1975

Middle Fork Bayou D'Arbonne Reservoir Project, Claiborne Parish, Louisiana: a feasibility and social impact study

Alvin Lee Bertrand

Follow this and additional works at: http://digitalcommons.lsu.edu/agexp

Part of the Agriculture Commons

Recommended Citation
http://digitalcommons.lsu.edu/agexp/14

This Article is brought to you for free and open access by the LSU AgCenter at LSU Digital Commons. It has been accepted for inclusion in LSU Agricultural Experiment Station Reports by an authorized administrator of LSU Digital Commons. For more information, please contact gcoste1@lsu.edu.
Middle Fork Bayou D'Arbonne Reservoir Project
Claiborne Parish, Louisiana

A Feasibility and Social Impact Study

Alvin L. Bertrand
Project Leader
Preface

The research for this report was undertaken as a joint project of the Department of Rural Sociology and the North Louisiana Hill Farm Experiment Station of the Louisiana Agricultural Experiment Station. Full cooperation was received from Mr. Roy Aguillard, Director of the Louisiana State Department of Public Works, Mr. Leon R. Tarver, Jr., Director of the Louisiana Commission on Intergovernmental Relations, and some 70 Claiborne Parish leaders.

The following persons were members of the study group:

Alvin L. Bertrand, Coordinator, Department of Rural Sociology Research, Louisiana Agricultural Experiment Station
Dawson M. Johns, Superintendent, North Louisiana Hill Farm Experiment Station, Louisiana Agricultural Experiment Station
Clark Forrest, Planning Program Supervisor, Louisiana Commission on Intergovernmental Relations
Richard S. Machalek, Instructor, Department of Rural Sociology Research, Louisiana Agricultural Experiment Station
Stephen E. Doeren, Research Associate, Department of Rural Sociology Research, LSU, Baton Rouge
Kevin B. Smith, Graduate Assistant, Department of Rural Sociology Research, LSU, Baton Rouge
Walter E. Stead, Graduate Assistant, Department of Management, LSU, Baton Rouge
Howard F. Thomas, Graduate Assistant, Department of Marketing, LSU, Baton Rouge
Contents

Preface ........................................................................................................... 2
Summary ......................................................................................................... 4
Background and Setting .............................................................................. 5
  Introduction ................................................................................................. 5
  Motivation for the Reservoir Project ......................................................... 5
  Location and Description of Claiborne Parish ........................................... 6
Population Characteristics and Trends ......................................................... 6
Attitudes and Feelings of Parish Leaders Regarding the Proposed Project ............................................................................................................. 10
Selection of Influentials ................................................................................ 10
Characteristics of Influentials ....................................................................... 10
The Interview Procedure .............................................................................. 11
Responses of Influentials ............................................................................ 12
  Familiarity with Lake Claiborne ................................................................. 12
  Evaluation of Lake Claiborne ..................................................................... 12
  Familiarity with and Overall Feelings About the Proposed Reservoir Project ............................................................................................................. 13
  Impressions of Sentiment in the Parish Toward the Project .................... 15
  Opinions About Willingness of Parish Officials to Support Project ........ 15
The Problems of Relocation and Property Acquisition ................................ 18
  The Relocation Problem ............................................................................ 18
  The Land Acquisition Problem .................................................................. 19
The Potential User Population ..................................................................... 20
Other Relevant Social Impact Factors ......................................................... 22
Conclusions and Recommendations ............................................................ 25
Appendix....................................................................................................... 26

Figures
1. Map showing location of roads, towns, and other features of Claiborne Parish ............................................................................................................. 7
2. Photograph of area to be covered by proposed reservoir ..................... 16-17
3. Map showing extent of holdings by U.S. Forest Service in area of proposed reservoir ............................................................................................................. 20
4. Map showing area within 25, 50, 75, and 100 miles of proposed dam site ............................................................................................................. 23
Summary

The research reported in this bulletin was designed to provide background information for persons and agencies with a need to evaluate the proposed Middle Fork Bayou D'Arbonne Reservoir Project in Claiborne Parish, Louisiana. Emphasis was placed on feasibility and social impact factors. Findings of the study may be summarized as follows:

1. Claiborne Parish represents an area in need of resource development. The parish has been steadily losing population, especially in the younger adult ages, and this trend is projected to continue.

