# THE TENNESSEE-TOMBIGBEE WATERWAY: A CRITICAL STUDY

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From the Tennessee River near Pickwick Dam to Demopolis, Alabama, the Tennessee-Tombigbee Waterway stretches a distance of 234 miles through the heartlands of Mississippi and Alabama. First proposed in 1874, the river system links the manufacturing industries of the Midwest and the coal fields of Appalachia with the Gulf of Mexico at Mobile, Alabama. Although these regions are already connected to the Gulf by the Mississippi River, the waterway's supporters hope that this $2 billion shortcut will spur the growth of industry, transportation, and recreation in the areas of eastern Mississippi and western Alabama (Middleton 42).

The final passage of the Tennessee-Tombigbee waterway legislation was accomplished by the concerted effort of two southern congressmen: Mississippi's Jamie Whitten and Alabama's Tom Bevill. The construction of the waterway, which was finished nineteen months ahead of schedule in December 1984, was more costly and more voluminous than any other excavation project in history, including the Panama Canal. The $2 billion waterway is divided into three sections: the 144-mile-long river section, where the Tombigbee River was deepened from Demopolis to Amory, Alabama; the 46-mile-long canal section, where seven dams had to be constructed from Amory to Bay Springs Lock and Dam; and the 39-mile-long divide section, where a twelve-foot-deep canal lifts the waterway over the hills which separate the Tennessee and

Tombigbee Valleys. In all, 307 million cubic yards of earth--96 million more than for the Panama Canal--were excavated (Patterson 371). However, the waterway, while already benefiting the people of the region, has yet to reach the level of promise that was expected.

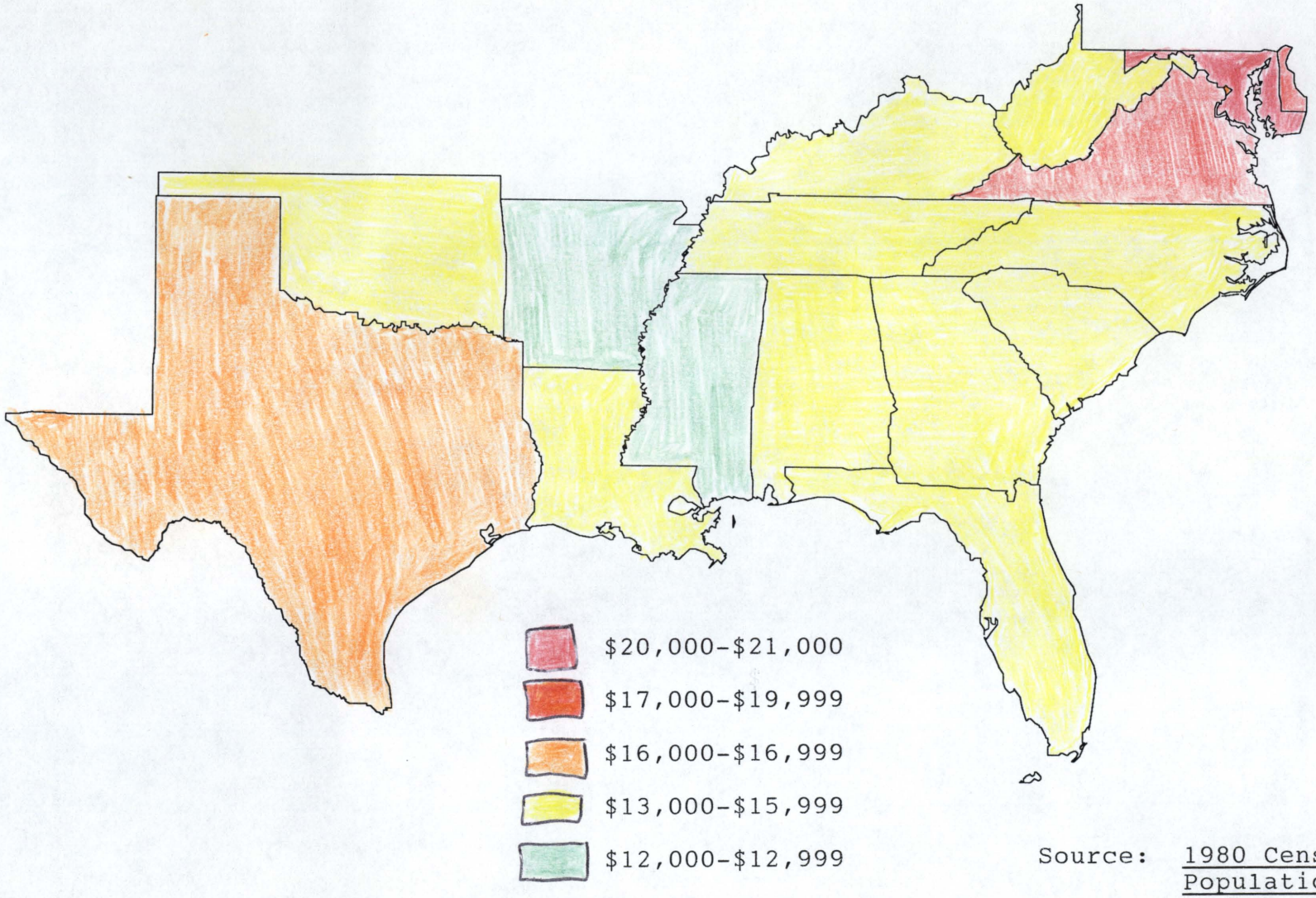
A 1976 study by the U.S. Army Corps of Engineers, the federal authority in charge of the construction and maintenance of the waterway, proclaimed that 27 million tons of cargo would be transported up and down the waterway during its first year of operation. Unfortunately, this study was made during the energy crisis, when energy experts believed that coal from West Virginia and Kentucky would come into heavy demand and would need to be transported by a direct route to the Gulf of Mexico. With the oil glut of the 1980's, coal has remained in little demand, so that in 1985, the first year in which barge traffic traveled on the Tenn-Tom, only 1.7 million tons of cargo, just over six percent of the predicted tonnage, was moved on the waterway ("Waterway" sec. I: 27).

