Economic development and employment: a case study of the state of Georgia

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ECONOMIC DEVELOPMENT AND EMPLOYMENT: A CASE STUDY
OF THE STATE OF GEORGIA

A THESIS
SUBMITTED TO THE FACULTY OF ATLANTA UNIVERSITY IN
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF
MASTER OF BUSINESS ADMINISTRATION

BY
PREM PRAKASH

SCHOOL OF BUSINESS ADMINISTRATION

ATLANTA, GEORGIA

JANUARY 1969
DEDICATION

To Dr. K. K. Das and his wife, Aruna, in token of my esteem and regard for their kindness, affection and care at all times
ACKNOWLEDGMENTS

In completing my academic program in the School of Business Administration, Atlanta University, I owe irredeemable debts to two persons. I cannot think of a more fitting place than here to acknowledge my debts to them.

To Dean Harding B. Young, I am indebted for the kindness and consideration he showed me throughout my stay in the School. Just before I left, he was kind to offer me a research position, which I could not accept in view of my interest in getting launched on my long-term career opportunity in business. For a student, nothing could be happier than experiencing such a wonderful relationship with one's Dean.

To Dr. K. K. Das of the faculty of the School my debt is many-sided. This thesis bears the imprint of his close guidance at all times. Throughout my stay in Atlanta he was my teacher, advisor and guardian. He and his wife, Aruna, gave me a home away from home. On my part, I have tried to live up to their expectations, and to those of my parents at home. I hope that my relationship with Dr. and Mrs. Das will endure through time and distance. In token of my regard for them, this thesis is dedicated to them.

I would also like to thank Miss Norah McNiven for her typing help.
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CHAPTER I

INTRODUCTION

Since World War II, the economic growth of the United States has shown a steeply rising trend. Despite temporary setbacks in 1957 and 1960, the steeply rising curve of the Gross National Product is unmistakable. For example, from 1950 to the last quarter of 1967, the Gross National Product rose from $285 billion to $807 billion -- that is by about $522 billion over a period of some seventeen years. During the same period, Personal Income rose from about $228 billion to about $643 billion -- a growth in the order of $415 billion. It is true that, during this very same period, the country experienced considerable inflation. The general price index, with 1957-1959 as the base year, has gone up by 16.3 percent. Even when allowance is made for inflationary pressure, the upward thrust of economic growth, in macro terms, would remain an unmistakable phenomenon of our times.

How have the different regions of the country participated in this growth trend? Since there is no infallible and universally accepted definition of a "region," one might as well raise the question in terms of the political divisions or states. How, therefore, it may be asked, have different states shared in this national economic growth? Obviously, different states have grown, during the same
period, over varying rates. Indeed, there is no \textit{a priori} reason that it should be otherwise -- that total economic growth must, in the nature of things, spread over the entire nation in a uniform or even manner. On the contrary, despite the tremendous overall economic growth, the country has experienced the rise of the "Appalachians" and "qualified areas," as deserving special attention from the Economic Development Administration, let alone the problems of the ghettos -- the hard core and the minority groups of the nation.

As of 1967, 159 counties out of a total of some 3,043 counties, into which the country is divided, were designated as "qualified areas" under the Economic Development Administration Act of 1965. Recently reported by the news media, television and newspapers, was that nearly one half of the population of the South, comprising fifteen states, was underfed and ill-nourished. Overall affluence along with areas of variegated affliction.

Against this background, it is interesting to ask: (1) what makes for the differences in the growth pattern of regions? Why do different states (avoiding the conceptual difficulty about regions) grow at different rates?; (2) what are the various yardsticks that would measure such economic growth; (3) how has the state of Georgia been growing in the years following World War II?; and (4) what lessons for policy and for the economic future of the state could we draw from a study of its economic growth?

This brings us to define the nature and scope of this study. It is that it will attempt to develop briefly answers to the specific questions just raised. More specifically, the study will focus
attention on the industrial growth of Georgia as distinct from economic growth generally during the period referred to earlier—that is, since World War II—and its effects in terms of employment and income. It will be clear that no attempt will be made to discuss the agricultural sector at all. Even in the industrial sector, no attempt will be made to make any "sectoral" or "input-output" analysis of the different industrial growth. The reason is that the purpose of this study is to measure the employment gains from the measurable economic growth of Georgia during the period under study.

These limitations are all self-imposed, and were necessary in the interest of economy of time and space. Limited as this study is, it has two major justifications. One is that it would permit us to take an in-depth view of the economic growth of the state of Georgia in our times, and would perhaps provide a "format" for a similar study of other states of the country, and secondly to develop a comprehensive regional aspect of the country's economic growth in the period following World War II. While much has been written on the macro aspect of the nation's economic growth, very little has been said or written on the micro, i.e., the regional aspects. This is especially true in relation to the Southeastern region and/or states such as Georgia. For example, even to this day, the data on the GNP are not available by states. There is a woeful gap of knowledge about the regions and it is only very recently that attention has been turned on them, due to the Manpower Administration and the Economic Development Administration. As increasing interest is focused on the states of the South, a comprehensive comparative analysis of regional growth and/or of
different states would surely be taken up from research. What is undertaken, therefore, in this study may well be considered as a small "building block" towards filling a gap in our knowledge. It is hoped that future researchers will find the work helpful. It may also be observed that the "knowledge gap" on regions and states and their economic performance is partly responsible for the lack of a consistent and comprehensive national policy effort in this area. What the federal government has been doing at this level, in different directions, has been more pragmatic and pedestrian than rational and comprehensive in nature. Also, in consequence of the "knowledge gap," the country is losing considerably -- by not realizing its economic potential in full measure. Not long ago, Leon Keyserling of the Council of Economic Advisors of the President, raised the question: progress or poverty? -- to indicate how much of the potential of the GNP was not being realized due to the incidence of unemployment in the minority racial groups. What is true in terms of racial groups could also be asked in respect of regions and states; perhaps more so, because the majority of the racial minorities that he had in mind are to be found in the Southeastern states (Georgia, Mississippi, Alabama, Florida, Tennessee and South Carolina).

In the foregoing, emphasis has been given to the fact of disparate economic growth, more specifically, the industrial growth of the different states. At this point, some statistical evidence on the contemporary situation could well be offered for our enlightenment. Since no data on the GNP by states are available, we are forced to fall back upon personal income to develop the picture of the variegated growth
pattern that we are talking about. Since the objective of the study is to emphasize the fact of differential growth, it seems necessary to take a look at the states more directly comparable, generally speaking. This is what has been done in Table 1 and Figure 1. Against the growth trends of the six states in the last ten-year period, the table and figure also show the aggregate for the nation as a whole. The fact of marked differences in regional growth pattern -- hence the rationale for the focus of this study -- would appear to be undeniable. It is also interesting to note here the differential growth pattern of the Southeastern region (six states) and the nation as a whole, as may be seen in Figure 1.
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<td>36,612</td>
<td>39,313</td>
<td>42,572</td>
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* Total includes Alaska and Hawaii for 1960 to 1966, but not in earlier years.
FIGURE 1

TOTAL PERSONAL INCOME OF THE U.S. AS COMPARED TO THE SOUTHEAST REGION, 1956-1966

u.s.a

S.E. Region

Legend:

- U.S.A
- S.E. Region

Year:


Income:

600
500
400
300
200
100

0
CHAPTER II

FACETS OF ECONOMIC GROWTH

In this chapter we take up briefly the first question: what accounts for the economic growth of regions? Before proceeding to answer, it is necessary to define precisely how economic growth is best understood. While there is a general consensus on the concept, in actual application many difficulties arise, especially when the economic growth of regions is involved. It is needless to mention that what will be said in this chapter must be viewed in the context of a developed country such as the United States. No attempt can be made here to speak of regional growth in underdeveloped countries. More specifically, what is said in this chapter relates directly to the United States.

Economic growth has many facets. Inherent in the use of the term is some sense of significant changes in the way people produce, consume, work, live and play. To record and measure the vast mosaic of change (whether for the nation or its regions) is not simple. It is the better part of wisdom to appreciate that existing conceptual and statistical tools can grasp only the crudest notion of the nature and direction of these changes. A useful starting point is to make a distinction between changes associated with individual and family welfare and those associated with the volume of economic activities. The most commonly employed measures -- really crude indicators -- of
economic welfare, of improvement or decline in the average economic status of families and individuals, are the relative levels of per capita real income and changes in these levels. Different measures are needed in evaluating growth or decline in the volume of economic activities. Regional growth in volume might be appropriately measured by increases in population, increases in total employment, and/or increases in total income produced or received within a given area.

One measure of economic growth is the GNP. We can compare the GNP for different periods properly only if we keep our measuring stick the same size. The measuring stick, by which we compare GNP for different periods, is the "constant dollar" -- that is, the dollar adjusted for year-to-year changes in the price level so that one dollar will always measure the same quantity of goods and services. With this "constant dollar" we can measure real changes in national product.

When it comes to applying this concept to regions of a country, one is necessarily involved in complex methodological problems of regional accounting and/or input-output analysis. Besides, often times, there is no published data on GNP by regions, as is the case in this country at the present time.

Real GNP tells how much bigger the economy becomes from one time to another. This, however, may be no more than a reflection of a growing population -- simply more people at work and therefore more work done and more products turned out. The measure, in such a case, does not indicate whether there was enough growth to make
better living standards possible. In fact, when real national pro-
duct shows a rise there can be deterioration of living standards in
a growing economy. Plainly, the most important thing to know about
ourselves, or any region or nation, is whether growth has been enough,
when parcelled out among a growing population, to make possible a better
average standard of living for all. When this line of consideration
is applied to a region within a country, the point becomes even more
important. For even when the country's population is stable, the
shifts in population between regions in a country (which is especial-
ly characteristic of the United States) may make a world of difference
in the real growth or otherwise of a region.

Because of this, it is illuminating to look also at another
means of growth -- real national product per person, or personal
income, or per capita income, of the regions under study.

A third measure is real disposable income per capita, and it
is one closer to every individual's experience. When this measure
reveals any increase, it means plainly that the average individual
receives more and can buy and save more. While this is always a
satisfying figure to know, it can be misleading from a social point
of view, for it does not include the great and varied benefits derived
from services provided by local, state, and federal governments. Many
of these services represent as genuine a contribution to living standards
as private expenditures, even though their benefits to each of us
personally cannot be so easily traced. Again, "real disposable income"
acquires additional meaning when it is translated into real disposable
income per family. We live and consume and own most possessions as
families. Any changes for the better in living standards are enjoyed as families. When this measure is used, therefore, we get closer to the actualities of income as most people appraise it.

To sum up, while economic growth, whether of the country as a whole, or of a region, which is part of that country, may be variously defined and measured, all things considered, a single fair measure of economic growth of a region may be gauged in terms of personal income -- per capita income, to be precise; and when this is supported by other economic indicators, such as growth of industries and/or employment and earnings, one would surely have a most reliable estimate of regional growth. In short, no one single criterion spells out the reality of growth of a region.

Factors Behind the Growth of Regions

Turning now to a different level of analysis, what are the factors behind regional growth? This is clearly a complicated matter, but in order to clarify the forces at work the key variables can be grouped into the following four sets of factors, all of them interrelated through the workings of the market mechanism or price system.

