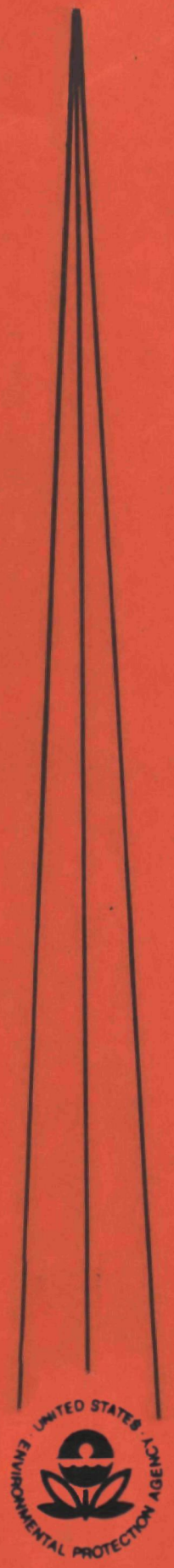
# REPORT OF THE EPA

# REGION IV

# LAND USE TASK FORCE

# YOUTH ADVISORY BOARD




SEPTEMBER 13, 1972

# REPORT OF THE EPA REGION IV
# LAND USE TASK FORCE
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By: Graham A. Thorpe

Views and opinions expressed in this report do not necessarily reflect the views or policies of the Region IV Environmental Protection Agency

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# I. INTRODUCTION

The "quiet revolution in land use control" is making more and more noise in the State of Georgia, especially since attention has focused on the national proposals now pending in the Congress. It now seems that the people, and sometimes even the decision makers, are aware that land use planning is an environmental factor as much as it is economic.

Georgia has not yet passed a land use policy Act which would provide for criteria comparable to that proposed in the national legislative proposals. Authority still lies in the hands of local officials who attempt to cope with zoning. But it is increasingly evident that this fragmented approach to land use control has had the effect of causing a tremendous loss of confidence in the zoning process as well as all local political decision making in general. The homeowner, the developer, and the elected official are all dissatisfied with the consequences of zoning and its inadequacy as a land use control. However, while most do recognize this problem, it remains to be seen what will emerge from the conglomeration of alternatives and proposed solutions to the problem.

An interesting example of this increased awareness has been the Republican primary election and runoff in DeKalb County for Chairman of the Board of Commissioners, a campaign which was even more hotly contested than the concurrent campaign for the U. S. Senate. Land use became the dominant issue in the campaign, as each of the candidates had his own ideas concerning a comprehensive land use

plan for DeKalb County. DeKalb is adjacent to Fulton County and Atlanta. Formerly regarded as a bedroom community of Atlanta, it has now come into its own as an urban area. The importance of land use planning and control as the dominant issue in the campaign points out the new awareness in this area.

Another indication that land use control has emerged in Georgia is the formation and activity of a House of Representatives subcommittee on State Land Use and local zoning. The subcommittee, which was created out of the powerful Committee on State Planning and Community Affairs, has been conducting public hearings around the State to determine the problems and investigate possible solutions. It is highly probable that it will present proposed legislation in the 1973 General Assembly.

This report will attempt to deal with many of the issues involved in the "quiet revolution". The first section sets the socio-economic background underlying Georgia's problems. Major patterns of land use are then set forth in the next section with emphasis on the rural aspects, as Georgia is typical of other southeastern States in that it still maintains to a large extent a rural character. A third portion of the report analyzes the population facet of land use considerations. The section dealing with the institutional arrangement of land use authority provides an analysis of zoning. The fifth section is designed to present to other Regions an analysis of the legal considerations which may hamper the State's effort to broaden State authority over land use planning. The final segment is an enumeration of the various possibilities of legislation proposals likely to be enacted.

## II. Georgia's Socio-Economic Setting

To lay the foundation for analysis of Georgia's problems concerning land use necessitates a presentation of the socio-economic character of Georgia and its people. To do this, we present Chapter IV of Georgia's State Investment Plan, 1971-72, published by the Bureau of State Planning and Community Affairs. This segment of the report is contained in the following pages.

# CHAPTER IV

## GEORGIA'S SOCIO-ECONOMIC SETTING

It is important for a state to take cognizance of changing social and economic conditions that occur over time. Statistical trends sometimes signal a significant change in social or economic emphasis and a state can better judge how to allocate its resources if it is aware of the direction that basic indicators are taking. It is especially important to be able to recognize important structural changes that may be taking place in various social and economic sectors of society. Government is better prepared to anticipate problems and to allocate public funds judiciously if it can recognize and reasonably forecast changing economic and social patterns. Time-series data are useful for such purposes.

Additionally, cross-sectional data aid is pointing out where Georgia stands relative to the nation and other states and regions. Wealth and well-being are relative concepts, with virtually the only yardstick of measurement being some arbitrary standard such as national averages. The "below average" concept tends to set an identifiable goal of catching up, and offers a standard against which a state can measure its progress.

Often it is the relative change in the magnitude of certain variables that is more significant than absolute values. For instance, a state's per capita income might be rising, indicating an increase in the standard of living. However, if the national average is rising even faster, then people may feel that they are actually falling behind, and that their situation is worsening.

The charts and tables that follow illustrate some of the more important social and economic trends and data for Georgia.

The Gross State Product for Georgia has been estimated by Dr. Albert Neimi of the University of Georgia.[1] Georgia's GSP has risen in real terms from 5.28 billion dollars in 1950 to 12.31 billion dollars in 1968. Tables IV-1 and IV-2 give rates of change in GSP and distribution by major industry within economic sectors for Georgia, the Southeast and the United States. It is worth noting some of the structural changes that have occurred over the 18-year period for Georgia. Manufacturing and Finance, Insurance and Real Estate show relative increases while Transportation, Communications, Public Utilities and Farm show significant relative declines.

A commonly used measure of economic welfare is per capita income. Georgia's per capita income for 1969 was

$3,071. The U. S. average for the same year was $3,680 showing a $609 gap between the two averages. Table IV-3 compares Georgia's per capita income with the Southeast and the U. S. for the period 1960-1969. Chart IV-1 presents the data in graphic form and Chart IV-2 shows percent changes for the past decade. Although Georgia's per capita income remains less than the national average, it can be seen that the present increases have been higher than U.S. averages, indicating a tendency to close the gap. Assuming the prevailing compound growth rates are maintained in the future, the per capita income gap will close in 1985.[2]

TABLE IV-1

AVERAGE ANNUAL PERCENTAGE RATES OF CHANGE IN REAL PRODUCT

| ECONOMIC SECTOR | 1950-1968 | | |
|---|---|---|---|
| | Georgia | Southeast | United States |
| Private Nonfarm | 5.3 | 4.7 | 4.1 |
| Mining | 7.4 | 2.3 | 2.3 |
| Construction | 3.3 | 3.3 | 2.2 |
| Manufacturing | 5.9 | 5.4 | 4.2 |
| Trade | 5.3 | 4.9 | 3.9 |
| Finance, Insurance, and Real Estate | 6.5 | 6.4 | 4.8 |
| Transportation, Communication, and Public Utilities | 2.8 | 1.9 | 4.7 |
| Service | 5.2 | 4.2 | 4.1 |
| Government | 4.6 | 4.2 | 3.6 |
| Farm | 1.6 | 1.4 | 1.0 |
| Total | 5.1 | 4.5 | 3.9 |

SOURCE: Albert W. Neimi, Jr., "Georgia's Gross State Product," Georgia Business, Vol. 30, No. 4, Oct. 1970, p. 2.

TABLE IV-2

PERCENTAGE DISTRIBUTION OF TOTAL REAL GROSS PRODUCT BY MAJOR INDUSTRY

| ECONOMIC SECTOR | GEORGIA | |
|---|---|---|
| | 1950 | 1968 |
| Mining | 0.5 | 0.8 |
| Construction | 4.5 | 3.3 |
| Manufacturing | 28.2 | 32.6 |
| Trade | 18.4 | 19.2 |
| Finance, Insurance and Real Estate | 10.7 | 13.7 |
| Transportation, Communication, and Public Utilities | 10.1 | 6.9 |
| Service | 8.0 | 8.2 |
| Government | 12.1 | 11.2 |
| Farm | 7.4 | 4.0 |

SOURCE: Neimi, op. cit.

TABLE IV-3

PER CAPITA INCOME FOR GEORGIA, SOUTHEASTERN U.S. AND U.S.: 1960-1969

| Year | Georgia | Southeastern U.S. | U.S. |
|---|---|---|---|
| 1960 | 1639 | 1611 | 2215 |
| 1 | 1678 | 1666 | 2264 |
| 2 | 1777 | 1751 | 2368 |
| 3 | 1878 | 1840 | 2455 |
| 4 | 2008 | 1956 | 2586 |
| 5 | 2173 | 2101 | 2765 |
| 6 | 2377 | 2298 | 2980 |
| 7 | 2573 | 2471 | 3162 |
| 8 | 2791 | 2690 | 3421 |
| 9 | 3071 | 2903 | 3680 |

Source: Statistics on the Developing South, Research Department, Federal Reserve Bank of Atlanta, 1970, p.11.

INCOME[3]

Economic considerations have a strong influence on population movements to or from a particular region. Thus, employment opportunities, relative wage and salary levels and general income potentials in an area are closely related to its rate of population growth. An area's industrial growth and composition are of major importance in influencing these indicators, so a brief discussion of related developments is appropriate in the assessment of local conditions.

As is well known, the agriculture industry has been declining in relative importance to Georgia's economy for some time. Reductions in agricultural employment have been substantially influenced by technical innovations in farming, causing a tremendous increase in individual productivity. Rapid development of the manufacturing and service segments of the industrial mixture has overshadowed the agricultural segment. Georgia began this shift from an agricultural economy later than the nation and still has a slightly higher proportion of production workers in agriculture than does the nation as a whole.

Census data indicate that agricultural employment accounted for the following percentages of total employment in Georgia in 1940, 1950, and 1960 respectively: 31.0, 20.5, and 8.4. Comparable figures for the U.S. are 18.6, 12.0, and 6.4, while those for 12 southeastern states combined are 34.5, 21.7, and 9.9. Since 1950, agricultural employment has been a smaller proportion of total employment in Georgia than it has been in any of the neighboring states except Florida.

# PERCENT INCREASE IN PER CAPITA INCOME
# GEORGIA, SOUTHEAST, UNITED STATES
# 1960-1970

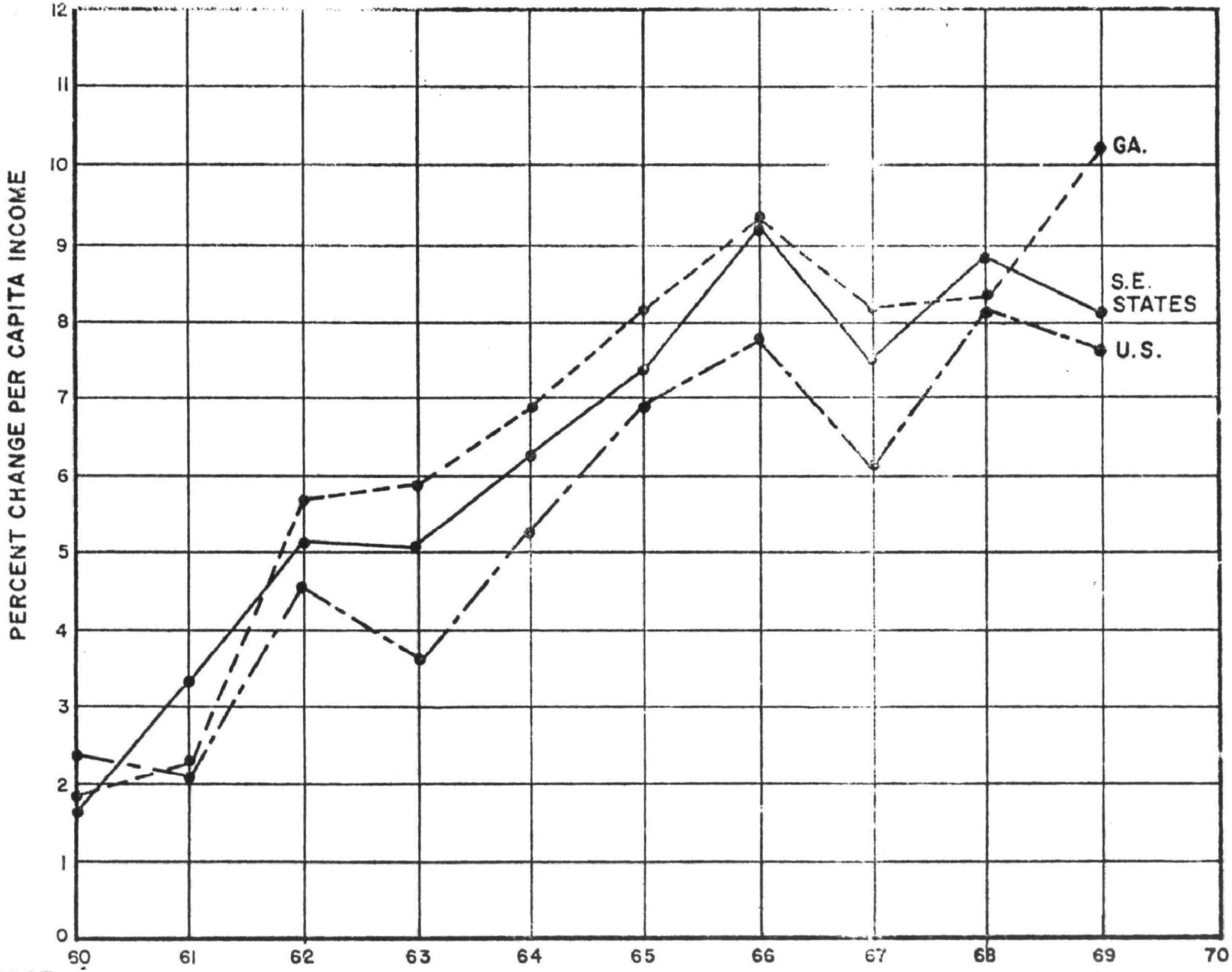



CHART IV-

SOURCE:

It is not the intent of the preceding remarks to imply that agriculture is a dying industry in Georgia. In fact, although employment has steadily declined in the industry, total output has increased. Over the span 1950 to 1968 it is estimated that cash farm receipts nearly tripled, amounting to well over a billion dollars by the latter date. Obviously, it would be foolhardy to consider agriculture as a "trivial" segment of our economy.

However, an industry's employment impact is of primary importance to local development since it is directly related to the ability to attract and hold population and to generate local income. Thus, a comparison of manufacturing employment to agriculture employment gives a good indication of their relative impacts on development in Georgia.

While there were nearly twice as many agricultural workers in Georgia in 1940 as there were manufacturing workers, by 1950 there were about equal numbers of each. By 1960 there were three times as many manufacturing employees as there were agricultural employees, and recent estimates indicate this ratio has continued a rapid increase. The entire southeastern region of the U.S. has experienced similar trends, although Georgia has apparently moved in this direction somewhat more quickly than the region as a whole. For example, the regional agricultural employment was about 2.2 to 1 in 1960 compared to about 3.0 to 1 for Georgia.

On a national scale, however, the U.S., in 1940, already had more manufacturing employees than agricultural employees; by 1950 the ratio was slightly over 2 to 1, and by 1960 there were four times as many manufacturing workers as there were agricultural workers.

During the last 30 years, the overall rate of growth of manufacturing industries has been about fifty percent greater in Georgia than for the nation as a whole. Although there are no adequate data available to make a qualified comparison of current relationships, rough estimates are that both Georgia and the national now have about 4.5 manufacturing employees for each agricultural worker.

Although Georgia and the nation have about equal proportions of total employment being utilized by the manufacturing industries, there are considerable differences between the types of manufacturing predominating in the South and the mixture for the U. S. as a whole. Early industrialization in Georgia was concentrated in the lumber and wood products industries (related to the State's great forest reserves) and the textile and apparel industries. These industries continue to be the most important, although some diversification has taken place in recent years. Census results for 1960 showed that about 18 percent of U. S.

TABLE IV-1

MANUFACTURING IN SOUTHEASTERN STATES

NEW FACILITIES, EXPANDED FACILITIES, AND ADDED EMPLOYMENT

| | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 |
|---|---|---|---|---|---|---|---|---|---|
| Georgia | | | | | | | | | |
| New Firms | 84 | NA | 101 | 130 | 115 | 146 | 155 | 234 | 304 |
| Expanded Firms | 135 | NA | 90 | 120 | 215 | 211 | 256 | 282 | 332 |
| Total Additional Employment | 8,029 | NA | 11,010 | 14,340 | 15,054 | 18,000 | 20,000 | 24,193 | 34,203 |
| Alabama | | | | | | | | | |
| New Firms | 89 | NA | 125 | 136 | 136 | 122 | 92 | 111 | 128 |
| Expanded Firms | 157 | NA | 176 | 177 | 224 | 208 | 151 | 200 | 171 |
| Total Additional Employment | 8,998 | NA | 19,300 | 22,474 | 27,892 | 24,832 | 17,035 | 23,222 | 27,939 |
| Florida | | | | | | | | | |
| New Firms | NA | NA | NA | 620 | 450 | 570 | NA | NA | 610 |
| Expanded Firms | NA | NA | NA | 80 | 80 | 130 | NA | NA | 250 |
| Total Additional Employment | 24,800 | NA | NA | 20,000 | 22,000 | 23,670 | NA | NA | 33,000 |
| North Carolina | | | | | | | | | |
| New Firms | NA | NA | 192 | 163 | 165 | 189 | 130 | 167 | 151 |
| Expanded Firms | NA | NA | 478 | 383 | 373 | 400 | 338 | 324 | 358 |
| Total Additional Employment | 35,154 | NA | 31,100 | 29,573 | 37,042 | 37,455 | 24,774 | 31,297 | 31,067 |
| South Carolina | | | | | | | | | |
| New Firms | NA | NA | 61 | | 82 | 75 | | 82 | NA |
| Expanded Firms | NA | NA | 101 | 172 | 143 | 127 | 149 | 119 | NA |
| Total Additional Employment | 13,380 | NA | 14,900 | 13,666 | 26,447 | 18,724 | 11,176 | 19,771 | 20,218 |
| Tennessee | | | | | | | | | |
| New Firms | 145 | NA | 130 | 76 | 118 | 114 | 137 | 131 | 153 |
| Expanded Firms | 182 | NA | 256 | 245 | 292 | 245 | 241 | 268 | 274 |
| Total Additional Employment | 23,264 | NA | 28,300 | 25,572 | 35,635 | 42,094 | 41,699 | 35,000 | 32,923 |

NA - Not Available

Sources: Various Issues: "Georgia Development News," Industrial Development Division, Georgia Institute of Technology

INDUSTRY

Careful consideration should be given to impending changes in the major industrial sectors that affect employment levels, skill requirements, wages, etc. Forecasting shifts in emphasis between major industrial sectors can be useful in deciding where to place resources for purposes of promoting economic development. It behooves the State to take advantage of all information available to avoid wasting resources and effort in the allocation process. It is a case of "hitching one's wagon to the right star."

The Industrial Development Division of the Georgia Institute of Technology has published a document which attempts to forecast changes in the structure of employment in Georgia in 1975.[3]

One important indication is the slowing down of employment growth in the manufacturing sector which in the past decade has been an important source of growth in Georgia. This decline in the relative importance of manufacturing is to be observed at the national level as well. Transportation and utilities are also projected at slower rates of growth, while gains are projected for finance, insurance, real estate, services and construction.

"These general trends follow the national pattern, although the Georgia distributions vary substantially from those of the nation for the same years. By 1975, manufacturing employment for the U. S. is expected to account for some 26 percent of nonagricultural workers, and government for 18.5 percent, while the Georgia percentages... will be in the neighborhood of 30 percent and 19.5 percent respectively. The greatest variation from the nation, according to this study's projections, however, will be services, with a national figure of 17.1 percent compared with Georgia's 11.6--11.7 percent. It would appear, then, that the State will lag behind the nation in the major expansion of services employment...but will maintain a comparatively high proportion of manufacturing employment."[5]

The significance of such sectoral changes should not be lost on planners. The overall employment trends appear to be toward more skilled and service type jobs, especially in the wake of rapidly advancing technology, and toward fewer unskilled jobs. (It has been suggested by some that one of the most important industries of the future is going to be what is termed the "knowledge" industry.

These changes suggest that increased emphasis will have to be placed on training and vocational education, not only for the purpose of learning a skill initially, but also for the continous upgrading of skills as requirements for meeting the changing needs of our increasingly complex industrial world.

Tables IV-5, IV-6, and IV-7 and Chart IV-3 point up some of the possible changes in direction which certain industries may be taking in the next five years. Two different projections are presented, one being simply a linear trend based on data for the 1947-1967 period (labeled L) and the other based on the trend in Georgia's share of U.S. employment (labeled P). Forecasts such as these are, of course, always subject to error and the usual caveat is in order. Nonetheless, it is preferable to be alerted to such possibilities when decisions have to be made regarding the proper allocation of public funds to the many programs competing for them.

## POPULATION TRENDS

No single source of data can adequately serve to assess the gereral conditions in an area. Population trends are an important measure of human reaction to overall local conditions. A discussion of Georgia's population growth is, therefore, pertinent to assessing general conditions in an area.

TABLE IV-5

PROJECTIONS OF NONAGRICULTURAL WAGE AND SALARY WORKERS IN GEORGIA, BY MAJOR INDUSTRIES, 1975

| Industry | Employment (000) 1967 | 1975L | 1975P |
|---|---|---|---|
| Manufacturing | | | |
| Durable goods: | | | |
| Lumber & wood products | 26.2 | 12.7 | 19.7 |
| Furniture & fixtures | 9.4 | 10.1 | 11.1 |
| Stone, clay, & glass products | 14.2 | 17.1 | 17.9 |
| Primary metal industries | 7.1 | 7.2 | 7.5 |
| Fabricated metal products | 14.5 | 16.5 | 18.5 |
| Machinery | 13.4 | 13.4 | 14.8 |
| Electrical equipment & supplies | 8.7 | 10.9 | 12.4 |
| Transportation equipment | 44.8 | 56.9 | 55.7 |
| Other durables (ordnance, instruments, & miscellaneous manufacturing) | 10.5 | 10.2 | 10 6 |
| Nondurable goods: | | | |
| Food & kindred products | 49.0 | 56.9 | 53.9 |
| Textile mill products | 112.1 | 99.2 | 116.0 |
| Apparel & related products | 67.5 | 80.3 | 90.1 |
| Paper & allied products | 23.6 | 29.6 | 33.1 |
| Printing, publishing & allied industries | 13.4 | 14.8 | 14.9 |
| Chemicals & allied products | 12.5 | 13.5 | 13.8 |
| Leather & leather products | 4.6 | 5.7 | 5.8 |
| Other nondurables (tobacco, petroleum refining, rubber & miscellaneous plastics products) | 5.7 | 6.3 | 6.9 |
| Total manufacturing | 437.2 | 461.3 | 502.7 |
| Mining | 6.5 | 6.9 | 7.6 |
| Contract construction | 74.8 | 85.7 | 100.6 |
| Transportation & public utilities | 94.9 | 89.7 | 103.0 |
| Trade, wholesale & retail | 290.0 | 317.1 | 359.4 |
| Finance, insurance, & real estate | 66.2 | 81.6 | 87.9 |
| Services & miscellaneous | 156.4 | 175.7 | 198.1 |
| Government | 258.9 | 292.4 | 336.7 |
| Total | 1,384.9 | 1.510.4 | 1,696.0 |

L - Linear trend based on data for the 1947-1967 period.
P - Based on trend of Georgia's share of U. S. employment.
SOURCE: Amy Collins, Georgia 1975: Employment Outlook by Industry Group, Industrial Development Division, Georgia Institute of Technology,