However, after a first abysmal year, the barge traffic on the Tennessee-Tombigbee Waterway has dramatically increased from 1.7 million tons in 1985 to 3.6 million tons in 1986 to 4.1 million tons in 1987 to 9.9 million tons in 1988. Although most of the barge traffic in 1988 can be accounted for by the fact that the drought that year left the Mississippi River impassable to most barges, the shipping for the period in 1988 before the drought was already forty-nine percent ahead of 1987's shipping for the same period. However, these figures are still much lower than the 27 million tons predicted by the Corps. Most barges which travel on the Tenn-Tom

are filled with coal, wood products, crushed rock, chemicals, and asphalt ("Trade" B1, B3). Unfortunately, because locks on the Tenn-Tom can handle only eight barges, whereas fifty barges can be moved on the Mississippi, with has no locks or dams, barge companies must charge twice as much as the cost of a tow on the Mississippi when they use the Tenn-Tom ("Marketing" All). Therefore, the Mississippi route is more cost effective than the shorter Tenn-Tom route because of the very dams which cost so much to build. Even if the barge traffic did meet original expectations, few of the barges ever stop along the waterway, and the people who live nearby see very little direct economic benefit from any amount of barge traffic.

The main reason for the Tennessee-Tombigbee Waterway is to attract industry to the area in order to raise incomes and increase the quality of life for the people living in the area. As can be seen from the first map, 1979 Median Household Income in the South, Mississippi is one of the poorest states in the region while Alabama is in the same class as Tennessee (at least for income). Because this data comes from the latest available census data, which was taken before the oil glut, Texas seems to be one of the wealthier states in the South and Louisiana seems to not be one of the poorest. However, this map best shows that in 1979, while the Tenn-Tom was still under construction, Alabama is no worse off than Tennessee, Georgia, and other states although Mississippi did fall at the bottom along with Arkansas. The median income was selected instead of the mean because a few people with very high incomes can skew the mean but not the median.

