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I am submitting herewith a thesis written by Deborah K. Wagner entitled "A Case Study of the Impact of Public Investment Expenditures in Hancock County, Tennessee." I recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Economics.

Thomas H. Klindt

Thomas H. Klindt, Major Professor

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A CASE STUDY OF THE IMPACT OF PUBLIC INVESTMENT EXPENDITURES IN HANCOCK COUNTY, TENNESSEE

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

Deborah K. Wagner

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ABSTRACT

In the first half of the 1960s, several pieces of legislation were enacted to provide aid to economically depressed regions. Under these acts and through existing federal agencies, a system of grants and loans was established with the goal of stimulating local economies in declining areas. This stimulation was based not only on social and political considerations but economic ones as well. It was hypothesized that increasing output in lagging regions, through decreased unemployment and more productive use of labor, would increase total national output.

Although there are those who disagree with this rationale, government policy has continued under the same assumptions. As funds are far too limited to meet all needs of all areas, decision makers have evolved a system of multiple objectives whereby one project is expected to solve more than one problem. Public investment expenditures in lagging regions are often justified not only on the basis of need for public facilities but also on the positive impact such funds would have on the area's economy through increased employment opportunities and interindustry trade.

The success of this approach depends upon the actual expenditure of these funds in the county toward which the aid is directed. This research traced several grants and loans given to Hancock County, Tennessee, between 1975 and 1977 through the contractors and subcontractors to determine actual outlays in the county for labor and materials. It was found that a small percentage of the money stayed in the county so that expectations of significantly increased local employment and interindustry trade may have been exaggerated. It was hypothesized that

a system of multiple objectives may lead to a suboptimal allocation of funds. Furthermore, an inaccurate estimation of the impact of public programs may distort the trade-offs of the individual goals, thereby aggravating the situation.

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CHAPTER I

INTRODUCTION

During the past two decades, there has been a growing concern over the plight of lagging regions. It has become obvious that, while the nation as a whole may be growing, not all areas are able to benefit equally from this growth. In an attempt to rectify this situation, the Area Redevelopment Act was passed in 1961. It was a 4-year program aimed at reducing persistent high unemployment rates and low family income through loans and grants for industrial redevelopment, rural development, public facilities, technical assistance and vocational training.

Loans were to be made to government or private applicants for the purchase or development of land or facilities, including machinery and equipment, to construct new factory buildings or to improve existing industrial facilities. It specified that the projects must provide more than temporary relief from unemployment. The Act prohibited loans for working capital, plant relocation or the establishment of a new branch of an existing firm if it would increase unemployment in the firm's existing location.

For industrial redevelopment and rural development loans, maximum federal participation was set at 65%, with a minimum state or local participation of 10% and a minimum private involvement of 5%. Loans for 100% of the cost were available for public facilities. The Act also provided for research into the basic causes of unemployment and chronic

depression in certain areas and the effectiveness of government programs to relieve them.

The results of this program were modest. Criticisms centered around the fragmented county-by-county approach, insufficiency of loans and grants to attract new industry and jobs and that not enough attention was paid to long-run planning.

In 1962 the Public Works Acceleration Act was passed. It was a 2-year program to supplement the Area Redevelopment Act by stimulating the construction of federal and local public works for the dual purpose of increasing employment in areas of greatest need and helping communities provide basic facilities, such as water and sewer works, hospitals, road improvements and public buildings.

Two major pieces of legislation were enacted in 1965: the Appalachian Regional Development Act and the Public Works and Economic Development Act. The former had two broad goals: to create a federal-state regional commission to help draw up coordinated economic development plans for the area and to authorize federal financial aid to help the area obtain the primary public facilities needed as a basis for economic expansion, such as roads and health facilities, and to restore such natural resources as timber and water. It prohibited the use of funds to build industrial, commercial, electrical or gas facilities. Eight hundred and forty million dollars was authorized for a 6-year period, with a large amount designated to pay up to 70% of the construction costs of 2,350 miles of highways and 1,000 miles of access roads. However, actual expenditures fell far short of authorizations (16, p. 106).

The Public Works and Economic Development Act established the Economic Development Administration. The goal was to promote cooperation between government and the private sector, with public investment viewed as an inducement to private investment. Again the tools were grants and loans for public works, direct loans to the commercial and industrial sectors and assistance with technical planning. By working with multi-county development districts, it encouraged counties to pool resources and recognize their interdependence, as well as to avoid competition and duplication. The districts then formed part of a larger multistate development region to further aid planning efforts.

The major criticism of both pieces of legislation was their concentration on physical infrastructure rather than human capital. They also tended to disperse money, which some felt weakened its impact, and did not deal with the question of migration.

There has been no significant new legislation dealing with regional development since the 1960s. However, the acts described above have continued to be extended with an occasional minor amendment. Through these, a myriad of federal grant and loan programs have been sustained.

Problem

While there are many individual sources of federal funds designed to enhance regional development and the appropriation of funds has been relatively generous, funds are obviously insufficient to meet all needs of all rural areas. Hence, decisions concerning the allocation of funds are necessary. No clear-cut priorities appear to have been

established to guide the allocation of development monies. This no doubt is due to the lack of an unassailable general theory of regional development. (See Chapter III for an enumeration and description of the more common theories.) As a result, various funding programs have priority guidelines which appear to incorporate multiple objectives. For example, programs designed to improve medical care may be allocated not only on the basis of need for medical facilities but also on measures of family income, unemployment and others.

The economic impact that the expenditure of federal funds will have on an area economy is used as a secondary justification for these programs. Construction projects are expected to create direct employment and increase the demand for building materials in the target area. In addition, it is argued that the additional wage income and building materials business activity will multiply the impact of the monies expended in the local economy. This argument is based on the fundamental economic concept of interindustry trade multipliers.

The allocation of funds under a system of multiple objectives implies a trade-off between the objectives. In the case of regional development, the objectives are often the provision of a public service and the economic impact on target areas. The effective allocation of funds under a system of multiple goals implies the knowledge and accurate measurement of these trade-offs. It can be argued that, except in unusual cases, use of a secondary objective leads to a suboptimal allocation of funds from the perspective of the primary objective alone. For example, the allocation of funds for the provision of a public service would not be expected to be cost-effective for that objective alone if

the allocation is also based partially on expected economic impact. Moreover, if the anticipated economic impact is incorrectly estimated, the overall cost-effectiveness would be expected to be suboptimal. Therefore, accurate information on the impact of federal expenditures on rural areas is necessary for effective decision making.

It is hypothesized that rural areas which exhibit the greatest need for economic stimulation (lowest per capita income, highest unemployment, etc.) and, therefore, have an advantageous position in terms of priority for funding under a system of multiple objectives which includes economic need may witness the smallest economic impact from allocated monies. The rationale for this hypothesis is that measures of economic need in rural areas are often highest in relatively unsophisticated local economies. That is, areas in which there exist few support industries, little skilled labor and relatively little interindustry trade. In such an area, the predominant direct impact of capital expenditures would likely be the importation of labor and building materials. Therefore, the direct economic impact on the target area would be small, and the resulting secondary effects of the expenditure itself would be slight.

Objective

The objective of this research is to examine, on a case study basis, the distribution of federal monies in a small rural county. Grants and loans from various programs are examined in terms of expenditures made to individuals and businesses inside and outside of the county. It is believed that from such basic data inferences can be

drawn concerning the economic impact of allocated public funds on the target area.