1. National Change-Initiating Forces. The secular and cyclical forces of the closely knit national economy have an important effect on economic development in every part of the United States. The rates at which new plants are built and new job opportunities occur, the expansion and contraction of governmental activities and the related factors, have a direct bearing on the rate of growth in various parts of the country. The factors influencing the character of
national economic growth also influence the patterns of regional growth. Here, those change-initiating forces that are directly related to the growth of specific industries play a large role. As a family's income rises, "income elasticity of demand" interacts with the supply pattern in influencing the composition of total production and the relative price changes among commodities. Hence, in the normal course of events, as per capita income grows, relatively more of society's total resources are devoted to the production of items such as automobiles and relatively less to producing food.

Similarly, the effects of technological change, particularly on productivity, are unevenly distributed. For some products, the impact on output and prices may be quite different from the impact on employment. Agriculture is a dramatic example. In this field, increased productivity, resulting from new technology and improved practices, has enabled various sections to produce much greater quantities with fewer workers. In contrast, some industries, such as many which produce consumer durables and chemical products, have expanded employment as a result of new technology and high rates of increase in demand for their products. Clearly, since these national change-initiating forces operate differently for different commodities and since the regions differ widely in their patterns of production, some regions will be stimulated to rapid growth while others will be little affected.

Acting as "transmission agents" between the national forces and the individual regions are the various industry groups and individuals or family units. These are the key decision-making entities
determining the economic changes within and among regions. The principles that govern the location of economic activities are no different from those governing all of man's efforts to make the most of his economic resources. On the production side of the balance sheet, expenditures for "inputs" reflect an effort to produce with the smallest possible commitment of economic resources the kind of product-mix buyers want most. On the consumption side, expenditures for products reflect the desire to acquire a market basket of items that will provide the greatest satisfaction possible within the constraints of individual incomes. The complex set of decisions that constitute man's economizing effort is made largely within the framework of the market mechanism.

2. Locational Push or Pull. The businessman's main concern in picking a production site is to select one which will enable him to operate at the most profitable level. Production costs and revenues differ from one site to another, depending upon variations in access to the basic inputs and markets that are significant for the specific activities. The "primary" activities are largely oriented to natural resources inputs. The location of "secondary" activities can be dominated by factors of proximity either to markets or to raw or semi-processed inputs. "Tertiary," or service, activities are by and large closely tied to markets.

The foregoing three groupings comprise all economic activity. But there are innumerable permutations in the factors governing the location choice of an individual activity or industry within any one of the three groups. Except in unusual cases in which location is
either fixed or entirely indeterminate, transfer costs -- the cost of transporting unfinished goods for final processing or finished products to final markets -- affect an industry's choice of location. Their influence can be operative even where inputs or outputs are immobile or where substitute sources exist for the same inputs or substitute markets for same output.

For the majority of enterprises, however, production inputs and outputs are mobile and substitutable and transfer relations are important. Thus, many areas in the economic landscape would seem to be potential production sites. In reality, however, certain factors limit the sites that are to be considered. The importance of intermediate inputs, such as partially manufactured products, of markets, and of scale economies suggests why the existing distribution of population and economic activities among and within the regions is itself a factor in the differing patterns of regional growth. The current concentrations, which are essentially the end-result of past growth, are themselves a significant influence of future growth. Thus, decision of the present, or the "marginal" decision, is based, to an important extent, on the locational (and price) situation, as it has evolved from the past. This is not to suggest that for the firm making a location or production decision the future is not the key consideration, but simply that at any point in future time, costs and returns must necessarily be estimated in terms of the relatively slowly evolving national pattern of agglomeration.

Whenever there is initiation of a productive operation within a region in response to external and internal demand, fixed capital is
invested. The rate at which this capital can be depreciated profitably often controls its continued use in the region, even if opportunities for new capital investment with higher rates of return develop elsewhere. Once an investment is made in plant and equipment, it usually pays a firm to continue operations within the existing location for a relatively long period of time. The same general considerations apply to the "investment" of workers in their chosen location.

While the relatively inflexible elements which reflect the "sunk" costs must be given adequate consideration, there are also significant elements of flexibility in the economic system and these are of particular importance in analyzing different rates of economic growth. Capital (and particularly "new capital") as well as labor (and, again, particularly "new labor") do tend to seek new and better opportunities and will move over wide areas of the country in an attempt to improve their overall situation.

The relative rates at which individual industries grow over a period of time also influence the patterns of regional growth. Clearly, a region which contains a rapidly growing industry will receive thereby an acceleration in growth. With all these various possibilities and their combinations contributing to the growth, regional economic growth can be understood only when all these elements are clarified, measured, and explained.

3. Consumption Activities. Since, from the worker's viewpoint, access to varied means of employment is usually a necessity, it follows that the population is distributed essentially on the basis of regional
distribution of economic opportunity. It would seem, therefore, that the factors explaining the location of production activity would also explain the location of consumption activity. It is not surprising to find that the most rapid economic growth in recent decades has taken place in precisely those areas where both the consumption and production elements are relatively favorable and reinforce each other. In large measure, industrial development, economic opportunity, retail trades and other supporting consumer activities are interrelated, and in the dynamics of growth reinforce each other.

4. The Nature of the Regions. Certain industries contribute more to regional growth than others. Certain industries pay higher wages than others. Some are physically more attractive than the average. But not all regions have the advantages that attract such industries. This is another way of saying that not every area can hope to have the clean, fast-growing electronic and research industries it desires. The attraction of industry is clearly a competitive matter. There are many things that a region can do to enhance its locational advantages, particularly with regard to facilities, as in improving transportation, and major services, such as better education. But many features of nature and position within the nation are unalterable, and so a realistic appraisal of a region's advantages and disadvantages with regard to input-output access is an essential starting point for understanding its growth potential, as well as its past growth.

When regions are examined in terms of costs and markets, or input-output access, with regard to the requirements of specific industries
and for all economic activities taken together, the extent to which they vary in their prospects for growth becomes apparent. In weighing the growth prospects of a region, its present production characteristics or state of development are, of course, significant, but they do not entirely determine the course of future growth. Consider the direction of growth sequences. Development is generally thought to follow a prescribed sequence, with growth initiated by advances in primary extractive activity, followed by the development of more and more complex manufacturing, and followed, in turn, by more and more advanced servicing activities.

It is cumulative advantage, and not an unusual advantage in any one aspect, which is determining of overall sustained economic growth. In the development of the United States economy, the role of cumulative advantage is most clearly seen in the remarkable growth of the Middle Atlantic region and, later, of the Great Lakes region.

One final note, to stress again the competitive factor. Any advantage which a region may have vis-a-vis other regions is always relative. This is so whether the focus is in terms of input and market advantages in the production of a single product or the products of a single industry, or whether the focus is in terms of cumulative advantages for overall economic growth. Whether we are looking backward and explaining past growth or looking forward and analyzing potential growth, the view must necessarily be a competitive one. Regional growth is a highly competitive matter in an open economy.

Regional Growth: Further Considerations

Not so much in the case of a country as in the case of regions
within a country, the four groups of factors, as just explained, show up in different ways. In view of their importance in the current researches on regional development, they may well be considered as the basic forces of regional economic growth. What are they? One is what, in the context of regional analysis, has come to be called "the industry mix or industry composition," and the other is, what is now called "competitive shift." The interaction of these two forces tends to determine where a particular region is relative to the rest of the country, in any particular historical period. In a country, such as the United States, characterized by mobility of factors of production or resources, even so-called fixed resources often have found it profitable to move. The classical example is how the textile industry of the South moved towards the South under the puff of economic forces. Again, it is remarkable how even a heavy industry, such as iron and steel, now shows characteristic dispersion throughout the country. In the circumstances, the industrial interface of a region is neither predetermined in any manner nor immovable through time.

What is "industry mix?" It is the totality of the industrial structure of a region or state -- how capital intensive, basic or heavy in the composition. For, the heavier the industry, the more capital intensive it is, the more is its multiplier effect of its growth on the growth of other industries -- hence of the development of the region; again, the more basic the industry the more enduring is its role in the economy, hence less swayed by short-run economic oscillations. It is no wonder that many of the underdeveloped countries, in their efforts to achieve economic growth, have taken to building up
the basic industries (heavy and capital intensive industries) so as to ensure growth on a solid foundation. What is true of countries such as the underdeveloped ones would be true of regions in a country such as the United States. The more basic the growth -- and this would come about only with the growth of basic and capital intensive industries in a region -- the more stable the growth of the region would tend to be. Such growth would tend to make the region a growth center in the country's economic map rather than making it just a growing region -- in other words, making it a region that not merely achieves its own growth but would also spell growth to the surrounding areas or regions.

Gunnar Myrdal, in his book, Theory of Regions, speaks of push and pull effects of economic growth centers. What we are speaking of here is what he has pointed out in his book -- that if a region achieves growth with an industry mix, characterized by preponderantly heavy and capital intensive industries in it, it is not only able to gain growth for itself, but also pushes its growth effect far. On the other hand, if a region does not develop in such a manner, its growth may well be just the ripples, so to speak, of the growth originating in other centers. Surely, in such a case, its growth has lesser basic roots in the country's economy and may well prove to be more volatile and more susceptible to competitive struggles than would otherwise be the case. At the same time, when a region achieves growth on strong economic foundations, it is also able to attract growth of the neighborhood. This is the pull effect of growth centers. To exemplify the point here, it may be mentioned that much of the
growth of the highly developed industrial areas of the United States may well be explained in this manner, namely, as growth process in any of those areas goes on, new industries looking for location have found it more convenient to gravitate towards the developing region. The general theory of location of industries serves to explain this very well and the argument need not be repeated here. In short, one facet of regional economic growth raises the question: How economically deep-rooted is the growth under study? Or, how much "push" and "pull" effects underpin it? And, answers to these questions bring up the issue of industry-mix.

Turning now to the other point, what about the competitive shift? Here we are more concerned with the dynamics of change -- of market, technology, population shift, resource development and so on. As already indicated, modern industries have become increasingly migratory in nature -- even willing to consider new habitats away from their original homes. Of the nature of this factor and how it has impinged on the economic growth of the South, we may quote Edgar S. Dunn:

In short, an industry in a region may progressively lose its competitive position relative to the same industry in other regions. This may stem from a variety of causes, such as (a) loss of markets occasioned by the shifting regional pattern of industries and population, (b) relative loss of access to important inputs because of resource exhaustion or shifts in intermediate input, or (c) loss of relative access to both markets and inputs occasioned by changes in technology that alter input and output requirements for the industry.

Of course, both these adverse affects need not be operative at the same time. For example, an adverse business-mix might be reinforced by significant competitive losses. On the other hand, an adverse business-mix might be offset by
competitive gains resulting in more modest relative losses or gains depending upon the relative strengths of the two effects.¹

What is essentially involved here is the region's ability to hold on to what it has achieved in terms of economic growth. That it should be an important aspect of regional growth is evident from the fact that growth and decay of regions is writ large on the economic history of every country, including the United States.