MEDIAN HOUSEHOLD INCOME
THE SOUTH
1979



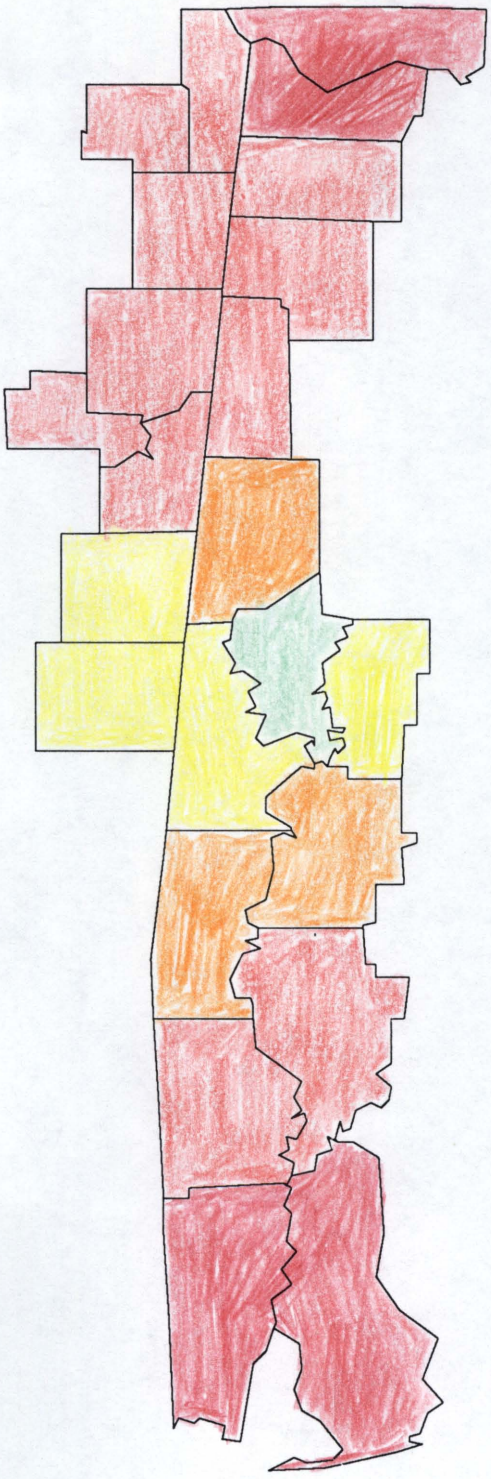

Source: 1980 Census of Population

When one compares the median household incomes of the counties in the study area, quite a different picture develops. As one might expect, the four counties in metropolitan statistical areas--Baldwin, Colbert, Lauderdale, and Mobile--are the only counties in the highest bracket. Most of the counties in the study area fall in the next bracket, the $11,000-$13,999 one. The Mississippi counties in this bracket seem to have about the same income as the state of Mississippi does as a whole. However, all of the counties in the next three brackets have median incomes lower than the median income for any state in the South.

Despite previous hopes, the Tennessee-Tombigbee Waterway has done little or nothing to help the poorest citizens who live nearby it. Although the Corps of Engineers, which had an annual work force of three to five thousand workers while the construction of the waterway was underway, reached its goal of thirty percent minority hiring, very few job opportunities are presently open to these people. Family income--which usually comes from government assistance, low-wage service jobs, and small farms--often drops below five thousand dollars a year for many minority families living in the depressed counties of western Alabama. Because very few large industries have come into the area, most of the available jobs are related to the low-paying recreation industry. One citizen of Sumter County, Alabama, begged, "Let people in power know we're here. We need jobs" (Hall 384, 387).

The next three maps were created to show the growth of industry in the study area over the last fifteen years. The reason why three maps instead of two were created is to better show long-