Procedure

The area selected for study was Hancock County, Tennessee. The 1970 Census data showed that Hancock County was the 6th poorest county in the nation when ranked by per capita income and the 3rd poorest county when ranked by median family income (33, p. 83). As such, it is a justified area of concern for development efforts and was awarded several grants and loans for a variety of projects. Some of these were made possible through the legislation described and others were authorized by existing federal agencies, such as the Department of Health, Education and Welfare and the Department of Housing and Urban Development.

To determine the extent to which money was actually spent in the county, all grants and loans received between 1975 and 1977 were traced through the contractors and subcontractors. Starting with the files of the granting institutions or of the county judge, the amount and purpose of the grant or loan was determined, as well as the major contractor. Personal and phone interviews were used to obtain the necessary information regarding expenditures in Hancock County for labor and materials, as well as to obtain a list of subcontractors on the project. The same approach was then employed to obtain information from the subcontractors.

Due to incomplete bookkeeping methods, the numbers arrived at are not exact expenditures. Often a contractor would know total labor and materials costs and would then estimate the percentage from Hancock County. Also, several firms have since been dissolved, and data from

them was unavailable. However, with the exception of the contractor for the Health Center, those firms with unavailable data represented negligible portions of the total contract, and therefore the lack of data does not seriously affect the outcome. Even though the numbers arrived at are not exact expenditures, it is believed that they are representative of total expenditures and indicate a trend, allowing reasonable conclusions to be drawn.

CHAPTER II

THE STUDY AREA

Hancock County is a rather isolated area lying on the western edge of the Great Valley of Tennessee along the Kentucky border. It encompasses an area of 230 square miles or 147,200 acres. Topographically, it is made up of a series of ridges running northeast to southwest, with valleys and low hills between. Sneedville, the county seat and its only incorporated town, is located in the center of the county, just north of the Clinch River. The climate is temperate with mild winters, fairly cool summers and low humidity.

Hancock County was first settled around 1795, attracting people with its excellent hunting and fishing. As the hunting and fishing declined, agriculture became the economic mainstay of the area and continues to be so to the present.

Characteristics of the Population

By all socioeconomic statistical standards used, Hancock County is a declining area. Its population has been decreasing since 1910, except for a brief period during the Depression. In 1960 the population was 7,757, declining to 6,719 in 1970, a fall of 13.4%. A further decrease to 6,500 was estimated as of July 1, 1977, due to an estimated loss of 300 people, or 4.8% of the population, through migration (31, p. 3). Projections forecast that the population will stabilize around this number with an increasing proportion of the people locating in Sneedville.

The county is predominantly white with only 1.3% Negro and other races. According to the 1970 Census, 34.2% of the population was less than 18 years of age, 54.7% were between the ages of 18 and 64 and 11.1% were 65 and over. The median age in 1970 was 29.7 years, an increase from 25.4 years in 1960 (30, p. 112). This may be primarily due to migration as it is generally the younger and better educated that tend to seek new opportunities elsewhere.

Economic Characteristics

The economic outlook for Hancock County is not very optimistic. Per capita income in 1975 was $2,866, compared to $4,909 for Tennessee as a whole. Only 1.6% of the households had an income of $15,000 or over, while 55.5% of the families had incomes below the poverty level and 43.6% had incomes of less than 75% of the poverty level (30, p. 367). In 1970 there were 1,566 workers residing in Hancock County of which 441, or 28.2%, worked outside of the county (30, p. 327). The unemployment rate in 1975 was 18.8%, compared to 8.3% statewide (7, pp. 440-441). However, this number disguises the large amount of underemployment; only 36.4% of the labor force worked 50-52 weeks in 1969 (30, p. 343), and the Hancock County Comprehensive Overall Economic Development Program Association estimated that 500 married women would like to work if jobs were available (15, p. 31).

Even though 68.9% of the population is classified as rural, farm, agriculture, forestry and fisheries account for only 22.1% of employment. Manufacturing employs 29.5%; the service sector employs 22.2%; wholesale and retail trade, 11%; construction, 8.4%; public

administration, 3.2%; mining, 1.7%; transportation, communication and public utilities, 1.4%; and finance, insurance and real estate, 0.4% (7, pp. 448-449). It must be remembered, however, that many of the jobs in the latter categories are outside of the county.

Agriculture

While agriculture is still the principal industry of the region, the number of part-time farmers is increasing; 18% worked 100 days or more off the farm in 1964, and by 1969 the percentage had increased to 30. The 1974 Agricultural Census stated that only 541 out of 857 farm operators considered farming their principal occupation (32, pp. IV-205).

The numerous ridges, hills and streams in the area limit the size of farms; the average farm in Hancock County in 1974 was 94 acres as opposed to 140 for the state of Tennessee (32, pp. IV-205). Accordingly, the type and amount of machinery that can be used efficiently is also limited so that the resultant pattern is one of small subsistence family farms rather than large commercial enterprises. This can be verified by the figures shown in Table 1 (32, pp. IV-206).

The major farm enterprises as of 1974 were tobacco, beef cattle and calves, dairy production, poultry and poultry products, forest and forest products, corn, small grain, strawberries and peppers. Using the 1969 definition of a farm, there were 979 farms in 1974, a decrease of 284 from 1969 (32, p. XI). This may be due to the increase in the number of retired farmers and the large number of marginal farms.

There are other problems in addition to the small size of farms which characterize agriculture in Hancock County. Inadequate highway

Table 1. Number of farms in Hancock County categorized by value of sales, 1974.

Value of Sales in Dollars	Number of Farms in Hancock County
100,000 and over	0
40,000-99,999	3
20,000-39,999	16
10,000-19,999	41
5,000-9,999	122
2,500-4,999	201
2,000-2,499	88
1,500-1,999	108
1,000-1,499	130
Less than 1,000	148

access to farm markets limits the type of crops that can be grown. Absentee ownership may also promote nonoptimal use of farmland. The casual labor supply, essential to the seasonal nature of farm employment, has declined due to migration and the requirements necessary to remain on welfare rolls. And there are serious drainage problems due to large quantities of seepage and runoff from adjacent slopes, which are sometimes aggravated by the Clinch River backwaters in times of flood.

Mining

There is a zinc mine in Hancock County which was formerly a major employer of area residents. It is currently not operating as the price of zinc is too low to make it profitable and due to declining ore quality. In the northwest there is an abundant amount of limestone which could conceivably be used as agricultural limestone and sold commercially to local farmers, but other mineral deposits in the region are too small to offer significant opportunities. There is also saw timber and pulpwood available in large quantity.

Education

Educational statistics also signal the lagging state of Hancock County. Of persons aged 14-17, only 80.6% are in school. The median number of school years completed for persons 25 and over is 8.0, and only 16.5% of males and 15.6% of females 25 and over are high school graduates (30, p. 335). Of the approximately 75 high school students that graduate each year, between 40 and 50 must leave the county to seek employment (15, p. 31). There is no vocational training available except some basic agriculture and typing classes in the high school.

Transportation

Transportation poses a problem for the area. There is a lack of direct access routes to major population areas, and the roads are narrow and curved due to the mountainous terrain. This often causes high levels of absenteeism in the winter among those who must commute outside of the area to work, as well as limiting the types of industry that would be attracted to the area. There is also no rail transport in the county.

Mobility

A survey conducted by the Agricultural Experiment Station at The University of Tennessee, Knoxville, dealing with the mobility of Hancock County residents found that 83.2% of those questioned were born in Hancock County (27, p. 13). This seems to indicate relatively little migration into the county. On the other hand, there has been considerable out-migration; from 1940 to 1960, 3,474 persons left the area (15,

p. 18). However, indications are that those residents who have stayed thus far will continue to remain in the area with the possible exception of the young, as the survey showed that a great majority expressed little or no desire to leave the area. This is substantiated by the fact that the rate of migration has dropped considerably in recent years; from 1970 to 1977, the estimated number of persons leaving Hancock County was only 300 (31, p. 3).