To sum up: the nature of industry-mix, the changing competitive forces, and the extent of push and pull forces in the make-up of the growth process of a region are important -- both for analysis and for appraising the security of the realized growth of a region.

Let us now turn to review briefly the overall economic growth of the South, partly as providing perspective to the specific study of Georgia, and partly as illuminating the study of Georgia to follow inasmuch as the State is an integral part of the South.

The State of Georgia: A General Profile

Georgia's altitude ranges from sea level along the Atlantic coast to nearly 5,000 feet in the Georgia Appalachians. The state has three distinct topographic sections: (1) the northern part, which is mountainous; (2) the central upland, known as the Piedmont Plateau, which has broadly rolling terrain trenched by deep, narrow valleys and cut through by numerous streams and rivers; and (3) the Coastal Plain area, lying south of the "fall line" and comprising

approximately three fifths of the state. Hilly in sections, particu-
larly in the northern area -- this Coastal Plain is generally an
expans of gently rolling level land.

Called "The Empire State of the South," Georgia has an area
of 58,876 square miles. The largest state east of the Mississippi,
it is bounded in part by three rivers; the Savannah on the north-
east, St. Marys to the south, and the Chattahoochee along the west.
The Atlantic Ocean forms the remainder of the eastern border.

The mild all-year-round climate is a major inducement to
industry, offering lower construction and maintenance costs, econo-
mies in fuel and similar requirements, practically no work stoppages
due to weather and more pleasant working and living conditions.
Bordered by the Atlantic Gulf Stream on the east and by the Appalachian
Mountains in the north, Georgia uniquely offers one of the world's
best climatic zones. Contrary to some opinions, Georgia summers
are only slightly warmer than those of Chicago or New York areas.
Heat prostration, which takes a heavy toll in many industrial sections,
is relatively unknown in Georgia. In it interesting to note that
humidity, a critical factor in some finishing operations and in
determining every worker's comfort, averages the same in mid-Georgia
as in Chicago, giving the state an advantage over many areas along
the eastern seaboard.

Georgia enjoys an average freeze-free period ranging in length
from about 180 days in the extreme north to more than 300 days on the
lower east coast. Rainfall is usually plentiful, with yearly aver-
ages ranging from more than 75 inches in the northeast corner to about
42 inches in the driest part of the east central section.

In a vital sense, an industrial society is a closely-knit organism -- by contractual relationship among its members rather than by their status; is also presupposes considerable social communication. In short, economic growth presupposes appropriate prerequisites -- what economists call infrastructure. Let us, therefore, refer briefly to this aspect of Georgia's profile.

Georgia's 33 daily newspapers have a total circulation exceeding 986,000 copies and 198 weekly papers reaching more than 551,655 subscribers. The friendly, cooperative attitude of these newspapers is doing much to maintain Georgia's favorable industrial climate. Excellent radio and television reception is enjoyed throughout the state. These media, too, help acquaint Georgians with the importance and problems of industry, thus developing greater public understanding and appreciation which is valued by manufacturers. There were 16 AM radio stations, 35 FM radio stations, 12 TV stations and 9 educational TV stations serving Georgia at the end of 1966. Georgia ranks ninth in the nation in total number of broadcasting stations. Almost 100 percent of all Georgia homes have, at least, one radio or television set. Radio-TV penetration daily in the state is some four million listeners.

The telephone companies which serve Georgia are meeting the demands of an economy on the move. Southern Bell and 49 other companies provide telephone service through 371 exchanges with more than 1,750,000 telephones. The companies are constantly increasing their investments in telephone plant and equipment; Southern Bell alone,
for instance, planned expenditures of $86.25 million in 1966 for improvement and expansion of its facilities in Georgia and that company spent more than $387 million for new facilities in the state from 1960 through 1965.

Education is one of the "infrastructures" of and prerequisites for industrial growth. What, then, of the education in the state? Since chartering the nation's first state university and the world's first women's college, Georgia has developed renowned institutions for advanced education in arts and sciences. Within the state are 35 colleges and universities, one technical institute, 21 junior colleges, with three additional under construction, and six professional schools. Each year more than 8,000 students graduate from these institutions, becoming available for employment. Experience proves that these young men and women rapidly become highly capable in either production or supervisory capacities.

Georgia's current public school program is one of the most progressive in the nation, with 57.5 percent of the state's revenue going for educational purposes. $340,288,285.63 was spent during the 1966 fiscal year for public education. Educators and businessmen jointly drafted a master plan several years ago to assure that each child be provided with an adequate school classroom, qualified teachers, transportation to and from school when feasible, free textbooks, and all modern educational advantages. Substantial progress has been and is being made toward the accomplishment of these goals. In 1966, 52,360 boys and girls graduated from the state's public high schools. This number represents an increase of 55.6 percent over the 34,527
graduates of the year 1960. The investment made in the education of these young people will pay large dividends in Georgia's growth and development.

Power is a fundamental prerequisite for growth. How is the state in this respect? Approximately $1,250,000 is invested in generating and transmission facilities to assure ample, dependable power throughout Georgia. Generating plants in Georgia have a capacity of 4,636,205 kilowatts, most of which are produced in ultra-modern steam plants. These plants are strategically located near larger load centers. The hydro-electric generators are mainly on the central and north Georgia rivers.

Installed capacity has increased over 100 percent during the past 10 years, with further expansion being underway in 1967. This unique growth during recent years surpasses the national average and is convincing evidence that Georgia's electric utilities are faithfully meeting the state's increasing requirements. Power costs in Georgia, both industrial and residential, are among the lowest in the nation. In addition, numerous services and assistances rendered by supplying companies provide additional economies, as well as conveniences, for their customers.

Finance and financial institutions are important facilitating factors in the growth process. In this regard, it may be said here that Georgia's banking system is in a position to meet almost all credit needs of the industry. There are 387 banks in Georgia, fully insured by the Federal Deposit Insurance Corporation. These banks had total resources of $4,597,315,000 at the end of 1965. There
are two of the 100 largest banks in America located within the State, and the many services provided by these and similar banks compare most favorably with banks in other areas. Larger banks have complete Industrial Departments providing technical assistance for industrial prospects as well as banking services for industry and its personnel.

It is interesting to add here that all communities in the state are willing to assist in industrial development and will provide all possible help to interested prospects. Some 150 communities have industrial development organizations which cooperate, partially or completely, in financing new constructions. It is important to recognize that Georgia's major and most permanent inducements are: a record of conservative government, favorable fiscal and tax policies, willing and capable workers, economical and efficient utilities, good transportation, and many other long-term assurances indicative of a friendly, favorable industrial climate.

Industrialization, especially in the technological revolution of our times, requires facilities for research and supportive industrial services and a plenitude of laborers of quality.

Facilities for industrial research, engineering and the availability of services or repairs in Georgia are the foremost in the South and among the best in the nation. Georgia Institute of Technology, the University of Georgia, Georgia State College and Emory University are well equipped and staffed for industry-related research. All have done distinguished work in laboratory tests or market studies for specific products.
Other specialized research is available at the Herty Laboratory (forest product uses) in Savannah, the new Lockheed-Georgia Research Center (aerospace studies) in Marietta and the U.S. Communicable Disease Center, Atlanta. There are more than 50 scientific organizations in the state. Perhaps Georgia's most forceful industrial advantage is an ample supply of workers throughout the state of proven ability and loyalty, who are accustomed and anxious to work. The Georgia State Employment Service on October 31, 1966, listed 36,536 applicants for employment (15,257 men, 21,279 women) and estimated that there is in Georgia a trainable labor supply of several hundred thousands of workers. Thousands of Georgians with highly developed skills and long experience are employed outside the state and are repeatedly inquiring about job opportunities "back home." They offer an additional source of trained workers for new plants locating in Georgia. Let us note here, also, that Georgia was one of the first states to enact a "right-to-work" law. This law protects the inherent right of all citizens to work unencumbered by union rules if so desired. With Georgia's government officials consistently committed to these principles, state as well as local level resistance to unwarranted disturbances is assured. Labor relations have always been good in Georgia, where disturbances are a rare exception.

Finally, a quick glimpse of the market of the state, since modern industry generally gravitates to where the market is. Georgia's claim to be one of the fastest growing markets in the nation, and assurance of a greater potential, is supported by personal income gains
during recent years. An increase of 57 percent in total personal income in Georgia during the period 1955-1965 far exceeds the nation's record for the same period. This, in turn, tends to be reflected in consumer spending. It is no wonder that in 1963, 6,530 wholesale dealers in Georgia did $8.1 billion dollars worth of business, which was 41 percent higher than five years earlier and compares with a gain of 25.4 percent for the nation as a whole. Incidentally, a recent survey of the National Industrial Conference Board shows that almost half of the plants locating in the South do so to better serve and share in this growing market.

To sum up: broadly, speaking, in terms of geographical conditions, basic resources and "infra structure," the state of Georgia has been trying to measure up well -- such then is the state whose economic growth constitutes the subject matter of the remaining pages of this study.
Economic growth in the United States has varied widely among the different geographic sections. Some regions have expanded more rapidly than others, drawing in persons, materials, and capital in great quantities and enjoying high levels of living. These regional changes are not always so dramatic, but they are continuous and are of considerable importance. This differential growth strongly influences the use of natural resources, which, in turn, have an immediate important effect on regional growth patterns and, finally, on the national growth. To understand the complicated growth of a specific region, it is necessary to see the economic activities within a broad framework, of overall national and/or immediately larger areas, of which the specific region may be an integral part. It is interesting to note here how the Economic Development Administration of the federal government, has now shifted its attention from "qualified counties" to "qualified districts."

In this chapter, attempt will be made to indicate roughly the growth trend of the Southern Region, comprised of the thirteen old Confederate States. As a transition to the heart of the study — the industrial growth of Georgia — the chapter will also briefly draw a socioeconomic profile of the state of Georgia.
The South: Its Development

The South -- roughly defined as the states of the Confederacy and the states of Oklahoma and Kentucky -- has developed, albeit slowly, almost from the turn of the century. If per capita personal income may be taken as an index of the growth, the historical picture is shown in Table 2.

**TABLE 2**

**PER CAPITA PERSONAL INCOME, UNITED STATES, NON-SOUTH, AND SOUTH, BY DECADE, 1900-1960**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>$203</td>
<td>$243</td>
<td>$103</td>
<td>100.00</td>
<td>119.7</td>
<td>50.7</td>
</tr>
<tr>
<td>1920</td>
<td>655</td>
<td>755</td>
<td>399</td>
<td>100.00</td>
<td>115.3</td>
<td>60.9</td>
</tr>
<tr>
<td>1930</td>
<td>625</td>
<td>738</td>
<td>329</td>
<td>100.00</td>
<td>118.1</td>
<td>52.6</td>
</tr>
<tr>
<td>1940</td>
<td>596</td>
<td>690</td>
<td>358</td>
<td>100.00</td>
<td>115.8</td>
<td>60.1</td>
</tr>
<tr>
<td>1950</td>
<td>1,496</td>
<td>1,657</td>
<td>1,075</td>
<td>100.00</td>
<td>110.8</td>
<td>71.9</td>
</tr>
<tr>
<td>1960</td>
<td>2,224</td>
<td>2,430</td>
<td>1,679</td>
<td>100.00</td>
<td>109.3</td>
<td>75.5</td>
</tr>
</tbody>
</table>


Despite the Great Depression of the 'thirties, the South was able to reverse its trend of the 'twenties and show a per capita income growth of 29 percent as against a gain of 13 percent for the non-South. In the 'forties, it was mainly the government activities associated with World War II that stimulated a large shift of workers
out of Southern agriculture. As has been observed:

Because of its reservoir of under-utilized manpower, the greatly expanded demand for goods and services associated with the war effort resulted in a higher rate of increase in production in the South than in most other regions.¹

The trend of economic growth in the South, and how it relates to that of the nation in terms of personal income is shown in Figure 2. It should be mentioned that in 1940-45, the South's per capita income rose from 60 percent of the U.S. per capita income to almost about 73 percent of it — a higher rate of gain than in any other five-year period between 1930 and 1964.