2. The people of Claiborne Parish are anxious to improve the economic opportunity structure within the parish and have initiated several projects with this objective in mind. The damming of the Middle Fork of Bayou D'Arbonne to form a reservoir is one of the projects proposed.

3. Interviews conducted with leaders of the parish, persons determined to be knowledgeable and/or influential, indicate a very strong local support for the project. This support stems for the most part from a very positive experience with Lake Claiborne, which was developed in the parish about a decade ago.

4. Study of the relocation and property acquisition problems indicates that neither will be serious. The number of landholders is small, there appear to be no permanent dwellers in the area, and the land is exclusively in hardwood forests.

5. Estimates of the user population provide evidence that over 600,000 persons live within 50 miles of the proposed reservoir site and that 1.6 million people are no farther than 100 miles from the site. This is a population base large enough to assure a market for the reservoir as well as for the other lakes and reservoirs in the region.

6. The planning for a reservoir in a relatively depressed rural area is in keeping with the rural development and outdoor recreation development objectives of the state and nation. In fact, it would seem an ideal contributing project to the programs being implemented under such Federal statutes as the Land and Water Conservation Act of 1965 and by state agencies such as the Louisiana Bureau of Outdoor Recreation.

7. The conclusion reached in light of the findings of the study is that the "Middle Fork" project is feasible and will have a positive social impact. It is recommended that the proposal be submitted to appropriate federal and state agencies for consideration for support.
Middle Fork Bayou D’Arbonne Reservoir Project—Claiborne Parish, Louisiana: A Feasibility and Social Impact Study

Alvin L. Bertrand, Project Leader*

Background and Setting

Introduction

There have been unprecedented efforts to improve the “opportunity” structure in rural America within the past decade. Perhaps the most significant action at the national policy level was the enactment of the Rural Development Act in 1972. This act provided for programs designed to accelerate the development of rural areas and directed federal agencies to give the highest priority to the implementation of these programs.1

This report, prepared by members of the Department of Rural Sociology Research, Louisiana Agricultural Experiment Station, in collaboration with the Superintendent of the North Louisiana Hill Farm Experiment Station, includes the findings of a research effort designed to contribute to the rural development mission in Louisiana. The project was undertaken upon invitation from civic and public agencies in Claiborne Parish, Louisiana, and could not have been completed without the cooperation of parish leaders. The cooperation and help of the State Department of Public Works and the Louisiana Commission on Intergovernmental Relations is also gratefully acknowledged.

The reader of this report should be aware that it is not concerned in a specific sense with the economic impact of the proposed reservoir. This important aspect of the total “impact” study is being prepared by members of the Louisiana Polytechnic University Faculty.

Motivation for the Reservoir Project

Claiborne Parish is one of several parishes in the state that have not prospered in the last quarter century. This lack of prosperity has been attributed to the mechanization of farms, which has displaced many smaller farmers and laborers, and the lack of industrial development. A recent study by the Coordinating and Development Council of Northwest Louisiana (May 1974) indicates that the future of the parish will continue to be dim unless something is done to reverse current trends. Among other things, the Council predicted a continued relatively rapid drop in population in the parish to and beyond 1990. The decrease in population was seen by the authors of the Council report as curtailing economic

---

*The authors of this report, in addition to the Project Leader, are: Stephen E. Doeren, Kevin B. Smith, Walter E. Stead, and Howard F. Thomas.

activity and, added to the lack of necessary transportation and public utility services, unduly disrupting chances for orderly growth and development.

