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Research in Regional Economic Growth

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Council of Economic Advisers

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The economic historian and the local industrial promotion agency are both interested in economic growth. Perhaps they should compare notes more often. A sound and useful body of general principles of economic development must be derived at least partly from studies of specific local situations. Conversely, a sound and useful approach to specific problems of promotion and development in a community or a region requires an understanding of general principles.

Coordination of research interests and activities in regional economic growth can do much to foster this cross-fertilization of the general and specific approaches. Such coordination involves agreement on basic principles and desirable fundamental directions for economic development, and particularly a consistency of approaches and assumptions among regional studies and between regional and national studies. For research directed toward guidance of public or private action programs, both national and regional, it is essential that regional expectations and objectives as to development should be formulated, not independently but in close working association with one another and with national outlooks and goals.

This paper as a whole is intended to provide a provocative basis for discussion of appropriate research projects and procedures related to regional economic growth in the United States, and to suggest practical ways of achieving a better coordination of regional economic studies. It is organized in four parts:

Part I. A sketch of a general theory of regional growth, with identification of the basic economic factors and an examination of the meaning of some important analytical concepts.

Part II. Characterization of some specific types of United States regions deserving special attention, and illustrative application of a simple statistical device for measuring and portraying relative growth of regions.

Part III. A statement of general and specific lines of research which appear most needed and most promising in the field of regional development.

Part IV. A description and appraisal of some of the more promising work on regional economic development done by different types of regional research, planning, and promotional groups in the United States.

Part I

Hypotheses and Factors in the Analysis of Regional Economic Growth

The purpose of Part I is to put forward a set of useful concepts and hypotheses for analysis of regional economic growth. We shall suggest a framework into which research on specific questions can be fitted, with some hypotheses to guide such research.

The search for 'principles', 'laws', or 'theories' about regional economic growth and decay rests on the assumption of some degree of consistency between historical patterns of growth in different cases. In a general approach emphasis on the uniformities of pattern is in order. No two cases of regional growth are identical: but it is legitimate to develop 'principles' of regional development just as we may usefully generalize about human behavior even though no two individuals behave exactly alike.

A Basic Concepts

1 'Growth' and its opposite 'decay', are subject to great latitude of definition. Part III of this report discusses and illustrates some suggested

measures. It seems clear that changes in both the per capita income and the total income of a region are appropriate as criteria for appraising growth, but there is no acceptable formula to indicate how much weight to attach to each. Moreover, maximum growth for a region -- however defined in terms of statistically measurable income -- is not necessarily desirable, particularly from the viewpoint of a broader area such as a country in which growth of one region may in some circumstances be at the expense of growth elsewhere. Any judgment as to the desirability of a particular growth pattern must be based partly on such further criteria as trends in the distribution of income; stability of total income; individual economic security; breadth of individual economic opportunity; and political and economic independence from other regions.

2 What is a 'region'? This favorite subject of discussion among geographers appears still unsettled, largely because of the great variety of purposes for which one might want to use the demarcation of a region. In some discussions,¹ the concept of regionalism appears to be based primarily on

¹See for example the collection of definitions of regions in National Resources Committee, Regional Factors in National Planning, Washington, 1935, and also Howard Odum and Harry Estill Morre, American Regionalism, New York, 1938.

self-sufficiency. More often, the basic idea behind the delineation of regions is homogeneity. A region is regarded as an area in which nearly all parts, because of similarity of natural resources or population characteristics, carry on the same type of activity. In practice it has been found feasible to delineate regions with a sort of 'general' homogeneity, by superimposing a series of maps showing types of topography, natural resources,

occupations, and so on, and marking out roughly those areas which appear distinguishable on the basis of agreement or compromise among several of these criteria.

It is interesting that the two basic concepts -- self-sufficiency and homogeneity -- tend to conflict, particularly in economically developed areas. Since human needs are diverse, homogeneity of activity in an area means specialization of production on some narrow sector of goods or services, which in turn implies a high degree of dependence on exchange of products with other areas. This is the opposite of self-sufficiency. The only kind of region which is at the same time highly homogeneous and highly self-sufficient is a region devoted primarily to subsistence farming or even more primitive modes of survival.

In connection with the analysis of economic growth, the most appropriate concept of a region would seem to be a geographic area within which there exists an especially high degree of interdependence among individual incomes. The use of any concept of an economic region is justified by the hypothesis that a region grows or decays as an entity, rather than having its changes in income represent merely the random sum of independent changes in the individual types of economic activity which happen to be located there. An essential part of this field of study, therefore, must be the exploration of the nature of those intra-regional economic associations which give coherence and meaning to regional economic growth and decay.

The ideal delineation of regions naturally differs according to the specific purpose in mind. This is dramatically illustrated by the fact that each major functional arm of our Federal Government engaged in field operations has developed its own special set of regional boundaries.²

²Maps of several dozen of these sets of working regions are shown in the National Resources Committee volume already cited.

Two considerations, however, limit the otherwise infinite diversity of regional demarcations. First, a region's boundaries must follow those of the major areas used in tabulating general-purpose statistics, if such tabulations are to be used effectively in analysis, planning or administration for the region. Secondly, a region considered with any reference to possible action by state or local government authorities must logically follow the boundaries of such jurisdictional units. There can surely be very few really useful projects of regional research that do not carry some implication of possible action based on the findings.

These two considerations account for some standardization of regions for both analysis and administration, and for a quite justifiable preference for regions following state lines.

3 'Balanced' development of regions is a term often so carelessly used as to be only a slogan. It seems to have two useful and legitimate meanings.

In one sense 'balance' refers to diversification of activities within a region, which offers certain advantages in full and stable use of resources which a narrowly specialized, or 'unbalanced' economy lacks. This aspect is discussed at a later point in Part I.

In the other sense, 'balance' in regional development means that none of the interrelated factors in growth is permitted to retard regional progress by acting as a chronic bottleneck. There is of course some effective limit on regional growth at every stage; pursuit of 'balance' in this sense implies conscious effort to discover and relieve the particular difficulty which most retards development. This concept will be discussed more fully in Parts I and III.

B Factors and Patterns of Regional Economic Development

It is possible to 'explain' the growth of a regional economy in terms of the resources with which the region is endowed. Resources can be defined so widely as to cover all factors of production: following the classic economic trinity of land, labor, and capital, one may distinguish 'natural', 'human', and 'capital' resources and ascribe an appropriate developmental role to each.

The resources a region has at any given time, conditioning its subsequent growth, seem indeed to depend largely on the previous course of development of the region. Even such apparently 'natural' factors as soil or water resources are really 'acquired' or 'capital' in the sense that they can be wasted or improved according to the way they are used. Furthermore, the value or significance of any given resource evidently depends on the availability and quality of others.

This interdependence of development factors means that growth or decay of regions must be analyzed as an organic process in which no one resource can be examined without reference to others; in which the significance of factors changes; and in which much depends on public policy and its implementation.

There is now a fairly well accepted body of theory regarding the normal sequence of development stages in a region. The utility of this theory is that it allows us to judge what alternatives face a region at any actual stage in the sequence, what technical, economic, political, or social problems are likely to be met with in passing to the next stage, and what types of policy may be appropriate in order to accelerate growth, ease the growing pains, or forestall or check economic decay. This statement may be overoptimistic as

applied to the present state of our understanding. It represents rather a goal toward which analysis must aim.

The next few pages are devoted to a quick outline of the theory of typical sequences of economic development. The reader may find this section of the report overly simplified and trite. It is useful, however, to set out this theoretical framework explicitly as a proposed common point of departure for consideration of specific regional situations and specific lines of research.

Most regions begin their economic history with a stage of self-sufficient subsistence economy in which only basic needs are met and there is little investment or trade, either internal or external.

The development of inter-regional trade makes it possible for such a primitive region to grow by specializing in lines of production for which it is particularly suited. A region can remain agricultural and still experience growth, as it devotes an increasing stock of capital and improved techniques to an increasingly specialized agricultural export business. There are several historical examples, such as Denmark and New Zealand.

A continued increase of population, however, makes it more and more difficult to keep increasing per capita income. The principal reason for this lies in the technical nature of agriculture. As an activity based primarily on solar energy and on the properties of the topsoil, agriculture is limited in its capacity for intensive production.³ Similar limitations

³ Exceptions include poultry and beekeeping and mushroom culture. Intensity of production, as the term is used here, could be measured by income produced per unit of area.

apply to forestry and fishing but not to manufacturing, which uses materials

and energy (or fuels) transported to the site of production; nor to mining, which exploits ground resources in all three dimensions. Crop production of the remote future might conceivably be something quite different, capable of supporting intensive settlement. Under present and foreseeable conditions, however, it remains true that if a region is to continue to increase both in total and in per capita real income -- which is our concept of growth -- it must eventually industrialize. Industrialization means the introduction of so-called secondary industries (mining and manufacturing) on a considerable scale.

It is precisely this transition that poses some of the major problems of adjustment, and involves risks of arrested growth and decay. Why should this be so?

There are a number of reasons. In the first place, industrialization calls for greatly improved transportation facilities within the region and between regions. They represent an intensification of the geographic division of labor, which obviously requires more transport and communication for distribution of products. In manufacturing there is the further need for transport in concentrating sufficient supplies of the materials used. Secondly, manufacturing and mining -- and the transport facilities necessary to support them -- call for the investment of large blocks of capital. Thirdly, the technologies of production and management used in industry are novel to an agricultural community.

These requirements, and the usual characteristics of a nonindustrialized region, go a long way toward determining which types of 'secondary

industry' present the least difficulty of introduction and therefore can be expected to pioneer the process of industrialization.⁴

⁴The fact that the indicated types of industry are, in the felicitous terminology of Dechesne, 'easy' industries to get started, does not necessarily mean that a conscious policy to promote industrialization should begin with them. Certain other activities which have been classed by Colin Clark as 'tertiary' -- notably transport, communications, and finance -- may be much better things to develop first by public encouragement, because their development exerts such a broad leverage on the possibilities of growth. When these basic tertiary facilities are provided, the prospects for rapid and profitable development of secondary industries in general are much enhanced. On the basis of this broad diffusion of indirect benefits, it is not difficult to make a case for public aid or participation in transport, communication, and banking development at the threshold of industrialization. The need for any subsequent subsidy or encouragement to specific secondary industries is correspondingly reduced.

Furthermore, at the present stage of our economic and political history, it is generally considered acceptable for Government investment to concern itself with large scale development of transportation, communication, electric power, and other tertiary lines. For Government to engage directly in secondary industries, broadly speaking in manufacturing, is thought to be inadvisable except perhaps in wartime.

In general they must be industries requiring fairly small capital and little skill, using simple techniques of processing and management, drawing on the types of materials found in a nonindustrial region, and yielding products for which there is a considerable market even in a low-income and largely rural population. Three types of industry which seem to fill the bill in these respects are wood products, food processing, and the simpler branches of the textile, leather, and clothing trades. It is no accident that industries in these categories are familiar harbingers of a broader industrialization.

To the extent that investors in other, more advanced regions are able and willing to aid the process of industrialization in a region, certain of the restrictions just described may be eased, and other types of secondary

industry rather quickly superimposed on a relatively primitive domestic economy. Large-scale mining and mineral-reduction industries are involved in nearly all such cases. Oil development in many backward countries is an illustration. These activities are based on the mineral resources of the region, but are developed with the aid of large amounts of outside capital and enterprise, and generally carried at first only through the primary bulk-reducing stages, with subsequent processing and use elsewhere.

The process of industrialization, once launched, has obvious cumulative tendencies. One industry furnishes materials or markets for another, concentration of manufacturing develops improved transport and other tertiary facilities, general purchasing power rises, labor and management skills improve, and more capital accumulates. Regions developed largely from outside via the short-cut procedure described in the previous paragraph, however, may encounter special difficulties at later stages due to their economic and political dependence on the investing regions.

At an advanced stage of economic development, a region develops specialization in certain tertiary industries for export. The region is then playing the role of an economic leader of other regions, usually exporting to them capital and specialized personnel along with the elaborate services which it has developed.