TABLE IV-6

PROJECTED EMPLOYMENT CHANGES IN GEORGIA, 1967-1975

| Industry | Changes, 1967-1975 Employment (000) L | P | Percent L | P |
|---|---|---|---|---|
| Manufacturing | | | | |
| Durable goods: | | | | |
| Lumber & wood products | -13.5 | -6.5 | -51.5 | -24.8 |
| Furniture & fixtures | .7 | 1.7 | 7.4 | 18.1 |
| Stone, clay & glass products | 2.9 | 3.7 | 20.4 | 26.1 |
| Primary metal industries | .1 | .4 | 1.4 | 5.6 |
| Fabricated metal products | 2.0 | 4.0 | 13.8 | 27.6 |
| Machinery | - | 1.4 | - | 10.4 |
| Electrical equipment & supplies | 2.2 | 3.7 | 25.3 | 42.5 |
| Transportation equipment | 12.1 | 10.9 | 27.0 | 24.3 |
| Other durables (ordnance, instruments, & miscellaneous manufacturing) | - .3 | .1 | - 2.9 | 1.0 |
| Nondurable goods: | | | | |
| Food & kindred products | 7.9 | 4.9 | 16.1 | 10.0 |
| Textile mill products | -12.9 | 3.9 | -11.5 | 3.5 |
| Apparel & related products | -12.8 | 22.6 | 19.0 | 37.5 |
| Paper & allied products | 6.0 | 9.5 | 25.4 | 40.3 |
| Printing, publishing & allied industries | 1.4 | 1.5 | 10.4 | 11.2 |
| Chemicals & allied products | 1.0 | 1.3 | 8.0 | 10.4 |
| Leather & leather products | 1.1 | 1.2 | 23.9 | 26.1 |
| Other nondurables (tobacco, petroleum refining, rubber & miscellaneous plastics products) | .6 | 1.2 | 10.5 | 21.1 |
| Total manufacturing | 24.1 | 65.5 | 5.5 | 15.0 |
| Mining | .4 | 1.1 | 6.2 | 16.9 |
| Contract construction | 10.9 | 25.8 | 14.6 | 34.5 |
| Transportation & public utilities | - 5.2 | 8.1 | - 5.5 | 8.5 |
| Trade, wholesale & retail | 27.1 | 69.4 | 9.3 | 23.9 |
| Finance, insurance & real estate | 15.4 | 21.7 | 23.3 | 32.8 |
| Services & miscellaneous | 19.3 | 41.7 | 12.3 | 26.7 |
| Government | 33.5 | 77.8 | 12.9 | 30.1 |
| Total | 125.5 | 311.1 | 9.1 | 22.5 |

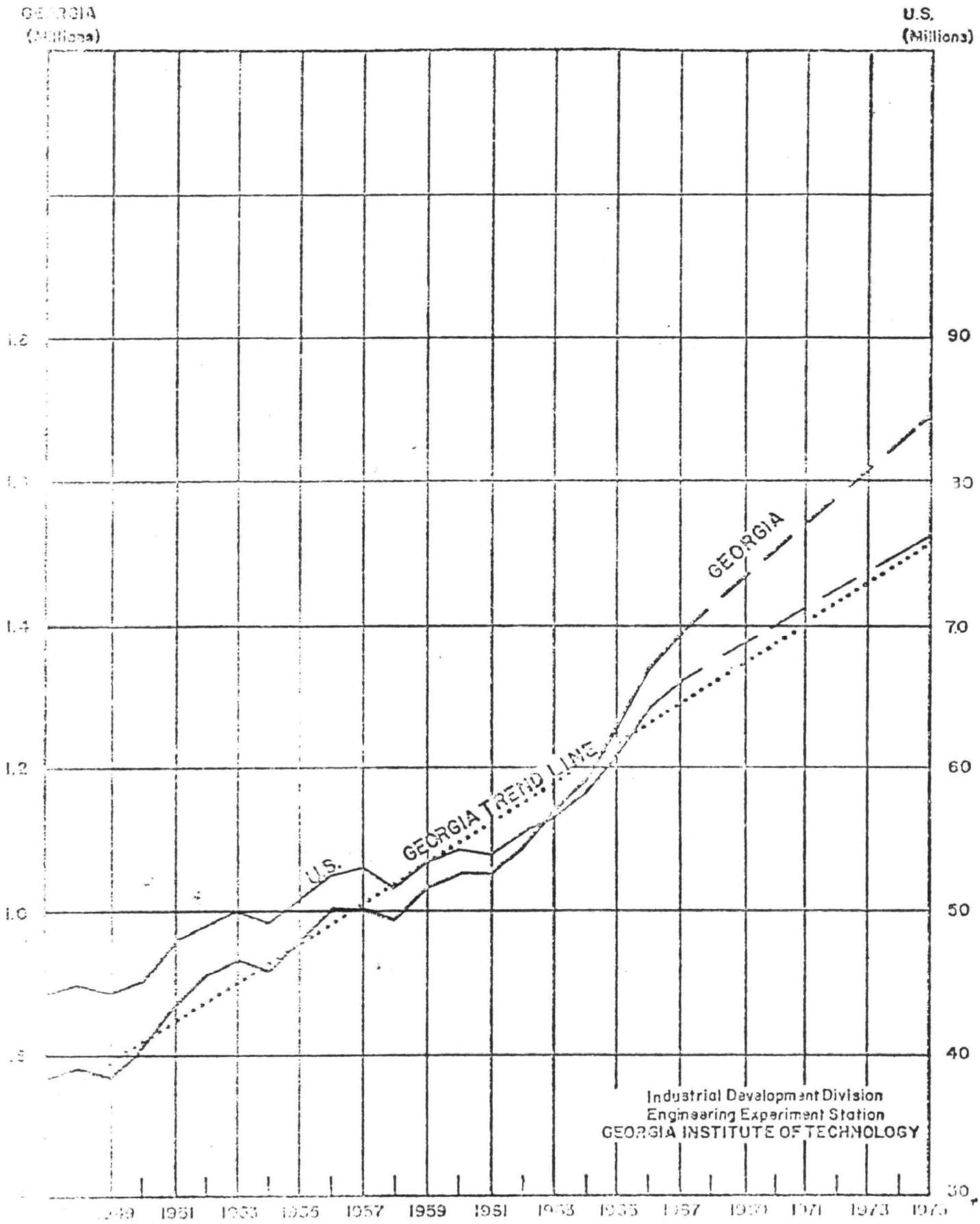
SOURCE: Collins, op. cit.

TABLE IV-7

DISTRIBUTION OF EMPLOYMENT IN GEORGIA, SELECTED YEARS, 1950-1975

| Industry | Percent Distribution | | | | |
|---|---|---|---|---|---|
| | 1950 | 1960 | 1967 | 1975L | 1975P |
| Manufacturing | | | | | |
| Durable goods: | | | | | |
| Lumber & wood products | 5.6 | 2.8 | 1.9 | .8 | 1.2 |
| Furniture & fixtures | .9 | .7 | .7 | .7 | .7 |
| Stone, clay, & glass products | .9 | 1.0 | 1.0 | 1.1 | 1.1 |
| Primary metal industries | .4 | .4 | .5 | .5 | .4 |
| Fabricated metal products | .5 | .7 | 1.0 | 1.1 | 1.1 |
| Machinery | .7 | .8 | 1.0 | .9 | .9 |
| Electrical equipment & supplies | .1 | .5 | .6 | .7 | .7 |
| Transportation equipment | 1.0 | 2.4 | 3.2 | 3.8 | 3.7 |
| Other durables (ordnance, instruments, miscellaneous manufacturing) | .4 | .5 | .8 | .7 | .8 |
| Nondurable goods: | | | | | |
| Food & kindred products | 4.0 | 4.3 | 3.5 | 3.8 | 3.2 |
| Textile mill products | 13.3 | 9.5 | 8.1 | 6.5 | 6.8 |
| Apparel & related products | 3.8 | 4.5 | 4.9 | 5.3 | 5.3 |
| Paper & allied products | 1.4 | 1.8 | 1.7 | 1.9 | 1.9 |
| Printing, publishing & allied industries | .9 | .9 | 1.0 | 1.0 | .9 |
| Chemicals & allied products | 1.1 | 1.0 | .9 | .9 | .8 |
| Leather & leather products | .3 | .3 | .3 | .4 | .3 |
| Other nondurables (tobacco, petroleum refining, rubber & miscellaneous plastics products) | .2 | .3 | .4 | .4 | .4 |
| Total manufacturing | 35.5 | 32.4 | 31.5 | 30.5 | 29.6 |
| Mining | .5 | .5 | .5 | .5 | .4 |
| Contract construction | 5.0 | 5.3 | 5.4 | 5.7 | 5.9 |
| Transportation & public utilities | 8.4 | 7.0 | 6.9 | 5.9 | 6.1 |
| Trade, wholesale, & retail | 21.3 | 21.4 | 20.9 | 21.0 | 21.2 |
| Finance, insurance, & real estate | 3.5 | 4.7 | 4.8 | 5.4 | 5.2 |
| Services & miscellaneous | 10.8 | 11.0 | 11.3 | 11.6 | 11.7 |
| Government | 14.2 | 17.7 | 18.7 | 19.4 | 19.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

SOURCE: Collins, op. cit.




SOURCE:

BOBBY COLLINS, GEORGIA 1975: EMPLOYMENT OUTLOOK BY INDUSTRY GROUP, INDUSTRIAL DEVELOPMENT DIVISION, GEORGIA INSTITUTE OF TECHNOLOGY

Out-migration has had an adverse effect on Georgia's population growth fairly consistently since the Civil War. The general implication of this net out-migration is that, in some way, local conditions must be relatively less attractive than the conditions in neighboring states or the nation.

During the decade 1950 to 1960, natural increase (excess of births over deaths) in Georgia was about 712,000, while the population grew by only about 499,000, indicating a loss of about 213,000 people through net geographic migration. Much of the out-migration can be attributed to a heavy movement of the non-white (primarily Negro) population from Georgia during recent years. About 204,000 of Georgia's 213,000 net out-migrants during the decade ending in 1960 were non-white.

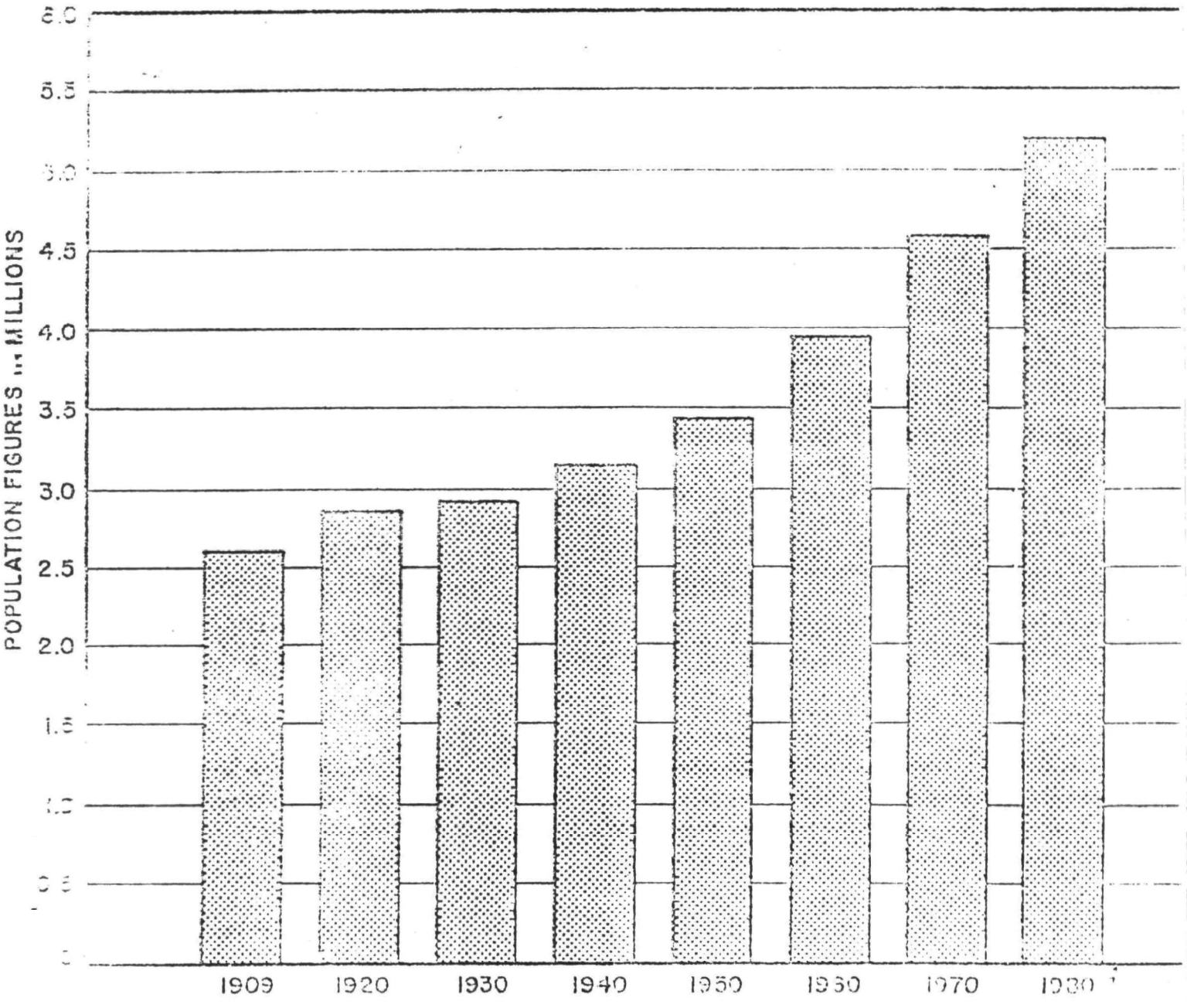
Georgia's 1960 population count was 3,943,116, representing an increase of 14.5 percent over the 1950 population total. During the same period, the nation grew by about 18.6 percent, slightly less than the rate at which Georgia would have grown in the absence of migration. The impact of such a movement on relative growth rates is apparent.