Faced with the bleak outlook outlined in the paragraph above, the Claiborne Parish Planning Commission and other agencies and individuals in the parish have attempted to inaugurate programs to reverse the downward trends of the parish. Rather vigorous campaigns are in the planning or implementation stage to attract new industry, better utilize land and water resources, improve living conditions and educational facilities, and upgrade recreational opportunities. The Middle Fork Bayou D'Arbonne Reservoir Project is one of the major efforts initiated in keeping with the above objectives. It is seen by local planners as one of the undeveloped natural resources of the parish, one which can contribute substantially to the improvement of the social and economic conditions of its residents.

Location and Description of Claiborne Parish

Claiborne Parish is located in the northwestern part of Louisiana. It is bordered on the north by the state of Arkansas, on the south by Bienville Parish, on the west by Webster Parish, and on the east by Union Parish; Lincoln Parish is on its southeast corner. The parish and its existing network of roads and waterways is shown in Figure 1.

It is of interest to note that Claiborne Parish was formed when Natchitoches Parish was divided in 1828. However, it was later divided into several other parishes or parts of parishes, achieving its present size in 1873. Some 763 square miles is included within the land area of the parish, of which 85% is classified as in agriculture or open space. For the most part, the topography of the parish varies from rolling to hilly, although there are no sharp or high elevations. The primary lanes of transportation in the parish, as can be seen in Figure 1, are state roads, although a federal highway stretches across its northwest portion.

Gas and oil production represents the chief industrial activity in Claiborne. The major farming activity in the parish relates to the production of livestock and poultry products. These types of enterprises are followed in importance by crops of various types and forest products.

In essence, it can be said that Claiborne Parish is not highly industrialized, nor is it an intensive farming area. These characteristics contribute to its problems of growth and development, as will be highlighted in the report being prepared on the economic trends in the parish.

Population Characteristics and Trends

At the time of the 1970 Census, 17,024 persons resided in Claiborne Parish. Of these, 8,049 were males (47.3%) and 8,975 were females (52.7%). The population was almost equally divided between blacks (50.1%) and whites (49.9%).

2Unless otherwise specified, all references to Census data will be to the various reports of the Bureau of the Census, U.S. Department of Commerce.
Agewise, 5,896 (34.6%) of the individuals residing in the parish were 18 years of age or younger. There were 8,224 persons between the ages of 18 and 65 (48.3%) and 2,904 (17.1%) persons over the age of 65. Parenthetically, it may be noted that an extremely high percentage of the parish’s total population was in the so-called dependent ages—i.e., below 18 years and over 65 years of age. The median age of the people living in the parish was 33.3 years.

Homer—the largest city in the parish—had a population of 4,483. The second largest and only other center classified as urban in the parish is Haynesville, which had a population of 3,055 in 1970. It is interesting to note that the population of Homer was 51.1% black in contrast to the population of Haynesville, which was only 35.9% black.
The total rural nonfarm population of Claiborne Parish was 8,217 (48.3%) in 1970. Of this number, 3,536 were white (43.0%) and 4,681 were black (57.0%). A relatively small percentage of the rural nonfarm population resided in the villages of Athens (387 persons), Lisbon (151 persons), and Junction City (159 persons).

There were only 874 persons classified as farmers in Claiborne Parish in 1970. Of these, 564 were white (64.5%) and 310 were black (35.5%).

In 1970, 60.9% of the males and 32.0% of the females over the age of 16 in this parish were in the labor force. Of these, 1,665 (31%) were black and 3,708 (69%) were white. Approximately one-fourth of the persons in the labor force were employed in blue collar (manufacturing) jobs in the parish in 1974. This percentage is quite high when compared with a state average of 15.9%. One-third (34.2%) of the workers in the parish were in white collar jobs, whereas the statewide average was 45.2%. The government employed 19.0% of the persons in the parish labor force (the state average was 17.2%). Only a very small percentage (4.6%) of the labor force was composed of farmers and farm workers. The remainder of the parish labor force (18.3%) was divided among professional occupations (i.e., physicians, dentists, and educators) and service workers.

The median family income for Claiborne Parish in 1970 was $5,347 as compared with a statewide average of $7,530. The per capita median income for the parish was $4,864.