In summary, low educational attainment, high unemployment, low incomes and a declining population all combine to qualify Hancock County as a lagging region. As such, it deserves the attention of regional development efforts. However, there is little consensus as to the form that these efforts should take. At present, there is no satisfactory comprehensive theory of regional development, and, as a result, programs are often disjointed and ineffectual. To better understand the problems faced by regional economists and policymakers, a review of current regional development theory would be helpful.

CHAPTER III

REVIEW OF REGIONAL DEVELOPMENT THEORY

Regional development economics is still a fairly young branch of study and, as such, is plagued by incomplete theories and insufficient data. Theories useful for analyzing economic growth on a national level have been applied to regional economics with little success, and efforts to equate poor regions to poor nations have not been illuminating due to the structural differences between nations and regions. National frontiers are real barriers to an international flow of goods, capital, labor and information, while regional boundaries are ill defined and of negligible importance. Nor do regions have the political and economic autonomy of nations. Nations cannot risk a potentially crippling international division of labor, whereas a region can easily specialize. Finally, a region can solicit external financial aid to solve problems more easily than a nation can solicit aid from another nation (14, p. 468).

It has been alleged that, due to the scarcity of regional data, theories are devised around available information rather than seeking a satisfactory explanation. Perhaps for this reason there is a disproportionate amount of attention paid to employment rates and income levels rather than savings rates and investment levels. The problem is compounded by a lack of consensus regarding what the goals of regional development should be and the best ways of achieving these goals once they have been established.

A basic disagreement revolves around whether or not lagging regions should be stimulated or left to decline. Different regions grow

at different rates during any one period, and the growth rate of an area will vary over time due to the distribution of resources, population, transportation networks and the intensity of demand over time. It may be difficult to determine what degree of variation is natural and to identify when it becomes a problem needing national policy attention.

There are opposing views concerning whether or not the public sector should intervene in a lagging area. The National Demand Theory contends that over the long run the competitive forces of the market create an optimal spatial distribution of economic activity (6, p. 207). Therefore, if an area is lagging, it means that the national economy has a decreasing need for the output of that area. The national economy is, therefore, strengthened by allowing these areas to decline and by concentrating public and private investment in growing regions. Bowman and Haynes recognize the futility in trying to develop certain areas:

> The Kentucky mountains will not develop to a significantly expanding economy, no matter what public policies are pursued. In an area of this kind neither the Area Redevelopment Act nor any other program designed primarily to increase job opportunities can have any significant effect. One or two fringe locations expected, the most that can be accomplished is to hold the line; highway and civic improvements are necessary to realize even this modest aim, but little more can be expected of them. (16, p. 99)

Moreover, data on France, Italy and Canada show that efforts to industrialize lagging regions have been unsuccessful (16, p. 231). Adherents to this view often feel that maintaining a high level of employment and demand in the national economy is as much as the federal government should do for regional economies.

The above strategy can be attacked not only from a social and political standpoint but also from an economic one as well. The Theory

of Planned Adjustment argues that the market system does not automatically assure the optimal location of economic activity due primarily to imperfect knowledge (6, p. 207). Investors rarely have the resources to seek out what may be favorable opportunities in more remote areas, and these areas seldom have the resources to promote themselves through advertising or solicitation. This problem is compounded by the fact that investors tend to equate marginal private benefit to marginal private cost rather than marginal social benefit to marginal social cost. By not internalizing the agglomeration diseconomies of congestion, noise and pollution, they continue to invest in urban areas that have grown larger than what may be socially optimal (6, p. 210). To the extent that the above arguments hold and the market economy fails to allocate investments in an optimum manner, the public sector may be able to enhance social welfare by intervention in the form of subsidized investments.

Subsidies to lagging regions can also be justified on similar grounds as the protection of infant industries. Short-term assistance aimed at creating a new advantage can eventually lead to improved resource utilization within a region and a more nearly optimal spatial distribution, thereby increasing national efficiency in the long run.

If one subscribes to the National Demand Theory yet believes the government should intervene for political or social reasons, there seem to be two options: to subsidize consumption through direct transfer payments and to aid migration. The major objection to transfer payments is that if public and private investment is not encouraged, they may become permanent instead of temporary solutions. And to the extent that labor resources are geographically fixed this strategy may leave the

resources unused and after a time of psychological damage and technological decay unusable.

The second option, that of aiding migration from rural areas, can take the form of simple efforts to inform would-be migrants of job opportunities elsewhere or involve more direct aid by subsidizing moving costs. At present, there appears to be no organized government effort to aid migration; and since the loss of population is one criterion for eligibility for federal aid, the implication is that it is a state to be corrected. Therefore, the tone of all legislation concerning regional development is antimigration with the implicit assumption that each person has the right to a decent life where he is currently located.

There is another problem associated with migration--the labor groups most prone to unemployment are the least mobile so that migration aggravates the inferior position of rural areas vis-a-vis urban areas (19, p. 275). Also, those most likely to move are in their childbearing years, thus intensifying the population decline more than migration statistics alone would indicate.

Assuming, however, that one believes that national growth can be increased by aiding lagging regions due both to the increased output that accompanies a decrease in unemployment and by the increased productivity of those already employed through more intensive use of capital or through training programs, the question becomes which policies should be enacted to achieve this goal?

Place Versus People Prosperity

There are several issues at the heart of this controversy, a major one being "place" versus "people" prosperity. The essence of this problem is whether aid should be directed at a physical region or at the population in that region. The two are not the same in that a population is mobile and over time the identical population will not inhabit a given region.

If one opts for place prosperity, aid is most generally in the form of improving the physical infrastructure, especially transport systems and public utilities. The Appalachian Regional Development Act of 1965 leaned in this direction: 75% of total outlays authorized were for highways (16, p. 74). Local political leaders generally prefer this type of investment as it is tangible, represents a means of attracting economic activity to the area and cannot be removed to another area as can investment in human capital. A major criticism of this approach is that it aids the rich in the area as well as the poor. If employment is increased by attracting private industry through the construction of industrial parks and improved transportation networks, there is no guarantee that those jobs will be filled by people already in the area as opposed to an influx of workers from nearby areas. The final result may be an increase in the size of the labor force and a decrease in the unemployment rate but no decrease in unemployment among the target group.

Many champion the notion of people prosperity and its implication that development assistance should be aimed at improving human capital. Chinitz maintains that

> a strategy which operates mainly on classical location factors with the aim of making the region more competitive for industry can only be a small part of an overall strategy for growth in the latter part of this century . . . the main thrust of our efforts must be to upgrade the quality of human resources and perhaps even more important, the social and political superstructure which we must now regard as the critical infrastructure for development. (16, p. 70)

Schultz also stressed this point in his statement that "investment in human capital accounts for most of the impressive rise in the real earnings per worker" in Western countries (17, p. 8). There can be no doubt that improving human resources, especially through education and vocational training, boosts productivity and increases output. But it is also true that the more educated members in a declining region may ultimately use their talents to benefit another area, and so the expenditure, when viewed on a purely local basis, is considered a loss even though the national economy is aided. This is coupled with the cycle of a decreasing tax base which necessitates a cutback in public services, notably education, which may promote unemployment and further aggravate the erosion of the tax base. Regional political leaders are often aware of the problem, but the solution is outside of their capabilities. In this case, federal aid to a lagging region can be justified on economic rather than social and political grounds.