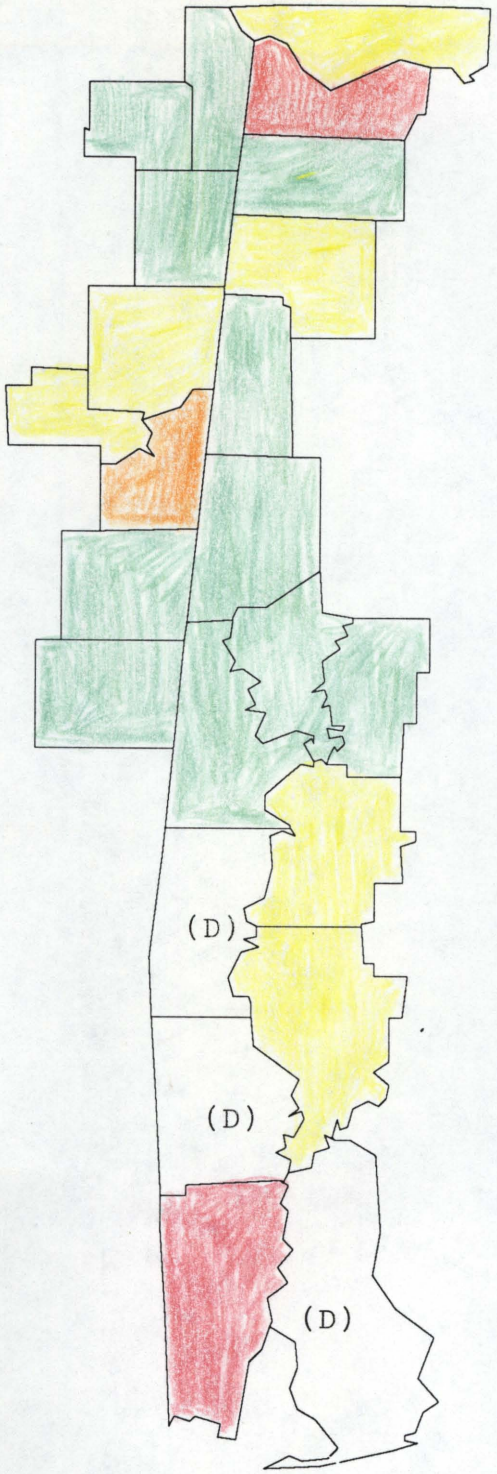
# 1979 MEDIAN HOUSEHOLD INCOME
## TENN-TOM STUDY AREA



$14,000-$16,000
$11,000-$13,999
$10,000-$10,999
$8,000-$9,999
$7,000-$7,999

Source: 1980 Census of Population

# 1977 VALUE ADDED BY MANUFACTURE (MILLION DOLLARS)
## TENN-TOM STUDY AREA

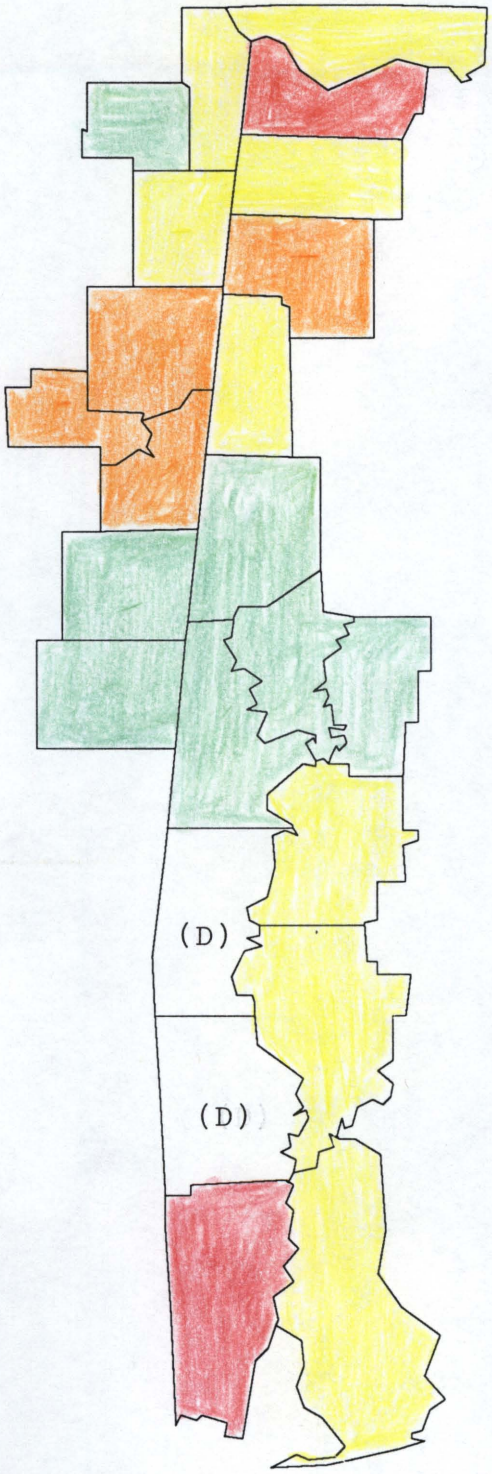



800-2300
280-799
160-279
55-159
5-54

Source: 1977 Census of Manufactures

(D) means failure to disclose

# 1982 VALUE ADDED BY MANUFACTURE (MILLION DOLLARS)
## TENN-TOM STUDY AREA

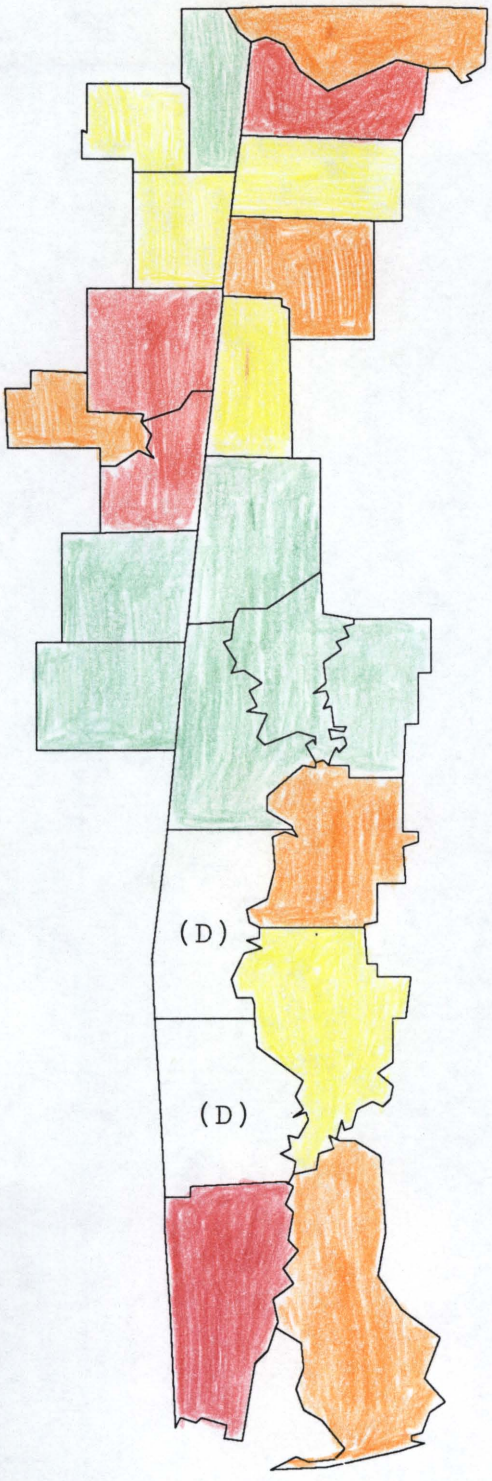



800-2300
280-799
160-279
55-159
5-54

Source: 1982 Census of Manufactures

(D) means failure to disclose

# 1987 VALUE ADDED BY MANUFACTURE (MILLION DOLLARS)
## TENN-TOM STUDY AREA




800-2300
280-799
160-279
55-159
5-54

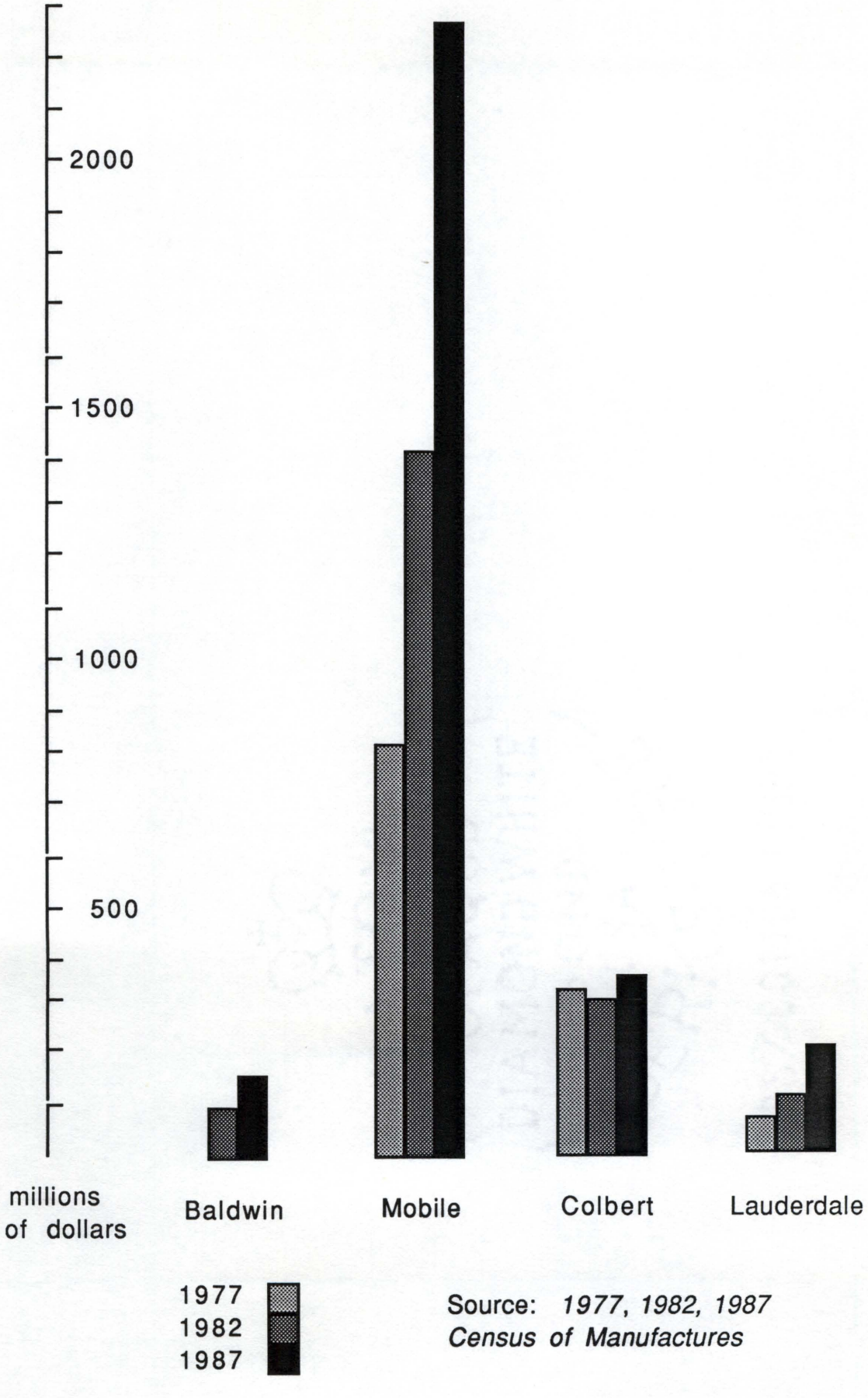
Source: 1987 Census of Manufactures

(D) means failure to disclose