Of the 4,004 families in Claiborne Parish in 1970, 1,322 (33.0%) were considered to have incomes below the poverty level. This percentage indicates the economic problems that face the parish. Statewide, only 21.5% of the families are at this economic level. The mean income for the poverty families in Claiborne Parish was $1,967 annually. Of all the families in the parish, 13.2% lived on public assistance or public welfare income in 1970.

The average person over 25 years of age in Claiborne Parish had completed 9.3 years of school in 1970. This was well below the Louisiana average of 10.8 years. Only 26.3% of those persons over 25 years of age had earned a high school diploma (24.7% of the males and 27.1% of the females); only 13.9% had obtained some college education and only 7.0% had earned a college degree. Only 78.1% of all children between the ages of 14 and 17 were enrolled in school in 1970, as compared with a state average of 89.5%.

When compared with that in the rest of the state, the health care services delivery system of Claiborne Parish appears somewhat overworked. In 1970, there were eleven physicians in general practice, no surgeon, and eight dentists in the parish. The state ratio of persons per physician was 957. By comparison, the ratio in Claiborne Parish was 1,547—a difference of over 40%. When it is recognized that Louisiana's ratio is considerably higher than the national average, the figures for Claiborne take on even more meaning.

Population trends are one of the best indicators of recent developments.

---

in Claiborne Parish. In 1937 the parish had a population of 34,800. By 1950 this figure had declined by 27.9% to 25,063. Between 1950 and 1960 the number of people dropped another 22.6% to 19,407 persons; and between 1960 and 1970 the population decreased to 17,024 (another 12.3% decline). Very obviously, the economic problems facing Claiborne Parish are related to its population base. With fewer and fewer taxpayers and consumers, it becomes increasingly harder to provide the services which represent an acceptable level of living.

The declining population of Claiborne Parish is associated with a migration trend out of the parish, especially from rural areas. This phenomenon is, of course, very characteristic of the state and national trends. The urban segment represented 39.6% of the total parish population in 1960, whereas the rural population comprised 60.4%. In 1970, the urban residents comprised 44.3% of the population and the rural residents totaled 55.7%. This change takes on added importance when it is considered that there are no urban places with as many as 5,000 people in the parish.

Another significant fact that must be studied in analyzing the migration problem in Claiborne Parish is the shifts that occurred in the so-called working aged population. From 1960 to 1970, 8.2% of the white males and 18.8% of the white females between the ages of 15 and 19 left the parish. The black population declined in this age group even more during the same period, with 27.6% of the males and 23.3% of the females leaving. Even more startling is the finding that there was a decline of 54.8% of the young white males in the 20-24 year age range. Nearly as many females in these ages left the parish, 44.2%, or four of every ten. Two-thirds of the young black males (66.9%) ranging in age from 20-24 years and three-fifths of the black females (59.4%) in this age class left the parish in the decade of the sixties. Of those persons in the age group 25-29, there was a 50.0% decline in the white male population and a 50.0% decline in the white female population. Considerably more of the blacks in this age group, 69.6% of the black males and 61.3% of the black females, left the parish during the decade 1960-70.4

Projections for 1980 indicate that the population of Claiborne Parish will decline approximately 12.3% during the 10-year period 1970-80. This includes a projected 8.2% drop in the white male population, a 9.1% drop in the white female population, a 13.8% drop in the black male population, and a 16.5% drop in the black female population. The magnitude of the above migration trends highlights the greatest problem of Claiborne Parish: how to provide an opportunity structure for its younger people. This explains part of the concern over projects such as the Middle Fork Bayou D’Arbonne reservoir.


Attitudes and Feelings of Parish Leaders Regarding the Proposed Project

It is a principle basic to development programs that local leaders must be aware of, understand, and support a project if it is to be successfully implemented. Specifically, many studies have shown that local involvement and support are especially significant factors in water resource development. It was for this reason that the decision was made to interview persons in Claiborne Parish identified as knowledgeable and/or influential; in other words, local opinion and action leaders.