Concentration Versus Diffusion

Another issue in the discussion of appropriate tactics for regional development is concentration versus diffusion of aid. For reasons of equity and for political expediency, aid is often dispersed so that all areas meeting the requirements can get a share. However, most economists tend to support the growth pole strategy, whereby

investment is concentrated in urban areas of a certain size, and the positive effects trickle out to surrounding areas. The underlying rationale is primarily economies of scale. Once an urban area is sufficiently large to provide the inputs needed and to absorb the outputs of the economic system, new businesses are attracted without special inducements and growth can become self-sustaining. There are many forces in the economy that accelerate the process of urbanization. The growing importance of the service sector in the economy leads to centralization, and the decreasing importance of transport costs in location decisions leads to a greater emphasis in extraeconomic elements, such as amenities and climate, which also favor agglomeration. The decreasing importance of raw materials and energy sources also favors location close to the final market as opposed to near input sources (6, p. 217).

Many studies have been undertaken to determine the minimum size, or critical mass, a city must attain in order to achieve self-sustaining growth and to induce the trickle-out effect. Berry states that few cities of less than 40,000-50,000 appear to have any impact on regional welfare (2, p. 10). Others set the minimum limit to ensure growth at 250,000 (19, p. 281). Whatever the size is determined to be, its positive impact on surrounding areas depends heavily on commuting patterns. If gasoline prices continue to increase as the supply becomes more limited, it may have a profound effect on rural to urban commuters. As of yet, this has not been a subject of great concern, but it could very well be an added push toward urbanization, with many commuters migrating permanently, thereby intensifying the plight of rural areas.

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Approximately one-third of the country's
se approximately 20% of the population, are
eligible for assistance under the Area Redevelopment Act (14, p. 466).
The number of requests far outweighs the number of projects capable of
being funded, so a reasonable guideline must be established. Most
economists opt for choosing those projects with the largest benefit-cost
ratio, arguing that these projects stimulate a larger increase in local
income and are, therefore, the most efficient use of limited funds.
Unfortunately the entire array of secondary income effects are rarely
apparent in this sort of analysis. Other important considerations are
also omitted in a benefit-cost ratio; in many poor regions there is a
near zero opportunity cost for labor, and the effects of the project on
income distribution--the concern which prompts development actions to

begin with--cannot be accounted for. And in many smaller communities public capital, such as sewage systems, fire protection and schools, are not working at full capacity since they can only be installed in fairly large, discrete units. Therefore, an increase in output requires little or no increase in economic or social overhead, so the marginal social cost per unit of increased income may actually be lower than in a larger area. On the other hand, local shops and businesses may be operating below capacity also so that the additional purchasing power of increased employment is absorbed without generating additional jobs, in which case the cost per job created may be quite high (8, p. 24).

A number of attempts have been made to quantify some of the equity considerations as a means of incorporating them into the benefit-cost ratio so that value judgments that have heretofore been made implicitly are presented as explicit trade-offs. Generally, three methods are proposed (20, p. 82). The first is to set a goal of X amount of income to be redistributed to a particular group and then to maximize efficiency by choosing the most cost-effective project that accomplishes this goal. The second approach is to maximize income redistribution subject to an efficiency constraint. This means that decision makers choose an acceptable loss of efficiency in terms of incremental present value units of national income that they are willing to sacrifice for income redistribution. A third method, which has received the most attention in the literature, is to maximize a weighted sum of redistribution and efficiency benefits.

McGuire and Garn created a need indicator (λ_i) which is a function of an area's employment rate and its median family income. The parameters

in their equation determine the trade-off between income and unemployment for a given level of need and the trade-off between efficiency and distribution objectives. They define the efficiency criteria in terms of the number of jobs created (B_i) and then show that the best project selection in terms of welfare additions seeks to maximize the sum of $\lambda_i B_i$, rather than simply maximizing the sum of λ_i or the sum of B_i; that is, a weighted sum of equity and efficiency criteria was shown superior to either a pure equity or a pure efficiency criterion (21, p. 891).

Mera derives transformation surfaces between aggregate efficiency and interregional equity from regional production functions and shows the outcomes from three possible situations: where both capital and population are able to be redistributed, where only capital is able to be redistributed and where it is only feasible to redistribute population. He concludes that the cost in efficiency for achieving interregional equity is likely to be greater when capital redistribution is used as opposed to population redistribution (22, p. 673).

Weisbrod used the term "grand efficiency" to indicate an integration of both equity and efficiency concerns but admits that the use of such a measure is still in the distant future. In the interim he suggests the use of a display method which introduces distribution effects by indicating how total benefits and costs are divided among particular groups. Traditionally, four groups receive the most attention: (1) income groups, (2) age groups, (3) racial groups and (4) geographic areas. By explicitly demonstrating the effects on each group, a decision maker can foresee trade-offs between efficiency and income distribution (34, p. 186).

His grand efficiency measure equates the change in welfare that results from a project to the sum of the changes in individual or group income times the marginal utility of income for that individual or group. He inferred the marginal utility of income from observed government actions. A set of actual projects, all of equal cost, were examined. The first project was not undertaken even though its benefits were greater than the benefits in succeeding projects. He concluded that the weighted benefits of the other projects were thus shown to be greater than or equal to the first project. He then solved the system of equations simultaneously to get the marginal utility of income for each group (34, p. 193).

Labor Migration Versus Industrial Displacement

Still another issue in regional development theory, already mentioned briefly, is that of whether to move the jobs to the people or the people to the jobs. It is in keeping with our national character to uphold the right of a person to earn a decent standard of living where he is located; the President's National Advisory Commission on Rural Poverty stresses that rural people be given the same opportunities for economic and social advancements as urban people (16, p. 227). Karl Fox takes the opposite standpoint by saying, "The major problem of rural society in the United States is our institutionalized belief that a rural society exists and can be manipulated successfully apart from society as a whole." He claims results are only possible when

> regional economic development policies are explicitly urban in orientation, urban in content, and urban in result. To try to keep people down on the farm, or in the small town, is to condemn regional policy to failure. (2, p. 10)

Much has been made of a reluctance, especially among those in the Appalachian area, to migrate. Family and cultural ties, as well as financial obligations, such as homes or small businesses, are often powerful incentives for a person to stay in a lagging region even when he may know that he could earn more elsewhere. And often he is unaware of more lucrative opportunities. In addition, studies have shown that migration is not a function of economic opportunities but of size and structural properties of the population, especially the age distribution (6, p. 213). So, up to this point, most programs have followed the path of bringing the job to the worker. Industries using simple production techniques and lightweight inputs and branches needing little supervision from headquarters, such as electronics, textiles, plastics, food processing, lumber and furniture, are typically the sort of enterprise brought into these areas. The major problem is that due to the low level of skills the majority of industries interested are labor intensive, low-wage enterprises. Without a capital inflow, wage disparities continue. Hansen states that

> Recent American and foreign evidence concerning greater equality in the geographical distribution of manufacturing does not indicate any corresponding lessening of regional income differences or indicate any relatively greater attraction of small towns and lagging regions. (16, p. 232)

Also, most of these types of industries are slow growing. The result is an increase in employment but not enough to start the growth spiral; it may maintain lagging regions but will probably not develop them.