During the most recent decade, however, Georgia grew by 16.4 percent while the nation grew by only about 13.3 percent. The rate of growth in Georgia increased despite a substantial decline in birth rates, and is the first indication of an improved migration figure for the State. The 1970 census count places Georgia's resident population at 4,589,575. It is estimated that about 590,000 of the change during the decade was due to natural increase, which means that the additional change of 56,459 was due to a net gain through geographic migration into the State. This in-migration is the first such gain experienced during any decade in the last century. It appears that slightly more people are now migrating to Georgia than are leaving. Thus, for the first time in a century, Georgia can be said to be "holding her own" in the nation in population growth. This change can be interpreted as an indication of generally increased "attractiveness" of the State.

As mentioned earlier, conditions are quite variable within Georgia's boundaries, and major differences are notable with respect to population growth. Although the measure of Georgia's overall growth during 1960-70 was higher than that for the nation, this was true of only about 20 percent of the counties. Preliminary census counts indicate that 82, over half of Georgia's 159 counties, experienced an absolute decline in population during the decade. It may be assumed that these counties have deficiencies in at least some of the factors related to the general well-being of people.

The population growth of Georgia's urbanized counties was so great as to compensate for the losses (or very modest growth) in other areas. Nine counties which were already large in 1960, grew by over 50 percent during the decade, while Clayton County more than doubled in size and was among the fastest growing in the nation.

# POPULATION TRENDS AND PROJECTION FOR GEORGIA: 1910-1980




SOURCE:
U.S. BUREAU OF THE CENSUS, STATISTICAL ABSTRACT OF THE U.S. 1970 (91ST EDITION) WASHINGTON, D.C. 1970 AND PERSONAL COMMUNICATION WITH U.S. CENSUS BUREAU.

## SECTORAL CHANGES

In the important social sectors of health, education, and housing, Georgia has substantial catching up to do. The State does not fare well in the ratio of professional medical personnel to population. The ratio of nurses to population is especially low. The ratio of infant deaths to 1000 live births is higher than both the national and the southeast region averages. This is true for both white and other races.

Likewise, in education Georgia shows 9.0 median school years completed (1960), compared to the U. S. median of 10.6 and the South Atlantic Region's 9.8. Georgia ranks 41st in expenditures per pupil for education. Its pupil-teacher ratio of 25.9 is one of the highest in the nation. (Only Tennessee's is higher.)

Table IV-3 summarizes some of the more important trends in the above areas.

# SOCIAL DATA TRENDS

## HEALTH

### Infant Death Rates
(Deaths per 1,000 live births)

| | White | Other Races | White | Other Races |
|---|---|---|---|---|
| U.S. | 22.9 | 43.2 | 19.7 | 35.9 |
| South Atlantic | 23.6 | 47.2 | 20.0 | 37.4 |
| Georgia | 24.6 | 48.1 | 19.8 | 39.4 |

### Physicians, Dentists, and Nurses, 1969
(Per 100,000 Population)

| | Physicians | Dentists | Nurses |
|---|---|---|---|
| U.S. | 163 | 43 | 313 |
| Georgia | 106 | 28 | 156 |

### Federal Food Assistance

| | Per Cent Households with Poor Diets, 1965 | Per Cent Receiving Food Food Assistance, 1969 | Estimated Persons Unable to Buy One Marginal Diet |
|---|---|---|---|
| U.S. | 19.1 | 3.2 | 25,856,000 |
| Georgia | 23.3 | 5.3 | 1,004,000 |

## HOUSING

### Selected Housing Characteristics, 1960
(Per Cent)

| | Sound | Deteriorating | Dilapidated |
|---|---|---|---|
| U.S. | 74.0 | 7.8 | 18.2 |
| South Atlantic | 67.2 | 6.4 | 26.4 |
| Georgia | 58.4 | 6.7 | 34.9 |

Housing Units in Georgia

(Occupied and Unoccupied)

| | 1960 | 1970 | Per Cent Change |
|---|---|---|---|
| Number | 1,170,039 | 1,468,858 | + 25.5 |

EDUCATION

Median School Years Completed, 1960

| | ALL CLASSES | | | | |
|---|---|---|---|---|---|
| | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| U.S. | 10.6 | 10.3 | 10.9 | 10.9 | 8.2 |
| South Atlantic | 9.8 | 9.3 | 10.2 | 10.7 | 7.1 |
| Georgia | 9.9 | 8.8 | 9.3 | 10.3 | 6.1 |

Per Capita School Expenditures and Income

| | Per Capita School Expenditures | Per Pupil Expenditures | Rank | Per Capita Income | Rank | Public and Non-Public Schools Pupil Teacher Ratio |
|---|---|---|---|---|---|---|
| | (1969) | (1970) | | (1969) | | (1969) |
| U.S. | 221 | 783 | | 3,680 | | 22.7 |
| South Atlantic | 181 | 683 | | | | 23.2 |
| Georgia | 156 | 600 | 41 | 2,791 | 39 | 25.9 |

Compiled from: U.S. Bureau of the Census, Statistical Abstract of the United States: 1970 (91st Edition), Washington, D.C., 1970

Generally speaking, these broad trends and data suggest that Georgia has substantial problems in its basic social and economic spheres of life, particularly if compared to national averages. Nonetheless, there are some observations to be made on the positive side. Georgia's population has grown at an increasing rate over the past decade, perhaps indicating that people feel that Georgia is a place with future growth potential. Another favorable trend is found in the behavior of Georgia's per capita income. While it remains lower than the national average, it has been rising at a slightly faster rate of change than the national average since 1961. Per capita income is one of the basic measures of welfare, and positive rates of change in this variable are indicative of the successful launching of economic development.

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## III. MAJOR LAND USE PATTERNS IN GEORGIA

Georgia has a total land area of 37,295,360 acres. The major land cover of the State is woodlands. A 1961 survey found that 60% or 25.8 million acres of the State were tree covered. This represents an increase in total acreage of 4.5 millions acres from 1936. Most of this increase has occurred in the Piedmont. However, only 12 million of these 25.8 million acres are classified as good commercial forests. While this classification is predicated on the percentage of desirable trees per acre rather than productivity of soils, there are 5.1 million acres of unproductive or little used land within the State.

Though agriculture is no longer the dominant industry of the State, it is an 825 million dollar industry. Any significant fluctuation that would affect farming could jeopardize an industry utilizing 8.2 million acres of land as well as affect the lives of over 83,000 farm operators and their 210,000 dependents.

In the past few years the Georgia farmer has encountered a number of perplexing problems. The Minimum Wage Law, rising interest rates, rising land values and the corresponding tax increases have contributed to increased operation costs. While it is true that agriculture is a highly subsidized industry, many agricultural economists are of the opinion that production costs are increasing faster than commodity prices. Many farmers have already turned to mechanication, larger and fewer farms or part-time for farming to combat escalating costs. Crop cultivation land is being turned into commercial forestry land; abandoned cropland is going for improved pasture, and marsh or prarie

having treatment plants occasionally have to dump untreated sewage into streams because their plant's capacity is exceeded. A number of industries have also contributed to this problem by dumping their raw waste into nearby streams.

There seems to be little concern for the inland marshes of the State, other than the Okeefenokee which is under Federal protection. A case in point is Albany, a city in the southwest part of the State which is experiencing rapid expansion. For a number of years the water table has been dropping and is a subject of some local concern. Yet the city continued to permit the filling of lowlands so that these low areas would drain and be used for residential development. This filling was compounded when the city completed several large drainage ditches. These ditches carry the runoff that was formerly absorbed by these areas to the river.

Private development of waterside areas can be a pollution hazard by fostering bank erosion. There are two major causes of bank erosion - clear cutting of vegetation and over-use. People having homes or cabins on waterfront property want to "enjoy" the view. To make the lake or stream more observable the owner will cut all or most of the trees. The next step is to clear the bank of cattails and other tall-growing grasses and weeds. Several reasons are often given for the removal of the weeds and grasses - the danger of snakes, the desire to "clean-up the place" and the "beautification of the grounds." Whatever the reasons, the results are always the same; banks erode causing additional silting to take place downstream and wildlife and

fish population are adversely affected because habitat is destroyed.

Waterside development can create several other problems. Improper placement or design of private septic systems can allow sewage to enter streams. The additional nutrients from this effluent can cause rapid algae and weed growth, discouraging recreational usage. Too much effluent can cause pollution.

Private development along streams and lakes often causes still another problem: intensive private residence development of a stream or lake tends to preclude any possibility of public access. As a result waterside recreation sites accessible to the public are often over-used. This over-use causes rapid site deterioration and contributes to the silting of the waterways through the destruction of existing vegetation. Through water recreation's increasing popularity will come increased stream-bank abuse if controls are not implemented and enforced. Appropriate zoning can control future development and increase public access, but other programs will be needed to clear up existing problems.

Very few zoning ordinances provide for flood plain districts. DeKalb County attempts to discourage development by large lot zoning within the flood plain (3 acre minimum for residential lots) and by requiring the developer to make site improvements to remove all danger of flood damage to that particular site.

Georgia is becoming increasingly concerned about its water resources (river systems and coastal marshlands). Instead of zoning the State has utilized permit boards to control land use practices and pollution along Georgia's waters and waterways. One Board, the

Water Quality Control Board, is responsible for the State's stream system and the other, the Coastal Marshland Protection Agency, regulates development in the coastal marshlands of the State. The creation of these control boards clearly shows the State's feeling in this area of water and water resources. The State's purchase of Sapelo Island should indicate that these boards will function well.

However, the lack of controls concerning the other stream-related problems - such as overdevelopment of the areas adjacent waterways and lack of public access to waterways - does not promote much optimism as to when these controls will be forthcoming.

Another area of deterioration is the roadside of the State highway system. Although there are many more thousands of acres of tilled farmland, the Soil Conservation Service is of the opinion that roadsides create the greater erosion problem. They estimate that the right-of-ways of Georgia highway system are the largest single source of silt in the State.

The newer highways of the State seem to be well aligned in most cases and blend well with the topography. On these newer highways erosion control measures appear to be for the most part well maintained, but many of the older highways are still plagued with this problem. Coupled with this erosion the commercial and residential strip development is reducing many potentially scenic Georgia roads to rural eyesores. Billboards, junked automobiles, discarded appliances, dumps, abandoned surface mines and borrow pits, and unscreened junkyards contribute to the deteriorated state of many of our roadsides.

Most counties that already have adopted ordinances go to great lengths to control the design and siting of billboards, and yet place few if any restrictions on where billboards may be used. The federal government attempted to discourage billboards along new federal interstate highways. The legislation was "watered down" because of the billboard lobby and as yet has had little impact on Georgia. In fact the Georgia interstate highway network probably has more billboards per mile than any of our State highways. (Possible exceptions might be Georgia 17 and 25 on the coast.)

One county ordinance (Columbia County) does make an attempt to alleviate congestion by significantly increasing lot size requirements on major thoroughfares and highways. The remaining counties seem content with merely preserving the exclusiveness of the single family dwelling destricts. Keeping residential development separate from commercial and industrial districts appears to be a greater concern than congestion.

The Georgia Highway Department, for lack of power or initiative, contributes to the degeneration of rural roadsides. Except for engineering requirements, width and number of driveways, the proximity to intersections and the requiring of an access permit there are no regulations governing access to county highways. This permissiveness not only causes visual deterioration of the rural landscape but actually negates the purpose of the State highway system. As more curb cuts are permitted, development and congestion increase. Eventually speed limits must be lowered, thus decreasing the carrying capacity of the highway. How long this attitude will continue is anyone's guess.

## IV POPULATION DENSITY AND LAND USE PLANNING

The world seems to be getting smaller and more limited in its capacity to support human beings because the per capita use of resources in developed countries, and the per capita expectations in undeveloped countries, keep going up. Thoughtful persons everywhere are agreeing, perhaps reluctantly in many cases, that if a high quality human existence is to be achieved man must now "manage" his own population as well as the natural resources on which he depends.