Selection of Influentials

The study group developed criteria for the selection of knowledgeable and influential as follows: he or she must reside in the parish, must be knowledgeable about what goes on in the parish, and must possess some characteristic or hold a position such that a degree of influence could be exerted on at least some residents of the parish. No quotas were established with reference to race or sex; rather, individuals were sought out in a purposeful manner. However, an attempt was made to reach influentials of all types, including blacks as well as whites, women as well as men, open country residents as well as town residents, and persons living near the proposed site of the reservoir as well as persons not residing in the immediate vicinity of the proposed reservoir site. Names of potential interviewees were obtained in three ways: from an initial list prepared by a longtime resident of the parish; by asking the interviewees on this list if he/she could recommend individuals who met the requirements for leaders; and by seeking out certain key office holders, such as the sheriff and school superintendent, for interviews on the basis of their leadership positions in the parish. Altogether, 70 parish leaders were interviewed; however, only 67 different families were represented.

Characteristics of Influentials

Approximately three out of four (76%) of the persons interviewed in Claiborne Parish were white, the remainder were black. Over four-fifths (84 percent) were male and 16% were female. Of the latter, four were black.

Slightly less than one-third of the influentials (32%) were between 40 and 49 years of age, and about the same number (30%) were in the age range 60 through 69 years. One-quarter (24%) ranged in age from 50 to 59 years, while 11% were younger than 40 years. The youngest interviewee was 26 years of age.

Ted L. Napier, An Analysis of the Social Import of Water Resources Development and Subsequent Forced Relocation of Population Upon Rural Community Groups: An Attitudinal Study (Columbus, Ohio, Dept. of Agri. Econ. and Rural Soc., The Ohio Agricultural Research and Development Center, 1974); Kenneth Wilkinson, Local Action and Acceptance of Watershed Development (State College, Miss., Water Resources Research Institute, 1966); John H. Peterson, Jr. and Rodney N. Friery, Community Organization Programs and Relationships in Watershed Development (State College, Miss., Water Resources Research Institute, 1972).
Eighty-seven percent of the influentials interviewed had resided in Claiborne Parish for at least ten years, and more than half of them had lived in the parish all their lives.

Nine out of every ten of the influentials interviewed were married, and three of every four (72 percent) lived within the limits of a town.

Slightly less than one-fifth of the informants (18%) had no formal educational experience beyond high school, while two-fifths (40%) had achieved some college or vocational-technical training. Just over two-fifths (42%) had earned at least a four year college degree.

Only 6% of the influentials reported an annual family income of less than $7,000. By contrast, 16% said the income of their family was over $25,000 annually. Most (64%) had family incomes ranging from $10,000 to $25,000.

Two-thirds of the influentials interviewed (67%) held membership in at least one or more organizations of a civic and/or public nature; and over half held membership in two or more such organizations.

The influentials of the parish ranked high on the occupational scale. Two-thirds of them (67%) held positions classifiable as either “professional, technical, and kindred workers” or “managers, officials, and proprietors.”

It is clear from the above findings that the group selected as influentials were different from the average citizen in Claiborne Parish. They were much better educated, had higher incomes, held better jobs, and maintained a higher level of social participation in civic and community organizations.

The Interview Procedure

A decision was made by the study group to utilize a depth interview technique in the interviewing of knowledgeables and influentials. Toward this end, an interview guide including five basic questions was prepared. (See Appendix A.) The first two questions were concerned with Lake Claiborne and were designed to determine the interviewee’s knowledge of and experience with this earlier lake project in the parish. It was felt that Lake Claiborne would provide a frame of reference, positive or negative, for contemplating questions relative to the proposal for a second lake. Parenthetically, it can be noted that Lake Claiborne is located about two miles southeast of Homer. (See Figure 1.) The lake was formed by damming Bayou D’Arbonne, with the project being completed in 1966. The lake drains 133 square miles; when full, it has an elevation of 185 feet, a surface area of 10 square miles (6,400 acres), a volume of 100,000 acre-feet, and an average depth of 16 feet.