As we move to the 'fifties and 'sixties, this propitious trend does not continue. Real per capita income in the South did continue to grow more rapidly than in the rest of the nation, but at a significantly lower rate than in the 'forties. Clearly, the gap between the two curves tends to widen on that account.

A few concluding observations may be made since they are visible on the graph. Firstly, apart from the impact wrought by the wartime conditions of the 'forties, the South's growth has been tremendously helped by out migration. During the decade of the 1940's alone, some 2.2 million, or about 6 percent, of the people living in the South in 1940, left for other parts of the country. Three fourths of the migrants were Negroes, and the number of Negroes leaving the South between 1940 and 1950 was more than three and one half times as large as the number which had migrated out of the region

FIGURE 2

GROWTH IN PER CAPITA PERSONAL INCOME: 1929-64
(1954 dollars)
THE SOUTH VERSUS THE NATION

during the Depression of the 'thirties. This out migration was obviously spurred by prospects of employment and opportunities in other parts of the country.

What is the significance of this remarkable phenomenon in the context of the region's economic growth? It is that it is "the out migration ... that has contributed to a rise in Southern per capita income." For, a large proportion of the out migration has been from low-income groups, highest from states with low per capita income. In a basic way, the growth pattern hides that what was really taking place was "exporting" of underdevelopment elsewhere, instead of the South becoming a basic growth center on its own merits. That this was really the "hidden face" of the economic growth of the region comes out clearly from the following:

...had there not been out migration, the supplies of capital, technology, and entrepreneurship within the region [South] would not have been sufficient to provide employment and earnings at rates as high as actually prevailed for the growing labor force that remained.¹

Secondly, though helped by large out migration, the growth was also "consequential to or coupled with a shift of underemployed low productive workers out of agriculture into more productive and better employment within the region."² The extent of this shift is evident from the decrease from about 25 percent in 1929 to about 8 percent in 1960 in the proportion of labor and proprietors' income in the South generated from agriculture.³

¹Ibid., p.48.
²Ibid.
³Ibid.
Finally, it may well be asked: how far does the historical data permit us to speak of the South as an independent center, so to speak, of economic growth in the nation? Reviewing the historical data, this is what Maddox observes:

...changes in real per capita income in the South are closely linked to changes in national income. With only minor variations, annual changes in per capita in the South have been closely correlated with those in the total economy.1

The South: The Slow Growth Region

The Southern region has an abundance of resources, but the Southerners have been frustrated by the results that have followed the use of these resources. The broad problem has generated literature which exceeds that about any other region of the United States. The dissatisfaction with the operation of the South's economy was directed to many of its aspects and expressed in a variety of ways. In broad terms, the problem was that of the relatively low incomes which characterized virtually all segments of the South's population. The income problem, however, was most acute for the region's farm population, which received easily the lowest incomes in the United States and which also was a very large part of the region's population. The incomes were low even in the prosperous years of before and after World War I. The problems of this large population were central in most analyses of the South's economy. To the problems of rural economic depression were added those of technological change and out migration.

1Ibid., p.46.
It is true that the Southern states, on the whole, have been making absolute gains in population, employment, personal income, and per capita income during the last two decades.\(^1\) In terms of these broad aggregates, considerable progress no doubt has been made. Nevertheless, it is true, at the same time, that these Southern states have suffered a steady decline in their relative share of the total U.S. population. During the period from 1938 to 1959, for example, there were 28 states in the nation that reduced their share of total population. Eight of the Southern states accounted for about one third of the total relative population losses, for a shortfall of almost 5 million people. In short, these states are slow-growth states when measured by a national population yardstick.

The first superficial explanation for this is clear. The major single factor determining the distribution of population over broad regions is economic opportunity, and the major single dimension of economic opportunity is employment opportunity. During the same period, the same 28 states that reduced their share of total population also reduced their share of the national employment. It is clear that the South reduced its share of the nation's employment much more markedly than any other region, as the eight Southern states accounted for almost two thirds of this shortfall.\(^2\)

\(^1\)There are important exceptions to this, however. Arkansas and Mississippi have suffered absolute losses in population and Arkansas has even experienced an absolute decline in personal income.

\(^2\)Virginia is a lone exception. It increased its share of both population and employment because the aggregate for the state is distorted by the role of the state as a dormitory area for Washington. If one removes the Northern counties ringing the District, the balance of the state falls into pattern.
Indeed, Mississippi alone experienced a shortfall of almost one half million wage jobs. In relative terms -- of population and employment -- the gap between the nation as a whole and the South as a region was widening. This was so, despite the absolute gains that the region made otherwise.

This association of population and employment is more than suggestive. However, the question remains: Why have these regions been the dominant slow-growth areas in the country in these respects? Why have relative opportunities for employment in the region lagged so?

Moving to a deeper level of analysis, it can be stated that there were two main reasons. One stems from the fact that the region had had an adverse "business-mix." This means that the industrial composition of the area was concentrated in the slow-growing industrial acquisitions, so to speak. To put the problem more generally, a region that specializes in slow-growth industries, other things being the same, will not share equally in the nation's growth.

The second reason for slow-growth stems from the possibility that the region was suffering competitive losses in some or all of its major industrial sectors. And this may have arisen from a variety of causes. In terms of the theoretical explanation offered earlier, this may have been due to: (a) loss of markets occasioned by the shifting regional pattern of industries and population; (b) relative loss of access to important inputs because of resource exhaustion or shifts in intermediate input; or (c) loss of relative access to both markets and inputs occasioned by changes in technology that alter input and
output requirements for the industry.

Of course, both of these adverse factors may or may not be operative at the same time, or they may, of course, counteract each other. For example, an adverse business-mix might be reinforced by significant competitive losses. On the other hand, an adverse business-mix might be offset by competitive gains resulting in more modest relative losses or gains than would otherwise be the case, depending upon the relative strengths of the two effects.

How, then, were these two forces operative? According to many experts,\(^1\) it can be stated unequivocally that the major reason why the South has been the dominant slow-growth region, employment-wise, in the nation is because it has been struggling under the handicap of an adverse business-mix. This is true in terms of the principal employment sectors where the South specializes heavily in agriculture and mining. It is also true if we examine the more detailed levels of employment within major industry sectors. In agriculture, the South has tended to specialize in growing forage, tobacco, and cotton, which are slow-growth sectors of agriculture. In manufacturing, the area has tended to specialize in nondurable goods or the processing sectors which are the slow-growth sectors of manufacturing. In the service sector, the South has tended to specialize in personal services.

One cannot help but be struck by the dominant role of agriculture in casting a restrictive mold for the economic performance of the South. Agriculture has not only checked the progress of the

\(^1\)For example, see Dunn, op.cit.
South because it dominates the business-mix and, therefore, denies
the region an average share in the employment gains in the nation as
a whole but it has also slowed the progress of the area because Southern
agriculture has not remained competitive overall.

In the foregoing, we have dealt with three facets of the economic
growth of the South -- out migration, slower employment gains and the
industrial growth. These three facets are shown in Figures 3 and 4
and Table 3 respectively. Figure 3 shows the population drain from
the South between 1939 and 1958. Figure 4 shows the adverse shift
in employment as it relates to the South. Table 3 not only shows
industrial growth per se but how the South has done relative to the
non-South. Between 1939 and 1960, the civilian income from industries
("All Industries" column in the table) grew in the South and non-South
more or less at the same rate. But the greater constraint of agri-
culture in the case of the South shows up in the ratio of income from
agriculture versus industries in 1929 and 1960: as of 1960, the ratio
of agricultural income to industrial income of the South was one to
thirteen, while the same ratio for the non-South was one to twenty-five.

The South: The Future

Since a heavily adverse business-mix has been the dominant
factor in the economic growth of the region in the past -- 1939 to
1959 -- it might be appropriate to ask: what lies ahead? What, if
any, different prospects may be expected in the next twenty years?

Agriculture and mining are now a much smaller part of the employ-
ment structure than they were at the beginning. The long-run decline
FIGURE 3

SHIFTS IN POPULATION, 1939-1966: THE U.S. VERSUS THE SOUTH

Fig. 1

Shifts in Employment, 1939-1958: The U.S. versus the South

Source: Edgar S. Dunn, Jr., Recent Southern Economic Development as Revealed by the Changing Structure of Employment, University of Florida Monograph, Social Sciences, No.11 (Spring, 1962), p.3.
TABLE 3

CIVILIAN INCOME FROM PARTICIPATION IN CURRENT PRODUCTION,*
BY INDUSTRY GROUP, NON-SOUTH AND SOUTH, SELECTED YEARS,
1929-1960
(in millions)

<table>
<thead>
<tr>
<th>Industry and Region</th>
<th>1929</th>
<th>1940</th>
<th>1950</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-South</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Industries</td>
<td>$54,680</td>
<td>$51,865</td>
<td>$145,608</td>
<td>$253,103</td>
</tr>
<tr>
<td>Agriculture</td>
<td>4,636</td>
<td>3,611</td>
<td>10,808</td>
<td>9,721</td>
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<tr>
<td>Mining</td>
<td>1,206</td>
<td>966</td>
<td>2,319</td>
<td>2,460</td>
</tr>
<tr>
<td>Contract construction</td>
<td>3,231</td>
<td>1,954</td>
<td>8,425</td>
<td>16,254</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>15,174</td>
<td>14,486</td>
<td>45,710</td>
<td>80,098</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>10,475</td>
<td>10,811</td>
<td>30,437</td>
<td>48,872</td>
</tr>
<tr>
<td>Finance, insurance and real estate</td>
<td>3,315</td>
<td>2,524</td>
<td>5,854</td>
<td>12,969</td>
</tr>
<tr>
<td>Transportation</td>
<td>4,119</td>
<td>3,234</td>
<td>8,455</td>
<td>12,464</td>
</tr>
<tr>
<td>Communications, public utilities</td>
<td>1,360</td>
<td>1,388</td>
<td>3,723</td>
<td>7,111</td>
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<tr>
<td>Services</td>
<td>7,184</td>
<td>6,466</td>
<td>16,185</td>
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<td>Government</td>
<td>3,869</td>
<td>6,309</td>
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<tr>
<td>Other</td>
<td>110</td>
<td>116</td>
<td>430</td>
<td>755</td>
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<tr>
<td><strong>South</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All industries</td>
<td>$10,700</td>
<td>$10,986</td>
<td>$35,337</td>
<td>$64,731</td>
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<tr>
<td>Agriculture</td>
<td>2,623</td>
<td>1,992</td>
<td>5,212</td>
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<tr>
<td>Mining</td>
<td>388</td>
<td>401</td>
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<td>1,879</td>
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41
Table 3 (continued)