But for reasons already noted, industrialization is often a difficult process to get started. Further difficulty arises from the fact that when a nonindustrial region reaches a limit of growth it is likely to retrogress or decay. Metaphorically speaking, if it misses the bus when still in full stride, and exhaustion sets in, the bus becomes still harder to catch. Stagnation and decay too may be cumulative.

The basis for this danger is partly Malthusian. The tendency of population increase to outrun the means of subsistence is only too well evidenced in low-income nonindustrial regions, the reasons for which are a large and important field for social research. As population goes on increasing in a limited area, output per head must eventually stop rising and begin to fall, unless production methods and industries adapted to more and more intensive use of space are constantly introduced. But the conditions of a nonindustrialized region seem to be favorable to human fertility. When for any reason industrialization is delayed, population pressure is very likely to set in, keeping living standards low and thus further increasing the pressure. As growth is arrested, capital formation and the improvement of human resources are likewise checked. Actual deterioration of both natural and human resources ensues (forest and soil depletion, malnutrition, etc.), putting further difficulties in the way of industrialization. A 'backward' region, characterized by economic stagnation if not decay, comes into being.

There is still another cumulative relation at work -- the fact that the market demand for industrial products rises much more than the demand for farm products with higher per capita income. This means that the course of world progress tends to shift demand more and more to industrial regions and away from agricultural regions. It also means that a decaying region furnishes a rapidly shrinking home market for industrial products, which is another factor impeding industrialization.

Finally, the fact that so many stagnant or decaying areas are trying to make a living by agriculture has the effect of depressing the ratio of farm to nonfarm product prices -- just as the level of earnings in certain easy-entry occupations is depressed in times of general unemployment by the

competition of many new entrants who can find no other livelihood. The terms of inter-regional trade turn against regions specializing in agriculture.

The foregoing discussion is sufficient to indicate that the beginning of industrialization is a peculiarly critical stage in regional development, where either chance or consciously adopted economic policies may spell the difference between decay and continued growth. A large number of the 'problem regions' of chronic economic distress are accounted for by the difficulties just described.

This is not to imply that all is plain sailing once a few secondary industries have become established in a region. Two potential threats in particular remain: resources depletion and overspecialization.

Depletion of some natural resources like minerals is inevitable, though sometimes very slow and usually subject to some controls. In the case of other natural resources such as soil, forests, forage and fisheries, depletion is the result of improvident utilization. A regional economy based on any resource subject to rapid depletion is obviously vulnerable to decay which may become cumulative by the processes described earlier. Exhausted mining and cutover timber regions are an important category of 'stranded' area.

Any specific branch of production in a region, however, may become unprofitable even in the absence of physical deterioration of the resources used. Destructive competition may arise from other regions or other products as a result of discoveries, improvements in production or transportation, or shifts in demand. In a changing world no industry anywhere is a 'sure thing' indefinitely. This suggests that specialization of a region in one main kind of activity, or a few closely allied lines, makes its growth precarious and vulnerable to economic change originating either inside or outside the region.

One may say it is hazardous for a region to be too regional -- i.e., too closely bound together in dependence on a single set of growth factors.

In diversification lies safety, if only on the principle that eggs should not all be carried in one basket. But a broader case may be made. There are other benefits and implications of intra-regional diversity for economic stability and growth, which furnish a fertile field for more detailed research.

Diversification of activities may for example promote the fuller and more economical use of resources in several ways. A combination of industries with dovetailing seasonal peaks improves the seasonal load factor of transportation services, energy supply and other service facilities. If labor is transferable between the different seasonal industries, it diminishes seasonal unemployment -- in any case, it diminishes seasonality of income and thus tends to equalize the level of consumer spending and improve the utilization of facilities serving the consumer.

A combination of industries with different types of personnel, labor and management requirements (for instance differing in their use of heavy and light or male and female labor, skilled and unskilled, or large-scale and small-scale organization) likewise leads to better use of the wide variety of aptitudes, experiences, and preferences found in the labor force.

Finally, diversity keeps a wider range of skills and interest alive among all classes of the population, and thus provides a more fertile soil for germination of new industries and firms, as old ones become obsolete in the region.

There are still further aspects of the role of diversification, one of which may be mentioned as especially worthy of further investigation. That

is the relation of diversity to small business and local business control. Although there may be no necessary association here, one does often appear in practice, still further broadening the field of the relation between diversity, stability and growth.

C Regional Differences in Growth of Per Capita Income

The line of analysis sketched out above accounts for wide differences in rates of growth of total income in different regions. There remains the problem, however, of wide and persistent differences in per capita income or levels of well-being. We need to know more about the causes and consequences of such differences and what policies may be appropriate in dealing with them.

One obvious statement is that such differences rest upon imperfect mobility of people. A region growing more rapidly than its neighbors normally attracts inward migration, while a relatively or absolutely declining region normally⁵ has a net emigration. Generally, the mobility

⁵The observed tendency of depression migration to flow toward rural areas, including some areas of submarginal farming, is not really an exception to this. It is a cyclical phenomenon due to the greater impact of unemployment on the urban person and runs counter to normal secular trends.

thus shown is insufficient to level out inter-regional differences in income levels.

There is not much useful content, however, in the familiar statement that persistence of such differences reflects imperfect mobility. Such an 'explanation' amounts to no more than a definition of mobility as prompt migration to the area affording the highest level of income. It tells us nothing about why mobility is imperfect.

Furthermore, it is not strictly true that perfect geographical mobility would equalize either money or real income levels in different regions. Individuals differ in their capabilities. If Region A is suited mainly to industries not requiring any scarce skills while Region B is suited to industries which do require such skills, complete geographic mobility of labor would be to a higher level of real income in B than in A. Each man would be where he personally could earn the most, but the more able individuals would be concentrated in Region B. Moreover, two regions with equal standards of real income may have quite different levels of money income, reflecting inter-regional differences in the cost of living.

Part II

Regional Growth Differences in the United States

A Types of Regions Requiring Special Attention

In examining the factors determining regional economic growth, Part I of this paper, it is indicated that realization of development potentialities is by no means automatic. At any stage in the history of a region -- and particularly in certain critical transition phases -- growth may be deflected, arrested, or reversed. 'Problem' regions of diverse types exist. In approaching the consideration of specific regions of the United States, it is helpful to distinguish four main types of areas particularly meriting attention.

1 Lagging or backward regions. One notable section of the country, the Southeast, lags behind the rest of the country in regard to most measures of economic well-being. Per capita income is low. Value of

manufactured products is low as is value added by manufacture. Standards of health, nutrition, and education are below national averages. The reasons why this region lags are deep-seated, historical, and complex.

Yet the Southeast offers much economic promise. Recent trends justify confidence that relatively the Southeast can continue to raise itself toward national levels of economic welfare.

Such a region should be given special attention by economists and others to determine more precisely the causes of the backwardness and to formulate action programs for improvement. Hopeful lines of solution are: further industrial development and diversification; rapid development of hydroelectric and other power and its application in industry and agriculture; improvements in agriculture such as increased use of fertilizers; encouragement of private and community enterprise; judicious use of Federal grants-in-aid for research, education, and public health; and intelligent industrial promotion.

2 New but underdeveloped regions. Certain regions such as Alaska, the Pacific Northwest, and the Southwest are not lagging or backward in the sense that the Southeast is, but they are underdeveloped with respect to their potential development. Their endowment of natural resources would be capable of supporting a much greater population at high living standards provided the capital, both money and physical, can be made available.

These are the regions toward which population and capital may be expected to migrate since opportunities and earnings there will be greater. At present such regions are in an earlier stage of development in which economic life is dominated by a relatively few types of industry. Extractive and primary processing industries are of overwhelming importance.

Many services such as insurance as well as the more highly manufactured articles have to be shipped in from the more mature regions. In such regions large-scale public or private investments in dams, power lines, roads, railroads, and other facilities may so speed up economic development that in effect the region almost skips a growth stage.

Perhaps the California region has been moving most rapidly through the various stages of economic development toward maturity which is characterized by diversity of industries, fully developed tertiary industries, and export of capital and technical services.

3 Older, stable regions. Such regions as New England no longer seem to have the potentials for new development found in the newer regions of the West. Yet, far from lagging behind national averages in per capita income and degree of industrial development, they have now and probably will continue for many years to stay among the leaders in such measures. In terms of cultural well-being they certainly show few signs of deterioration.

Such a region is equipped with a full range of tertiary economic activities. It has no readily exploitable geographic frontiers. Returns on capital, while safe, tend to be low. Interest, dividends, and rents from other regions help support consumer expenditures and additional investment inside and outside the region.

Relatively to most other regions and to national averages this type of region is going down hill -- but the slope is gradual (and the coasting sensation may even be rather pleasant). Research, analysis and ingenuity in such a region must be keener if it is to preserve the delicate balance necessary to avoid a calamitous rout and if it is to make the most of its

remaining opportunities. Its frontiers definitely are to be found in the further development of the tertiary group of activities -- services, tourist trade, insurance and banking, education, and others -- and the highly skilled industries.

New England might provide the pilot study of how to cope with advancing economic age gracefully with a minimum relative sacrifice in living standards. Of course, it is always possible that some major new factor will come into play and convert a mature, stable region into a region suddenly at a threshold of major new development. A new source of cheap power, the discovery of a huge iron range or oil pool, or new considerations of military strategy might be examples of such a new factor.

1 Stranded and chronically depressed areas. These areas, usually smaller in size than the types so far discussed, are frequently called the trouble spots of the economy. Most of them have been dependent largely on a single, or at most a very few, lines of industry. When a major technical improvement is applied in the crucial industry, for instance, cigar making machinery in Tampa, unemployment usually results. Because of labor immobility and the difficulty in establishing new forms of livelihood, the unemployment may become chronic.

Other changes may lead to the same result. The resource upon which the crucial industry depends may give out altogether or become exhausted to the point of excessively high cost. This has been true of certain hard metal mining sections in the West, the copper section of Michigan, and cut-over forest lands in various parts of the country. Demand may turn away from the product of the crucial industry. New and cheaper sources of supply of raw materials, new market locations, altered forms or

rates of transportation, new sources of energy, military considerations, and other factors may also force such readjustments in the location of industries as to leave behind stranded areas or pockets of unemployment.

Many of the chronically depressed spots of the country are in larger coal producing areas. Here the explanation is to be sought among such factors as the depletion of easily accessible workings, the diminishing share coal has in the total energy market, and the increasingly wide application of improved, labor-saving mining methods.

The explanation of the plight of a stranded area usually contains hints as to the likely lines of solution for the predicament. Among these lines of solution are: (1) migration out of the area; (2) attraction of industries to the area to use idle labor skills, plant, equipment, and terminal and transportation facilities. In many cases a combination of industrial promotion and diversification with population migration and vocational retraining of those persons who remain in the area may prove to be the salvation.

Occasionally very large areas may be included in this category. The Great Plains area during much of the 1930's was chronically depressed and may become so again after the years of ample rainfall, inexhaustible markets, and high prices come to an end. In this event the long-term trend away from wheat products as compared to manufactured products, services, and most other foods will only add to the seriousness of conditions in the Great Plains.

B Strategic Factors for Policy

Just as strategic factors for control of the business cycle may be identified, strategic policy factors for regional development may be singled out for special attention. What particular factors may be strategic for a

given region will depend on a host of circumstances which would have to be analyzed. In a sense those factors are strategic for policy which, if dealt with effectively, will make up deficiencies and restore balance as previously defined.

In the descriptions of types of regions -- lagging, new and underdeveloped, older and stable, and chronically depressed, and the examples given -- a number of strategic factors were cited. Following is a schematic presentation of types of strategic policy factors. Actually there is much overlapping; for instance, energy policies, Government subsidies, or certain investment programs may be significant for natural or human as well as for capital resources development.

- 1 Policies operating primarily on natural resources.
 - a. Conservation, sustained yield, regulated or directed use.
 - b. Long-range planning and programming -- estimates of needs, resource potentials, desirable rates of utilization.
 - c. Trade with outside regions, especially import and export of raw materials.
- 2 Policies operating primarily on capital resources.
 - a. Transportation rates.
 - b. Energy policy.
 - c. Pricing systems.
 - d. Government subsidies and guarantees.
 - e. Strategic military considerations affecting industrial location, rate of capital formation (or obsolescence), and types of investment.
 - f. Research on new production methods, machinery, and products.