This means that the population growth rate must be drastically reduced so that an equilibrium can be reached in the very near future if we are to avoid the very high risk of excessive population, reduction in the per capita availability of resources and a loss in the individual's freedom of action. If this is indeed the case, then the question of what constitutes an optimum population density for man becomes a key issue. An ecological approach to this problem involves considering the total demands that an individual makes on his environment, and how these demands can be met without degrading or destroying his environment.

Dr. Eugene P. Odum, Director of the Institute of Ecology at the University of Georgia, has tackled the question of the "optimum population for Georgia" on the assumption that the State was large enough and typical enough to be a sort of "microcosm" for the Nation and the world. The basic question asked was: How many people can Georgia support at a reasonably high standard of living on a continuing, self-contained equilibrium basis, in the sense that imports and exports of food and resources would be balanced. Dr. Odum found that Georgia is a good microcosm for the United States because

its present density and growth rate, and the distribution of its human and domestic animal population are close to the mean for the whole nation. Likewise, food production and land use patterns in Georgia are average. Furthermore, since pollution, overcrowding, and loss of non-renewable resources have not yet reached very serious proportions, the State, like most of the nation, has the opportunity to plan ahead for a new kind of "progress", based on the right of the individual to have a quality environment and to share in the economic benefits of wise use and recycling of resources.

Dr. Odum adopted two general principles as a background for the Georgia inventory. His first is: "The optimum is almost always less than the maximum". In terms of human population density, the number of people in a given area that would be optimum from the standpoint of the quality of the individual's life and his environment is considerably fewer than the maximum number of people that might be supported, that is, merely fed, housed and clothed as dehumanized robots or "domestic animals". Perhaps, then, the idea of the "greatest good for the greatest number" is not really a tenable principle.

The second principle is that affluence actually reduces the number of people who can be supported by a given resource base. Thus the optimum population for a highly developed, industrialized nation with a high per capita G.N.P. (gross national product) is very much lower than the population that can be supported at a subsistence level in an undeveloped nation, because the per capita consumption of resources and the production of wastes are so much greater in the developed countries. Dr. Odum points out that the United States is now in as much danger of overpopulation at its level of per capita living as is India at her present standard of living.

MINIMUM PER CAPITA ACREAGE REQUIREMENTS
FOR A QUALITY ENVIRONMENT

| | |
|---|---|
| Food-producing land | 1.5 acres |
| Fiber-producing land | 1 acre |
| Natural use areas (watershed, airshed, greenbelt, recreation, waste disposal, etc.) | 2 acres |
| Artificial systems (urban, industrial, highways, waste treatment facilities,etc.) | 0.5 acres |
| TOTAL | 5.0 acres |

Table 1

Table 1 is Odum's estimate of the minimum acreage necessary to support one person at a standard of living now enjoyed by Americans, including a pollution free living space, room for outdoor recreation and adequate biological capacity to recycle air, water, and other vital resources. The per capita area required for food was obtained by taking the diet recommended by the President's Council on Physical Fitness and determined how much crop and grazing land is required to supply the annual requirement for each item. If Americans would be satisfied with merely getting enough calories and greatly reducing their consumption of meat, as little as a third of an acre would be adequate, but the kind of diet Americans now enjoy including orange juice, bacon and eggs for breakfast and steaks for dinner - all of which require a great deal of land space to produce - takes at least 1.5 acres per capita. Thus, the American "demands" from his agricultural environment 10 times the space that is required to produce the rice diet of the Oriental. The one-acre requirement for "fibers" is based on present per capita use of paper, wood, cotton, etc., that equals the average annual production of one acre of forest and other fiber-producing land. The two acres for "natural area use"

are based on the minimum space needs for watersheds, airsheds, green belt zones in urban areas, recreation areas as estimated by land use surveys. Again, we could do less by designing more artificial waste recycling systems and doing away with outdoor recreation, but at a high cost to society as a whole.

Odum emphasizes two points in considering the five-acre per capita estimate.

1) If per capita use goes up in the future, either more land is needed or greater production per acre must be forced by increased use of chemical controls that, in turn, tend to pollute the total environment, creating a cost in taxes that would reduce the individual's take-home pay.

2) The five-acre estimate is relevant only to an area such as Georgia that has a favorable climate (adequate rainfall and moderate temperature). The per capita requirement would be much greater in regions with large areas of deserts, steep mountains or other extreme ecosystems.

| | |
|---|---|
| Total area | 37.7 million acres |
| Total people | 4.8 million |
| Per capita density | 1 in 8 acres |
| Domestic Animals | |
| Population Equivalent | 21 Million |

Table 2

Per capita density of 1 in 8 acres compares with the national average of 1 in 10 acres. A domestic animal population 5 times that of people is also close to the national average. In considering the impact of man on his environment, Odum states the importance of the domestic animal is too often overlooked; yet such animals are actually consuming more "primary production" (i.e. photosynthetic

conversion of sun energy to organic matter) than man, and they require huge amounts of land. We could do away with all domestic animals, of course, and substitute people, but to the ecologist that would mean not only giving up meat in the diet, but also dehumanizing man to the level of a domestic animal.

POPULATION GROWTH RATE IN GEORGIA

| | |
|---|---|
| Birth rate | 2.4% |
| Immigration | 0.4% |
| Death Rate | 0.8% |
| Net Growth Rate | 2.0% |

Table 3

If we consider for the moment that one person in five acres is a reasonable per capita density, then Georgia is rapidly approaching that level. As shown in Table 3, the net growth rate is two percent which, if continued, would mean a doubling of the population (leaving only four acres per capita) in 35 years. Georgia is moving from what was considered essentially a sparsely populated state to one that is beginning to feel the adverse effects of population pressure.

Dr. Odum discusses how it is possible to prepare graphic models for population growth and stabilization to show how animal populations in nature normally regulate their density that would be imposed by the food supply. In this event the quality of both the individual and the environment is insured, since the individual is neither likely to run out of food nor to "overgraze" or otherwise permanently damage his habitat in his efforts to obtain the necessities of life. In some populations, death controlled by predators, disease or parasites is the regulator; in other populations, birth control is the mechanism.

In some of the best regulated species of the most highly evolved animals, namely the birds and the mammals, the essential control is behavior that restricts the use of space.

This sort of "territorial control" would seem to be relevant to the human population, according to Dr. Odum. Best of all, planned and controlled land use mutually agreed upon through the democratic process can be accomplished at the local and State level right now, while we continue the discussions about birth control and abortion in an effort to reach some kind of national and international consensus that can make these approaches effective nationwide and worldwide.

In actual fact, Georgia is extremely vulnerable to overpopulation for two reasons:

1) the immigration rate is high and can be expected to increase as people flee from the crowded, polluted, and deteriorated part of our country and
2) land is open to immediate exploitation on a huge scale because there are so few protective laws and so little land in public ownership. Many of these factors apply to other areas of the nation. Even if the birth rate drops in Georgia and other less crowded States, population growth rates would remain high because of immigration that will come as people discover the relatively cheap and quickly available "open spaces". As already indicated, a growth rate of two per cent per year means that Georgians would be down to one man in 4 acres in 35 years.

Dr. Odum's statements demonstrate that land use controls may be our best weapon against Regional overpopulation. To Georgians, that is important.

## V. INSTITUTIONAL LAND USE PLANNING & ZONING

In Georgia there are 159 counties, more than any other State except Texas. Since there are not yet any land use controls with any substantial implementation, Georgia remains the epitome of localized, fragmented decision making. Georgia is typical of many other States in that all zoning authority has been delegated to the counties and local municipalities. The enabling legislation for zoning was passed by the General Assembly in 1957, but only 31 counties have a zoning ordinance. Out of approximately 500 municipalities, 173 have enacted a zoning ordinance.

Under the auspices of the 1957 Act, there are three methods of adopting zoning ordinances:

1) County governments can adopt county-wide ordinances;
2) Cities can extend their extra-territorial zoning powers to include unincorporated militia districts and/or areas 500 feet wide on either or both sides of county highways, State highways, streams, or bodies of water;
3) joint city-county ordinances can be adopted for any unincorporated area that a city might zone. Under this Enabling Act the local governments have the power to utilize and administer any or all of the usual zoning districts.

The Enabling Act authorizes local governments to create planning commissions, members of which are appointed by the governing authority. Ex-officio members of the commission who hold public office serve on the commission during their term of office. So the planning commission's

make-up is usually just as political as its decisions. It is the duty of the planning commission "to make such careful and comprehensive surveys and studies of existing conditions and probable future developments and to prepare such plans for physical, social, and economic growth as will best promote the public health, safety, morals, convenience, prosperity, or the general welfare as well as efficiency and economy in the development of its political jurisdiction."

The planning commission is also charged to prepare a master plan for the community, to prepare and present for adoption a zoning ordinance and map, and to prepare subdivision regulations, also to be presented to the local governing body for adoption.

The master plan referred to has been the subject of considerable controversy during recent hearings before the Subcommittee on a State Land Use Policy and local zoning. Also referred to as the community plan or the comprehensive plan, this master plan ideally should set forth the goals and objectives of the community in such a manner that a layman can understand where he and his property fit into the master plan. Such is not the case. Master plans which were completed were placed in a closet and ignored. Those that have been found were usually too idealistic to be of any practical use in planning for the orderly growth and development of a community.

Once again, ideally, the zoning map should be drawn up in accordance with the master plan. However, the typical zoning map is nothing more than an inventory of present land use. According to Rep. Gerald Horton, Chairman of the land use subcommittee, when a developer petitions a

local governing authority for a zoning variance, the local board should simply be able to ask, "Is this development in accrodance with the master plan?" If not, it would be denied. But the master plan is not adhered to, and the zoning map is only an inventory of present land use, so a decision to grant the zoning variance would be arbitrary, so the local board usually has no choice but to decide in favor of the landowner.

When such a petition for an amendment to the zoning map is presented, it must first be submitted to the planning commission for its recommendations. Nothing the planning commission has to say is in any way binding upon the local board.

The 1957 Enabling Act also authorizes the creation of a zoning board of appeals whose members are also political appointees. None of its members may hold any public office, except that one member may be also a member of the planning commission. It is rare in Georgia for a Board of Appeals to reverse a decision of those who appointed them. Appeal from a decision of the Board of Appeals is made to the courts.

There is one exception to this process as authorized by the enabling legislation. By Act of the General Assembly, the joint planning commission for the City of Macon and Bibb County is authorized as the final decision making body on matters of zoning. This system was the object of considerable interest to the land use subcommittee at its hearings in Macon. The City and the county alternate appointments to the Commission, and for a member to be reappointed, the reappointment may not come from the same political body which appointed

him to his previous term. This system represents the only authority in the State where zoning decisions are not made by elected officials. However, the Chairman of the Commission is an architect, and it is somewhat biased toward realtors and developers, or in other words, it regards its decisions as economic moreso than environmental. Of course this is typical of most decision-making bodies in the State.

One observation which should be mentioned is that it is the consensus of planners throughout the State as well as some State legislators that a developer can always force a project through zoning obstacles, if not in one county then in the next. If he has the power to bring pressure in the right places and the tenacity (and he very often has both) he can force a zoning variance. Professional planners are frustrated people. They often blame our land use problems on the politician, and vice versa. It is not unusual for a local board to decide against the advice of its professional planning staff as much as 20 or 25% of the time.

The Counties and municipalities, however, are not without the planning assistance of the area planning and development commissions, or APDC's. These commissions are State-sponsored and come under the Department of Industry and Trade and the Office of Planning and Budget, but participating counties are required to share the expenses of these commissions. There are eighteen Area Planning and Development Commissions in Georgia, serving 5 to 10 counties each.

Georgia Act No. 1066 was enacted in 1970, and implemented the requirements of the Federal Intergovernmental Cooperation Act of 1968 (Bureau of the Budget Circular A-95). Act No. 1066 created the State

Planning and Community Affairs Policy Board which was empowered to set boundaries for the APDC's. Section 15 of the Act requires three things of the APDC's:

1) review and comment upon applications by units of local government within the area to State, Federal, guasi-governmental or private agencies for loans or project grants;
2) preparation of an Area Biennial Development Program to be updated annually. The Program includes:
    a) analysis of the current posture of area development; a review of progress or change so as to evaluate goals of prior year programs,
    b) objectives of existing and recommended programs,
    c) six-year schedules of area capital improvements and other major program expenditures and activities based on a determination of relative urgency; and recommendations for possible changes in administration, organization or procedures to effect more efficient methods of operation;
3) preparation of an area forecast for the development of the area of such commission in accordance with predicted future needs and resources.