term growth trends and to not let the recession in 1982 affect the representation of the data. Value added by manufacture is commonly held to be the best indicator of industrial strength of a region although from the point of view of the inhabitants number of people employed might be better. The monetary values on these maps do not account for inflation.

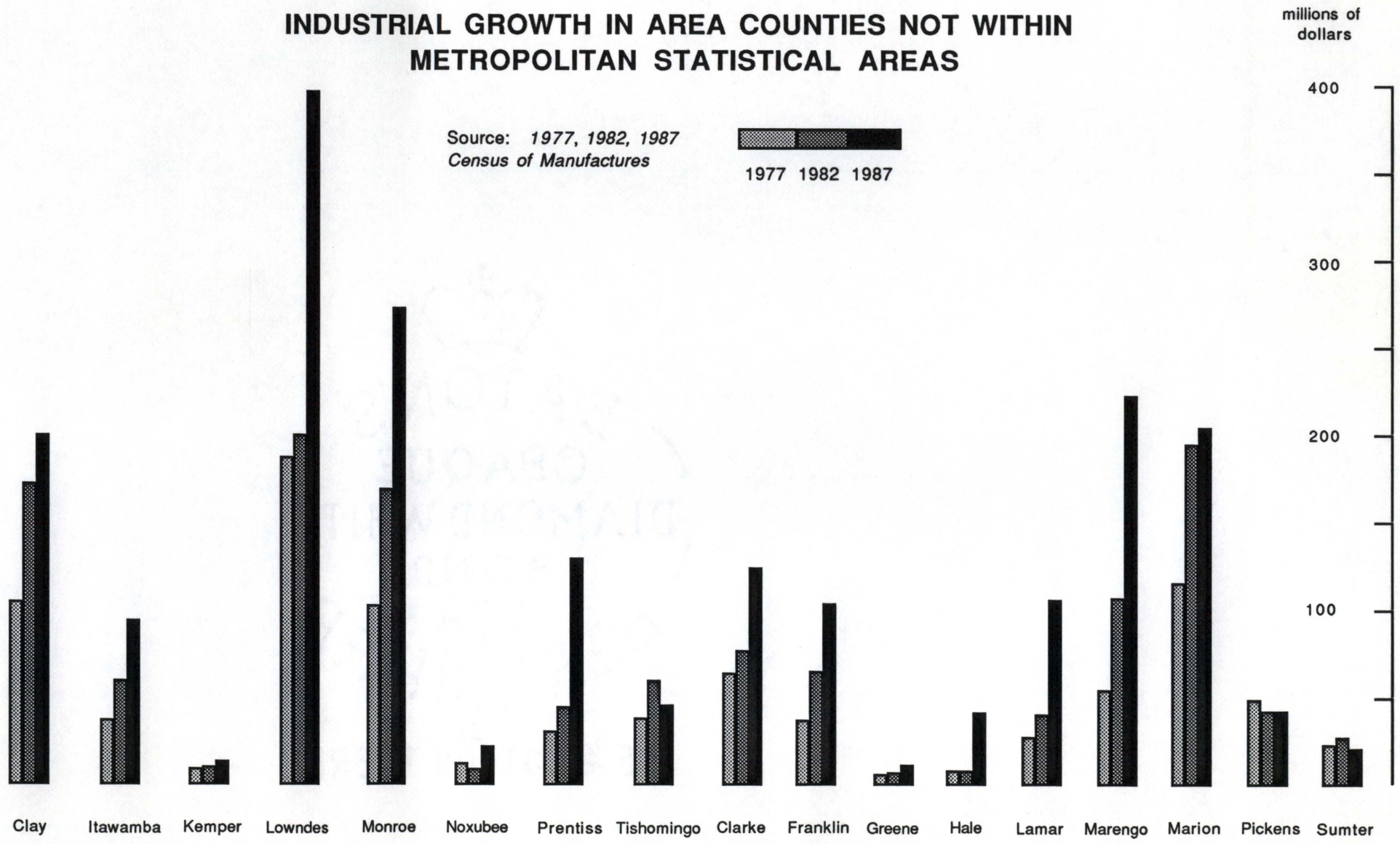
Comparing the three maps with the two bar graphs shows a variety of revealing information. First of all, Mobile county stands out as the industrial leader of the region, with an over $2 billion industrial output in 1987. Some would say that the increases in industrial output in Mobile county alone would justify the money spent on the waterway, but these people neglect that, as a whole, the South has greatly increased its industrial output over the last fifteen years because of industries seeking lower labor costs. Therefore, the increase in Mobile county, or in any other county for that matter, cannot be solely based on the waterway. One can note from the maps and the graph that both the Mobile and Florence MSA's are each composed of one relatively strong industrial county and one relatively weak industrial county whose median income is nevertheless as high as the income of the strong industrial county. This fact demonstrates that industrial strength is not the only factor in high median household income in a county. Looking at the graph, one sees that Colbert county took a dip in 1982, and this probably resulted from the recession in that year. The first map shows a (D) for Baldwin county in 1977; this probably results from the fact that there were so few industries in that county in that year that they were reluctant to disclose any financial information.