- g. Investment policy and program.
 - h. Income and other tax policies.
- 3 Policies operating primarily on human resources.
- a. Education for regional job opportunities -- general and vocational, including on-the-job.
 - b. Job analysis and placement.
 - c. Encouragement to inter- and intra-regional migration in accordance with work opportunities and wage rates.
 - d. Improvement in health and morale.
- 4 General policies.
- a. Regional economic research and study which aims to delineate the problems, isolate and identify the growth and decay factors, and recommend appropriate policies and programs.
 - b. Intelligent promotion based on research and study.
 - c. Provision of amounts and types of funds required to support and improve the regional economy.
 - d. Most important is the integration of all research, policies, and programs for regional development. Such integration should be flexible enough to allow for changes in requirements, techniques, and administrative facilities. Many competent and interested individuals and groups should participate in this process.

C The Measurement of Regional Growth

The accompanying tables and charts show the results of a comparison of three related indexes of growth over the interval 1929-1947 for six regions

of the United States and for the forty-eight States individually.⁶ The

⁶Data are from Charles F. Schwartz, "Regional Trends in Income Payments", Survey of Current Business, September, 1948. The total and per capita income figures for 1929 were raised by 30% to allow for the 30% rise in living costs between 1929 and 1947. The regional classification is adapted from that proposed by Howard W. Odum of the University of North Carolina in his volume on Southern Regions of the United States. Professor Odum developed a six-region grouping of the States after an exhaustive study involving their classification as to homogeneity on the basis of about 700 economic and social factors. The only modification made of Odum's classification for use in the State income payments work was to divide his large Northeast region into the traditional New England region and the Middle East or Middle Atlantic region.

growth indicators used are:

- 1 Population.
- 2 Total individual real income (in terms of 1947 consumer purchasing power).
- 3 Per capita individual real income (in terms of 1947 consumer purchasing power).

This presentation should be regarded primarily as illustrative.

Over the 18-year interval no United States region showed an absolute decrease in real income, population, or per capita real income. This is shown in Table 1. Increases in real income ranged from 49 percent in both New England and the Middle East to 128 percent in the Southeast and 138 percent in the Far West. Except for the two extremes, increases in population ranged only from 12 percent in New England to 18 percent in the Southwest. The two extremes were the Northwest (1 percent increase) and the Far West (71 percent). The smallest increase in per capita real income was registered in the Middle East group of states, (29 percent). The Southeast showed a 97 percent increase in per capita real income and the Northwest 98 percent.

Table 1

Growth Characteristics of U. S. Regions, 1929-1947

Region	Real Income (I) (Millions of 1947 dollars)		Population (P) (in millions)		Per Capita Real Income (I/P) (millions of 1947 dollars)		
	1929	1947 % change	1929	1947 % change	1947	% change	
United States	107	190	78	121	143	183	50
New England	8.85	13.2	49	8.13	9.13	12	32
Middle East	36.2	53.9	49	29.9	34.5	15	29
Southeast	11.3	25.7	128	25.4	29.4	15	97
Southwest	5.46	11.4	108	8.98	10.6	18	79
Central	31.4	53.7	71	33.8	38.6	14	49
Northwest	5.06	10.1	99	7.32	7.39	1	98
Far West	9.10	21.6	138	8.12	13.9	71	39

Source: Survey of Current Business, Sept. 1948, pp. 12, 16, 17. For this and the following tables and charts income figures for 1929 have been converted to dollars of 1947 purchasing power by multiplying by 1.30.

States included in the various regions are as follows:

New England - Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
 Middle East - Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, W. Virginia
 Southeast - Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, N. Carolina, S. Carolina, Tennessee, Virginia
 Southwest - Arizona, New Mexico, Oklahoma, Texas
 Central - Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin
 Northwest - Colorado, Idaho, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming
 Far West - California, Nevada, Oregon, Washington

In Table 2 the rate of growth of each of the seven regions is compared to United States growth rates in terms of real income, population, and per capita real income.

Three regions (New England, Middle East, and Central) show 'unqualified relative decay' as compared to the United States trends; that is, the rate of growth in each of these regions from 1929-1947 was less than for the United States as a whole in terms of real income, population, and per capita real income. In absolute terms, as can be seen from the first table, these regions were improving in regard to all three measures. Perhaps it would be fairer to say these three are regions of less than average or lagging growth rather than relative decay. Only the Southwest can be said to have shown unqualified relative growth as compared to the Nation. Here both real income and per capita real income increased faster than in the United States as a whole. The remaining regions (Southeast, Northwest, and Far West) may be characterized as showing 'qualified relative growth'. It might be argued that the Far West should be listed as showing 'qualified relative decay' since in that region per capita real income decreased relative to the national figure.

Regional growth trends as compared to the national are summarized in Chart 1. Each region falls into one of six classifications according to its relative growth characteristics. In Chart 2, individual states are shown on the same basis. A state plotted in the 'unqualified relative growth' segment of the chart had faster growth in real income, population, and per capita real income than did the United States as a whole. A state in that 'qualified relative growth' sector of the chart in which the Far West region appears in Chart 1 had relative growth in real income and population but relative decay in per capita real income.

Table 2

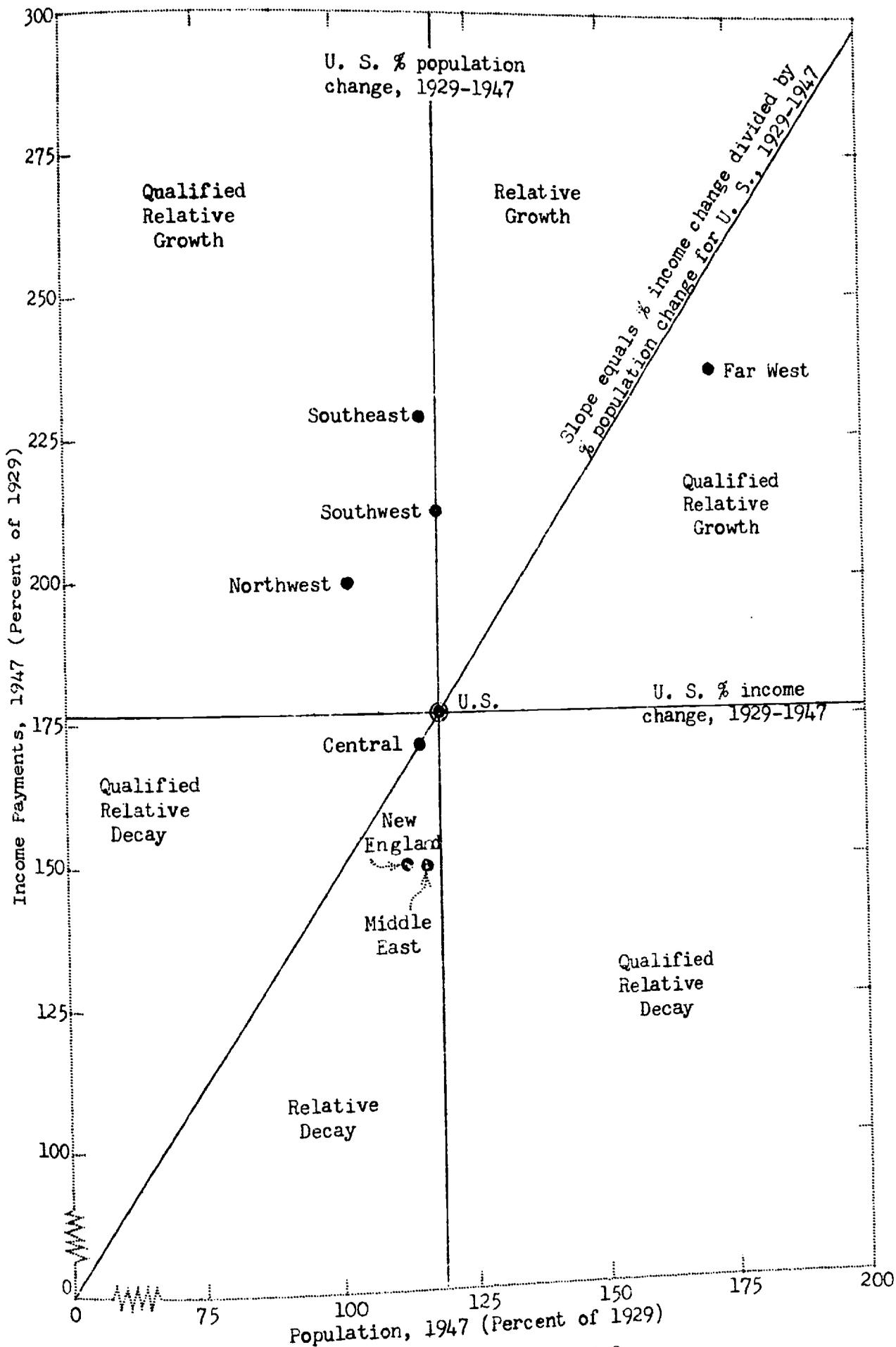
Growth and Decay in U. S. Regions as Compared to National Trends, 1929-1947

Region	Regional Change as Compared to U. S. Change 1929 - 1947	Income	Population	Per Capita Income	Relative Growth or Decay
New England	-	-	-	-	Relative decay
Middle East	-	-	-	-	Relative decay
Southeast	+	+	-	+	Qualified relative growth
Southwest	+	+	0	+	Relative growth
Central	-	-	-	-	Relative decay
Northwest	+	+	-	+	Qualified relative growth
Far West	+	+	+	-	Qualified relative growth

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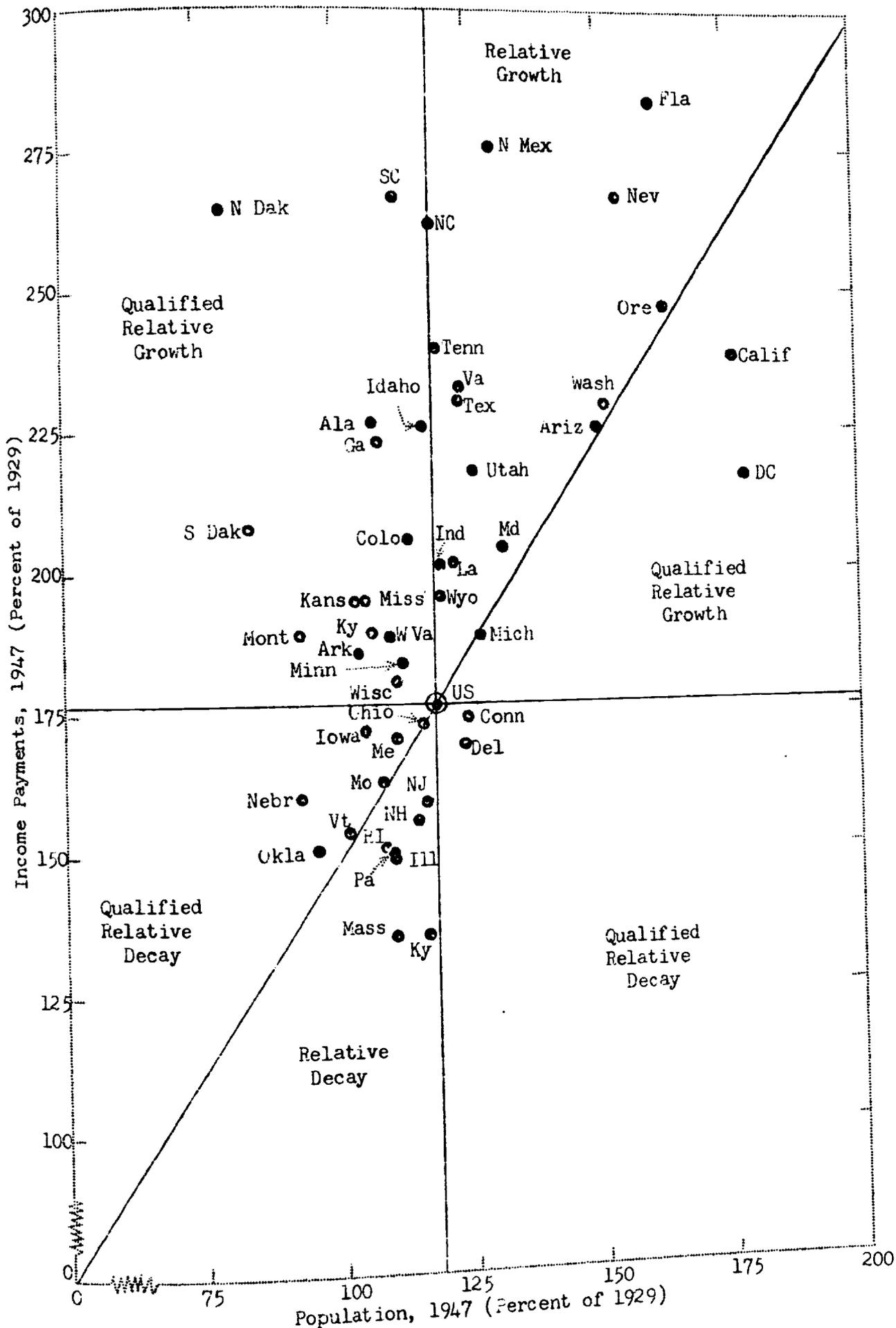
Source: Survey of Current Business, September 1948,
pp. 12, 16, 17.