Due to the availability of "701" funds and other various Federal assistance available to local government, great interest has been generated in planning. For a local government to obtain any of this assistance, it must make its application through the APDC. The APDC serves as a clearing house and insures that there is no conflict or duplication with other projects and proposals. The APDC then "reviews

and comments "to both the appropriate State and federal agencies. Rarely does the APDC issue a negative comment to these agencies because it aids in the planning of the project. So the APDC has a great deal of leverage with the local government, as a negative comment to the federal or State agency would mean certain failure for acceptance. As local government is then forced to use the APDC as a vehicle for federal money, the APDC maintains good cooperation in all aspects of its planning functions, including land use. The APDC's also serve in a liason capacity with the Appalachian Regional Commission, the Coastal Plains Regional Commission, and the Economic Development Administration. As a result, these area commissions have substantial resources with which to work.

The type of planning done by the APDC's varies, though the major emphasis has been focused on anticipating and meeting sewage and water needs and the formulating and adopting of building, sanitation and subdivision codes. Other services include: Assisting in the formation of needed committees and local planning commissions; gathering of needed data for studies; formulating and drafting planning proposals; drafting needed ordinances and codes to insure that the planning policies can be realized, and providing educational and public relations advice to insure adoption of planning proposals. If the proposal is not adopted the area planning commission will revise the proposal. After the proposal is adopted the APDC continues to provide professional planning assistance and advice.

As yet, the APDC's do not have a zoning lawyer on their staffs.

Because they do not staff a lawyer they are unable to provide competent legal counsel to the county and city attorneys who must defend the ordinances. Any of the expansion of the zoning powers in Georgia will for the present be uncoordinated and haphazard partially for this reason.

It is becoming increasingly apparent that dissatisfaction and a loss of confidence in this zoning framework is bringing more and more attention to the need for change. As an example Mr. Robert E. Gerber, Director of the Department of Community Development of the City of Columbus, Georgia made the following statement on behalf of Mayor J. R. Allen at recent hearings of the land use subcommittee:

"Gentlemen, I wish to be extremely candid. I am not here to advocate or disavow zoning. However, based on Georgia enabling legislation, antiquated by fifty years, zoning has been nothing but a toy in the hands of those special interest groups, individuals or agencies which could or can apply the most political pressure. It is highly questionable whether or not, in georgia, comprehensive planning is a prerequisite to zoning, even though zoning is predicated on the fact that it is a tool of planning implementation. Most likely, zoning has been used to try to zone existing conditions out of existence, exploit certain conditions within the community, or preserve the status quo. The State enabling legislation of Georgia should be looked at very critically with an eye towards providing,as an absolute prerequisite to zoning, a general plan developed and adopted by the community and maintained and updated continually. In addition, that zoning changes be made in conformance with the general plan, or that certain specific criteria be present prior to undertaking a zoning change, or deviate from the plan. I believe it is the State's responsibility to impose upon all cities and all counties in Georgia a requirement that they define their future growth plan and that they encourage implementation through the police power of the State. I believe it is a responsibility of the State to emphasize the fact that property ownership is a privileged right and not absolute; that the way in which land is developed or changed is of concern to the entire community as it will affect future generations".

Mr. Gerber alludes to the economic pressure placed on political bodies. Georgia is not unique in this sense, as there is a dependency of local governments in all States upon development related tax revenues. The economic incentive to develop at any price often conflicts with the long range interests of the region. This economic incentive toward development even appears to extend to some of the APDC's in Georgia.

In a State such as Georgia (and all over the South) where many areas remain economically undeveloped and sometimes even backward, it is not difficult to explain why a development bias exists. Where per capita income is very low, how can one expect a governing body to make a decision favoring environmental factors rather than economic. In these areas of the State, especially in south Georgia where there is little other than hundreds of thousands of acres of pine trees, people couldn"t care less about land use. They want growth, and they are typically not particular about what kind of growth. There are those who are aware of the pitfalls of this attitude, and stress that growth should be orderly, but they are a minority.

This concept is one which shocks urbanists. The very idea that the rural areas will not consider the environmental aspects of growth and development is one which they may not accept. We must realize, however, that as long as there is the element of "frontier" the pioneer land ethic will continue to exist. In Europe, population density is much greater than in the U.S., and there is a different philosophy. Private ownership is not as strong, because there is no frontier.

As was mentioned earlier, some of the APDC's are oriented toward development rather than land use planning. Georgia Act No. 885, enacted in 1970, authorizes the APDC's to facilitate the development of housing. The Act even authorizes the area commissions to "assist political subdivisions in the development of local agreements between such political subdivisions for the purpose of superseding local building codes relative to specified housing projects."

Even with this emphasis on housing, there is no evidence whatsoever to support the suggestion that proper planning has not been undertaken. But to those environmentalists who support the theory that "no growth or development should take place", the APDC's are oriented toward development "at the expense of the environment". Chairman Gerald Horton of the land use sub-committee emphasizes that land use planning is comprehensive. Growth and development cannot be left out in the planning process. To divest developmental aspects of land use would be unfair and unrealistic. It must be considered in the broad framework of the entire social, political, and economic setting.

Another problem inherent in the current zoning process is that of conflict of interest of those who hold public office. As one planner said, "If they ever pass a conflict of interest law with any teeth in it in this State, half of the local politicians would have to go". Many of the city councils and county boards of commissioners are dominated by realtors, developers, and contractors.

A number of State-level agencies, now organized under the Game and Fish Commission are directly or indirectly concerned with the preservation and allocation of natural areas in Georgia. These

same agencies are also concerned with the development of recreational facilities. The Office of Planning and Budget has the duty to aid each of these agencies, in an attempt to coordinate their overlapping duties and responsibilities. Unfortunately, however, it lacks the authority to make its advisory recommendations binding, and has no legal remedies for non-compliance. Each agency, therefore, operates without binding comprehensive guidelines to insure that desired goals will be achieved.

The State Game and Fish Commission is responsible for acquiring and managing lands and waters for wildlife restoration, propagation, and protection. Through its powers of eminent domain, the Commission may condemn, purchase, or lease properties for game preserves or wildlife management areas, and may thus effectively block private or public development of areas acquired. The great expense would preclude extensive use of the eminent domain power to effectuate a balance between competing land and water uses.

The Game and Fish Commission can play a role in the control of artificial lake developments through effective use of its regulatory authority over hunting and fishing in the State. By enforcing the licensing requirements and by imposing limitations of the quantity of wildlife caught or killed during a specified season, the Commission can help to preserve the wildlife remaining within a developed area. While the commission is charged with the responsibility of enforcing Georgia's boating regulations, no control can be exerted over privately owned lakes, as these measures apply only to ponds or lakes open to the general public.

The basis of the entire problem is that local decision makes too often forget that zoning is a tool for implementing a plan.

This section has dealt with the institutional framework under which zoning and land use decisions are made in Georgia. It has been critical in some respects, and now wishes to be more complimentary. One reason for the need for more and better land use planning has been the inadequacy of local government. All of the legislative proposals pending in Congress agree that small units of government are inherently limited by the confines of their jurisdiction. The limits of local jurisdiction are simply not adequate to encompass regional ecological systems or economic areas without some policy guidance and control from larger units of government.

In almost all areas of public facility and land use planning, a regional approach has been considered an attractive route to better service at lower cost. Georgia early recognized the benefits to be gained from this approach and established the APDC's. With increasing encouragement and support from the Federal government, other regionally based organizations, such as associations of local governments and planning councils, as well as local and regional economic development districts, have been created. Federal support has been made effective through many grant programs which require compliance with regional plans before planning or matching capital funds are made available. This not only has encouraged more effective planning of public facilities and of land use, but also has given these plans considerable leverage toward implementation.

The case for regional planning is a strong one. Many of the legislative proposals considered for presentation in the 1973 General Assembly give the APDC's more authority to implement their plans. This system of regional planning is considered to be one of Georgia's chief assets for the future. Other regions of the country would do well to consider the advantages of a strong area-wide planning structure.

## VI CONSTITUTIONAL & LEGAL OBSTACLES

It is apparent by now that great change is needed before substantial progress can be made in an effort to solve Georgia's problems of land use. But before practical solutions can be considered, it is necessary that the obstacles be discussed so that the possible alternatives may take these into account. Before broad policy decisions are made, those things which will be encountered in the legal and constitutional framework should be analyzed.

In recent months several states have enacted various laws to strengthen State control over land use controls. Others have been slower to act for any number of reasons, one of which has often been the constitutional barrier. Georgia is typical of those States. For this reason the legal dilemma shall be discussed in detail. Special attention shall be given to Georgia's efforts to deal with one of its "critical areas", the coastal wetlands, and the questions which have arisen concerning ownership of the marshes.

The background for this examination will be provided by selected judicial interpretations of conservation plans of other States and relevant facets of Georgia law. The basic and most formidable hindrance is the State's delegation of zoning authority to local government. This issue has been the subject of much debate as Georgia has attempted to deal with the problems of its marshes with passage of the Georgia Coastal Marshlands Protection Act of 1970. Landowners contend that the authority of the Marshlands Protection Agency constitutes zoning, and as such is unconstitutional due to the delegation of zoning authority

to local government. This problem will become even greater should the State enact legislation for broad land use controls in other critical areas.

Other problems include the determination of the actual property owners of the marshes. At present it is not clear who owns the marshes, the State claiming title, but at the same time, the traditional "Owners" claiming property rights.

First, the marine resources themselves should be examined in more detail. In that zone where the sea meets and interacts with the land and within Georgia's boundaries, there are approximately 400,000 acres of wetlands, and experts advise that less than one percent of this land has been filled. Next to South Carolina this is the largest resource of tidelands in the Atlantic Coastal States; yet, today the pressures on the Georgia Coast are mounting. The conflicts between the uses proposed are becoming clearer and sharper. Some builders see the coast as a potential Florida. Others see the marshlands as a potential site of the world's richest phosphate mines. Some would use the land as shrimp farms, and others would pump materials for navigational and highway improvements onto the marshes. Wildlife lovers and conservationists would like to see the coast placed on a deep freeze and preserved for future generations. Some see it as this country's greatest coastal recreational area. Others see it as the only place in the country where ecological research can be conducted in unpolluted estuarine areas. Each of these uses conflicts in some degree with the other possible uses.

It now seems that the decision is leaning toward conservation of the marshes with the passage of the Marshlands Act. But the more difficult question is how to go about conserving the marshlands in a manner which can be upheld by the courts. The developmental proposals have hinged largely upon claims of ownership to large segments of the Georgia coastal marshes. In response to those claims, the Attorney General of the State, Arthur K. Bolton, issued a statement of opinion in March of 1970 which claimed that "the State of Georgia is the legal owner to much, if not all, of the coastal marshland now being privately claimed." The statement has no force or effect except that "the position set forth therein are those which this Department intends to pursue in the future concerning the Marshlands of Georgia."

Mr. Bolton contends the basic source of State involvement in the foreshore and inland waters of the coastal zone is the traditional trust imposed at common law upon this area of the zone. Like the bulk of real property law, this common-law trust doctrine has its origin and concept in the feudal system of land tenure. Under this feudal system, initial title to all land was in the English Crown, which held it as trustee in official and representative capacity. The dry land and the soil beneath fresh-water streams and bodies of water were convertible by Crown grant into privately held property interests. At the same time, the rivers and arms of the sea and all lands below the high-water mark by reason of their special adaptability to public uses were set apart and reserved as public waters.

"Such waters, and the lands thereby covered, . . . being incapable of ordinary and private occupation, cultivation and improvement, were reserved to their natural and primary public uses." The title, the jus privatum, in the lands involved was in the crown as the sovereign; the dominion the jus publicum, in the Crown as the representative of public trust and for the public benefit.

The original States of the United States succeeded to the Crown's status of trustee. Both the common law rule of title in trust and the sovereign succession concept have been recognized in Georgia.

Under the English common law, the landward boundary of the trust property is the high-tide line. This demarcation was generally adopted as a part of the trust concept.

Most of the early Crown grants did not convey adjacent marshlands, and there were few individual grants from the State of these lands. However, beginning with the Act of 1860 which extended title from high land to the low water mark of adjacent navigable streams, landowners have asserted title to the lands between high water and low water in the tidal zone.

In 1901 the Supreme Court of Georgia rendered the decision of Johnson v. State, 114 Ga. 790. This decision interpreted the Act of 1860 extending title to the low water mark in streams as not being applicable to the tidal zone because the water does not course but merely rises and falls with the tide.