Other studies have shown that the barriers to migration may not be as great as imagined, especially if migrants stay in the same general area. One such study, carried out in Kentucky, showed a willingness to

go north to large metropolitan areas if the differential became large enough (16, p. 97). Family ties can also work in favor of migration; the "beaten path" concept shows that people are most likely to migrate if they know someone who has gone there ahead of them. These attitudes suggest building up the peripheries of lagging regions. Friedman suggests that Appalachian development efforts be concentrated outside the region and that the region itself be apportioned among the metropolitan areas on the perimeters, as has happened to Winston-Salem, Huntsville and Atlanta (4, p. 471). The problem is that since these centers lie outside of the region under current legislation they cannot be considered valid recipients for funds destined to help Appalachia.

Alonso has developed a complicated diagram based on the marginal product of labor in the city and the periphery to evaluate the consequences of migration from one area to the other. He outlines an efficiency frontier, again based on the marginal product of labor, and an equity frontier calculated on the concept of "cents per dollar to be moved" (1, p. 52). Once the marginal product of labor for both areas is known, a migrant can be situated on the diagram, and it is possible to see if the proposed move will increase or decrease equity and/or efficiency. He concludes that the tendency to adopt policies of decentralization and advancement of lagging regions assumes a decreasing marginal product of labor in the cities and an increasing marginal product in the periphery, a point of view that he contends is not supported by persuasive empirical evidence (1, p. 57).

Means of Assistance

The selection of the means of assistance is another area of discussion. Cameron identifies five different types of lagging regions and outlines appropriate measures for each (6, p. 217). Appalachia fits into his fourth and fifth categories (poor mountain, industrial and mining areas and poor rural areas). For both types his solution is the same: encourage out-migration since revival is impossible (6, p. 218).

Current policy concentrates on the use of grants and loans to public agencies to provide social and economic overhead. Local efforts often include tax breaks and rent subsidies to private businesses to entice them into the area. To a certain extent, this is self-defeating, as it decreases the public funds available to provide the necessary services to attract and keep industry. There is also the zero-sum aspect of this type of action; through persuasion and subsidy, a region seeks to lure investment that would have gone elsewhere so that one region benefits at the expense of another. "The challenge is not to grow by becoming competitive but to become competitive by growing" (8, p. 28). In other words, to seek a larger pie rather than a larger slice of the same pie. The difference is summed up by the concepts of competitive versus generative growth; competitive growth takes the national growth rate as given and examines the forces that decide how the increments are distributed, while generative growth regards the national growth rate as the sum of the regional growth rates (24, p. 42). Generative growth can be induced by upgrading public services and human resources, by improving amenities and by discovering natural competitive advantages.

One suggested approach to subsidizing employment is the use of a sales tax (4, p. 199). In general, economists dislike the use of a sales tax on poor, immobile people because of its regressive nature. Those who are unwilling to migrate are usually willing to pay a price for the opportunity to stay where they are; but due to minimum wage legislation and national collective bargaining, money wages are not subject to downward pressure. A sales tax used to subsidize employment, decreasing the real wage, allows industry to locate voluntarily. A payroll tax would have the same effect but could avoid the possible negative impact on local businesses that might result from a sales tax. Unfortunately, these solutions do not resolve the issue of income disparity between lagging and developing regions, but they would at least offer the rural dweller a choice he usually lacks under current policy.

Development Models

In addition to the National Demand Theory and the Theory of Planned Adjustment, there are several other models that attempt to explain regional growth. One of these is the Export Base Model which defines the regional growth rate as a function of the region's exports (25, p. 17). Those activities that serve the regional market are simply the result of income and demand in the region and are, therefore, passive participants in growth. The real stimulus comes from demand outside of the region, which then expands through the multiplier effect. The value of this theory is that it emphasizes the importance of the openness of a regional economy and the role played by changes in national demand. It completely ignores the impact of autonomous investment and technical

progress and pays little attention to capital accumulation and migration. By assuming that demand creates its own supply, enough consideration is not given to supply conditions. The question of capital flows also poses a problem. If a region's exports are expanding and inducing more growth, it is possible that the region cannot provide sufficient capital to maintain this growth. This means it may have to import capital, so that instead of having an export surplus as the model would suggest, a growing region may actually have an import surplus.

Another model formerly used extensively but now falling into disfavor is the Neoclassical Model (25, p. 24). At first it was attractive because of the precise predictions it yielded; with wages a direct function of the capital-labor ratio and the returns to capital an inverse function of the same ratio, labor would flow from low to high wage areas and capital would flow in the opposite direction. This flow would continue until factor returns were equalized in each region, which means a convergence in regional incomes. However, interregional factor mobility cannot be explained only in terms of a response to different rates of return. As previously discussed, migration of labor depends on many noneconomic variables. It is not very realistic to make the returns to capital the sole criterion in investment decisions, ignoring the importance of agglomeration economies. Also, many assumptions of the Neoclassical Model are not applicable to regional economies. The assumption of full employment is not valid since regional problems emerge due to interregional differences in resource, especially labor utilization. Perfect competition is another assumption that is not altogether valid, as a firm can enjoy a monopoly situation in a regional economy that it

cannot in the national economy. A further criticism is that too much attention is paid to factor mobility and not enough to the characteristics of regional economies, such as agglomeration economies and transport costs, nor to diffusion of innovation and technical progress (24, p. 29).

The Cumulative Causation Model was first proposed by Myrdal and later extended by Kaldor (24, p. 29). Myrdal said that market forces lead to a clustering of increasing returns activities in certain areas and that after a point the buildup becomes self-sustaining. This urban area has two kinds of influence on the rate of growth in lagging regions: a favorable spread effect through the provision of markets for the primary products of the lagging region and the diffusion of innovation and a negative backwash effect caused by the disequilibrating flows of labor, capital and goods and services from poor to rich areas. Kaldor went further to maintain that free trade operated to the disadvantage of poor regions. Due to scale effects, rich regions gain a monopoly of industrial production, while poor regions must contend with the perfect competition characteristic of agriculture so that the terms of trade will favor the rich industrial region (19, p. 341).

Kaldor also proposes the concept of efficiency wage, which is the money wage divided by a productivity index. Due to national wage legislation and collective bargaining, he maintains that money wages are similar over space. Due to increasing returns, faster growing regions have a larger growth in output and, therefore, higher growth rates of productivity, which means lower efficiency wages. This means that fast-growing regions acquire a cumulative competitive advantage (25, p. 30).

There are several problems with this model. The first is that it does not satisfactorily explain what starts the spiral in motion, other than a vague mention of initial location advantages, such as natural resource endowment, but rather why high growth rates persist once they start. Also, money wages are not necessarily equal over space. It is possible for money wages to increase faster in a growing region and not be offset by higher productivity. The result may be an increase in prices instead of slower growth (25, p. 33).

Econometric models have also become more common in regional economics, not as a theory of growth but rather to forecast the impact of certain policies. Unfortunately, they are often molded by the availability of data rather than to test specific hypotheses suggested by economic theory. Another problem is that the data needed usually goes back only a few years, so that the data base covers a shorter period than the projection horizon, which is generally between 10 and 25 years for a regional policymaker. Econometric models are more effective for short-run forecasting so that more variables can be treated as constant (25, p. 38).

Input-output models have also been used extensively in regional development. Their advantages are that they are highly disaggregated and so can explore the impact of growth sector by sector and that they can be used interregionally. However, it is difficult to incorporate factor and commodity substitution and to take account of agglomeration and external economies of scale. They are also a forecasting framework rather than a theory of growth as it treats final demand as exogenous instead of attempting to determine its growth path (25, p. 40).

The previous discussion has highlighted several of the issues in regional development and has shown that at present there exists no satisfactory comprehensive theory of regional growth. Even so, the various problems mentioned, along with suggested remedies, do provide a framework within which to evaluate the public investment that occurred in Hancock County between 1975 and 1977.