Chart 1
Relative Growth of U. S. Regions, 1929-1947



Source: Department of Commerce. See Tables 1 and 2.

Chart 2
Relative Growth of States, 1929-1947



Source: Department of Commerce.
Survey of Current Business, September 1948.

This analysis is related to concepts of optimum population. Generally speaking, that population is said to be optimum which, in a given state of the arts, results in maximum per capita income. With any other population level, per capita income would be less. Since it is impossible to experiment with different levels of population at one and the same time, it is impossible to know for sure just which population is the optimum one. This is true of regions as well as nations, or for the world as a whole for that matter. One acceptable goal for national policy would be to encourage population and labor force adjustments in and between regions which work toward equalization of regional per capita income levels. Such a goal is reflected in various Federal grants-in-aid programs.

On several counts the statistical procedure set forth here is a rather narrow way of describing and classifying regions according to growth characteristics. In the first place real income payments as estimated statistically are not a true and complete measure of the flow of goods and services available to the people of a state or region. Income payments tend to understate this flow in farm areas where much work is not done for pay, in areas with disproportionately large numbers not in the labor force and not receiving pay, and in low money income areas generally.

Secondly, money income payments may be far from being an accurate measure of welfare. Inter-regional comparisons of welfare are as open to criticism as interpersonal and intertemporal comparisons.

Thirdly, economic growth in a broader sense may not be synonymous with increase in total income payments or per capita income or both together. Depending on the point of view, it may involve something different, such as approaching always more closely to steady full employment,

utilizing more fully natural resources or human aptitudes, or building a more secure regional or national economy against war. Some economic measure other than income may be equally or even more important; e.g. gross output or total energy consumed. Thus, we might chart associated percent changes in kilowatt hours against percent changes in population for the various U. S. regions. Kilowatt hours per capita may be as significant for economic growth as income per capita.

Fourthly, assuming total income and per capita income are the important general criteria of regional growth, what is the relative importance of each? What weights should be given them? Very likely the weights should vary depending on the stage of development of the region. It may be hazarded that for a region in the early stages of industrialization total income should be given greater weight. In a mature industrial region greater weight should probably be given to per capita income since opportunities for increasing total income in such a region have become more strictly limited. For a frontier region larger population may be needed most of all.

Part III

Research Related to Regional Economic Growth

A Types of Research Projects

It is now time to indicate some useful lines along which economic research related to the growth and decay of regions may be channeled.⁷ What follows

⁷See Association of State Planning and Development Agencies, Report of Committee on Economic Research, presented at the third annual conference, Nashville, Tennessee, May 20, 1948.

is not a catalog of projects but merely a characterization of major categories of work.

In the first place there should be inquiry directed toward further development of the theory of regional growth. Part I of this paper marked out some of the broad features of a theory. The suggested principles or laws of growth need a considerable amount of further elaboration, testing against historical experience, and above all, the challenge of alternative formulations. It ought to be possible to test and refine many rough theoretical generalizations which have been made. There is for example the large question of the organic (as distinct from the statistical) interrelations between the use of tertiary industries in a region and the rise of per capita income.⁸ There is the problem of the interrelated

⁸What, for instance, are the legitimate implications of this statement? (Seymour Harris, "New England's Decline in the American Economy", Harvard Business Review, XXV:3 Spring 1947, p. 352): "Everything else being equal the region which makes the largest advances in the tertiary industries should be the most prosperous." See also L. H. Bean, "Industrialization and Per Capita Income" in National Bureau of Economic Research, Studies in Income and Wealth, Volume 8 (New York, 1946), pp. 126-128.

effects of population increase⁹, population aging, and emigration on

⁹For example, Harris (ibid., p. 349) calls population growth one of the four fundamental determinants of regional well being.

regional enterprise, productivity, and economic growth. There is the theory-policy problem of developing criteria for allocating tax burdens and public benefits as between slow-growing and fast-growing regions, or poor and rich regions.

An even larger field of research, however, consists of analyses of the position of a specific individual region at a particular time. This type of

inquiry is directed generally toward finding those factors of 'imbalance' which are limiting growth in the particular situation, and thus deciding what steps might be taken to improve the rate or character of growth.

The search for regional growth bottlenecks in a specific case implies a forward perspective. In quantitative terms, it involves building an aggregative statistical model of the economy of the region as it might develop. Looking ahead, say a decade, one may put down an estimate of the total population of the region, its potential 'gross regional product' under full employment, total income and expenditures, transactions with the outside world, and eventually a mutually consistent set of output, input, and employment rates for the principal categories of production which will indicate the trend of requirements for natural resources, capital facilities and manpower in specific lines.

Such a model was set up for the U. S. national economy a few years ago by economists in the Bureau of Labor Statistics as an experimental venture.¹⁰ A more detailed set of projections, based however on consider-

¹⁰ Cornfield, Evans, and Hoffenberg, Full Employment Patterns in 1950.

ably less sophisticated techniques, was published more recently by the Twentieth Century Fund.¹¹ Rapid improvement of data, concepts, and com-

¹¹ F. C. Dewhurst and Associates, America's Needs and Resources, Twentieth Century Fund, New York, 1947.

puting equipment give promise of increasingly useful results of this sort in the fairly near future. We should be able to see more clearly where the greatest expansions of resource use are needed to support likely or desirable trends of overall growth, and in what fields possible bottlenecks or

other growing pains may arise.

Application of this type of analysis to a single region would be similarly fruitful but is beset by more formidable difficulties. One basic reason for this is that a single region within a country is usually less self-contained than the country as a whole. Any projection of population changes for example must reckon with interregional migration, whereas international migration may be overlooked for the United States as insignificant and in any event is subject to direct control. The projected growth of a specific industry in a region, again, may be related not so much to growth of a regional demand for its products (or a regional supply of its materials) as to interregional competition and shifts. There is also in the picture the flow of Federal government funds into and out of an individual region, which is thought in some cases to be the decisive factor in the position of the regional economy.¹²

¹²A forthcoming study of the Rocky Mountain region by Morris Garnsey stresses this factor. The flow of Federal funds into and out of a region is not yet subject to adequate measurement or agreed interpretation in respect to some of its important components. The most comprehensive attempt to measure it, on an individual State and even county basis, was made by the U. S. Office of Government Reports in 1939 under the title, Direct and Cooperative Loans and Expenditures, 1933-1939, (by states), Report No. 9.

Another reason for the greater difficulty of regional economic analysis is the unavailability of much of the basic data. Estimates in such fields as investment and trade, which are fairly easily gotten on a national basis, have not been broken down regionally. The same is true of a very large part of the receipts and expenditures of Federal funds.

In the face of these difficulties, the effort to formulate regional economic objectives goes forward, and deserves encouragement and support.

It is necessary for any rational planning of investment, or other long-range programming, of either public or private activities on either a regional or a national level.

Included in this type of research is the analysis of current regional income and output, along lines analogous to the far more advanced estimates of national income and output. The purpose here is to disclose the major sources of the region's income and their interrelations, so as to be able to appraise the effects of specific changes (e.g. resources depletion, technological development, tax or labor laws, transportation services or rates, the pattern and level of public expenditure, or the national level of employment and output) upon the region's welfare and growth.

For reasons already adduced, a particularly important area of measurement related to regional income is the measurement of the region's external economic relations, as summed up in the regional balance of payments statement. Some noteworthy efforts along this line are mentioned later in this section.

On a still more specific level are research projects in the potential development of a particular industry in a particular region. In many projects of this class cooperation between regional economic research and research in the natural or physical sciences is desirable. This is particularly true in regions in which economic development or adjustment is checked by the preventable wasting of a basic resource or the lack of new industries. Scientific and industrial research frequently can aid in solving the economic problems of such areas.

Division of labor is appropriate as between those who engage in one-industry or one-resource analyses and those who explore the economy of the

region in the aggregate. The point that needs to be made, however, is that the assumptions and results of the individual studies must be made compatible with one another, within the framework of the overall statement of the region's economic structure. This calls for an effective coordination in the planning and execution of research in the region. Otherwise the result is a set of survey estimates which do not even have the merit of mutual consistency and in which important gaps of coverage may go unnoticed. In a similar way, work on regional incomes and balances of payments needs interregional coordination and reconciliation with national estimates and projections.

B Regional Research Programs

In the preceding paragraphs a number of the more fundamental regional research projects have been considered. These are closely related and would form integral parts of a carefully thought-out program of economic research for a region. Part IV of this paper describes the research programs of four organizations operating in four different parts of the country. What is presented here are suggestions for an integrated and comprehensive program for economic study and research about a region, without specifying how or by whom such a program might be carried out. In most regions, parts of the work are already well under way in universities, government offices, and other places. The chief job remaining is to supply the missing parts, improve and extend certain phases, and put the whole thing together. The best research leadership possible is needed to carry the work forward successfully.

To understand a region's economy so as to appraise its growth possibilities and difficulties, the first need is for economic facts about the

region. This means statistical data for past years and projections for ten or so years ahead, showing trends of population, labor force, production, income payments, consumption expenditures, sources of investment funds, capital expenditures, Government expenditures, and other significant economic variables.¹³ Some of these data, for example, population and some

¹³The problems of preparing production and employment estimates for California have been discussed in four technical memoranda for the California State Reconstruction and Reemployment Commission: (1) A Production and Employment Estimate for California, (2) General Procedure for Preparing California Production and Employment Estimates, (3) Program, Organization and Budget for California Production and Employment Estimates, (4) Data Required for Preparing California Production and Employment Estimates. The first three were presented by V. B. Stanbery.

types of production and income series, are already available for past years. But the greater part are either not available at all or too unreliable to be used without further working over. Particularly needed are estimates of regional capital expenditures, private and public, and sources of investment funds from within the region and from outside.

One way of summarizing the regional economy is by means of the gross regional product which would describe the economy both in terms of aggregates of the various types of income and expenditures. As mentioned previously, it would be especially helpful if the total and principal components of the gross regional product could be estimated for several years ahead. This would provide an estimate, tentative and uncertain as it might be, of the regional economy of the future. The results of the preceding statistical trend analyses should be reflected in the forward estimates of the gross regional product. The gross regional product is a good device in terms of which to consider the probable and desirable

relationships between such elements as consumer expenditures and business expenditures, saving and consumption, and public and private expenditures. The statement of the gross regional product can be laid beside the statement of the gross national product for purposes of comparison.

These magnitudes may be cast in the form of a regional economic budget comparable to the nation's economic budget presented each year in the Economic Report of the President. One of the items most difficult to estimate, as mentioned previously, is the net inter-regional payments of a particular region, corresponding to the net international item in the nation's economic budget. As in the case of the gross regional product compilation, interest attaches not so much to the total as to the relationships among the components.