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<th>1950</th>
<th>1960</th>
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<td>490</td>
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<td>4,610</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,646</td>
<td>1,834</td>
<td>7,160</td>
<td>14,358</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>1,891</td>
<td>2,109</td>
<td>7,189</td>
<td>13,224</td>
</tr>
<tr>
<td>Finance, insurance and real estate</td>
<td>436</td>
<td>368</td>
<td>1,177</td>
<td>3,221</td>
</tr>
<tr>
<td>Transportation</td>
<td>914</td>
<td>738</td>
<td>2,163</td>
<td>3,375</td>
</tr>
<tr>
<td>Communication, public utilities</td>
<td>198</td>
<td>219</td>
<td>826</td>
<td>1,788</td>
</tr>
<tr>
<td>Services</td>
<td>1,334</td>
<td>1,240</td>
<td>3,877</td>
<td>8,077</td>
</tr>
<tr>
<td>Government</td>
<td>760</td>
<td>1,538</td>
<td>3,737</td>
<td>8,804</td>
</tr>
<tr>
<td>Other</td>
<td>71</td>
<td>57</td>
<td>137</td>
<td>261</td>
</tr>
</tbody>
</table>


*Consists of wages and salaries, other labor income, and proprietors' income.

of agriculture is particularly striking. Within agriculture, furthermore, there have been dramatic shifts out of cotton, tobacco, and other slow-growth activities into meat, dairy products, and other rapid-growth agricultural products. Similar results are true in other major employment areas. If this latest trend continues, the change in the business-mix over the next twenty years may well be striking, helping the region to conform more closely to the national norm.
All of the states have reduced markedly their specialization in the slow-growth sectors of employment. In terms of the ten principal employment sectors some states have reduced this specialization by as much as 50 percent as compared with twenty years before. It is possible that over the next two decades the changes in business-mix and the anticipated industry growth rates may yield quite a different performance for the South. More precisely, there has been every indication that about five of the Southern states in particular would reverse their position and commence to augment their shares of employment and population -- these five states being Arkansas, Alabama, Georgia, Tennessee, and Virginia. Indeed they may commence to grow at rates equal to or greater than the national average, other things being the same. What of the other states in the region? It seems that Mississippi, South Carolina and North Carolina will tend to remain slow-growth states. If competitive gains are more marked than they have been in the last two decades, they might just possibly pull North and South Carolina on through into the rapid-growth column. However, it would take an unbelievably strong competitive performance to put Mississippi into the rapid-growth column.

In the foregoing, we have been speaking of probabilities. There is no body of objective information currently available than can justify our speaking otherwise than on the basis of a high degree of probability. This is for two reasons. One is that the rapid-growth industries develop out of a relatively new, different, and evolving scientific culture. These industries seem to feed best on such a culture. In providing the appropriate cultural environment,
the South is deficient. The South is the greatest stronghold in the nation of what might be referred to as a traditional culture. A traditional culture is highly conservative and seeks to preserve the status quo in institutions. The scientific culture is, in marked contrast, futuristically oriented. There is a strong element of incompatibility between the two cultures, and this may be one of the most serious long-run handicaps that the South faces. The other point is that the identity of the growth industries tend to change rapidly in an era of technological revolution. Overall there is considerable ground for optimism: that the next twenty years will find the relative position of the South radically improved over the past. Whether, in fact, we see a reversal in a part of the South from a slow-growth to a rapid-growth posture depends a great deal upon how well its public leaders understand the economic process and how aggressive they are in promoting strategic gains in the region — particularly in rapid-growth of industries.

The national economy has provided over the past twenty years the favorable conditions without which Southern progress would scarcely have been possible. The nation, i.e. the federal government, may well provide in the near future an even more stimulating environment. The South's capacity to take advantage of such opportunities will determine whether an altogether new and deep-rooted trend of growth can characterize the South's economy in the years to come. Some of the states in the region have been breaking loose from the past patterns,

1In this connection, reference may be made to an excellent volume by W. H. Nichols, Southern Tradition and Regional Progress (Chapel Hill: University of North Carolina Press, 1960).
though the process is yet far from complete. Others would appear not to have even bestowed any conscious thought on this problem of industry-mix and competitive factors.
CHAPTER IV

THE INDUSTRIAL GROWTH OF GEORGIA SINCE 1947

Introduction

Earlier we briefly sketched the economic resources of the state -- the wherewithal for the economic growth of the state. In what follows, an attempt will be made to trace the history of industrial growth of the state and a few commentaries thereon will be offered.

Industrial Growth of Georgia: Macro View

Unfortunately, there is no data on the Gross National Product of the states and regions. One must, therefore, turn to the data on Personal Income to get some measure of the industrial growth of the state. It must be clearly stated that it is an incomplete measure in many respects; it does indicate the growth of investment in the industrial sector, and it leaves out the corporate profits generally, as also the inventory valuation. On the other hand, it includes government transfer payments, an accretion to personal income which cannot be related to economic activity of the recipients. Along the same lines are the considerations: (1) it includes personal income arising in the non-farm section, and (2) it also includes wages and salaries arising from limitary and governmental spending, not to mention of the service industries generally. All the same, personal income would appear to be the best available data to indicate
the growth trend, if not the order of magnitude of, of the industrial growth of the state. According to the data, published in the Survey of Current Business, Georgia's personal income rose from around $3.2 billion in 1948 to about $11.0 billion in 1966, indicating a growth of more than threefold. In this respect, Georgia was the third among the southeast states, following in the trail of Florida and North Carolina. How the state has been growing, both absolutely and relatively to the neighboring states may be seen from Figure 5. The graph depicts the data for the period 1955-66. However, when we turn to the more meaningful data of growth in per capita income, the state shows an even better progress report, having moved ahead of North Carolina from the beginning of the current decade. Even in relation to Florida, which depends mostly on tourism for its economic growth, Georgia shows a more steady climb upward.

At this point, one observation must be made. It is that much of the growth in personal income has not been coming from the typical manufacturing sector. Confining our attention to the data for the three-year period, taken at random, it will be found that personal income increased from $8.7 billion in 1964 to $10.7 billion in 1966. During the same period, wages and salary disbursement from manufacturing registered a growth from $1.8 billion to $2.2 billion. Relative to total personal income, manufacturing is still a small part. Much of the growth would appear to be emanating from trade, services and governmental sector. One may, therefore, ask: how substantial is the industrial growth of Georgia to date? Has not a larger part of the economic growth of the years under study been in non-manufacturing
PERSONAL INCOME, 1956-1966: Georgia and Neighboring States (Cumulative Graph)

Source: Survey of Current Business, August, 1967
areas, and hence by way of "push" effects of growth in other areas of the region? However, the absolute growth rate in manufacturing more or less kept pace with the growth of personal income over the same period.

It is, however, interesting to add here that manufacturing jobs between 1947 and 1954 increased at an average rate of 7,500 jobs a year. Between 1954 and 1958, the growth of manufacturing jobs suddenly dropped to about 3,000 a year. Looking ahead, it is estimated that manufacturing jobs should increase at the annual rate of some 15,000 in order to take care of the population of the state.

This brings us to look at the growth of personal income on a per capita basis. In Figure 6, the per capita income growth of Georgia and her neighboring states is shown, as is also that of the nation as a whole. Here, Georgia is doing much better than even North Carolina. Her growth rate is even more marked and steady than that of Florida, the leader amongst the states shown in the graph. But Georgia's growth is made up from other sources -- other than manufacturing. Indeed, in this latter respect, North Carolina is increasing her lead over Georgia.

How does Georgia's growth compare with that of the nation's? As will be seen from Figure 7, it has been closing the gap very well over the period, especially since the middle 'fifties. However, how does it look when projected? This is well shown in Figure 7.

Georgia would have to jump from the $35 per person gained each year during the last thirty years, to a gain of $72 per person yearly -- an increase of 106 percent to level up with the nation. Since it
TRENDS IN PER CAPITA INCOME
GEORGIA AND UNITED STATES
WITH PROJECTIONS TO 1985

SOURCE: U.S. Department of Commerce, Office of Business Economics
would take time to get the required statewide development program underway, the dollar increase necessary during the latter years of the period would actually have to be larger than the average increase required over the twenty-five-year period. The average citizen of Georgia in 1985 would have an income of about $3,374 if the present income gap could be closed by that time. This would mean an increase of $1,790 per person per year over the present figure.

It is therefore completely unrealistic to consider the present rate of effort of the state as optimal. Without bold new steps Georgia might never reach the U.S. average. To achieve such an income goal, Georgia would need to carry out a program which would greatly increase the number of new manufacturing jobs -- enough to take care of the growth of the state's work force each year. And, as indicated earlier, it would require, on an average, at least 15,000 new manufacturing jobs per year during the next two decades. Furthermore, a substantial proportion of these jobs need to be in the "new type" industries which have not yet been attracted to Georgia in appreciable numbers: electronics, chemicals, fabricated metals, machinery and others. In other words, it would require an increase of at least two and one half times the number of new jobs added annually between 1947 and 1958 -- almost five times the number gained yearly between 1954 and 1958. Georgia has, thus, a challenge -- to work systematically toward a set of realistic, yet ambitious goals, to create not only more jobs but more of the types of jobs needed to keep its talented young people at home, to balance and strengthen the state's economy -- and thereby to more effectively utilize Georgia's natural, man-
made and human resources.

The dollar gap between the per capita income in Georgia and the U.S. has remained steady for the last two decades and more. The most recent data actually show a widening of the gap again. If we assume that closing the gap is a minimally desirable goal, the percentage gains Georgia has registered offer little comfort. It is perfectly correct to state that Georgia has increased from only 50 percent of the U.S. average in 1929 to approximately 75 percent in 1964. But we could continue to make such a percentage gain indefinitely and never catch up with the nation in dollar terms. To make the point clear, an appropriate, if homely, analogy can be cited in the form of a foot race. A boy who is two laps behind at the end of four laps has gone only 50 percent as far as his opponent. If he maintains his relative pace he will have gone 75 percent as far at the end of eight laps -- that is, he will then have traveled six laps. But he will still be two laps behind, despite his fine percentage increase. If he wants to win the race, he obviously will not consider that his percentage gain amounts to much.

It is interesting to note here that Georgia's closest advance to the U.S. Average occurred in 1933, at the depths of the depression. At that point, the dollar gap had closed from approximately $547 in 1930 to only $382. After 1933, the gap opened up again, to $432 in 1935, then to $546 in 1949 to $608 in 1959 and $629 in 1966.

Georgia's Industrial Growth: Sectoral View

Let us turn now to reviewing the growth of a few of the specific
industries during the period under study. In Figures 8 through 14, the growth of fourteen different industries in the state is depicted. The graphs were prepared largely on the basis of available data -- they relate mostly to the years 1954, 1958 and 1963. The graphs show the value added by each of the industries in each of these years and, on the basis of this, attempt to depict a trend of growth in this respect. The graphs also relate the growth in value added to growth in employment in each industry.