The following year, 1902, the legislature responded to this decision by passing an Act which purported to extend title to the beds of all tidewaters, not adjacent to navigable waters, to the boundary line of the next owner's property. Title to the beds of lands adjacent to navigable tidewaters was extended to the low water mark of said waterways. At the time this Act was passed it was of doubtful legality because of a possible conflict with the constitutional prohibition against donations and gratuities. In Art. VII, "The General Assembly shall not by vote, resolution, or order, grant any donation or gratuity in favor of any person, corporation or association."

However, in the Constitution of 1945, Art. II, it undertook to cure any possible defect: "Tidewater titles confirmed - The Act of the General Assembly approved December 16, 1902, which extends the title of ownership of lands abutting on tidal waters to low water mark is hereby ratified and confirmed."

Private ownership and use of most marshlands went unquestioned until the 1970 General Assembly passed the Coastal Marshlands Protection Act, commonly referred to as the Reid Harris Bill. Shortly after the adjournment of the legislative session the Attorney General issued his position paper which held that almost all of Georgia's marshes were owned by the State.

Now that the background has been explained, the Attorney General's statement will be more fully explained along with the rebuttals by

some of Georgia's legal scholars.

The opinion rests on three basic assertions of law and of fact. His first point is that the Act of 1902 extending title or ownership of lands abutting all title waters to low water mark was and is still void. The second assertion is that even if the 1945 Constitution successfully validated the 1902 grant, the State succeeded to the Crown's title to jus publicum lands in trust for the people and cannot convey the land free and clear of this trust. The third assertion is that marshes are not the beds of tidewaters and therefore, the 1902 Act extending the title of lands abutting on tidewaters to the low water mark did not affect title to Georgia's marshes.

The Attorney General's first contention is that legislation which is unconstitutional and void at the moment of its passage is void forever. He cites three different cases, each of which involved an unauthorized legislative act void at the time of its passage and not reenacted once the impediment was removed by constitutional amendment.

However, others have claimed that these are not the facts involving title to Georgia's marshlands. They maintain that the Attorney General's opinion confuses lack of authorization, which requires reenactment, with ratification and confirmation, which does not require reenactment. The opponents of the Attorney General's statement cite cases where the courts rejected the contention that an Act void at the time of its passage is void forever. In the case of Bailey v. Housing Authority of the City of Bainbridge, 214

Ga. 790, (1959), Justice Hawkins stated, "What higher reenactment of an Act of the General Assembly can be made than its ratification by the people, enshrined in the written instrument embodying their sovereign will?" Once the people had ratified and confirmed the 1902 Act it would be redundant on the part of the General Assembly to reenact its provisions. As Justice Hawkins stated, "the supreme will has spoken and the courts are bound by said voice."

The Attorney General contends that the electorate was not notified of the donative nature of the grant. At any rate, the legal validity of his first contention remains in doubt.

In connection with the second point the Attorney General's position holds that "the marshlands of Georgia are not susceptible to private exploitation or conservation without regard to the common law trust purposes to which these lands have been long dedicated." On this point as well, many scholars disagree with Mr. Bolton.

At the time of the Norman Conquest all land was held by the Crown essentially in privatum. But by the time of the Magna Charta, the King's title to various lands was of two distinct types, i.e. some lands were jus privatum and others were jus publicum. The former category encompassed the private proprietary lands of the King and were freely alienable by him, while the latter were held by the King in trust for the benefit of the public and could not be conveyed by him to a private individual free and clear of the trust.

Tidelands fell within the jus publicum category of lands held of the

in public trust. The purpose of the trust was the protection of the English homeland and preservation of common rights of navigation and fishery in the waters of the Kingdom. In adopting the position that the State could not convey tidelands free of the limitations placed on the Crown, the Attorney General has again made a statement which is doubtful according to many. Opponents cite two points in their rebuttal:

1) Even though the Crown was limited in its grant of jus publicum lands, Parliament in its capacity as representative of the English people could convey jus publicum lands on the behalf of the people since they represented the beneficiaries of the trust.
2) After the Revolution the State of Georgia became a sovereign State with the ultimate sovereignty residing in the people, and the validity of a grant by the General Assembly of Georgia ratified by the people must be determined on different principles from those formerly relating to the Crown alone.

The third position of Mr. Bolton is that marshes are not beds of tidewaters, "and therefore landowners adjacent to marsh did not by operation of the 1902 enactment acquire an arguable title to abutting marshland."

Almost all early English cases describe marshlands as the beds of tidewaters. The third contention is most doubtful.

Hence it appears that the ultimate decision regarding ownership of the marshes will be made by the courts. Meanwhile, taxes have

been paid on the said lands. Industrial complexes, subdivisions, homes, motels, docks, and roads have been built on the marshlands.

Like the Attorney General's controversial opinion, the Georgia Coastal Marshlands Protection Act is likewise considered by many to be very susceptible to constitutional attack. The Act provides for regulation of the coastal marshlands for the avowed purpose of effecting a balance between "protection of the environment on the one hand and industrial and commercial development on the other." This purpose is effectuated by the Coastal Marshlands Protection Agency which has power to promulgate rules and regulations. Essentially, the primary regulatory device used to implement the purposes of the Act is the requirement that "no person shall remove, fill, dredge or drain or otherwise alter any marshlands in this State within the estuarine area thereof without first obtaining a permit from the Coastal Marshlands Protection Agency."

This bill has many very good features, but it must withstand at least three major tests, those being the same which face any proposal which broadens State Authority over land use.

1) Can the General Assembly of Georgia delegate to a State agency the right to zone?
2) Can the Coastal Marshlands Protection Agency refuse a permit for the use of marshlands without having the courts hold the same to be an uncompensated taking of property without due process of law?
3) Do the procedures set forth in the Act creating the Coastal

Marshlands Protection Agency afford the landowner applicant due process of law?

In the connection with the first point, the Supreme Court of Georgia, in the case of Herrod v. O'Beirne, 210 Ga. 476 (1954), held that the only authority of the General Assembly of Georgia to enact zoning laws was limited to its delegation of said right to municipalities and county governments, and an Act of the General Assembly zoning property in DeKalb County was unconstitutional. This decision, in effect, holds that the General Assembly has no inherent right to zone; hence, it would have no right to delegate zoning authority to the Coastal Marshlands Protection Agency. Since the zoning power is derived from the state constitution, this problem could be avoided only by finding in the constitution an existing grant of power or, in the alternative, amending the constitution to provide for such a power in the legislature.

In connection with the second point, if a zoning ordinance is so restrictive that it in effect deprives the landowner of all practical uses of his property, it amounts to a confiscation without just compensation. The right to free and unrestricted enjoyment of private property underlies much of the common law, and while the occasional necessity of forced subscription for public use was recognized, citizens of the United States have been guaranteed protection from abusive governmental usurpation from the beginning. Nor was direct condemnation the only encroachment against which the Constitution shielded, for it was clear that certain forms of regulation could be very damaging to private interest. As Mr. Justice Holmes stated:

> The general rule at leaat is, that while property may be regulated to a certain extent, if regulation goes too far will be recognized as a taking . . . . We are in danger of forgetting that a strong public desire to improve the public condition is not enough to warrant achieving the desire by a shorter cut than the Constitutional way of paying for the change.

Recently in Connecticut a court decision invalidated a zoning ordinance restricting the use of tidal marshlands to parks, playgrounds, landings and docks, farming, vehicular parking and wildlife sanctuaries. These restrictions upon the profitable use of tidal marshlands were held to be unreasonable and confiscatory.

In connection with the third point, the Marshlands Act provides for public hearings prior to the adoption of rules and regulations, but ~~as~~ no provision is made in the Act requiring a public hearing on any property owner's application for a permit. The Supreme Court of Georgia, in the case of Sikes v. Pierce, 212 Ga. 567 (1956) held, "Due Process of law, . . . guaranteed by Article I, Section I, Paragraph III of the Georgia Constitution, includes notice and hearing as a matter of right in matters where one's property rights are involved . . ".

It might be possible to adopt rules and regulations providing for a hearing on the property owner's application for a permit. Even this might not satisfy the case of Holland Furnace Co. v. Willis, 222 Ga. 156 (1966) which held, "Due process of law must be provided as a matter of right and not of grace."

So in all three tests, it appears questionable whether the

Marshlands Act can stand up in the courts. Any other efforts in the future to broaden State control over land use should take these legal factors into consideration. The example of the Georgia marshlands should serve to show the other Regions that more is involved than a decision in favor of conservation of a natural or critical area. Just as important is doing so in a manner which will be upheld in the courts. In an area such as land use where vested property rights are always involved, the legal and constitutional questions must be given primary consideration, as Court delays do nothing for the conservation of these areas.

## VII. Possible Legislative Proposals

What will emerge from all of this activity within the narrow confines of Georgia's present legal framework is as yet not known. To be presented in this section are various possibilities to be proposed as legislation. However, in a broad sense, any person's or group's ideas and views on a particular subject may be considered as a possibility for legislation. Also to be discussed here are the activities of the State Land Use and Local Zoning Subcommittee of the House Committee on Planning and Community Affairs. The subcommittee was given the responsibility of studying the following three areas: 1) state land use planning, 2) local planning and zoning practices, and 3) Planned Unit Development.

The subcommittee was created in response to the bills in Congress which give broad authority to the State Governor. The legislature wanted to "do its homework" first, so they may present this type legislation themselves, reserving, of course, more authority for themselves rather than the Governor. Included in its research on state land-use planning will be a reconsideration of the State Planning and Zoning Enabling Law. Planned unit development will be studied as a possible specific alternative to the lot-by-lot zoning practices of local government.

The subcommittee began its series of hearings on July 20 in Tifton, Georgia for discussions of land use planning and regulation in the rural areas. The second hearings took place

in Savannah for a consideration of the problems of Georgia's coastal areas. At the third hearing in Macon, the strip mining problem was discussed as well as a consideration of the unique zoning ordinance of Macon as it relates to revision of the State enabling law. Meetings are scheduled later at Unicoia Outdoor Recreational Experiment Station in Helen, Ga. for discussions of Georgia's unique mountainous areas and their relation to land use planning and regulations. The urban area of Atlanta will be the site for the next meeting with emphasis on the problems that occur with urbanization. Working sessions are scheduled for October and November to review findings and develop appropriate legislation. In December, more public hearings will take place in Atlanta to consider alternatives, etc.

Nearly everyone involved in the effort to deal with Georgia's problem of "fragmented localism" approach to land use planning agrees that to enact a law with adequate implementation will necessitate a constitutional amendment. Georgia's General Assembly is still dominated by rural elements, and a move to place more authority in the hands of the state will generate a great deal of controversy. As John Rigdon, President of the Association of County Commissions of Georgia, has stated, "If the powers of APDC's should be expanded, we would see home rule weakened and the sovereignty of the individual voter diluted another degree in the mingled "soup" of big government." Despite

Mr. Rigdon's opposition, the expansion of the authority of the APDC's has been a popular view among many planners and some legislators.

Many proposals for consideraton have come forth from the area public hearings of the land use subcommittee.

Planners have urged an education program for developers. Developers have urged for an education program for the politicians.

One problem in the establishment of a state land use policy is the geographic diversity of the state which makes it difficult to enact one law. Various officials of some of the larger cities of the state have called for a Division of Metropolitan Affairs to be established under the Office of Planning and Budget or the Department of Industry and Trade.

If a state land use policy is adopted, it will likely contain basic prerequisites or criteria which must be met before a local community permits a zoning change. The most likely component of the state land use policy would be a review of the local comprehensive master plans. The state would not likely dictate how the localities come up with a plan, but more likely require that whatever plan is adopted be implemented and adhered to. The APDC's are likely to be a key element in this process.

Of course the least likely component of the legislation would be the abolishing of local zoning, but that has been mentioned. Mr. Robert Savadge of the Savannah Metropolitan Planning Commission brought out that Houston, Texas has no

zoning ordinance. But there is no apparent difference in appearance between it and other cities of its size.

Legislation of this sort will not be passed easily in the General Assembly. As Gerald Horton, Chairman of the land use subcommittee, pointed out it will take a great deal of tenacity to keep pushing the bill until it is introduced and passed, if not the first year, then the next. However, the primary drawback which faces the legislation will be the necessary constitutional amendment.