A full-scale attempt to compile a regional balance of payments statement has been made for New England.¹⁴ The measurement of inter-

¹⁴Penelope C. Hartland, The Balance of Interregional Payments of New England, Radcliffe Ph. D. thesis, 1946. Now pending is publication of a revision of this study under a research grant from the Federal Reserve Bank of Boston.

regional payment flows is difficult, particularly for the intangibles such as investments and Federal taxes and expenditures. Much trouble is due to the fairly common practice for many large business firms to maintain their principal offices in states other than those where they do most of their business.

Data in the framework of gross regional product and regional balance of payments tabulations give a cross-section view of the regional economy in a given time period. They do not tell anything directly about how

changes occur in the economy and are transmitted from one sector to another. A more direct approach to such questions of dynamic behavior is the 'regional multiplier' type of study.¹⁵

¹⁵See Edgar M. Hoover, The Location of Economic Activity, New York, 1948, pp. 153-4, and references cited there: M. C. Daly, "An Approximation to a Geographical Multiplier", Economic Journal, vol. L, Nos. 198-199, June-September, 1940, p. 254; Børge Barfod, Local Economic Effects of a Large-scale Industrial Undertaking, Sinar Munksgaard, Copenhagen, and Oxford University Press, New York, 1938; Rutledge Vining, "The Region as a Concept in Business-cycle Analysis", Econometrica, vol. 14, No. 3, July 1946, pp. 201-18. See also: Frank L. Kidner, California Business Cycles, University of California Press, Berkeley and Los Angeles, 1946.

On the basis of these and other data that can be brought together, it should be possible to identify critical regional economic problems, both present and anticipated. Economic judgment as well as statistical insight is necessary. The problems which are determined to be critical will vary from region to region. In one region, the critical need may be to develop new industries to take the place of declining industries or to reduce regional dependence on one or a few industries. In another, it may be to attract larger sums of developmental risk capital. In another, absorption of a large increase in population may be considered most critical. In yet another, the shortage of electric power or water or transportation facilities may be at the root of economic difficulties. As with certain nations, certain regions undoubtedly face serious balance of payments problems.

Having described and analyzed the regional economy and having identified the chief problems, the next task is to outline the required policies and programs. The concept of balanced development is useful here. Attention could be directed toward those areas or segments of the total economic

development which appear to be lagging or out of step. Depending on the region, these might indicate a need for industrial diversification or for additional basic industries, electric power shortage, funds to finance general education and vocational training more adequately, or any of a great number of things. The requirements of regional and national economic stability should be ascertained so that the various actions proposed will promote rather than upset economic stability. Many of the possible actions were mentioned in Part II as strategic factors for policy.

The interplay of factors making for regional and national stability may be a fruitful field for further investigation. To what extent and in what specific ways does national stability rest upon stability in the several regions within the nation? To what degree is the reverse true?

The final goal of a program of regional economic research should be to lay out an integrated, consistent set of policies and actions which if followed will result in greatest increases in total income and per capita income in the region without prejudicing the opportunities of other regions to do likewise. This part of the work should be made as concrete as possible by specific statement of the required investment program, both in money and physical terms, by indicating sources of funds and administrative responsibility for the various actions, and by other means. One important aspect of this task is to detail the government programs, local, State, and Federal, and to block out objectives in those flexible areas in which private programs may be looked to. Special emphasis might be given to opportunities for joint Federal-State or government-private efforts.

Part IV

Types of Approaches -- Four Case Studies

Numerous efforts have been made to examine the economies of various regions in the United States. Regional resources have been inventoried. Needs have been classified and assigned priorities. Problems have been identified. Promotion has been launched.

Many of these efforts have not dug deeply enough to find what may be called laws or principles governing the growth and decay of regions. Resources or capital inventories and listings of economic opportunities are insufficient for this purpose although these make a good beginning. Beyond this matching of assets and opportunities, the analysis should be extended to include a consideration of the economic history of the region, the factors working for growth and decay, and the place of the particular region in the national economy. Especially, the significant aspects of regional development should be integrated into a single meaningful picture.

It may be useful to describe briefly and appraise several approaches now being made, or which have been made recently to regional development. No attempt will be made to include all, or even most, of the significant programs, projects, or organizations dealing with regional economic study and research. A few of the most promising have been selected for discussion because they represent a variety of approaches. A consideration of these few examples may indicate the desirability of a complete inventory of regional studies as the best means of organizing the field, providing for interchange of information, and stimulating regional economic research. It may also provide a beginning for the collection of case

studies which is usually necessary to corroborate theories already formulated and to guide further theoretical thinking in useful directions.

Before proceeding to the discussion of particular cases, the great variety of regional study efforts may be classified. The organizations or programs noted under the following main headings by no means exhaust the list.

A Nation-wide Approaches to General Regional Economic Study

1. National Resources Planning Board which went out of existence in 1943. From 1938 on this Board maintained nine regional offices in continental U. S. each one of which carried on a program of regional economic study.
2. U. S. Department of Commerce. The Area Development Division encourages, cooperates with, and services state planning and development agencies and others. The National Income Unit analyses statistics showing state and regional income.
3. Committee for Economic Development.
4. U. S. Chamber of Commerce.

B Nation-wide Approaches to Specialized Regional Economic Study

1. Field organizations and programs of various Federal Government departments and bureaus, such as the Bureau of Reclamation and the District offices of the Department of Commerce.
2. Various national professional, trade, and labor organizations. The Council of State Governments. In many respects the interests of certain of these organizations are as broad as those agencies listed under A. However, most of them view the region from a

special interest in labor, government, or a particular trade or business.

- 3 Business Week (McGraw-Hill Publishing Co.) series of reports called "The New American Market". In these articles appearing in 1947 the country was divided into seven regions significant for business analyses. Conditions and prospects in each one were surveyed. A final report covered the whole nation.

C Regional Approaches

1. National Planning Association's Committee of the South.
2. Pacific Northwest Field Committee of the Department of the Interior which includes representation from the Bonneville Power Administration. Similar departmental programming and coordinating committees are now being established in other western regions.
3. Missouri and Columbia Inter-Agency River Basin Committees. The parent organization, the Federal Inter-Agency River Basin Committee, considers the more general problems of river valley development. One of its subcommittees is studying methods of estimating benefits and costs. Another committee is now being formed in the Colorado River Basin. A Federal Inter-Agency Alaskan Development Committee meets in Washington, D. C.
4. Association of State Planning and Development Agencies which is the parent organization of regional groups in the Northeast, Southeast, and Mid-continent areas.
5. Federal Reserve Banks. Each bank is concerned with business and banking statistics and trends in its district. Several go beyond this by engaging actively in regional economic research as a basis for regional development.

6. Pacific Coast Board of Intergovernmental Relations operating in Washington, Oregon, and California.
7. Tennessee Valley Authority.
8. Western Governors' Conference of the eleven western states.
9. New England Council.
10. Universities, especially Bureaus of Business Research, and Departments of Economics, Public Administration, and Social Science. The two-year old Associated University Bureaus of Business and Economic Research may be able to furnish valuable encouragement and guidance. The Southern and Western Economic Associations. Certain universities, such as the University of North Carolina, have become not only centers of regional research in the social sciences for their own regions but also leaders in the regional approach for the whole nation.

D Independent Regional Economic Studies

1. Many highly qualified individuals have been and now are studying the economic trends, problems, and development needs of various regions. Most of these persons are in universities although a number are associated with state or Federal government or are working independently of any organization. Among these are E. T. Grether, V. B. Stanbery, and Frank Kidner in California; Calvin Hoover, Benjamin Ratchford, John Van Sickle in the Southeast; Seymour Harris and Alfred Neal in New England; Morris Garnsey in the Rocky Mountain States; Charles McKinley and Nathaniel Engle in the Pacific Northwest.

The organizations listed under C may be divided roughly into those which have a definite tie-in with a national agency (numbers 1 through 5) and those which are independent, or nearly independent, of any direct functional relation to a national agency (numbers 6 through 10). This division is not entirely clear-cut but it does indicate that genuine regional approaches may be closely related to nation-wide organizations and programs or may be autonomous.

From this large field of approaches and organizations four have been selected for more detailed consideration. Each of these four is from "Regional Approaches" (section C in the preceding classification). The approaches listed under A and B are fairly well known to most economists. None of them represents quite the same exclusive and concentrated attack upon the economic problems of a region as do most of those listed under C.

The approaches chosen for special attention are that of the National Planning Association's Committee of the South, the Federal Reserve Bank of St. Louis, the Pacific Coast Board of Intergovernmental Relations, and the New England Council. The first two have important and fairly direct connections with a national headquarters. The second two are only remotely and indirectly tied in with national organizations and then not in any controlling administrative or policy sense.

A Committee of the South

An example of an agency undertaking a broad program of regional study and research in a lagging region is furnished by the National Planning Association's Committee of the South. The fifty or so members of the Committee of the South are leaders drawn from various fields of southern

activity including business, labor, agriculture, and the professions. Nearly all of them live in the southern states and the few who do not, serve effectively in contributing outside judgments. The program of studies which the Committee of the South has embarked upon is in the hands of competent research analysts located principally in southern universities. The Director of Research of the whole program, Dr. Calvin B. Hoover, is at Duke University, North Carolina. The Ex-Governor and present Senator from North Carolina, J. Melville Broughton, is Chairman of the Committee of the South.

Although leadership of this regional group is entirely southern, general administrative oversight, financing, and program coordination are achieved through affiliation in the National Planning Association. The National Planning Association, founded in 1934, is an "organization in which citizens use private resources and personal initiative to help in the national search for workable solutions to America's major economic, political, and social problems." Its leadership, like that of the Committee of the South, is drawn from business, labor, agriculture and the professions. During the nearly fifteen years of its existence it has made a notable record of achievement as a meeting place for exchange and reconciliation of opinion, in the preparation of research studies and popular educational pamphlets on economic and political questions, and in providing leadership and stimulating intelligent consideration of research and planning over the whole area of our national economy.

The Committee of the South represents the Association's first major excursion into the field of regional research. The objectives of the Com-

mittee of the South have been summarized as follows:

- "A. To agree on the directions of economic development in the South, which will build on the interplay of the national interest and the interest of the South;
- B. To formulate balanced policies to guide private and public action in readjusting the economy of the South and the nation in order to expand employment opportunities, to increase production, and to create higher levels of living;
- C. To recommend programs which will implement such policies by indicating the appropriate ways and means of action, the timing of their use, and the organization responsible for their execution."

In more specific terms the Committee of the South would include among its chief objectives the facilitation of mechanization and diversification of southern agriculture, the acceleration of sound business expansion and industrialization, the increase of non-farm employment opportunities, the expansion of markets for southern raw materials, and the extension of health, education, welfare, and other public and private services as required for economic growth.

In pursuing these objectives, Chairman Broughton says, "The Committee will have no 'axes to grind' and no purposes of propaganda to serve It will attempt objectively and in a wholly non-political and unemotional manner to conduct a study and survey that may at least point the way to better economic conditions throughout the South." In the development of the research program, emphasis is to be placed on industrial and agricultural research. The need is recognized for substituting "the research laboratory for the wailing wall". It is interesting to note that, as the Chairman has stated, the Committee does not plan to concern itself with "controversial management-labor relationships nor will it be involved in racial problems as such".

The whole program is geared to action on the assumption that existing basic data studies are adequate and should not be duplicated. In the words of the Chairman, "We will start with available information, look at the facts and find out where we are to go from here if we are to raise our incomes and living standards in the South and make our full contribution to the Nation's progress."

To date the Committee of the South has emphasized integration of regional with national policies and programs. Referring to the Committee of the South's work, Christian Sonne, Chairman of the NPA Board of Trustees, believes, "The nation cannot attain its goals of continuing high-level employment and production with rising standards of living unless that reservoir (the regional reservoir of undeveloped resources, untapped markets and manpower) is opened. However, national policies and programs must provide a favorable environment if the South, along with other regions, is to achieve vigorous, rapid expansion."

This is not the first attack upon the economic and social problems of the South. The work of the southern regional office of the National Resources Planning Board to 1943, research work in various southern universities such as North Carolina, Alabama, Vanderbilt and others, and the continuing attention given to southern problems by such organizations as the National Cotton Council have provided an immense amount of factual data and valuable analyses and judgments upon which the Committee of the South has been able to build. In many respects the South is the most studied region in the country.