The graphs -- Figures 8 through 14 -- are self-explanatory and no elaborate comment needs to be offered. Taking employment growth and growth in value added together, the graphs make an interesting interacting mosaic. It will be seen how at times the two sets of data run in opposite directions, and at other times one moves more slowly than the other. What could be the explanation for this varied pattern? Why does not growth in value added show up consistently in employment growth, and in the same proportion at that? Without making any kind of case analysis or field research -- since no data are otherwise available -- the author can only venture a viewpoint in answer to the question raised. It is that the resulting pictures, as shown in the individual graphs, must be the result of a criss-cross of many factors -- the nature of the specific industry, how labor intensive it is; the impact of automation in it; the impact of emerging technology affecting it; the growth stage in the sizes of the firms in it; the relative scarcity or abundance of labor and capital -- more specifically cheapness of labor versus the costliness of capital intensity -- and, finally, the overall managerial policy decision as
EMPLOYMENT AND VALUE ADDED:
1954-1963

(Figures in thousands)

Source: Census of Manufactures, 1963,
Vol. I (Washington, D.C.)
U.S. Department of Commerce
EMPLOYMENT AND VALUE ADDED:
1954-1963

(Figures in thousands)

EMPLOYMENT AND VALUE ADDED:
1954-1963

(Figures in thousands)

Source: Census of Manufactures, 1963,
Vol. I (Washington, D.C.:
U.S. Department of Commerce).
FIGURE 11

EMPLOYMENT AND VALUE ADDED:
1954-1963
(Figures in thousands)

Source: Census of Manufactures, 1963,
Vol. I (Washington, D.C.:
U.S. Department of Commerce).
EMPLOYMENT AND VALUE ADDED: 1954-1963
(Figures in thousands)

Employment
Value added

EMPLOYMENT AND VALUE ADDED:
1951-1963

(Figures in thousands)

Source: Census of Manufactures, 1963,
Vol. I (Washington, D.C.:
U.S. Department of Commerce).

Employment

Value Added

Fabricated Metal Products

Primary Metals

1954 1963

1958

1955

1956

1957

1958
FIGURE 14
EMPLOYMENT AND VALUE ADDED: 1954-1963
(Figures in thousands)

--- Employment
--- Value Added

Source: Census of Manufactures, 1963,
Vol I (Washington, D.C.:
U.S. Department of Commerce).

Apparel and Related Products

Lumber and Wood Products
to which way to go in terms of capital investment.

Of the industries surveyed in the graphs, most make an impressive showing in terms of value added, and all show a new upthrust since 1958. In this respect, the state's industrial development may seem to have been considerable. But one must remember that the industries covered are largely traditional industries. Accordingly, it would appear that the newer industries have yet to make Georgia their home in any significant manner, which is why perhaps no detailed statistics on them have come out.

In this growth pattern, considerable geographical disparities are seen. The growth — whatever it is — has not spread over the state in an even manner. Much of the growth is due to the unusually well balance economy and the tremendous strength of Atlanta, which strength is shown in the fact that more than 36 percent of the net increase in manufacturing employment between 1958 and 1964 occurred in just three counties — Fulton, DeKalb and Cobb. As might be expected, a substantial portion of the job increases were also in the higher wage brackets. A total of seven counties — the three mentioned plus Chatham, Hall, Glynn, and Clarke — accounted for almost 50 percent of the total net increase in employment over the period. To put it another way, 152 counties shared barely half the state's gain during the period. The geographic imbalance is further shown by the fact that only twenty-one counties accounted for almost three fourths of the total net manufacturing employment gains. The remaining 138 counties divided a mere 26.5 percent of the total between them.

Even more discouraging is the fact that sixty-eight counties
actually lost manufacturing employment during the study period. An additional twenty counties had such a small gain -- from 1 to 9 annually -- that the manufacturing segment of their economies must be considered to be growing at a less than health rate. A total of eighty-eight counties -- 55 percent of the state's total -- must therefore be considered to have an urgent need for new manufacturing or other payrolls. Many others have a pressing, if less urgent, need. Changes since 1961 appear to be significant only in a few instances. Richmond County is one such case. Cobb County, on the contrary has had a substantial drop during the last few years.1

It is interesting to note that DeKalb, Fulton and Chattahoochee Counties have surprisingly high per capita income. Chattahoochee's surprisingly high $1,921 is attributable primarily to the presence of Fort Benning. At the level of the 75 percent of the U.S. average per capita income there are thirteen additional counties. Almost without exception these are the state's most populous and most highly industrialized counties. Proximity to Columbus, Atlanta and Chattanooga explains the high status of these others. The concentration of counties in the 50 to 70 percent of the U.S. bracket underscores the importance of assisting the state's less populous counties in their efforts to secure new payrolls. Far too many counties lie near the lower end of this bracket. Not until many of the counties in this category can be raised will Georgia be able to compete success-

1 The data are provided in the Bureau of Labor Statistics series. They have been provided through the Atlanta Regional Office of the U.S. Bureau of Labor Statistics and the Georgia Department of Labor, Employment Security Agency, Reports and Analysis Section.
fully in many fields. The thirty-nine counties which fall below 50 percent of the U.S. average are in the most critical straits of all. A number of these counties have reached a point where they may find it impossible to rebuild their economies. Whether or not they can do so will depend on several things, including the amount of technical assistance they may be able to secure from outside agencies. But in large measure their future depends on the attitudes of local citizens. Without unusual determination and effort on their part, outside efforts can be expected to accomplish little.

All in all, industrial and/or economic growth of Georgia has not spread over the state territory in an even manner. On the contrary, growth would appear to be concentrated in only a few specific areas. More than half of the counties of the state have yet to feel the impact. It is no wonder that quite a few counties in Georgia come under the Economic Development Administration of the federal government. Furthermore, it would appear that this small number of centers of growth in the state -- the counties referred to earlier -- obviously have developed into "growth centers," in a fundamental sense, inasmuch as their growths have not spilled over into the adjoining areas in any large measure -- that is, they have not generated any "push effect" far and wide.

The conclusion is that Georgia and adjacent states have been able to continue expansion of manufacturing, although at a somewhat less rapid rate, in the face of opposite national trends. They have obviously experienced adjustments from capacity built up for the
Vietnam War, although not as much as the more heavily industrialized states in the nation, because the Southern states are less concentrated in durable goods manufacture. Also due to this factor, greatly stepped-up activity in automation and application of the latest technological advances have apparently not weighed as heavily against the South generally and Georgia in particular as in the rest of the nation.

In fact, this trend has undoubtedly favored location of branch factories in the South. On the wake of the growing industrialization of the state, it is interesting to ask: what has been its effect on employment?
CHAPTER V

INDUSTRIAL GROWTH AND EMPLOYMENT

Introduction

We may now turn to the question raised at the end of the last chapter: what has been the impact of industrial growth on the employment in the state? The question is important inasmuch as it is this factor that makes the industrial growth felt in the society. In the previous chapter we mentioned the employment growth and industrial growth in the various industries in the state. It will be the purpose of this chapter, therefore, to speak in terms of aggregative employment growth and compare the same with those of the adjacent states in the country.

Employment Trend Since 1947: An Analysis

The statistical data relative to the employment growth trend in the state are shown in Figures 15 and 16. The first gives the employment pattern in the major non-farm areas -- manufacturing, trade, services, governmental and others. The second compares the employment trend in Georgia with those of a few neighboring states in the Southeast region of the country.

Two general observations may be made at the outset. One is that only from around 1957 has the employment growth been adequate enough to prevent net out migration from the state. The other is that in Georgia in 1949 a change took place and it became a manufactur-
FIGURE 16

MANUFACTURING EMPLOYMENT IN GEORGIA AND ADJACENT STATES (in thousands of workers)
ing state -- the size of manufacturing employment passed agricultural employment. Since 1949 the gap has been steadily widening. The primary importance of this fact is that the state can no longer count on agriculture to provide a substantial portion of the new jobs needed each year. What this shift the result of the pull of industrial growth? Or was it the result of the push of developments in the declining agricultural sector? Or was it the result of the interacting forces in agriculture and manufacture?

More or less in tune with the national trend, as the state's farms have tended to be larger and more mechanized they have become more efficient. The need for manufacturing and other non-farm jobs must therefore rise, industrial development efforts obviously must be strengthened rapidly enough not only to provide jobs for the great majority of the school dropouts and graduates, but also employment must be provided for displaced farm workers. Since the downward trend in agricultural employment is expected to continue at least until 1985 and likely beyond, the problem will continue to demand attention in the years ahead, that is, the task of planned job creation in the typical industrial sector to meet employment needs of the situation. This aspect is brought out on a comparison of increases in population and jobs. While both have been increasing since the 1940's, the ratio of population to jobs was 5 to 2 in the 1950's as against 4 to 1 during the 1940-1950 decade.

But relative to other economic sectors the manufacturing sector has not made any significant gains relative to the growth in personal income and in non-farm-non-manufacturing areas, as has been mentioned
earlier.

Since the agricultural revolution has been in progress for several decades, it has undoubtedly exhausted much of its force. While there is no end in sight for further gains in productivity or of mechanization, the number of workers displaced by the growing efficiency of production operations in agriculture will undoubtedly be considerably lower in the coming year than it has been during the decade 1950-1960. To the extent that this happens, the problem of job creation may lose some of its urgency, but the job creation will remain the foremost economic concern for the state.

With this background in mind, we move to an intensive look at the employment trend in the state, in order to learn the nature of the forces at work, the shifts between industries and developments of new industries of shifts in market demand. Since data of a complete and comprehensive nature are available only for recent years, the analysis is, of necessity, confined accordingly. In Figure 15 we depicted the growth in non-farm employment since 1947 by sectors and in the aggregate. The different sectorial data are cumulated so that the topmost curve indicates the total growth in employment over the years under study.

It will be seen that manufacturing employment per se shows a consistent upward growth, although the upthrust of it seems to be much less pronounced on a long haul. Curiously enough, various non-manufacturing areas still provided by far the larger part of the employment in the non-farm sector of the economy. This is clear from a comparison of the belt between the total curve and the curve immediately.
below on the one hand, and the belt between the latter and the horizon-
tal axis. In terms of direct effect of industrial growth, Georgia yet has to feel the impact. Even more, the question raised earlier may be raised once more; how far would manufacturing employment growth keep pace with the growing size of the labor market of the state in the years ahead? The question is of the foremost importance because the author cannot help being skeptical of the potential for employment growth in the non-manufacturing sector (outside of the farm sector at the same time). It would seem to the author that this other sector can hardly be an independent employment-creation area -- its potential being obviously the resultant of the secondary effect of growth in manufacturing within and around the state.

