of action, and the integration within the university of its teaching, research, and public service emphases. Local needs for technical assistance are growing in our complex and changing society. The potential for universities to assist localities in dealing with the complex issues and problems of modern times is great. "Communities have problems, universities have resources." The development of new mechanisms for this much needed university/local collaboration will be a major challenge in the decade ahead.
Table 9. Comparison of the Three Models

<table>
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<tr>
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<th>County Level</th>
<th>State Level</th>
<th>Circuit Rider</th>
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<td>Local Govem-</td>
<td>Local elected</td>
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<td>ment Specialist</td>
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<td><strong>1. Audience</strong></td>
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<td><strong>2. University Mission</strong></td>
<td>Research, Extens-</td>
<td>Teaching, Extens-</td>
<td>Extension</td>
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<td><strong>3. Type(s) of technical assistance</strong></td>
<td>Functional (pro-</td>
<td>Management capac-</td>
<td>Functional</td>
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<td>gram) assistance,</td>
<td>ity building, tech-</td>
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<td>management capac-</td>
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<td><strong>4. Location of specialist</strong></td>
<td>Local community</td>
<td>University</td>
<td>Local community</td>
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<td><strong>5. Administration</strong></td>
<td>Joint university/</td>
<td>Cooperative Ex-</td>
<td>CTIP</td>
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<td><strong>6. Breadth of information transfer</strong></td>
<td>Initial counties</td>
<td>Statewide and</td>
<td>Initial counties</td>
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<td></td>
<td>and statewide</td>
<td>in counties</td>
<td>and nationwide</td>
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<td><strong>7. Specialists' training</strong></td>
<td>Generalists</td>
<td>Generalists and specialists</td>
<td>Generalists</td>
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<td><strong>8. Organization design</strong></td>
<td>Project</td>
<td>Project and functional</td>
<td>Project</td>
</tr>
<tr>
<td><strong>9. Major types of assistance</strong></td>
<td>Helps ID needs, priorities, find funding sources, solutions</td>
<td>Training sessions for local officials and technical assistance</td>
<td>ID needs, national priorities, direct technical assistance</td>
</tr>
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<td><strong>10. Role orientation of specialists</strong></td>
<td>Facilitator, objective consultant</td>
<td>Objective consultant, advocate</td>
<td>Advocate, facilitator</td>
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FOOTNOTES

CHAPTER 7


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