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DEVELOPING COMPREHENSIVE ECONOMIC INFORMATION FOR REGIONAL PLANNING: A CASE STUDY

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In recent years, many communities have used regional planning in their quest for economic and social development. Several factors have prompted them to do so. First, community leaders have recognized that a larger geographic area gives a community a larger economic base for planning purposes and offers access to services and institutions that would be impossible in each and every town, thus enhancing potential for development [2]. Second, a greater emphasis is now placed upon identification and use of regions for planning and development purposes under state and federal laws [4]. Third, importance of regional planning has grown because of such factors as growing urbanization, increased demands for community services, pressure to reduce disparities among urban-rural areas, growing environmental concerns, and "spill-over" effects of unplanned growth.

Due to growing regional development concerns, demands for regional development models and comprehensive economic analyses have increased too. Often such demands make it obligatory for a researcher or team of researchers to undertake a study which is broad in scope, short in duration and low in funds.

This paper reports a study which fits the above description. The study was aimed at developing a comprehensive economic information package within a short time to help a planning district in Virginia formulate possible courses of action for development.

THE STUDY AREA

The West Piedmont Planning District of Virginia (henceforth WPPD) was the case study area. It

consists of seven jurisdictions—four counties, two cities and one town—is predominantly rural and has been beset with lack of industrial diversity and low wage rates. These low wage rates have been a factor in the substantial outmigration of skilled workers in recent years.

The District's Planning Commission, formed in 1968, established physical, public safety, social, economic and administrative planning goals to serve as guides for the Commission's activities. Economic development goals included increasing or diversifying industrial activity, maintaining a healthy growth rate in business and professional service sectors, and stimulating economic activity in potential growth sectors. The major difficulty in achieving these goals, however, was that the Commission did not have necessary economic information and analyses to assess District resources in terms of potentials and limitations. Specifically, the Commission lacked the following information: (1) an adequate economic data base needed to evaluate the area as it now exists and its status relative to other areas, as well as to provide benchmarks for analyzing changes over time, and (2) an inter-industry model to estimate impacts of certain industrial development policies on personal incomes, industrial outputs, employment and local revenues and expenditures.

In recognition of the above deficiencies, the District Planning Commission negotiated a research contract with the Department of Agricultural Economics at Virginia Polytechnic Institute and State University. The contract called for the research to be comprehensive, covering broad economic development goals. Second, time allotted for completion of the study was short—January 1974 to June 1975.

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Third, written and oral reports were to be presented to the Commission at each completed stage of the study. Last, research funds (\$25,000) awarded for the contract were relatively small.¹

STUDY OBJECTIVES

A research team with varied expertise was assembled from the Department of Agricultural Economics and the Department of Business Administration.² The team met several times with members of the Planning Commission Staff to assess research needs and to clarify such terms used in the economic development goals as "economic activity," "healthy growth rate," "resource development" and "potential growth sectors." In these "face to face" meetings, it became apparent that the Commission sought a blue print for development of the District. The research team emphasized that it would not attempt to prescribe problem solutions or courses of action for development. Rather, it would assess major resources of the area, identify weaknesses in the local economy and provide some evaluation of potentials for different economic sectors. The thrust of the effort was to provide economic information as a guide for developing plans of action rather than to make recommendations.

The series of discussions led to a number of specific questions: Which sectors of the economy are growing, stagnant or declining? What is the District's status relative to others in respect to the quality of living? What does the future hold for agriculture? What sources of income are available for the District's small farmers? What are specific impediments to development of the forestry potential? Which industries are likely to grow in the near future? What would be the impact of industrial growth on quality of living and on local revenues and expenditures? What would be the impact of growth in tourism on the District's economy?

From these questions, researchable problems were identified and the research objectives were established as follows:

- (1) assess quality of living in the area;
- (2) identify industrial and commercial development problems and opportunities;
- (3) determine tourism potential in the area;
- (4) project agricultural production trends and estimate likely impact of mechanization of

tobacco harvesting on farm employment and capital requirements;

- (5) determine impediments to forestry development potential;
- (6) analyze present and future trends in local government revenues and expenditures; and
- (7) develop an inter-industry model for the District and determine impacts of industrial expansion on personal incomes, employment and local revenues.

ORGANIZATION AND METHODOLOGY

Researchable problems were divided into five phases, each relying to some degree on the others: (1) social indicator or quality of life research, (2) industrial and business potential research, (3) inter-industry analysis and impacts research, (4) agricultural and forestry analysis research and (5) recreation and tourism research. These areas of endeavor were mutually agreed upon between the research team and the Planning Commission. A PERT Chart (Project Evaluation and Review Technique) of the type frequently used on engineering construction jobs was drawn up and officially adopted as a work schedule. This chart specified the concurrent progress of each major phase by quarterly time periods to insure availability of the findings in the appropriate sequence and completion on schedule. Qualified persons were assigned responsibility for each phase, and a rather rigid adherence to the schedule was imposed. The last six months of the contract period were set aside for drafting final reports.

Study objectives were achieved through several of the more common methods of economic analysis. An economic profile of the District was developed from secondary data sources. Quality of life in the District was assessed and compared. Six composite indicators—population, health, education, employment, housing and economic well-being—were constructed as a basis for assessing quality of life in the District and comparing it with the state as a whole.