Let us now raise the question: how well has the state been doing in terms of employment growth vis-a-vis the other neighboring states? The answer is provided by Figure 16. While doing very much better than many other neighboring states, Georgia shows none of the vigor of North Carolina and would seem to be losing ground to the state of Tennessee. One may well wonder if Georgia is not losing in the competitive struggle -- "competitive effect"; the effect, which has been spoken of earlier, would seem to be working against the state. If it were not for the "composition effect," as explained earlier, holding up the employment growth over the years, the state would have been in a pretty sorry state with its growing labor force. It must also be remembered here that the non-manufacturing areas (outside of the farm sector), are generally labor intensive in nature, and, as such, at least to some extent, inflates the basic economic growth in it. At
the same time, looking ahead, in terms of automation, there are also the areas where job destruction may go apace and prove the employment gains of the past to have been just a passing phase.

Examination of Figure 16 fails to indicate any startling differences between the states in rates of growth, taking the entire twenty-year period in one general sweep. A contrasting difference is in Alabama's rate which lost ground relative to the other states. Alabama's manufacturing is heavily concentrated in steel making and durable goods. Note also that the three swings of the business cycle in the period of the study are clearly shown in all states. A two-year comparison employing 1947 against 1954 to compute rates of growth would involve comparing a boom year (1947) with a recession year (1954). If the comparison is shifted to 1954 against 1958, two depression years are involved but incomparabilities remain because employment in the different states is not constituted of the same components of manufacturing, therefore responding differently to business recession. That this should be so is obvious from the fact of the state differences in industrial mix or composition. States such as Alabama and, to a much lesser extent, Georgia, are heavily concentrated in manufacture of durable goods which respond more sharply to a business recession that states heavily concentrated in non-durables, such as South Carolina.

A study of all the trend lines in Figure 16 indicates that the biggest increases in manufacturing employment of all states occurred during the Korean war. Since that period and particularly since 1953, the pace of growth has been much less for all states. The pace picked up again from 1961, which seems to have endured ever since.
Though not brought out in Figure 16, it is interesting to observe here that available data for 1950 to 1966 indicate that the states making the biggest percentage increase in manufacturing employment had the largest percentage increase in population, and were low in the ratio of manufacturing to non-agricultural employment compared to the nation.

**Net Manufacturing Employment: 1948-1966**

The net manufacturing employment gains from 1948 to 1966 in Georgia, and how it compares with the achievements of the neighboring states may be adjudged from the following table:

**TABLE 4**

**GROWTH IN MANUFACTURING EMPLOYMENT (in thousands)**

<table>
<thead>
<tr>
<th>State</th>
<th>Gain (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>147.0</td>
</tr>
<tr>
<td>Alabama</td>
<td>65.6</td>
</tr>
<tr>
<td>North Carolina</td>
<td>221.0</td>
</tr>
<tr>
<td>South Carolina</td>
<td>103.9</td>
</tr>
<tr>
<td>Florida</td>
<td>181.3</td>
</tr>
<tr>
<td>Tennessee</td>
<td>167.2</td>
</tr>
</tbody>
</table>

Here it becomes clear that Georgia's gains have not approached those of Florida or North Carolina. Besides, both these states have a better distribution of gains among the various types of industries than does Georgia. They also have larger gains among the higher wage types of manufacturing. An important fact masked by the figure showing overall gains is that during the latter part of the study period, Georgia dropped sharply behind her chief competitors. Georgia's
relatively high gains during 1948 to 1954 dropped off by more than
50 percent during the period from 1954 to 1958. From a net increase
of 7,600 per year 1948 to 1954, Georgia dropped to only 3,100 a year.
The same situation continued up to 1964 when it picked up during
1965 and 1966, an increase of about 30 percent over 1964 during the
two-year period.

During the first seven years, Georgia actually led both North
Carolina and Florida, netting 51,332 jobs as compared with North
Carolina's 48,563 and Florida's 45,033. Georgia's drop to a total
of only 12,325 jobs between 1954 and 1958 left the state far behind
Florida's 49,581 and North Carolina's 33,660, however. Florida
actually quadrupled Georgia's increase during the four years, while
North Carolina gained almost three times Georgia's total.

Available time has not permitted a detailed analysis of the
reasons for Georgia's sudden decline; however, it is worth noting
that it was during the latter period that Georgia was left as the
only state in the Southeast with a full 3 percent tax on new manufactur-
ing plants. Every other state in the area either abolished its tax
or reduced it to a token amount. While difficult to measure, there is
no doubt that Georgia's unsettled conditions in the school system may
also have contributed to the decline. Looking ahead, the employment
growth pattern deserves much to be desired. As was mentioned earlier,
meaningful jobs of the order of some 15,000 a year for 1954-85 was
estimated long ago as the state's need to keep pace with the population
growth of the state.

It is interesting to note here that the 1960 census clearly
corroborates what has been known all along -- that each year thousands of young Georgians leave the state because jobs are not available at home. Over the years, approximately 15,500 jobs of all kinds have been provided annually for an estimated 27,000 new entrants into the work force.\(^1\) Therefore, each year, on the average, 11,500 people have been left without jobs.

Some of these people join the under-employed, that large group in Georgia who are employed only to a very limited degree. Most of them join their families in attempting to work farms that could easily be operated efficiently with fewer people. Many more leave the state for good. A new record high needs to be reached each year if Georgia is to experience even a moderate gain. To provide suitable employment for the thousands of under-employed, many additional jobs must be created. To close the income gap, thousands more jobs will be required. Such then is the challenge of the manpower problems of the state: both growth in total employment and in making the total evenly spread over the entire state, the latter more so, because, as pointed out earlier, the spatial aspect of industrial growth is a problem of deep concern to the state.

\[\text{A Concluding Note}\]

Since the geographical aspect of employment growth is one of the vital issues before the state, if depopulation of the rural areas has to be stopped, it is interesting to note the state's ef-\[\text{\footnotesize\(\text{\^{1}}\)This is a net figure. The number of people leaving the work force because of death, retirement, etc. have been subtracted from the gross figure.}\]
fort to use the mechanics of industrial revenue bonds to help the emerging situation in this respect. Since its inception in 1958, 37 local agencies (2 counties, 32 city and county development authorities, 2 port authorities and one airport commission) have arranged 74 bond issues with a total value of $211.4 million. Industrial bonds represent the state's effort to undertake capital investment to develop rural areas so as to make them attractive for industries in which to settle. The state's reliance on this financial mechanics is indicated by the fact that while in 1963 capital investment of the state through this financial source accounted for 3 percent of the total, by 1967 it was about 29 percent. It is equally worthy of note that the state's interest in making the state attractive to new industry also shows an increasing tempo. The state's investment in developing industrial sites increased from $153.2 million in 1963 to about $422.1 million in 1967.

How far have these efforts yielded results? Since the beginning of 1960, total number of jobs created through this measure increased by some 14,000 and, of this, some 9,000 came up in the rural areas. In 1967, 2,700 of 3,000 jobs created through the bonds were outside of the six metropolitan areas of the state. This financial technique has so far helped the establishment of 47 new industries and expansion of 27 of the existing ones. Use of these bonds has tended to expand the industrial base of Georgia -- but more, helping it to cover a much wider area of the state than would otherwise have been possible.
CHAPTER VI

CONCLUSIONS: A FEW REFLECTIONS

Introduction

Having examined briefly how a region in a country grows and what issues are involved in the process of economic growth of a region of an industrially advanced country; having observed how one such region, the state of Georgia, especially within the confines of a larger region such as the Southern states generally; and having studied how the state of Georgia has been developing industrially, it is necessary now to bring the study to a close with a few reflections.

The Role of the Government in Industrialization

In the age of economic planning, it is needless to argue that the state has a major role to play in the development of the territory under its aegis -- be it a country or a region of a country. What, then, has the state government been doing to discharge its responsibilities and to meet the emerging issues of the industrial growth of the state? How adequate is the government's awareness of the dimensions of its responsibilities?

Briefly, the state has been fostering the growth of industrial development authorities to focus attention on specific areas in the state. In addition to these local agencies, so to speak, there is also some effort on a statewide basis, more or less under the leadership
of the Governor of the state. Let us mention them briefly.

(a) Industrial Development Authorities. Industrial Development Authorities, as they exist in the state of Georgia are local public corporations created to furnish the basic administrative and financial resources, and the coordination needed to promote the economic development of their areas. Eighty-four of these authorities have been created in Georgia in recent years. Local governments have become involved in programs to foster industrial development through localized efforts because it has been recognized that the whole community benefits from industrial growth in its area. These benefits come in the form of increased opportunities for employment in the community and in payrolls added to the local economy. Simply stated, individual industrial development authorities are created to carry out the programs of promoting and assisting industrial development in their respective communities.

In a sense, industrial development authorities are corporations created to do business with businessmen. Also, local authorities frequently function as community salesmen. They may engage in limited promotional activities to "sell" their area to firms seeking to locate new plants. They may also acquire industrial land, develop it, and construct plant facilities suitable to the needs of specific manufacturing firms. An authority then sells or leases the industrial plant to the firm for which the facilities were constructed, usually on terms very generous to the locating company.

At the present time, there are eighty-four industrial development authorities operating throughout Georgia. Practically all of
these were created through special amendments to the 1945 Constitution of the State of Georgia. In 1963, the General Assembly passed an act known as the Industrial Development Authority Law of 1963. The purpose of this law was to enable any county or incorporated municipality in the state to create a local industrial development authority by resolution of the governing body of the county or municipality.

The industrial development authorities mentioned above are but a part of the total effort to promote industrial growth in the state. As was mentioned earlier, in a number of instances, local governments have adopted specific industrial financing programs which are operated as part of their regular governmental activities — the industrial revenue bond financing.

Industrial development authorities in Georgia thus far have financed a variety of projects — facilities for manufacturing or processing such diverse products as mobile homes, clothing, furniture and meat products, acquisition of properties and payment for plant construction. Although these represent only a small portion of the total capital investment in plant construction in Georgia in recent years, they are nonetheless significant contributions.

(b) The Governor's Committee for Coordinating Opportunities in South-Central Georgia. Many parts of our nation are in transition from a small farm economy to an industrial or large-scale "agri-business" economy. South-central Georgia is one of those areas where the problems of transition are particularly acute because of the very long time involved in the change. Considerable energy and concerted effort must be expended on the part of local citizens as well as state and
and federal agencies to ensure that such transitions are successful. Project COG (Coordinating Opportunities in South-central Georgia) is the development of, and will result in, such coordinated energy and effort.

In 1966, a group of citizens proposed to Governor Carl Sanders that he mount a campaign to bring additional support from government, labor, agriculture and industry to the area. He immediately initiated action on this important proposal. Development of this project is moving ahead under the direction of Governor Lester Maddox, who has expressed his deep concern and active interest in the success of this endeavor.

Interested officials of the state government determined that important additional resources could be focused on the area from federal, state, local, and private sources if a special program of planning and development were laid out and strong public support obtained. The State Department of Industry and Trade proposed a special effort toward industrial growth for the area. The Atlanta Federal Executive Board pledged its cooperation to obtain funds to assist in the program. Georgia colleges and universities promised their aid. Business, labor, and public leaders from all parts of Georgia expressed enthusiasm for the idea. "Project COG" was born.