The first particular interest of the National Planning Association in the South was the concern of its Agriculture Committee in 1944 with the

problems of the conversion of the Cotton South to a more diversified agricultural and industrial economy. Dr. Theodore Schultz made a reconnaissance of this problem for the National Planning Association in the winter of 1944-45. A consideration of his report led to the conclusion that the problem of cotton in the South could not be solved within "the context of the cotton economy alone". Consequently the project was broadened after further discussions to include "industrial development and expansion of service activities within the South, and the relation of southern economic development to the national economy and the position of the American economy in the postwar world".

Financing for the Committee of the South was initially provided by a Julius Rosenwald Fund grant of \$25,000. Since then additional funds have been secured, making a total of more than \$75,000. In addition, staff time and facilities of universities plus advisory and consulting services from a great many leaders in the South have meant that the total money and effort invested so far in the Committee of the South program have far exceeded \$75,000. The initial meeting of the Committee was held in Birmingham, Alabama in 1946. Since then the Committee as a whole and its steering committee have met fairly regularly for the purpose of discussing and acting in regard to the program and reviewing draft material of the various research projects.

The actual program of research and study, although still developing and unfolding, has now been under way sufficiently long that the general direction and contours of the whole project are fairly clear. No large central research staff has been recruited. Most of the actual research has been farmed out to existing universities and other institutions where

the expert research workers are located. The advantages of this are two-fold: first, it makes available to the Committee of the South the best research personnel and facilities in the southern states; and second, it brings the universities and other institutions into a mutually profitable and cooperative relationship with the whole regional undertaking.

As the various research studies have progressed, the members of the large Committee of the South have been of greatest help in reviewing draft material in terms of a wide variety of practical background and experience with developmental problems in the South. The interplay between a dozen or more technicians in universities and elsewhere and the members of the Committee of the South insures a desirable balance between the academic and practical elements.

It was recognized from the outset that with limited funds and technical research personnel it would be impossible to review all the important economic and social problems of the South. Also it would be impossible to work up massive amounts of new economic data. Instead, a number of especially critical and fairly specific problems were selected for special intensive study. Most of these are being carried on by qualified economists and social scientists in the southern universities. These projects, with the person in charge of each, are:

- 1) Study of community development corporations in the South. (Dr. Buford Brandis, Associate Professor, Emory University.)
- 2) Survey of disposal of war plants in the four Federal Reserve Bank Districts with headquarters in Dallas, Atlanta, Richmond and St. Louis. (Dr. William H. Stead, Vice-President of the Federal Reserve Bank of St. Louis.)
- 3) Industrial location case studies in which the reasons are explored why the managements of various firms recently have located plants in the South. (Dr. Glenn McLaughlin, Chief Economist with the National Security Resources Board.)

4) Study of rural industries with emphasis on the opportunities in the South for new small industries which process locally produced agricultural and other raw materials. (Dr. J. M. Stepp, Clemson College, Charleston.)

5) Study of economic policy in relation to southern development in which the implications of various alternative proposals for southern economic development will be analyzed. (Dr. Calvin B. Hoover and Dr. Benjamin Retchford, Duke University.)

6) Study of present and potential contributions of state planning and development agencies to southern progress. (Dr. Albert Lepawsky, Bureau of Public Administration, University of Alabama.)

7) Analysis of population migration to determine the forces underlying and the consequences of the migration from the South in recent years. (Dr. Charles S. Johnson, President of Fiske University.)

8) Development of an efficient southern agriculture through mechanization and diversification. These studies were begun in connection with the Pace Committee Cotton Research Investigation. (Dr. Frank Welch, Dean, College of Agriculture, Mississippi State College.)

The final project now scheduled is an appraisal of the impact of current Federal government economic policies on the development of the southern economy. Financed by the Council of Economic Advisers of the Federal government, this appraisal will draw heavily from the accumulating results of the other projects listed above. From the point of view of Federal government policies and programs, this study will summarize and bring into focus the economic needs and potentialities of the South and the required Federal government activities, including broad policies and programs. The presumption is that continued desirable development of the South is necessary to promote maximum employment, production and purchasing power and economic growth in the nation as a whole as well as in the South.

In this project special attention will be given to possible overlapping and duplication of Federal policies and programs. Recommendations may be expected looking toward the elimination of inconsistencies. In the

analysis, attention will be given to such matters as the structure of freight rates which many contend has been an obstacle in the way of southern progress, the need for more capital funds and investment, tax policies which may have impeded development, high tariff which southerners traditionally have opposed, minimum wages which in certain instances may have worked to the disadvantage of southern industries, agricultural price supports, and other current economic issues in the South. The objective is to outline a set of coordinated government policies and programs for the development of the South in the national economy. Problems and areas requiring additional research will be highlighted.

Although it is too soon to pass any final judgments on the results of the Committee of the South program, drafts of various reports indicate that the results will be significant. The method of research and study is sound. The identification of particular problems and issues to be studied has been careful. Eminently qualified economists and others have been engaged to work on the data, analyze the problems, and present careful judgments. The reviewing and sounding board provided by the large membership of the Committee of the South promises to keep the various studies on a practical tack so that the results may be immediately useful to action groups and agencies. The whole program has the advantage of a grass roots approach, but at the same time it is under the auspices of the National Planning Association which, as the name implies, is a nationwide organization.

Undoubtedly a project like this which is definitely in the hands of southerners, who naturally are partisans of their own region, runs the risk of being somewhat promotional in character. Their appraisal of

southern industrial and trade opportunities may turn out to be more optimistic than a completely objective analysis would justify. However, it is hard to imagine how these tendencies could be avoided short of placing the whole undertaking completely in the hands of outsiders. If this were done, many advantages would be sacrificed. Among these are an intimate knowledge of southern traditions, conditions, and problems which only those who live in the region can have, a drive of energy and enthusiasm which could hardly be expected from an outside group, and the full mobilization of southern leadership for the undertaking. The likelihood that the findings of the investigation will be translated into action is much greater if those in a position to take action participate in the initial deliberations.

One test of this or any other regional investigating project is provided by the way in which opportunities, problems, and potentialities are adjusted to those of other regions and the country as a whole. In these matters, the highest order of regional statesmanship will be required. As the particular studies reach their conclusion, careful review by the National Planning Association nationwide committees and officials may prove helpful in reconciling the regional and national claims and needs. This is the pitfall of many otherwise sound regional development study projects.

B Federal Reserve Bank of St. Louis

The various Federal Reserve Banks are in an excellent position to undertake regional research and study projects. Each bank has a qualified research staff and an unrivalled background in the economic trends, problems, and statistics of its Federal Reserve District. Each Federal

Reserve Bank has a large measure of autonomy in regard to its research program. The National Board of Governors of the System which itself maintains a high powered research staff is in a position to provide desirable coordination and interchange of opinion among the different Reserve Banks.

A number of Reserve Banks recently embarked on ambitious programs of regional economic analysis. The program of the Federal Reserve Bank of St. Louis will be discussed here since this bank has been among the leaders in this field of activity.

The immediate and legal responsibility of the Federal Reserve System is the promotion and maintenance of a sound money and credit structure. "Since financial and monetary strength is an outgrowth of fundamental economic conditions which promote stability," Dr. William H. Stead, Vice-President in charge of research at the St. Louis Bank, writes, "the concern of the System with promotion of regional development is clear. Moreover, it is essential to the formulation of sound monetary and credit policy that as complete factual information as possible concerning economic developments throughout the nation be made available."

The Federal Reserve District with headquarters in St. Louis includes portions of the States of Missouri, Illinois, Indiana, Kentucky, Tennessee, Mississippi, and all of Arkansas. In the very heart of the country, it is north, south, east, and west -- a little bit of each -- and may be thought of as a kind of "laboratory for the study of national problems on a smaller and more workable scale." Parts of this area are lagging, parts relatively underdeveloped, and other parts like St. Louis and vicinity are more or less in a state of balance and stability. This

District has important manufacturing activities. St. Louis and to a lesser extent other cities such as Louisville, Memphis, Evansville, and Little Rock are important trading and service centers. Agriculture predominates in many parts of the District and varies from wheat and corn in the North to cotton in the South. Large portions of the land are in forests and pastures. Coal in Illinois, Indiana, and Kentucky, bauxite in Arkansas, and lead and zinc in Missouri indicate the significance of mining for the area.

For the District as a whole per capita income is below the national average. In this important respect the District is not typical of the country. In view of the broad base of natural resources, the large population, and the rather low per capita income, the need for an energetic program for regional development is obvious.

Many groups and agencies are concerned with economic improvement of the area, each one from a slightly different point of view. The St. Louis Federal Reserve Bank is attacking the problem from the direction of the role of banking and bankers in development of the region. "Running through all of these problems of economic development," Dr. Stead says, "is the common thread of necessary financing method." The St. Louis Bank started its regional program on the assumption that bankers have a responsibility for improving business in their own service areas and in the larger district. The Bank further believed that it could play a useful part in gathering and organizing the facts about regional development in such a way that bankers would be interested in acting more aggressively to finance needed improvements. Having all these factors in mind the research staff of the St. Louis Bank blocked out its program shortly after the end of the

war. The program is especially significant because it begins with research and fact finding and goes nearly all the way to putting the resulting recommendations into action.

Instead of tackling all phases of regional development needs at once, the Bank selected one critical problem with which to launch its activities. This was to improve the condition of the soil on farms in the District and to point out very specifically how private bankers might help in financing soil conservation and improvement. The first step was to assemble "in compact useable form comprehensive economic information concerning all the states, counties and political subdivisions making up the Eighth Federal Reserve District." This constitutes the foundation of facts on which the remaining steps in the program were built. In this first step as well as in later ones the advice and cooperation of many agencies and individuals was sought.

The second step consisted of preparation of articles and pamphlets on the various critical aspects of the soil conservation problem. A series of articles was published in the Bank's Monthly Review. Some 17,000 copies of a useful, attractive, clearly written bulletin entitled "Bank Credit for Soil Conservation" were distributed widely to bankers and others in the District.

This second step completed the process of finding out the facts and laying them before the public in general and the bankers in particular. An effort was made to keep this work on a practical level. A number of detailed case studies were made of typical farms showing year by year for several years the steps that ought to be taken toward a balanced, sustainable, economic farm program. Estimates of cost, including debt charges, and

increases of income were carefully worked out. Sample forms of a conservation loan contract were prepared and placed in the hands of bankers. The desirability and profitability of long-term conservation loans were presented. These loans are geared to soil conservation and farm practice improvements so that the banker has some control of the maintenance of his security. Fixed annual payments covering principal and interest are made out of the farmer's increased earnings.

The third step has been described as "extension activity of this research program". It has consisted mainly of a series of meetings in various states in the District attended mostly by country bankers and key farmers. The St. Louis Bank has sponsored the meetings but has worked closely with the State Bankers Associations, the State Universities, the Soil Conservation Service, and, of course, the State Agricultural Extension Service. Speakers, illustrative material, and general round table discussions have been features of the meetings at which the advisability of an expanded farm conservation and improvement program was considered.

In the most recent series of meetings the bankers have been taken to farms where good soil improvement practices have been carried out. This 'on the ground' demonstration has proved helpful.

In most of the smaller areas an initial meeting has been followed up by later meetings, by personal visits of technicians of the Federal Reserve Staff or other agencies, or in other ways. Apparently the problem has been to hold this follow-up work down to a manageable amount.

Although the original project was in terms of soil conservation improvement, very quickly it was realized that such related items as pasture and forest improvement would have to be considered.

Beginning in 1947, after the method had proved itself in the soil conservation project, a series of studies of the District forest resources was launched. The same pattern was followed. First the essential basic facts were organized and presented in an article entitled "Forest Resources in the Eighth Federal Reserve District". This was printed in the Bank's Monthly Review. Within the next six months after publication of the article, four additional articles appeared. These were: "Wood Processing Industries in the Eighth District", "The Potential Demand for Wood in the Eighth District", "Farm and Woodlot Management in the Eighth District", and "Forestry Assistance for Woodland Owners".