Three surveys, one by personal interviews and two by mail of the industrial and commercial community, were conducted. These surveys explored such topics as employment needs, marketing problems, the state of business activity in the area, and development impediments and opportunities. A personal interview survey of the tourist attractions

¹The Commission received these funds under a technical assistance grant from the Economic Development Agency. They were granted for the purpose of analyzing present and potential agricultural, industrial, commercial and related problems and opportunities in the area. The Department of Agricultural Economics at Virginia Polytechnic Institute and State University also received funds under Title V of the Rural Development Act to extend and intensify the economic study.

²Eighty percent of the research team's 20 members worked part-time. Many worked only for a limited period.

and facilities was made also as a basis for tourism analysis.

Trend analysis was used to project several aspects of the District such as population growth, community service expenditures, crop yields, crop acres and livestock numbers and number of farms. Opportunities for adjustments in crop production methods, livestock enterprises and mechanized tobacco harvesting were evaluated by means of budgets and programming. Regression analysis was used to identify determinants of expenditures for several community services and estimate relationships among social indicators.

A traditional input-output model of the District's economy was constructed using secondary and survey data and coefficients from the national model. The input-output model consisted of 28 internal sectors (10 in manufacturing, 4 in agriculture and 14 in trades and services) and three in external sectors, including households. The input-output model provided the means for estimating impacts of alternative growth and development potentials on personal incomes, employment and local revenues, which were important concerns of the District Planning Commission.

NATURE AND SIGNIFICANCE OF FINDINGS

Seventeen technical monographs totaling some 1000 pages came out of this rather comprehensive study [3]. The total package briefly specified below is designed to provide the Economic Development Committee with a more adequate understanding of the parameters of the local economy and a framework for evaluating development efforts.

The economic profile serves as an organized source of basic information. The social indicator profile highlights strengths and weaknesses in quality of life compared to other areas of the state, and is intended to serve as a benchmark for evaluating changes in quality of living. Perceived obstacles and restraints to industry and apparent imbalances in the local economy are identified in the industrial and commercial reports. Projections of the structure and enterprise composition of agriculture and the impacts of mechanization of tobacco harvesting (the principal crop) on labor and capital requirements are contained in the several agricultural reports.

Several deterrents to improved management and productivity of timber resources, a major resource of the area, are identified. A low potential for tourism and a likelihood of an unfavorable ratio of benefits to

costs of increased tourism become apparent from the study. Analyses and projections of public revenues and expenditures provide some insights on the future fiscal situation.

Usual types of impacts of a given amount of output expansion in selected sectors are illustrated by the input-output analyses. More importantly, this analysis provides estimates of the amount of output expansion required in six industry sectors identified as potential candidates for growth that would meet a goal of providing full employment in 1980 and 1985, both for the current rate of outmigration and for a zero net outmigration of the work force. Finally, the analysis makes available estimates of total public revenues and expenditures if growth requirements were met.

The significance of the study, of course, must be measured in terms of its influence on thinking and actions of local leaders and decision-makers. Provision for extension of the findings to local citizenry has been an integral part of the project. Discussion meetings with local groups have been initiated. A slide show dramatizing the study results has been prepared and made available. The purpose has been to stimulate involvement in community-wide discussions on development planning. The District commission and local officials, as a result of the study, have already adopted a more cautious attitude towards tourism development in the area.

SOME SUGGESTIONS FOR FUTURE STUDIES

Due to growing interest in regional community development projects, economists will be faced with increasing demands for regional models and economic analyses. While no one approach can be recommended for regional economic analyses, some suggestions on how researchers might approach demands for regional development models and comprehensive economic analyses may be in order.

First, it is important to recognize that members of the regional development groups are not usually researchers or economists by training. While they may perceive goals and objectives, they fail to visualize researchable problems and limitation of economic models. It is desirable, therefore, that the researcher, through several meetings, clarify the goals of the regional group and identify researchable problems that can be analyzed within the constraints. Action should be taken to specify, preferably in writing, problems or topics that will be excluded from the study contract.³ Such openness and clarification might help alleviate the gap between what is achieved

³In a written memo to the Chairman of the Commission, the research team specified twelve topics not to become part of the study.

and what clients perceived researchers might achieve. The smaller the gap, the higher will be the researcher's credibility.

Second, experience on this project reaffirms the input-output model as capable of providing some basic estimates needed by planners, and that it helps them understand the complex inter-industry relationships. Input-output models can be developed using secondary data in an acceptable time frame. National input-output coefficients adjusted to a specific region using secondary data appear to provide a reasonably reliable and dependable model. Because community services expenditures and public revenues often are central concerns in regional development, the model should incorporate more recently developed sub-sector models for estimating changes in public revenues and demands for public services.

Third, a regional development group's frustrations with the complexity of the analysis can be reduced in two ways. One way is for researchers to meet with members of the development group for an explanation and interpretation of study findings and their use. Another way is to avoid using highly technical language in the study findings. This is helpful in two respects: clients better understand

research accomplishments, which reduces their frustrations about the economic analysis, and that in turn, helps them communicate better with the general public. In this study, the report for each component of the project was presented in its preliminary stage to the Economic Development Committee of the Planning Commission for critique and suggestions.

A last observation from this experience is the suggestion that timeliness and comprehensiveness of such a study greatly enhances its value for policy decisions over that of a series of single purpose studies during a drawn out time period. While requiring a substantial resource commitment, this study demonstrates that resources can be mobilized in a university framework to make a coordinated multifaceted regional analysis. Satisfactory accomplishment of this type of coordinated research effort depends greatly upon (a) quality of leadership provided by the project director, (b) identification of researchable problems, (c) development of a coordinated plan for carrying out research, (d) adherence to the research plan, (e) cooperation among members of the research team and (f) allotment of adequate time and funds for preparation and dissemination of findings.

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