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# LAND USE PLANNING IN KENTUCKY

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A review of land use planning in Kentucky becomes a study of problems rather than applications. An examination of Kentucky's problems is aided by an understanding of its geology. Arising in the center of the state is the limestone peneplain of the Bluegrass Region. This large area of gently rolling land is ideal for farming and is known for its hundreds of horse farms and its burley tobacco production. It has the highest population density of the state with the two largest cities as well as the capital. Geologically this is the oldest region in Kentucky and is concentrically ringed by successfully younger periods. The most significant of these are the coal beds which reach from the far eastern portion southerly around to the far western part of kentucky. In the eastern coal fields the terrain is steep with narrow valleys as is characteristic of Appalachia of which it is part. Daniel Boone National Forest runs through the middle of this section. The western Kentucky coal fields are quite flat and the minerals usually near the surface. Different types of mining are applied in the different regions: deep mining, contour stripping and auger ing in the east; area stripping in the western portion.

All of the state receives around 45 to 50 inches of rain a year. This considerable rain not only makes a good farming area, but coupled with the relatively soft and soluble rocks has produced the largest number of streams and rivers of any state except Alaska. The striking feature however is the almost total lack of lakes and ponds which compounds the severe flooding problems. These factors have created a demand for public work projects for water supply, recreation, and flood control facilities. Much of the state land and water resources are therefore held by Federal agencies who have the resources for the construction which the relatively poor state government did not have.

Due to the impact on land use which these forces have, i.e. strip mining for coal and Federal land holdings, two sub-sections have been included which explore these further. But this is not to say that land use problems arising from urban pressures are not important in Kentucky. In fact, they are of at least equal importance if not more important due to the larger number of people immediately affected: nearly 50% of the state's population lives in urban areas. However, in the opinion of this author they are quite typical of most urban centers throughout this country and therefore the emphasis of this report has been put on what might be considered the unique problems of the state. A brief description of the urban areas will demonstrate.

Lexington, "in the heart of the Bluegrass", is the fourteenth fastest growing city in the nation. What originally was a small university and tobacco town in the middle of flat agricultural land is now sprawling in every direction due to an active campaign to locate light industry there. Although the university has increased many fold, its relative impact has diminished to a fraction of what it was. Large facilities of IBM and Square D corporations are typical of the hundreds of industries now operating. City services have not kept pace with the growth and the green belt of prized horse farms is quickly being turned into hastily built subdivisions. Package sewer treatment plants are proliferating. While the downtown stores are closing and being replaced by huge shopping centers on the edge of advancing growth, the inner city is degenerating. There seems to be no answer forthcoming to the problems created by growth, but one can expect more of the same. Even the City-County Planning Commission staff's proposed "urban service area" is usually ignored as the developers advance.

Louisville, on the other hand, is a rather large city. Its growth problems have spilled over into the five surrounding counties and into bordering Indiana. A combination of old traditional and new production industry makes this the economical center of the state although it still lacks the political power of the tobacco, coal, and power industries in the remainder of the state. Urban

blight is trying to be controlled by renewal and a shopping mall has just been created on a former downtown street. Typical of the approach to growth, an airport authority was chosen to look for a new 22,000 acre jetport site where ever one could be found. There could be no land use plan by which it could be considered because the site will probably be located in two adjacent rather rural counties which do not have such plans. One of Kentucky's problems is its total of 120 small counties which until recently did not even have the right to enact ordinances.

Located between Lexington and Louisville is the capital city of Frankfort. This is a government city. From here all regulations flow and are administered. From here the Department of Commerce goes out to recruit new industry to locate on the rivers of eastern and western Kentucky. Most public hearings are held here. The Division of Strip Mining and Reclamation in Frankfort has the power to say whether an area several hundred miles away will be strip mined regardless of the feelings of the areas residents.

Administering to the needs of the neighboring cities of Lexington and Louisville is easy but an observer often senses a feeling of isolation when it comes to eastern or western Kentucky, especially since high speed roads weren't constructed until the middle Sixties and the first interstate to cross the Appalachians is still not completed. The coal industry therefore has had almost a free hand to do as it pleases, and massive federal construction projects were

considered the only economic help.

Strip Mining for Coal in Kentucky

Strip mining for coal has had a favorable climate in Kentucky. It was not until 1966 that the state legislature enacted the first truly regulatory control on reclamation. The act gave the division of Strip Mining and Reclamation of the Department of Natural Resources the power to require permits for operation, collect fees and bonds, and set standards for reclamation. Indicative of the progress which has been made, last year the Division adopted water quality standards for run off from the mining operations.

Despite the expressed fears of coal spokesmen, the law has not stopped the strip mining industry. Up to 1966, 155,000 acres of land had been surfaced mined, for which no law required reclamation. Since 1966 over 100,000 more acres have been mined with the yearly figure jumping from 9,000 acres in 1967 to 30,000 acres in 1971. Production has readily followed the rising demand for coal.

The coal industry responds in two ways to an increasing demand: the large operators may increase production and the number of small operators greatly swells. This is possible because most of eastern Kentucky coal rights were bought from the land owners years ago by corporations under the broad forms deed which is still legal in Kentucky. This deed allows a miner to obtain the

coal without regard to the effect on the surface-- effects of modern technology were not envisioned at the time. Often the surface rights are owned as well. These corporations then lease sections to operators. It is up to the operator to decide where and how he will mine and then apply for a permit. This situation may lead to a doubling or more of the number of strip mine operators within one year if the demand is sufficient.

The Division of Reclamation must respond within 20 days to approve or disapprove a permit. Conditions for disapproval include records or reports that landslides and pollution may occur, the hillside slope is too steep, the area is within 100 feet of a public road, stream or lake, or where it would adversely effect a public park. However it has been necessary for the Army Corps of Engineers to investigate damage to their reservoirs from strip mine drainage, and continual reports are heard that slopes in excess of the degree specified are still being mined. In addition, within the last year the ridge opposite one of the most famous scenic views of the state park system was strip mined and then given an extension of the permit for an adjacent portion still within the view of the park.

Western Kentucky is different in that fewer, but large corporations operate there usually doing their own mining and that the broad form deed is not found. Since the land is flatter, area stripping rather than contour mining is done.

These conditions allow a greater percentage of long term planning on the part of the coal companies. Peabody Coal for instance has a ten year plan for the River Queen Mine detailing all future operations. New permits are requested as past reclamation bonds are returned. They usually retain control of the surface after mining is completed too. This is advantageous to the state since it is the operators who are responsible for reclamation, not the land owner. Often the companies in other parts of the state have long gone out of operation before the adverse conditions resulting from poor reclamation appears.

The use of land after mining is not often considered. For area stripping it must be returned to "approximate original contour"; for contour or auger mining much thought is given to preventing landslides even though this usually requires a larger area disturbed. The booklet "Strip Mining in Kentucky" by the Department of Natural Resources lists twenty one future uses of strip mining areas. Such things as golf courses, grazing land, hunting reserves, raising Christmas trees and creating lakes for fishing and ducks during reclamation are suggested. Another suggestion noted the abundance of power in western Kentucky and recommended electrolysis to recover minerals from polluted mine water which could be sold. Attempts to use the strip mine pits for the often suggested practice of solid waste disposal have never really materialized. In fact,

little of the stripped land in Kentucky is utilized. A few demonstration plots are widely publicized but more often public access to mined areas is prohibited.

Of the total 45 county area in which there are strippable coal reserves, only 2.36% of the land area has been stripped up to now. For Kentucky, the Sierra Club has warned that "With coal reserves underlying one third of the state, Kentucky is in for far more intensive stripping. In western Kentucky the area stripping of these reserves would involve almost total disturbances to the land in half a dozen counties. In eastern Kentucky, contour stripping of the out-cropping of coal seams in the hills could affect the largest proportion of nearly every mile of major stream and tributary watershed in twenty five counties or more". There is no land use plan of any kind to regulate how this is to be done.

Certainly the coal is valuable resource and is needed, but the random process of having companies decide where to mine and substantially what the land will be like afterwards leaves the regions with an uncertain future.

Elmore Grim, former head of the Division of Strip Mining and Reclamation and now with E.P.A., has advocated a change to "watershed mining". This would require a new law giving the state the authority to conduct all mining within a given watershed at one time utilizing one adequately designed siltation basin, water treatment unit and access roads. Reclamation could be better

supervised and probably most important once the mining is done no new operations would return to redisturb the watershed. It is often the case now that several strip mines, augering operations and deep mines operate successively will leave an area affected almost indefinitely. "Watershed mining" is just one approach that could be taken under a comprehensive land use plan.

Federally Managed Land in Kentucky

The lack of natural lakes and ponds in the state has created a demand for public works projects which provide water for recreation, flood control, water supply, commercial fishing and for power generation and cooling. Of the approximately 550 square miles of the state covered by water in lands and streams, over half is in man made impoundments. Including the proposed projects and those under construction, the Corps is concerned with 34 lakes. The Tennessee Valley Authority administers Kentucky Lake and the "Land Between the Lakes. Kentucky Lake has 48,100 acres in the Kentucky portion.

The sites are administered on an individual basis to meet the objectives set forth in the legislation establishing the project. Usually two or more objectives predominate which depend upon the needs of the region and upon the Corps findings. Such an approach creates major differences between sites. For example, on Herrington Lake public access is restricted due to private ownership of the

shoreline; whereas, the Corps maintains public access on Barkley Lake including stretches of wild areas. When goals are similar, however, the methods of management may be similar, such as for flood control. The Corps attempts to determine the optimum technology and then will apply that technology in all of its studies which warrant it. Even though they may be public hearings from time to time on some new aspect of management, the key factor in planning is the legislative act which establishes the project. Being a one time process and in the political arena, an act may not give the Corps nor the public as much flexibility or input in the planning and the long term management as might be desirable.

In contrast to the above situation, the Forest Service has one set of national objectives which are translated into management plans by an on-going process at the regional and local levels. Of course it must be realized that the Forest service is not construction orientated so that plans may be changed at will as needs and technology change.

Since the early 1960's when the Multiple Use Act was passed and implementation began, the Forest Service operated by functional resource groups. Each group was concerned with management of a particular resource such as timber, minerals, wildlife, or recreation. This often resulted in conflicts when several resources occured together. The Forest Supervisor or Regional Forester would attempt to resolve these conflicts. Anew approach is being attempted at the

present time.

The new approach is called Unit Planning. In Kentucky's Daniel Boone National Forest their have been established twenty six units which entirely cover the main forest. The unit boundaries are determined by topographic and phisical features. A National Forest Region draws up a guide which provides the broad objectives, policies and directions to be followed by all administrators within that region. From that guide a Unit Plan is developed which covers all aspects of the environment, social and economic needs. It is emphasized that all programs, activities and services must work within the unit and all action be based upon the unit plan. It is an interdisciplinary plan. Thought has even been given to having sociologists on the planning team along with the landscape architects, foresters, geologists,soil experts, etc.

The Unit Plan establishes ten year goals. The time table for establishment of these plans calls for complete resource inventories, public involvement and review by the Regional Forester within 25 weeks. It would also be the basis for producing 102 Impact Statements. As a model for land use planning, the Unit Plan is as close to complete a system as yet envisioned within Kentucky.

Unit Planning has been used in the region for two years but only since July 1972 in the Daniel Boone National Forest. As yet there are no funds specifically appropriated for it, but the planning

is proceeding under monies normally used for functional group planning. It is believed that the ideal unit size will be 20,000 to 30,000 acres for which on the average the Daniel Boone National Forest owns about a third of the surface land. Initially two unit plans are being prepared around critical recreation sites; The Red River Gorge (101,000 acre unit) and Beaver Creek (16,000 acre unit). The latter is being considered for an eastern wild area.

Examples of how the management policies of the Forest Service produce different results from those which the Army Corps of Engineers is forced to work under can be seen in mining and land acquisition. In the proposed Big South Fork National Recreation Area which the Corps was to operate, the boundaries were a matter of political debate decided by vote of a Congressional committee and floor vote. Even strip mining and deep mining had to be considered in the bill since the area has coal reserves with the final provisions being a compromise between the sponsoring legislators. In contrast, The Forest Service initiates its own land acquisition within the Proclamation Boundary of the forest to obtain land which it feels is desirable and for which it cannot enhance the management.

Even though the federal government owns only 25% of the mineral rights within Kentucky's National Forest, and they are controlled by the Bureau of Land Management, there are no active applications for strip mining within the Forest nor or any expected.

Since the surface land is controlled by the Forest Service, they have set water quality and reclamation requirements that they believe are compatible with other uses of the forest. By doing so they set the standards too high to make retrieving the coal competitive. Actually a desicion with a major effect on land use has been made without specifically dictating that effect. It is quite possible that some day strip mining will be practiced within the forest but it will meet strict requirements such that other uses of the land should not be unduly impaired.

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