In conjunction with one or two of the farm visit meetings of the type described above, which were held in Mississippi and Arkansas in 1948, some emphasis was given to farm forestry. The desirability of sustained yield management of forest resources was discussed and the importance of forestry in the economy of the area was pointed out in terms of past, present, and potential income from forests and forest products. The need for improved management and investment in forests was presented partly as a responsibility of bankers who naturally would be concerned with the economic health of the area their banks serve. Particularly, bankers were encouraged to consider sound long-range forest conservation and development loans. Since much of the timber land is owned and managed as a part of larger farm units, bankers and farmers were encouraged to consider the need for improving farm woodlots as a part of the whole farm development program. During 1949 the extension meetings will emphasize forest management and farm woodlot use.

As the forestry project moves along to the point where the research and extension activity of the St. Louis Bank gradually can be withdrawn, new projects undoubtedly will be undertaken. Among those which have been considered are rural community development and urban redevelopment. Whatever field is chosen, the same general approach will probably be applied. The spearhead will be: what should be the role of bankers in the development?

Significant results have already been obtained from the St. Louis Bank's development work. A number of banks in the District now have well-organized rural development programs headed up by trained agricultural technicians. The Commercial Bank and Trust Company of Paris, Tennessee, and the National Bank of Eastern Arkansas at Forest City have hired former county agents as loan officers. One former county agent recently has become president of a bank in Hopkinsville, Kentucky. These programs vary somewhat in the way they operate but generally speaking their ultimate objective is the sound development and utilization of agricultural resources in an endeavor to protect and build the soil and to raise farm income to the maximum level consistent with good soil management.

Other banks which do not have a fully organized program carry on extended activities for farm improvement. It is too soon to attempt to measure the effects of the Bank's soil or forestry development programs in terms of soil use and forestry practices. Any increases in District income resulting from these programs will not be identified easily.

The Reserve Bank is doing research looking toward the compilation of county, or other small area, equivalents of the national and state income series. Tentative county income estimates have been made for Missouri for

1939, 1944, 1945. If accurate county income series can be obtained it will then be possible to measure economic growth and decay by counties and significant groups of counties. This will also permit a kind of measure and evaluation of development programs which affect certain counties more fully and directly than other counties.

The whole development program of the St. Louis Bank is well conceived and thought through. The fact finding and research agency in this instance is also the organizer of the extension and educational work. Undoubtedly this is a desirable combination in cases where it can be managed. It forces the research agency to take account of the practical limitations that always appear when the results of the research are translated into action. The complementary advantage is that the extension work, being in the hands of the same group that does the research, is well based in adequate statistical and economic analysis. This regional program has the further advantage of taking up one problem at a time rather than diffusing its striking power by considering all economic problems of the region at once. Provided there has been a sound overall regional analysis to begin with, and provided there has been a careful selection of particular problems to be attacked, much is to be gained by this step-by-step approach. The risk is that the entire effort will be dissipated in an ineffectual attack on a small part of the total problem and that there will be no broad plan of battle. The personal satisfaction of those doing the research and extension work in the St. Louis Bank program must be much greater than the satisfaction involved in one of the broader attacks, since they are able to follow a project from start almost to finish and do not have to leave a project long before they can see what the probable results will be. The loan program will only meet its really severe test in a period of depression or falling farm prices.

0 Pacific Coast Board of Intergovernmental Relations

A still different type of regional study organization is to be found in three Pacific Coast states which may still be classified as a relatively new and underdeveloped region. The Pacific Coast Board of Intergovernmental Relations, established in 1945, is made up of representatives of local, state and Federal governments on the West Coast. From each state the membership is composed of the State Governor, the Chairman of the State Commission of Interstate Cooperation, five representatives of the League or Association of Cities or Municipalities, and five representatives of the State Association of County Supervisors or Commissioners. From the Federal government the field chiefs of various Federal agencies as selected by the Pacific Coast Federal Regional Council have been designated as members. Federal members may not exceed the total number of members representing other jurisdictions. Meetings are held quarterly. No alternates are permitted to participate in the meetings, although a member may be accompanied by such consultants and others as he desires. There are no dues and expenses of attendance at meetings are paid for by the persons attending or the agencies which they represent. The Governor of a state in which a particular meeting is held is automatically chairman of the meeting.

Two principal standing committees and a small permanent staff are the means by which the Board of Intergovernmental Relations program is given continuity. The Agenda Committee, with sub-committees known as State Agenda Committees, surveys the problems and needs of the region periodically and prepares agenda for the meetings. To assist in this work specific committees on particular topics such as labor force or community needs may be appointed.

The Economics Technical Committee, made up of five leading university and government research technicians, has been at work for about two years preparing a program of economic, sociological and related studies. Certain phases of these technical studies are already under way.

The purpose of the organization has been stated in the principles of organization as follows:

"This Board is created purely on a voluntary cooperative basis for the purpose of mutual discussion and cooperation in administrative efforts to solve problems affecting people, and most especially such problems as are the responsibility of governments during the present post-war readjustment period. Such mutual discussion and cooperation will strive for the elimination of duplication in the execution of local, state and Federal laws and regulations, the pooling of facts regarding economic and social conditions, especially those due to industrialization, and the planning by local, state and Federal governments for dealing with these matters constructively."

Twelve full-scale Board meetings have been held so far. There is much evidence that the meetings have proved of value to participants. Testimony to this is eloquent and comes from such persons as Governor Earl Warren of California, Richard Graves, Executive Director of the California League of Cities, Earl Riley, former Mayor of Portland, and many others.

A most interesting feature of the work of the Board to date is that it takes no action in the ordinary sense of the word at its meetings. This has caused many observers to be puzzled and wonder of what use the organization could possibly be. The Board's strength apparently derives from the fact that the members know in advance that they will not be bound by the words they express at meetings and will not have to vote for or against specific actions. Each member, himself an important government official, may use the government machinery and other methods at his command for translating into action any conclusions he may reach at or following a Board meeting. So far the Board meetings have been exceedingly useful in

helping various officials reach a common understanding of pressing regional problems. This is usually the first step toward acceptable action.

In cases where frank discussion itself does not lead to common understanding, a clarification of the major differences of opinion frequently results. It is fairly easy to see that, were the Board to be geared to immediate action, the friendliness of the give and take among responsible officials might soon disappear, and in the end the Board would be far less effective. The Board represents a loose but tough confederation which, without doing anything itself, leads its members to many desirable actions.

Of principal interest for this paper are the research and study now projected by the Board's Economics Technical Committee. The present plan is to develop a series of State economic reports in which, for each of the three states of Washington, Oregon and California, the following subjects will be studied:

1. Current economic conditions and trends -- population, labor force and employment, income payments and purchasing power, production and consumption.

2. Major problems and needs -- general outlook, factors affecting development of favorable influences and adverse influences, basic needs, suggestions for action.

Following the separate State studies, the results and analyses are to be condensed and tied together into a regional economic summary report which will follow the general outline of the State reports but will concentrate on regional economic patterns and trends, prospective regional developments, and especially the interrelationships of regional and national development. In this regional economic summary report, the general factors

important for ascertaining economic growth or decay trends, causes, and effects will be considered.

Cooperative arrangements are being made with the different State universities and agencies of State government for carrying out the State studies. The regional economic summary report will be under the direct supervision of the Economics Technical Committee and the permanent staff. The regional report will be put together with the constant advice of the various persons responsible for the State reports. At appropriate times, draft material, tentative conclusions and suggestions for action on problems that cannot wait, will be called to the attention of the whole Board at its meetings or at other times.

The project is most ambitious involving as it does review of all economic trends, problems, and needs, in the three Pacific Coast States. Direct financing so far secured is limited to a Rockefeller Foundation grant of \$10,000 for each of three successive years beginning in 1947. This is not the whole picture, however, since much is being contributed each year in terms of the time of policy making officials and technicians in agencies at the several governmental levels. Individual economists and the Departments of Economics and the Bureaus of Business Research in State universities are contributing or have promised to contribute staff time and facilities.

Up to mid-1948 principal attention had been directed toward securing financial assistance from the outside and arranging for a maximum of staff and facilities help from agencies within the region. However, at a series of meetings in June 1948, it was decided to launch the whole project on the basis of staff and facilities already at hand without waiting any longer

for additional outside support. Accordingly a serious beginning has been made on the basic population and labor force studies in the three states. Draft reports are already nearing completion. A survey of community facility needs undertaken at the request and largely by Board representatives of local government is also reaching completion.

First attention is being given to an examination of population and labor force trends because the Economics Technical Committee, reflecting the views of the whole Board, believes that the most pressing problem facing the three states is that of finding useful employment for the tremendously expanded and still growing population. From April 1940 to mid-1947, population of the three West Coast States increased an estimated 40 percent as compared to an increase of 9 percent in the country as a whole. Each of the four large metropolitan areas on the Pacific Coast gained between 30 and 40 percent in population during this period.

Since VJ Day, according to U. S. Employment Service reports, unemployment has been a somewhat more persistent problem in the West Coast States, especially in the four large urban areas, than in any other major region. In spite of this, people continue to migrate to the Pacific Coast. Most of them are in the working age groups.

At the same time the West Coast States are faced with serious shortages or absolute limitations on their capacity to expand the resources base for the regional economy. The war has heightened general awareness of the critical nature of shortages or limitations in electric power, saw timber, ground and surface water for irrigation and other purposes, and peacetime industrial opportunities. If these problems are to be solved, large scale public or private investment will be required in such things as

multiple purpose dams and reservoirs, conservation programs, irrigation works, electric power transmission lines and distribution systems, and basic industrial research and promotion. In the light of this general analysis the reason for and need for a program of research and study such as that proposed by the Board of Intergovernmental Relations is obvious.

The Board program has not been carried forward far enough as yet to permit much appraisal of results. The most that can be said at this time is that the studies outlined in the program are needed and should prove most useful to business, labor, agriculture, and Government as well as others on the West Coast. The few background reports that have already been completed such as the one entitled, "Relative Expansion of Various Economic Activities Among the States and the Nation Shown by Income Data", indicate useful results yet to come.

One of the real tests of the validity and usefulness of the program will not come until near the end when the regional analyses and recommendations are related to national needs and programs. How this difficult subject will be handled remains to be seen. The fact that highly competent economists in the West Coast universities and Federal government agencies are strongly represented in the work should give assurance that national considerations will be given adequate attention and that the studies will not go overboard for regional boosting and promotion.

As conclusions and recommendations are reached in the various draft research reports, the question will arise as to how they are reviewed or cleared by the Board, many of whom are elected public officials. Possibly the Board will have to abandon its principle of never taking votes. More likely there will be some circumvention by which reports containing dispu-

table conclusions will be issued without formal vote of the Board, but simply by action of the Economics Technical Committee. The device of the dissenting opinion may be used.

Meantime meetings at the general and technical levels continue to provide for needed exchange of opinions among representatives of the various government bodies. Many desirable intangible as well as tangible results may be expected to follow, such as a growing consciousness of the region and its problems and a cross fertilization of ideas and tentative research results. The growing awareness on the part of the representatives of the Federal and State governments of the problems and requirements of city and county governments is not the least of the Board's achievements.

Of the different regional research organizations and programs examined in this paper, the Board of Intergovernmental Relations is the most loosely organized. Also, in a sense, it has the most ambitious and broad-scale program of study involving a largest number of agencies, groups and individuals, many of whom do not have the firmly established habit of research cooperation. In view of this it will be a real test of leadership and organization to advance the program speedily and effectively. In spite of such difficulties, progress to date has been promising.

D New England Council

A fourth type of regional research and development organization is the New England Council which operates in an older, more stable region. This Council differs from the organizations previously discussed in that it is made up predominantly of leaders in business, banking, and trade. It is supported by membership subscriptions from individuals and business firms.

Neither labor nor the professions are represented in the leadership of the Council except for an occasional professor or labor official serving as a director or as a member of a special committee.

The continuing objectives of the New England Council have been stated by its president as follows: " to increase New England's total income, employment, taxable wealth and markets by:

1. Expanding the use of New England's industrial, agricultural, recreational and human resources.
2. Facilitating the cooperation of business interests and governmental agencies in furthering the region's economic welfare.
3. Promoting national and regional consciousness of New England's importance as an area of economic achievement and opportunity."