CHAPTER IV

THE IMPACT OF THE GRANTS AND LOANS

Prior to 1975 there was relatively little public investment in Hancock County. That year marked the beginning of an aggressive effort to reverse the county's declining position. The county and local governments, aided by the First Tennessee-Virginia Development District, The University of Tennessee, Knoxville, and assorted state and federal agencies, sought and obtained over $3 million in grants and loans between 1975 and 1977. The funds came from many different sources and covered a variety of projects. Before examining the effect of this money on the local economy, it would be useful to briefly summarize each grant and loan.

Description of Grants and Loans

The Appalachian Regional Commission approved a grant for $376,142 in 1975 to replace a bridge over the Clinch River just southwest of the community of Big Springs that had been damaged by a flood. The money was for grading and surfacing the bridge and its approaches, a length of 0.093 miles. The bridge was to link Big Springs to country route 2499 in order to provide more direct access for the population in a 20 square mile area to employment opportunities, markets for their cash crops of timber and tobacco and health, education and social services in the surrounding towns of Sneedville, Kingsport, Morristown and Rogersville. The bridge was therefore desirable to enhance the social and economic environment of an isolated area.

The grant had a stipulation that preferred consideration for employment be given to unemployed persons residing in the area. It required that efforts to hire local labor be documented and that only when they were unable to recruit local labor could they bring in workers from outside of the county.

A grant for $66,550 was authorized by the Department of Housing and Urban Development the same year to develop Elrod Falls Park and to improve Back Valley Road. The road improvement consisted of hardsurfacing a stretch of about 1 mile to eliminate dust and mud and to improve access to a proposed apartment complex, the publicly owned industrial site and property which the county was preparing as a landfill site. The Elrod Falls Park was to provide recreational facilities for county residents as well as complement the outdoor drama "Walk Toward the Sunset" to attract tourists. The county had purchased 55 acres located 1 mile west of State Highway 31. The area was primarily woodland with 6 acres of open grassland below the 75-foot waterfalls. The money from the grant was to be used for labor, equipment and materials to improve the access and to develop the area by constructing footpaths, picnic tables, fireplaces and a playground and camping area.

The grant required that to the greatest extent feasible, opportunities for training and employment be given to lower income residents of the project area and that contracts for work in connection with the project be awarded to eligible business concerns in the area.

A loan of $419,000 was made from the Farmer's Home Administration to a private nonprofit organization, Hancock Housing Incorporated, to construct 24 apartment units for low- and modest-income families and for

senior citizens in Sneedville. Each unit was to consist of two bedrooms, a living room, kitchen and bathroom. In addition, there was to be a central building with meeting rooms and laundry, vending and recreational facilities. The loan was made at an interest rate of 8 1/8% with the organization paying 3% and the federal government subsidizing the remainder.

In 1975 Hancock County received $195,000 from the Department of Commerce under Title X of the Public Works and Economic Development Act with the stipulation that 75% of the money be used to hire local labor. The Tennessee Valley Authority administered the grant and contributed 40,000 feet of lumber valued at $6,000. The county supplied an in-kind local match consisting of labor funded through the Comprehensive Employment Training Act and the use of county equipment. The money was to provide two steel buildings with 28,000 square feet of space on the previously mentioned site which would be used to house small permanent industrial operations in order to provide employment and training opportunities to local residents. The other part of the project was the construction of a farmers' market with toilet, canning and cooking facilities. It was proposed that the facility be used as a central gathering place and short-term storage area for county farm products, which would then be sold wholesale to a canning operation in Nicholsville, Virginia.

A Health Center was obtained with the aid of a Hill-Burton grant for $309,465 through the Department of Health, Education and Welfare in 1976. The outpatient facility, a one-story stone building of approximately 5,000 square feet, was to have six examination rooms, a small laboratory, a pharmacy, dental suite, X-ray room, clinic room, child

development consultation and education room and a reception and waiting area. To comply with grant requirements, the Health Center must supply a reasonable volume of uncompensated care for persons unable to pay. There were no explicit restrictions on hiring practices contained in the grant, but all Hill-Burton grants subscribe to the Davis-Bacon Act which encourages the hiring of local labor whenever possible.

The Appalachian Regional Commission and the Farmer's Home Administration jointly funded a project that same year to upgrade the outdoor theater, "Walk Toward the Sunset." The Appalachian Regional Commission gave $100,000 toward the project, while the Farmer's Home Administration gave $25,000 and loaned an additional $25,000. The long-term objective of the project was to develop an area with potential for tourists which would hopefully lead to the establishment of other tourist attractions and to train local youths in dramatics. The short-term goal was to stimulate tourist-related sales and services. The funds provided for expanded permanent seating capacity, a display and sales area for local crafts, an adjoining rain shelter, an improved concession stand, sanitary facilities, dressing rooms, parking facilities, an access drive, a walkway and landscaping.

The Bicentennial Commission granted $1,000 to Hancock County with a local match in the form of labor and use of county equipment. Eight hundred and fifty dollars went to the Hancock County Roadside Park and for town beautification, to purchase brick flower planters, hanging planters, 10 picnic tables, trash containers and gravel. The remaining $150 provided fireworks, bunting and prizes for the Fourth of July festivities.

Hancock County received a $3,000 grant through the Federal Highway Safety Act as part of the Safer Off-System Roads Program in 1976. The money was to be used to install street signs in Sneedville with a 10% in kind local participation consisting of city employees installing the signs.

In 1977 the Economic Development Administration granted $200,000 to the county for water service and fire protection for the industrial park and to improve the road leading into it. The grant was matched by a local contribution of $50,000, of which $7,000 came from the Sneedville Utility District and $43,000 from the Department of Housing and Urban Development. The proposed water and wastewater construction consisted of 5,500 feet of 8-inch water line for water service and 2,000 feet of 10-inch main for fire protection, along with a 200,000-gallon ground storage tank and a 150-gpm booster station. In addition, there was to be a 1,000-gallon septic tank and a 1,000-square foot disposal area for wastewater flows. Road improvements, made on 5,500 feet, included adding a stone base, stone shoulders and surfacing, as well as installing headwalls on the storm drains and replacing an eroded bridge with a concrete box culvert. Curbs were also to be installed on 1,500 feet. The Economic Development Administration, in an attempt to get local labor hired, required that contractors go on record as having contacted the Department of Employment Security for prospective employees.

That same year the Economic Development Administration also granted $295,000 to Sneedville for the construction of a city hall and sidewalks. The grant, administered by Local Public Works, provided for a two-story stone building, approximately 40 by 60 feet, to house the

town government, the fire and police departments and the library. In addition, the grant authorized 39,775 square feet of sidewalks to increase pedestrian safety in the central business district, around the courthouse, to the elementary and high schools and to the Health Center and the hospital.

The Farmer's Home Administration granted $125,000 and loaned another $150,000 to the Sneedville Utility District in 1977 to extend the water lines and enlarge the existing pipeline. It also provided for a 25,000-gallon reservoir with a booster pumping station to serve the more elevated residential sections north of Sneedville and a 200,000-gallon reservoir with a booster pumping station to serve the industrial park. The money for the latter formed part of the local match for the Economic Development Administration grant previously mentioned. In addition, the money helped furnish 14 new fire hydrants.