The first COG problem was met by organizing the Governor's Committee for Project COG. This large committee now consists of a broad cross-section of business, agriculture, government and public leadership. Upon assuming office, Governor Maddox made still further additions to the group to broaden its base. The functions of the
committee are to provide coordination and leadership for the many elements involved in the project and, perhaps, even more important, to provide the "push" necessary to bring the maximum response from business, industry, government, and the people in the area. The second problem for COG was solved by obtaining advance commitments from the state and federal governments to provide funds to employ immediately several additional trained personnel in the field of community planning and development to strengthen the staffs of five planning and development commissions, the four community action agencies, and other agencies which serve the Project COG area.

The hope and expectation is that the project will initiate great steps forward for the area in agriculture, business, community development, education, employment, health, housing, industry, job training, legal services, recreation and tourism. It will also enable Georgia to be one of the first to take advantage of President Johnson's promise of new cooperation with the states to help them solve their problems without excessive federal "interference."

Initially, only thirty-three counties have been selected across South-central Georgia. All this endeavor merely suggests are the many possible participants in this broad effort to promote economic progress. While a great many federal agencies can and will support these efforts, it is the opinion of the author that the basic approach must be made by local groups, and primarily through private citizen leadership. The concept of Project COG in its essence is a basic community action and local initiative marshaling all available resources to deal effectively and creatively with the problems of the area. The
greater the local initiative and community action within every county of this entire area, the more effective will be the united effort that Project COG represents and the greater will be the impact made to raise the social, economic, educational and manpower levels of this entire region.

All of this and more, perhaps to emphasize the community's self-help role, Mr. James H. Nutter, Jr., Executive Director of the Georgia Department of Industry and Trade, has said: "Having weathered some dark days, Georgia now finds herself in the sunlight of an economic renaissance just beginning to glow brightly."

How adequate are these governmental efforts? It seems to the author that they fall far short of the optimum. As will be made clear, three basic aspects of economic growth need to be attended to -- statewide growth, if distressed areas are not to emerge; a balanced, basic and fast industrial growth, if the state is to become one of the growth centers of the nation; and, finally, adequate development of the infrastructure to facilitate the industrialization of the state. What is needed is a comprehensive economic planning to guide the growth.

**Issues in Georgia's Development**

What has just been said brings us to explain how and why these three areas constitute the issues in the emerging industrialization of the state of Georgia.

The businessmen and educators in the state take pride in the economic progress made by Georgia in recent decades. The state has shifted from heavy dependence on one-crop agriculture to an economy
much better balanced between industry and diversified farming. In
the process the state has increased substantially its share of a
greatly enlarged national income. But in spite of this, there is
a need for even greater progress in the future. The state still
falls one fourth short of the national average in per capita income.
Besides, almost 60 percent of the state counties have lost population
during the 1960's as local non-farm economic opportunities failed to
absorb excess agricultural workers. The Industrial Revolution con-
tinues but it would appear to be extremely localized in its incidence.
Carefully and intelligently planned industrial development -- on a
statewide basis -- is the only means for ensuring the continuing
growth and well-being of Georgia as a whole. In view of the spotty
growth that is characterizing the industrialization of the state,
three aspects of it need special attention.

One may be called the spatial aspect. While much of the long
process of the Industrial Revolution was telescoped into a span of
less than fifty years, in many of the rural areas, it was late in
making itself unmistakably felt; moreover, in 92 of Georgia's 159
counties there was little at home to stem the drift to larger centers.¹

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¹Population changes between 1950 and 1960 for Georgia's 159
counties were as follows:

- Decrease of 10 percent or more: 48 counties
- Decrease of 1 to 10 percent: 44 counties
- Increase of 1 to 10 percent: 26 counties
- Increase of 10 to 20 percent: 19 counties
- Increase of 20 percent or more: 22 counties

Of the latter group of 22 counties (population increase of 20 per-
cent or more), 10 were in "standard metropolitan areas" as defined by
the Bureau of Census, 6 were continuous to it and two others had cities
of over 30,000. The 13 Georgia counties included in "standard Metro-
politan areas" accounted for 96.2 percent of the state's net population.
The Industrial Revolution had been steadily robbing them of their people and propeling them thither, lured by the hope of a better livelihood. The migration of population to big towns has created problems such as rapid deterioration of the old residential community, its collapse into slums, the need for massive redevelopment projects, the push to suburbia of families seeking happier surroundings, together with more traffic problems, more police needed and larger hospital, etc. required. While this spatial aspect of industrial expansion constitutes an important facet of the emergent problems of the state's economic growth, it is far from clear if the state is really addressing itself to its specifics.

The second facet is that of balance in and pace of industrialization. Great progress has been made by the state in recent decades. It is gratifying to note that the state's personal income rose from $1.0 million in both 1929 and 1939 to $3.5 million in 1950 and to $7.2 million in 1962 and over $10 million in 1966; that Georgia's share of U.S. personal income rose from 1.18 percent in 1929 to 1.33 percent in 1939 to 1.56 percent in 1950 and to 1.58 percent in 1961; that the per capita income has advanced from half the national average at the end of the 1920's to almost three fourths of a much higher national average at the beginning of the 1960's. But it is still far from satisfactory. Apart from the view of pace or growth, there is also the question of how balanced is the process of industrialization. As pointed out earlier, industries, typical

increase of 498,538 during this decade. The Atlanta area account- ed for 58.2 percent of the state's net gain.
of the age of modern technology, are yet to strike firm roots in the state. For the continuing growth and well-being of the state and its citizens, a carefully and intelligently planned industrial development is a must, which is a large subject involving diverse considerations.

Creation of the modern Georgia was the work of literally thousands of crusaders, great and small. Their crusade bore fruit. In assembly, speech, pamphlet, book, and editorial they portrayed the future as they saw it in the light of change. Even though their words hardly carried the deeper implications of the moment, they presaged a state moving nearer a national norm.

The dream of a self-sufficient and, perhaps, a self-satisfied society never approached realization in the old idealistic forms. Even the most visionary educational leader could have foreseen neither current demands made on public schools nor the economic necessity to train all Southerners to participate in Southern society. What the old agrarians fought for, without appreciating the fact, was a region that could still live economically apart from the economy of much of the nation.

The third aspect is the building up of requisite *infra structure* to facilitate industrial progress. Here, in the context of regional development, and against the background of the highly industrialized status of the country, the development of human resources constitutes the major *infra structure*. There can be no doubt as to the close correlation between education — both quantitative and qualitative — and economic progress. Taking the lifetime earnings of grade schools
graduates as 100, the index, according to one study, rises with each additional year of completed schooling to 1.42 for high school graduates and to 2.45 for college graduates. Based on a 1958 study, it appears that each additional year of high school completed adds about $450 to the average workers' annual earnings power, each of the first three years of college completed adds about $700 annually, and there is an additional jump of some $1,500 annually for those who have earned college degrees.¹

How has the state been attending to the educational needs of the people? Despite the fact that after 1920 tremendous strides were made in teacher training, school consolidation, compulsory school attendance laws, and the organization of high schools, the state of Georgia, unfortunately, ranks rather far down the list of states in its relative "educational capital." Census data reveal that in 1960, of all Georgians 25 years of age and older, only 6.2 percent were college graduates and 25.7 percent had completed high school but had not completed college. Corresponding U.S. figures were 7.6 percent and 34.6 percent. Much of Georgia's deficiency from the national average was, incidentally, accounted for by its higher than national average of Negro and rural white inhabitants.

Historically, Georgia made substantial absolute gains in the educational attainment of its citizens in the two decades since the beginning of World War II. In 1940, only 3.3 percent of its population

¹ These quantitative relationships have been brought about in some of the recent studies made by the American Economic Association.
25 years of age and older were college graduates and 14.1 percent had completed high school but not college. The gains from 1940 to 1960 were dramatic. In 1940, the Georgia ratio of high school completions and up was 71 percent of the U.S. ratio. By 1960, the gap had narrowed to 76 percent. Most of Georgia's relative gain over the twenty-year period was attributable to sharp jumps in the Negro ratios, but these remain two thirds to three fourths below the national averages.

Additions to the educational capital (educated human resources) are also inadequate. Comparisons of the number of graduates with the total population of graduating age groups show that, in 1960, for the U.S. as a whole, high school and college graduates equaled 69 percent and 18 percent of their respective age groups, while the corresponding figures in Georgia were 54 percent and 12 percent. The state's figures were adversely affected by the quite low ratios for Negro students (42 percent and 4 percent), but the ratios for white students (59 percent and 16 percent) were also below the U.S. average.

It is the opinion of the author that the great educational crusade has largely failed in two areas. It has not succeeded in convincing state legislators that a sufficiently strong revenue program should be adopted in each county to maintain public schools which could accept the facts of changing times and satisfy the rising demand for better quality education. The failure to understand the significance of educational advancement in an expanding economy spawned a dual discrepancy that ultimately was to force a revolutionary revision of the concept of the place of education in the advancement of society.
These were the discrepancies between Negro and white schools, and between rural and urban schools.

The crusade for universality of educational opportunity was realized ultimately in the eleven Southern Confederate states in 1963-1964 when 10,821,075 pupils of both races, or 14,322,718 for all the Southern states, were enrolled in school, and the rate of average daily attendance was advanced to 8,803,000 in 1960.¹ In Georgia, out of its total potential enrolment in 1964 of 993,000 pupils, 871,000 were enrolled and maintained an average daily attendance of 97.0 percent, as contrasted with approximately 45 percent in 1900.²

A basic objective of the earlier crusade for educational betterment in Georgia and in the South was that of the eradication of illiteracy. Abject illiteracy among the Southern school age population in 1967 is no longer a matter of prime consequence. The rate of illiteracy has dropped to one or two percent in most states. If the erasure of this disturbing aspect of Georgia's educational problem were a major objective, Georgia could now rest on its laurels. This, however, is far from being the case. Current educational leadership faces a far more biting challenge than did its pioneering predecessors. Southerners must now contend with functional illiteracy, a type of educational handicap which extends far beyond the maximum goals set

¹These statistics were taken from a Statistical Summary of School Segregation—Desegregation in the Southern and Border States.
by leaders of the public school movement even as late as 1940. Experience suggests that persistent adherence to the fundamental task of upgrading human capabilities is the region's best guarantee of continued growth.

Concluding Note

These considerations suggest that industrialization as it has been carried out in the past is no longer a way in which the region can hope to claim its part in the nation's future. The nation's future is on the technological frontiers. There exists a very strong tendency, historically and "contemporaneously," that the locality in which technological developments occur is the locality which will enjoy the fullest benefit of industrialization.

In Georgia and the South, the economic progress that has been accomplished does not appear to provide a broad base for accelerated growth. The reason, William Nicholls rightly argues, is that the South's progress has occurred in spite of strongly inhibiting social, political, psychological, and philosophical elements in its cultural heritage. These are identified as: (1) the persistence of agrarian values; (2) the rigidity of the social structure; (3) the undemocratic nature of the political structure; (4) the weakness of social responsibility; and (5) conformity of thought and behavior. These values, Nicholls argues, are inconsistent with the high rate of industrialization which continues to be necessary if the region's excess of rural population is to be corrected. It is clear that success-

ful participation cannot be accomplished by imposing a layer of industrial activity upon the traditional society, particularly when efforts are also made to inhibit change in that society.
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