Fundamental policies which have been adopted include giving each state an equal voice in Council deliberations; avoidance of duplication of efforts; careful definition of problems, gathering of facts, analysis and formulation of possible solutions; cooperation with other organizations in New England seeking to improve New England and national economic conditions; and publicizing New England's advantages and attractions.

The New England Council had its beginnings in the New England Conference which first convened in 1925 at the call of a committee acting for the six New England Governors. The New England Council became the continuing active agency of the Conference. The primary motive for the establishment of this organization was the failure of New England to share adequately in the economic prosperity that followed the brief 1921 postwar depression. Particularly hard hit was the textile industry in southern New England which for various technological, labor cost, and other reasons had been losing ground to the southern states. The New England Council may be thought of

as a response of a group of public and business leaders to the prospect of continued economic decline and stagnation. The New England tradition of town meetings and community responsibility may have helped to create an environment receptive to this type of action.

The Council's policies and activities are determined mainly by its officers and its 108 directors, 18 from each New England state, representing the major phases of New England business life. To a large degree the separate states are autonomous with the New England Council acting as a kind of holding company for the encouragement of cooperation and joint projects. Standing committees have been appointed as follows: Agriculture and Forestry, Atomic Energy (the most recently established), Aviation, Bankers, Community Development, Industrial Development, Industry, New England Railroad Presidents, Power, Recreational Development, Research, and Committee on Economic Research. Special committees are appointed from time to time to deal with special problems.

The New England Governors' Conference has continued as a permanent organization since its establishment in 1937 with the New England Council as its constant working partner. Analogous conferences of the commissioners of the major state departments have been organized. These include state Departments of Agriculture, Highways, Tax, Education, Aviation, Labor, and Development and Industrial Commissions.

In addition to these elected officers, an executive committee, and a senior council composed of past presidents, the New England Council has a small permanent staff of specialists which includes a statistician-economist, a publicity director, and others working under the direction of a full time executive vice-president. The full strength of the New England Council for

economic research and analysis is realized not only through its own professional staff but also by means of cooperative relations with such organizations as the Federal Reserve Bank of Boston and by means of research contracts granted to such organizations as the Econometric Institute.

Less close ties are maintained with various other organizations and Federal agencies. The method of operation of the Council has been described by a past president in the following manner: "Get things done which need to be done for New England and get them done by the people who are best qualified for the job -- and never mind who gets credit for the accomplishment. Above all never mind whether the New England Council does." Despite this declaration of selflessness, the New England Council has come to be regarded by business people and others in New England as a leading agency for dealing with New England economic problems.

The Council's program of economic research, which is guided by the Committee on Economic Research, has included a number of significant studies and compilations. The first task was a preparation of a "Source Book of New England Economic Statistics". The purpose of this book is to meet a long standing need for a guide which presents in one place all the principal statistical series relating to the New England economy. As in the case of so many other New England Council projects, the staff of the Federal Reserve Bank of Boston made significant contributions. That bank's "Quarterly Inventory of Economic Research" supplements and increases the effectiveness of the source book.

It may be noted that except for the Chairman and one university professor, all members of the Committee on Economic Research represent state or Federal Government agencies. Members of the other New England Council committees are predominantly from the field of business.

Recently the New England Council has concentrated attention on the possibility of an integrated iron and steel plant in New England. By means of outside financing the Council arranged for an independent study of the "Present Outlook for an Integrated Steel Mill in New England" to be made by the Econometric Institute. The principal finding of this report, dated June 1948, was that "expansion of existing (or additional) non-integrated mills appears to be a more promising development of New England's needs and resources than a single large integrated mill." Since that report was finished, certain new factors have come into the situation which have encouraged the New England Council and others in New England to think that an integrated iron and steel operation may be economically feasible in New England after all. Among these factors are the decision of the major steel companies to abandon the basing point pricing system in favor of f.o.b.-mill pricing, new technological developments in steel production such as the continuous casting method, the discovery that the Labrador-Quebec iron ore deposits may even exceed the Mesabi Range deposits in Minnesota and may be in substantial production soon, and the possibility of utilizing abundant potential hydroelectric power to reduce the Labrador-Quebec ore to sponge iron at or near the mines and thereby reduce greatly shipping costs.

At the present time therefore the prospects for a large integrated iron and steel industry in New England are uncertain. Whatever happens in the future, the New England Council has performed an important service in facilitating a professional re-examination of the steel possibility. The results of this study, as with most other Council sponsored studies, have been made known to business men, bankers, potential investors, and the

New England public generally. The fact that the Council did not attempt to restrict or predetermine the conclusion of the Econometric Institute study indicates that its interests are much broader than indiscriminate promotion.

In late 1948 the New England Council released a report on Power in New England, prepared largely by qualified engineering consultants under the general direction of a Power Survey Committee. This study summarizes the growth and character of the New England powersystem and load, and estimates requirements for 1957. The study points to the feasible undeveloped hydroelectric power, principally in Maine, but concludes that for the future most New England industries and utilities will have to rely on steam generated power. Neither the St. Lawrence power development nor the Passamaquoddy total power project promises to be of much help to New England, the report states.

Since New England is one of the high cost regions for steam power, various persons have speculated as to the possibility of commercial utilization of power from atomic energy. This is an economic issue that the Council's Committee on Atomic Energy undoubtedly will want to investigate. Under various assumptions as to cost and atomic power characteristics, economic analysis can consider the effects on New England industry, power fuels now used, plant, and other things.

Following the Supreme Court decision outlawing basing point pricing practices in the cement industry and the voluntary decision of the leading steel companies to adopt f.o.b. pricing, the Federal Reserve Bank of Boston embarked on an ambitious study of the effect of these two changes on New England business. Detailed questionnaires were mailed to some

3,000 important manufacturers in New England asking for an appraisal of the effects of a shift to f.o.b. pricing upon sales, purchases, and company policy. The analyzed results of the replies were presented for the first time at the September quarterly meeting of the New England Council.

Other research projects are carried on by or under the stimulus of the New England Council. Among them are studies relating to the economic importance of the recreation industry to New England, including a census of recreation establishments, an analysis of overnight accommodations for New England vacation visitors, a list and description of New England art museums and historic houses, a list of places where handicraft articles are made and sold, and places offering summer study opportunities. Data on employment, gross income, and taxes paid by the recreation industry have been gathered and analyzed.

Over the years the Council has built up a network of relations with different research and other organizations in New England. Certain jobs with New England-wide implications are undertaken by State Development Boards. Frequently the Council cooperates with state manufacturing associations. By far the most important and effective working connection is with the Federal Reserve Bank of Boston. Many of the regional studies in New England are joint projects of these two agencies.

General debate about New England's economic future has been very sharp during the past two years. There has been a widespread feeling on the part of some that New England is doomed to a long period of relative decline in the American economy. Others point to recent estimates of New England population increase since 1940 which exceeds that for the

whole country, and to what they feel to be a resurgence of business morale. Articles in the Harvard Business Review by Seymour S. Harris ("New England's Decline in the American Economy", Spring 1947) and Charles D. Hyson and Alfred C. Neal ("New England's Economic Prospects", March 1948) have brought the issue to focus. Hyson and Neal, in the Federal Reserve Bank of Boston, paint the brighter picture. Probably they represent majority opinion of the New England Council and its membership.

The New England Council is alert to recent shifts of emphasis in New England economic activities toward durable goods such as electrical equipment and other metal products, rayon and rubber products, the recreation business, and 'tertiary' industries in general. Research needs for the future, as the Council views them, are for study of growth potentialities in steel, electronics, recreation, among other promising fields. Also planned is a study of New England's future in textile manufacturing.

Other subjects which the Council rates high on its list are studies of migration, particularly within New England, urban blight including the downtown traffic problem, the better utilization of natural resources such as forest products, and the sources and uses of local income.

Through the New England Industrial Research Foundation valuable analyses of New England's research needs have been presented. The Council's Research Committee has actively encouraged research in individual firms and from time to time arranges research tours to selected plants during the course of which many interested persons have obtained a broader appreciation of the needs and possibilities of industrial research for their own firms.

The New England Council has been functioning for 23 years and it is possible to make some appraisal of the results. Certainly the Council has succeeded in facilitating the cooperation of business interests and government in furthering the region's economic interests and welfare. Likewise it has been instrumental in promoting national and regional consciousness of New England's contribution to the national economy and its importance as an area of varied economic opportunity. The extent to which it has succeeded in expanding the use of New England's industrial, agricultural, recreational and human resources is not easy to measure although it would appear that the Council has had considerable influence on the decisions of its members and others to take action which would lead to this end. The promotional work of the Council has been energetic and on the whole free from the excesses frequently characteristic of Chambers of Commerce and other avowedly promotional organizations. The advantages of New England as a location for business and industry have been presented by means of national advertising as part of the program of the Council. Banks, utilities, industries, and others have been encouraged to make use of cooperative advertising. The Council has been of assistance in bringing about the establishment of monthly payroll indexes for New England industrial cities as a measure of local industrial activity. The position of New England on the great circle route between the middle Atlantic centers of population, such as New York and Philadelphia, and Europe has been forcefully presented in terms of air-port development and the growing air passenger and freight business.

The Council has taken firm stands on a number of questions of national economic significance. It has called the attention of the nation

to the fact that over the years New England has contributed much more to the Federal treasury in taxes than it has received in Federal grants, public works, and other forms. It has opposed the St. Lawrence Seaway project on the frankly avowed grounds that it would divert business from New England railroads and ports. The Tennessee Valley Authority 1950 budget calls for \$4 million to begin construction of a steam power plant in Tennessee. This has been opposed by the New England Council on the grounds that New England taxpayers should not be required to contribute toward subsidized development of an area which would then be able to compete more effectively with New England industries. New England, they declare, would have to share in the burden of any such public expenditure without sharing proportionately in the benefits.

By and large New England has long been interested in importing more food, feed, and agricultural raw materials from abroad by lowering tariffs on such products, eliminating quotas, and helping to finance machinery and equipment purchases by foreign agriculture. In the words of the Council's secretary, "If we can avoid large government expenditures for more dams and irrigation projects while at the same time opening up the American market to a greater extent to imports, it can hardly be denied that New England and the Nation will be benefited both by lower prices and by lower taxes." The views of the New England Council and its membership of New England business leaders on the tariff on woollens or shoes might be quite different.

In addition to the general improvement in business morale and the recognition of the value of industrial and economic research, the New England Council has been instrumental in promoting the diversification of

industry, particularly in shoe and textile communities. Since the founding of the Council, the number of New England manufacturing establishments showing value added in manufacture has increased markedly in the machine tools, electric machinery, rubber products, and non-ferrous metals lines. Although New England's share in the country's textile and shoe industries has declined, still 34 percent of all the leather footwear, 27 percent of the nation's textile products, and 60 percent of the nation's woollens are produced there. The Council boasts that New England's industries are less subject to work stoppages than industries elsewhere in the country. By implication at least, the Council would take some credit for this, although other factors, such as the higher level of worker education, concentration of skilled workers, the longer history of industrialization, and the general economic maturity of the area, also contributed.

The New England Council is an organization of business with important relations to State Governors, State department heads, and Federal government regional officials. Labor and consumer interests do not have much direct representation in the organization. Farmers are represented among the State Directors roughly in proportion to the importance of agriculture in the region's economy. The Council has established and followed remarkably broad-minded policies. Evidence of this is furnished by the comparative absence of criticism from labor and farm sources.

The Council's bias in favor of New England is natural, unavoidable, and desirable. Although extreme forms of promotion have been avoided, many of its views have been colored strongly by the necessity of abiding by the majority opinion of the directors and of the six state councils. Its split-personality views on tariffs furnish an example of a division

within the ranks. In addition to the stated reasons the fact that it represents private individuals and firms helps to account for the opposition to the TVA steam plant and the St. Lawrence Seaway. The Council's research studies are of high caliber. Its willingness to bring in independent qualified research organizations to study various New England problems is a mark of this high caliber. All in all it takes a broad, far-sighted view of the requirements on the part of New England business for the development of the region.