The Environmental Protection Agency authorized a grant to the city of Sneedville to upgrade the existing sewage plant and to provide secondary sewage treatment. The proposal called for the addition of a biological treatment to eliminate organic matter from the wastewater, final clarifiers, chlorination for disinfecting the water, postaeration, aerobic digestion and sludge-drying beds. Approximately 15,000 feet of new sewer lines were called for, as well as rehabilitating the existing system to eliminate extraneous flow. At the present time, only Step I, which is a planning grant to evaluate various alternatives to determine the most cost-effective plan, has been funded in the amount of $24,592. Step II, which entails designing the system chosen in Step I, is projected to cost $123,408, and the construction of the system, Step III,

is estimated at $492,000. This brings the total presently committed to Sneedville to $640,000, though this amount is based on costs projected in 1977 and is subject to upward revision to account for cost increases.

The Federal Aviation Administration granted $25,000 to Hancock County for a study to determine the need for an airport in the county. The plan was to be executed in five phases. The first phase, Airport Requirements, was a presentation of background data on present air traffic and demand along with forecasts of future demand. It also included a general listing of the facilities needed during a 20-year planning period and an analysis of the environmental effects of possible construction. If it were determined that an airport was needed, Phase II, Site Selection, would be included. There were three elements in Phase III of the plan: an Airport Layout Plan, a Terminal Area Plan, and an Airport Access Plan. The Financial Plan, including schedules of proposed development and estimates of costs, comprised the fourth phase, and Phase V entailed the summary of the four previous phases and the publishing of the Final Master Plan Study.

The Tennessee Valley Authority engaged in a $125,000 project in Hancock and Claiborne Counties to help rebuild 31 tobacco barns that were damaged in the flood that occurred in the spring of 1977. Fourteen of the rebuilt barns were in Hancock County. Builders were hired to lay the foundations and erect the skeletons; lumber was supplied from Tennessee Valley Authority lands, and over 600 Tennessee Valley Authority employees volunteered their time on weekends to construct the sides, roofs and doors.

Application was made to the Federal Disaster Assistance Administration for $433,422 to repair roads and bridges damaged by the same flood. Work included removing slide dirt, regrading roads, repaving, replacing base stone, filling eroded areas with rock and repairing or replacing bridges. The grant specified that all repairs be made to an "as was" state, except where the previous state was not up to standards, in which case the area was to be repaired to meet existing standards. The grant did not allow for any added improvements to roads or bridges.

Between 1975 and 1977 there was approximately $427,500 appropriated to Hancock County through the Comprehensive Employment Training Act and for Public Service Employment. This money may only be used to hire labor. Some of it is used to maintain permanent positions in the county, such as secretaries, deputies and teacher's aides. It is also used to hire people for general county maintenance, such as repairing public buildings and roads, and is often used as an in-kind match for grants requiring local participation. Additional appropriations are made for specific purposes, such as aiding in flood relief or working in Elrod Falls Park,

Outlays for Labor and Materials

By tracing the grants and loans described above through the contractors and subcontractors, it was possible to get an approximation of how much of the money was actually spent in the county. The results are presented in Table 2.

The grants and loans are divided into two main categories: social overhead and economic overhead (CETA funds are treated separately as

Table 2. Outlays for labor and materials in Hancock County occurring as a result of public grants and loans, 1975 through 1977.

Grant/Loan Project	Dollar Amount	Dollar Outlays in Hancock County		Outlays in Hancock County as Percent of Project Cost	
		Labor	Materials	Labor	Materials
Economic overhead:					
A. To benefit residents (total)	1,167,564	130,995	135,737	11.2	11.6
Street signs	3,000	-0-	-0-	-0-	-0-
Big Springs Bridge[a]	376,142	3,800	741	1	.2
Road repair[b]	433,422	6,995	89,996	1.6	20.8
City Hall and sidewalks	295,000	75,000	30,000	25.5	10.2
Tobacco barns	60,000	45,000	15,000	75	25
B. To attract outside investment (total)	992,142	180,203	98,200	18.2	9.9
Water systems improvements	275,000	-0-	46,000	-0-	16.7
Sewer and water	24,592	-0-	-0-	-0-	-0-
Elrod Falls and Back Valley Road[a]	66,550	3,000	200	4.5	.3
Drama site	150,000	28,000	15,000	18.7	10
Water to industrial park[a]	250,000	2,720	2,000	1.1	.8
Farmers' market and industrial buildings[a]	201,000	146,483	35,000	72.9	17.4
Airport planning	25,000	-0-	-0-	-0-	-0-
Social overhead:	729,465	62,150	10,150	8.5	1.4
Health Center[c]	309,465	30,000	9,000	9.7	2.9
Apartments	419,000	32,000	500	7.6	.1
Bicentennial grant	1,000	150	650	.15	65
Comprehensive Employment Training Act[a]	427,500	427,500	-0-	100	-0-

Table 2 (continued)

[a]Grants which specifically mentioned hiring local labor.

[b]Records were only available for 51 out of 108 sites that were repaired. Therefore, these numbers are not accurate indications of expenditures.

[c]The original contractor went bankrupt and is being sued by the county. Therefore, his records were not available.

they are authorized only for labor costs). Social overhead involves projects and programs aimed at improving the environmental and social characteristics of the population, such as improved educational and health facilities. Economic overhead covers projects and programs designed to improve the physical characteristics of an area. This latter category was further divided into economic overhead with the primary aim of attracting outside investment, through industrial location and tourism, and economic overhead with the goal of maintaining the area for the benefit of current residents.

In some cases, the assignment of a project to a category may appear to be arbitrary. For instance, it can be argued that the City Hall and Sidewalks are social overhead and that Water Systems Improvements benefit residents. However, in each case the primary goal of the project was determined, usually through discussions with local officials, and it is believed that the breakdown is a reasonable indication of intent.

As can be seen, in only a few cases were local labor outlays a significant percentage of the total project cost. Comprehensive Employment Training Act funds are a special case in that they are authorized for local labor expenditures only and are, therefore, the most successful at increasing employment. This approach has two potential advantages. The first is that many of those hired by the Comprehensive Employment Training Act would otherwise be likely candidates for welfare payments. By utilizing the Comprehensive Employment Training Act funds, the county gets tangible returns from money that might have been paid out anyway; moreover, there is potential for less psychological damage to the recipients. The second advantage is that employment generated through

the Comprehensive Employment Training Act funds provides job skills to people that hopefully will allow them to find more permanent positions.

Of the other projects, only four could be said to have had a substantial impact on employment. Of these, only one was the result of stipulations in the grant regarding hiring practices. The grant for the farmers' market and the industrial buildings sepcified that 75% of the $195,000 granted under Title X of the Public Works and Economic Development Act be used to hire local labor, and, in fact, this was accomplished; Tennessee Valley Authority records indicate that $146,483 was paid to 86 people for approximately 58,000 man-hours of work, an average of $1,703 per person at an average wage of $2.53 per hour. (The 72.9% in Table 2 is based on a total project cost which includes $6,000 from Tennessee Valley Authority.)

The other projects that provided a high percentage of jobs for local labor were the tobacco barns, the City Hall and sidewalks and the drama site improvements. The first can be explained by the "community action" nature of the project. It was implemented with the idea of "people helping people" and as such was a highly local endeavor. As it was simple in scope, there was no need for contractors or specialized labor. The City Hall and sidewalks and the drama site improvements were both handled by the same contractor. This particular contractor did not maintain a permanent construction staff and was, therefore, free to hire a larger amount of local labor; he estimated that 80% of his payroll went to residents of Hancock County.