The last three questions in the interview guide were addressed to the proposed reservoir project. All questions were designed to be used in an unstructured fashion, that is, in an ordinary conversational manner. For the most part, interviews were taped, and transcribed at a later date. Generally speaking, interviews were held in the office, work place, or home of the individual. After interviewees had answered questions related to the reservoir project, they were asked to provide information relative to their age, occupation, residence, marital status, and income.
All the interviewing was completed in two days. In this regard, strenuous effort was made to minimize contamination, that is, the opportunity for a person already interviewed to discuss the questions asked of him with a prospective interviewee.

None of the seven persons who served as interviewers reported any special problem or difficulty. On the contrary, all were impressed with the cordiality and cooperation they received. Only one turndown was reported.

**Responses of Influentials**

The responses of interviewees are reported in this section. The reader is referred to Appendix A for the specific questions which were addressed to respondents.

**Familiarity with Lake Claiborne**—All of the influentials said they were acquainted with Lake Claiborne. Furthermore, almost all of them (94%) had personally used the lake; only four of them had not used the lake.

When the 63 influentials who had personally used Lake Claiborne were asked in what manner(s) they had used the lake, one answer stood out emphatically among the responses given—fishing. The next most frequently mentioned use of the lake was for water skiing, mentioned by 17% of the respondents. Picknicking (16%), boating (14%), ownership of property (10%), swimming (8%), hunting (5%), camping (3%), and miscellaneous uses (6%) were also identified as uses made of this facility.

It is noteworthy that the four influentials who had not personally used the lake had discussed the lake with persons who had used it. They characterized the general reaction of their friends who had used Lake Claiborne as being favorable to extremely favorable, as did all the other persons interviewed.

**Evaluation of Lake Claiborne**—When asked to give their evaluation of Lake Claiborne, 86% of the influentials responded in a manner which was judged to be favorable. In fact, over half of those interviewed were strongly favorable in their comments. Comments such as: "A definite asset to the parish," and "a boon to the community" were common. Only seven individuals (10%) gave replies interpreted as a neutral evaluation, and just two persons gave an unfavorable evaluation. However, none gave a response judged to be strongly unfavorable. There is no doubt that the people of Claiborne Parish are very pleased with Lake Claiborne.

When queried as to the impact of Lake Claiborne upon the parish, one reply stood out among the responses given by parish influentials—this was that direct economic benefits had accrued to the parish as a result of the lake. Over nine-tenths of the influentials voluntarily mentioned the economic benefits of the lake in addressing themselves to the question of its contribution to the parish. Typical statements were that it stimulated the local economy by bringing in outside money; that it helped attract industry to the area; and that it stimulated the building
of homes and second homes. All these types of activities were seen as helpful to local business enterprises and adding to the local tax base.

Another frequently cited positive impact of the lake was increased opportunities for various types of outdoor recreation. This benefit was mentioned by over one-third (36%) of the influentials interviewed. Another one-third of the persons quizzed on the subject felt that the lake had contributed to the increase in population within the local area, both in attracting permanent residents (mostly retirees) and in bringing summer and vacation visitors. Other advantages of the lake cited were the beauty it lent to the parish, the important water storage function it performed, and the fact that it brought an airport to the locality. Altogether, the 67 community influentials collectively gave 115 benefit type responses for Lake Claiborne.

When asked to identify negative features of Lake Claiborne, the influentials were not nearly as vocal as in the naming of benefits. They seldom registered complaints or grievances, and only 25 persons could think of negative impacts of the lake. It is interesting to note that only one complaint was mentioned by more than three of the influentials interviewed—this was that there was limited or no access to the lake for those persons who did not own lots on the lake. Since most of the shore line of Lake Claiborne is privately owned, this appears to be a well founded complaint. One-fifth of the respondents alluded to this problem. The next two most frequently mentioned problems associated with the lake were that the lake increased the likelihood of recreational-related accidents and that the lake was overcrowded, especially during the summer months. A few other "potentially" negative features were cited, but none by more than one person. They were expressed as conjectures that the lake would increase the probability of flood-related problems; that visitors to the lake might account for an increase in crime; that visitors to the lake might bring liquor to what was once a "dry" area; and that the lake might "unfortunately" encourage people to spend money on recreational-related items which could well be spent on more "relevant" aspects of life.