# INDUSTRIAL GROWTH IN AREA COUNTIES WITHIN METROPOLITAN STATISTICAL AREAS




Source: *1977, 1982, 1987 Census of Manufactures*

# INDUSTRIAL GROWTH IN AREA COUNTIES NOT WITHIN METROPOLITAN STATISTICAL AREAS



Looking at the rural counties in the maps, one can see that industrial strength usually corresponds to high median household incomes. Generally, the counties in the center of the study area are the weakest both in industrial output and in median household income. The graph shows that most counties improved their industrial output over the last fifteen years, but, again, this more than likely is a result of the general trend for industries to locate in the South in general for low labor costs than for industries to locate by the waterway specifically.

Perhaps most telling about this graph are the exceptions to the rule. First, Noxubee county, a very weak industrial county with a fairly low median household income, shows a slight dip in 1982, again, probably because of the recession. The next county that is an exception, Tishomingo county, experienced a fall in 1987 when there was no recession and when there should have been an increase. However, a NASA rocket plant will be located in this county in the very near future. Once built, the plant will employ about fourteen hundred workers, and the promise of increased development has already attracted various spinoff industries to the county ("Jobs" B3). However, the local residents realize that the best jobs will go to out-of-state workers while they will get the less well-paying jobs.

The last two exceptions are the most telling. Pickens county's decrease in 1982 and again in 1987 and Sumter's decrease in 1987 are quite unacceptable. A decrease in 1982 is understandable because of the recession, but, with the general trend for industries to locate in the South and with $2 billion having been spent on a

waterway that is supposed to increase industrial output in the area, the decrease in 1987 is unexplainable. Both counties have the waterway running right through them, and, despite the fact that the counties are located in a region of the United States where industries are flocking and the fact that $2 billion has been spent to attract industry to this specific area of that region, their industrial output has decreased when it should have increased.

One incident in which a paper mill company pulled out of building a plant on the Tennessee-Tombigbee Waterway because of insufficient water resources has left industrial recruitment officials worried. An unidentified major U.S. company had considered opening a $3OO million plant in Amory, Mississippi, because of the waterway and an abundance of hardwood and softwood in the area. Unfortunately, because the company found out it would need 3,35O cubic feet of water per second to run the plant instead of the four hundred cubic feet per second which was originally calculated, it had to cease planning for the plant, which would have employed up to 175 people with a payroll in excess of $5 million. Despite this major economic disappointment, officials are still confident that many smaller steel, paper, and chemical plants will relocate to the area because of the waterway ("Loss": B1, B3).