In all other areas, efforts to hire local labor did not result in a significant increase in employment. This lack of success is probably

due to the rather vague wording regarding hiring practices in the grants. In most cases it was encouraged, but solid guidelines for accomplishing this goal were not established. Even when some form of documentation was required, there was no evidence that the requirements had been complied with or that any follow-up action was taken by the granting agencies. In short, it appeared that while lip service was paid to the idea of hiring local labor even to the point of partially justifying the project on the secondary benefits of jobs created through their construction it was not a goal pursued aggressively by the granting agencies and did not result in substantial increases in local employment.

It is easy to understand why this is the case. There are no construction firms located in Hancock County, and so all contracts were won by firms located outside of the area, especially in Morristown, Rogersville and Knoxville. In many cases, the nature of the construction required skilled labor. With the majority of the labor pool in Hancock County being unskilled, it was necessary to bring that type of labor in from surrounding areas. In other cases, the contractor that won the bid maintained a permanent staff and, therefore, did not need to hire any additional labor for the project.

Expenditures on materials in the county were also not very large. This is not too surprising in view of the fact that Hancock County does not have many industries that supply building materials. Sand, gravel, lumber and stone were the items most often cited as being purchased in the county. Some contractors, for convenience and to lessen transport costs, bought as much locally as possible. Others, especially those working out of Knoxville, brought almost all of their materials with

them, due either to long-standing business arrangements with suppliers or to higher confidence in the quality of the materials.

The evidence seems to suggest that, with the exception of a few projects, the secondary effects of public investment on local employment and area businesses were not substantial. The implications these findings may have for regional policymaking are discussed in the final chapter.

CHAPTER V

CONCLUSIONS

The problems of lagging rural areas are multidimensional. The same area will often suffer from a relatively low level of public services, high unemployment and underemployment and low per capita income. Moreover, there appears to be no unified theoretical base from whence consistent remedial policy options can be generated. It is, therefore, not surprising that public support funds are often distributed on the basis of multiple goals. A common set of goals is the provision of a public service and generation of local economic activity. It was a maintained hypothesis of this study that if two goals were operational in the selection of projects the results would not be as cost-effective in meeting the individual goals as would be a selection of projects with a unidimensional goal. However, given a system of multiple goals, the efficient utilization of public funds requires that: (1) the correct trade-off of individual goals be known (which this study did not address) and (2) the impact of public programs on the goals be accurately estimated.

In this research, a case study of public expenditures of nonlocal funds in Hancock County during the 1975 to 1977 period was undertaken. The objective was to determine the direct local expenditure of these funds for labor and materials to provide insight into the direct impact that these funds would have on the Hancock County economy.

It was shown in the previous chapter that in a relatively unsophisticated county economy benefits to local labor and area businesses

were not as substantial as might have been hoped. This does not infer that public investment is not warranted in such areas. It merely points to the hazards of trying to accomplish several objectives with one policy program. If benefits, such as decreased local unemployment or stimulation of area business, are erroneously attributed to a public investment project, total benefits of the project will be exaggerated, which may lead to a suboptimal allocation of funds. In addition, trying to stimulate the local economy may lead to higher project costs so that the project may not be built in the most cost-effective manner.

A suboptimal allocation of funds may be desirable on the grounds of equity. However, it is preferable that these types of trade-offs be stated clearly with full knowledge of the opportunity costs of this sort of income redistribution, rather than hidden behind the ungrounded justifications of secondary benefits.

Lagging regions will also benefit from a more exact appraisal of the impact of public investment on local economies. Current policies often give the impression that something is being done to aid employment in these areas. By realistically accepting that the approach is not very effective, decision makers may free themselves to attack the problem in a more direct manner.

It is beyond the scope of this study to judge the merits of the investment that occurred in Hancock County. However, it may be worthwhile to briefly examine the projects in light of the theory previously discussed.

As can be seen from Table 2, page 41, the majority of the investment was for economic overhead. Moreover, much of the economic overhead

was primarily intended to attract outside investment, either through industry locating in the area or through the promotion of tourism. A study of the cost-effectiveness of public funds used to generate jobs through industrial development projects, based on Economic Development Administration programs, showed that direct assistance to industry, rather than first developing water and sewage systems to attract industry, improved cost-effectiveness (28, p. 10). There seems to be a lesson there for Hancock County; despite the county offering the industrial buildings rent free for the first year and gradually increasing the rent to 6.6 cents per square foot monthly in the fourth year, there has been only one industry that has located there permanently to date. This industry, a furniture manufacturer, currently employs about 47 people.

The attempt to attract tourists has been a failure; the outdoor drama cannot be produced due to lack of operating funds, and there is a dispute over the access to Elrod Falls Park. Also, as Sneedville is located between four major roads with no easy direct routes from any major center, prospects for attracting a thriving tourist trade seem limited.

Investments in economic overhead, even when geared toward attracting industry, still improve the quality of life for area residents. However, once again it is important that the trade-offs be made explicit. Is total welfare increased by improving the sewage system in a community of 874 residents or by investing the money in an urban center where more people may benefit? Marginal utilities for public facilities may well be higher in an isolated rural area, thus justifying the investment. Then again rural investments may be very cost-ineffective in terms of

people benefited. The point is that effective decision making depends on having as many of these trade-offs as possible stated in concrete terms, thereby decreasing reliance on implicit value judgments.

Most theories tend to favor the growth pole concept, rather than dispersing investment over space. The EDA study mentioned above showed that locating projects close to cities of 25,000 also improves cost-effectiveness (28, p. 10). This may mean that stimulating a center such as Morristown or Kingsport would aid Hancock County residents more than directly attempting to develop the county itself, since proportionately more jobs would open up that they could compete for. This type of job creation would be even more effective for rural populations if there were a possibility of earmarking a certain percentage of jobs which were the result of public investment for depressed area residents, much the same way affirmative action programs for hiring minorities now function. There would surely be problems with this type of approach, such as what would occur if the worker decided to migrate permanently rather than commute, but such a program should be feasible.

This study also found that poverty, measured by the percentage of area residents on welfare, and underemployment were not variables that influenced cost-effectiveness. Contrary to what may be expected, cost-effectiveness was better where unemployment was low (28, p. 10). These findings seem to substantiate the hypothesis that justifying public investment on the basis of the secondary benefits of public investment, while awarding the projects on the basis of need, will not lead to an optimal use of funds. Let it be mentioned once again that a suboptimal use of monies may be justified on equity grounds but that

these considerations must not be confused with the economic concerns of job creation and interindustry multipliers.

Table 2, page 41, shows that very little of the investment that occurred in Hancock County was for social overhead. This appears to be in contradiction with most theories of regional development, which tend to favor improved education and training as a means of allowing migration to areas offering more opportunities. There are few who would argue with the contention that even residents of isolated rural areas deserve a decent standard of living with reasonable housing facilities and adequate health care. However, there are those who believe that not every area must necessarily be stimulated economically or is capable of being developed. Those who choose to stay in such an area must be willing to accept the consequences of that choice in terms of lower income. For this attitude to be viable, residents must be given every means available to view that as a choice rather than being locked into a lagging region due to insufficient job skills or lack of information on opportunities available elsewhere. Therefore, investment in social overhead is essential.

This case study is necessarily quite limited in scope, and it is often dangerous to generalize. However, it is believed that other declining rural areas, with unsophisticated regional economies much like that in Hancock County, would also find that a very small percentage of public investment funds actually circulate in their area so that secondary benefits of public funds are quite negligible. More information is needed so that decision makers can appropriate limited monies with a clearer understanding of the actual impact of such aid on the area, rather

than being misled by unsubstantiated promises of increased local employment and a multiplied economic effect.

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