The one result of the Tennessee-Tombigbee Waterway that has surpassed original expectations is the use of its recreational aspects. As tourists come from all over the South to enjoy the beautiful and inviting lakes made by the Tenn-Tom's ten dams, the recreational industry in this area has exploded. Because the Corps of Engineers purposely left timber and brush in the lakes, the

reservoirs have become natural breeding grounds for bass and crappie, which draw fishermen and their wallets to the area (Middleton 43). In addition, boat sales are booming, and several marinas have opened on the reservoirs ("Waterway" sec. I: 27). More information on this topic is given in the accompanying videotape.

Unfortunately, many times the recreationists and the industrialists meet in head on collisions, as they did when homeowners near Yellow Creek, which is the part of the Tennessee River which intersects with the waterway, tried unsuccessfully to prevent the construction of a fleeting station on Yellow Creek. Fearing that the increased barge traffic will ruin the recreational value of Pickwick Lake, recreational users of the lake are now forced to navigate their pontoon boats and bass boats away from the barges and tows ("Citizens" B1). In addition, pleasure boaters and local fisherman often get into angry rows when water-skiers and trot lines intersect ("Tiffs" B9).

Because the waterway was constructed under the National Environmental Policy Act, the Corps of Engineers maintains thousands of acres of forest by planting a hundred thousand seedlings a year. In addition, the waterway offers 44,OOO acres of water surface for waterfowl to inhabit, especially during the winter months. Unfortunately, the sandy loam which was originally dug up to make the waterway and the silt which is continually dredged from the river is deposited over vast areas of wasteland and often kills forests. Moreover, the silt which is choking out many of the Tenn-Tom's river beds heavily contributes to the gradual deterioration of the Tenn-Tom's water quality (Patterson 376, 382). In the spring of

1991, heavy rains caused the level of the waterway to reach at least four feet above flood stage. This flooding ruined the crops of many farmers in the area ("Floods" B1).

As with every large-scale project which is enacted in the name of progress, people's lives and property were interrupted and bought in order to make way for the construction of the Tennessee-Tombigbee Waterway. During the construction of the lower waterway, federal land appraisers came to the hamlet of Holcut, Mississippi, and told the residents that they would have to get out of the waterway's way. Getting less money for their land than what it was worth, the villagers reluctantly sold not only their land but also their history and their community. Pinkey Devers, who was seventy-eight when she had to move away from the place where she had lived all of her life, said, "To tell the truth, I don't know why they ever tore all them houses down, anyhow. That Tombigbee will never be worth the trouble it's caused other people" ("Holcut" B2). Mainly a shirt factory, a couple of general stores, and several dozen houses, Holcut, the only hamlet sacrificed for the waterway, is now mainly a wildlife reserve (Patterson 373). In order to remind users of the waterway that sacrifices were made for progress, a monument and park were constructed on part of the site of the deserted hamlet. More information on this subject is contained in the accompanying videotape.

One can tell from the maps that Mississippi as a whole is one of the poorest states in the South and that Alabama as a whole is in the class with most of the other southern states. From looking at the map of the study area, one can see that most of the counties in

the area have about the same median household incomes as do Mississippi and Alabama, with some notable exceptions. The maps and graphs that show industrial growth show that growth has occurred in almost all of these counties. But the fact that this growth is more than likely caused by free market forces than by the waterway, the fact that too many of these counties have not experienced industrial growth, and the fact that most shippers find it less expensive to use the Mississippi instead of the Tenn-Tom because of the dams lead one to the conclusion that the $2 billion spent on the waterway was a waste of taxpayers' money.

Obviously, after only six years since the Tennessee-Tombigbee Waterway's official opening, it is too soon to tell whether the federal government wasted $2 billion on a "backwoods fishing hole." However, the U.S. Army Corps of Engineers' predictions, which were heavily biased, for the impact of the waterway on industry and shipping were ridiculously overrated since less shipping has been on the waterway in the last few years than the Corps predicted for the waterway's first year. In addition, the expected surge in industry moving to the area has been less than originally predicted. Although the N.A.S.A. rocket plant will eventually become a terrific boost to the local economy, it still has yet to leave the early stage of construction as of this writing. Although the recreation industry is doing far better than originally thought, the jobs that it creates almost always fall into the low-paying service sector of the local economy. Furthermore, the environmental impact of the waterway on the forests, croplands, and rivers of the region does not look promising for the land's

inhabitants. So far, the sacrifices made by the people of Holcut do not seem worthwhile. Fortunately, the land and its waterway hold great potential, but the outcome of this $2 billion question is still far off into the future. The slogan of the U.S. Army Corps of Engineers is "Making Tomorrow Today," but it seems that "Tomorrow" is still tomorrow.

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