All in all, the people of Claiborne have had what they recognize as a good and beneficial experience with Lake Claiborne. There is no doubt that this experience served to condition their reaction to the proposal for a new lake, as described in the following section.

Familiarity with and Overall Feelings About the Proposed Reservoir Project.—All of the community influentials were acquainted with the proposal for a second lake in the parish, to be created by damming the Middle Fork of Bayou D’Arbonne. This finding is impressive in that it verifies that this project has been widely known and discussed.

After establishing their acquaintance with the project, interviewees were asked: "What is your overall feeling about such a project?" (See Appendix A, Question Number 3.) It was clear from the answers to this question that the people of Claiborne Parish are overwhelmingly in favor of the proposed project. Approximately nine-tenths of the community influentials (91%) made statements indicating they were in favor of the proposed project. Over half of the respondents (52%) were strongly
in favor of the project and enthusiastic in their support of it. Typical comments of this group were: "I am all for it. It would bring more people into the area," "I am 100 per cent for the project. It would add to the economy of the parish," and "It will boost business in the whole parish, bring in tourists."

Only three persons gave responses that were judged to express a neutral feeling about the project, and just two persons were strongly opposed to it. Two other persons said they were not in favor of the project, but were not strong in their opposition to it.

When queried as to the specific types of benefits anticipated from a second lake in the parish, two responses were prominent among those given by community influentials—an anticipated increase in economic benefits and increased recreational accessibility for those persons not able to own lots on Lake Claiborne. The following observation was typical: "It would provide those people not financially able to own a campsite with a place to fish, especially those who 'bank' fish." It is worthy of comment that the two benefits named most frequently related directly to experiences derived from Lake Claiborne. The positive economic impact of Lake Claiborne and the fact that it is now overcrowded were frequently mentioned in the context of expected benefits from the new project. With regards to accessibility, it was especially noted by the black interviewees that a significant proportion of the shore line of the proposed reservoir will be federally owned. The pressure (overcrowding) on Lake Claiborne was mentioned as a strong justification for the Middle Fork project by one-fifth of the influentials. Other benefits that could be seen from a second lake were an increase in the population of the parish, both in terms of residents and visitors; electricity generation, water storage, second homes, and the esthetics emanating from a large body of water.

When questioned as to what problems a second lake might create for the people of the parish, the interviewees mentioned several things. Fourteen persons wondered about the displacement of people, a subject covered in a subsequent section. Five individuals were afraid the flooding necessary would be detrimental to hunting in the area and four persons thought it would increase taxes. Other problems mentioned by no more than one or two interviewees were that property value of lots at the site of Lake Claiborne would decrease; that the reservoir would result in the destruction of part of the national forest; that the capital outlay that would be required on behalf of the parish could be put to better use; that the construction of the reservoir would increase recreation-related accidents; that the reservoir would probably be regulated by too many governmental restrictions, such as limiting the amount of land upon which private buildings could be constructed; that the construction of the reservoir would probably increase the amount of garbage and pollution in the area; and that the expenditures allocated for the construction of the reservoir would probably be too restrictive.

By way of summary, it is significant that 102 benefit-related responses were given in contrast to only 29 problem-related responses. The latter were concentrated in the responses of a relatively small number of individuals.
Impressions of Sentiment in the Parish Toward the Project.—Two-thirds of the influential had discussed the proposed project with others in their community and/or parish. These discussions apparently took place in a variety of social settings, both formal and informal. Their evaluation of their friends and acquaintances' feelings may be summarized as follows.

Over nine-tenths of the influential who had discussed the proposed project with others in their community and/or parish stated that the general reaction of those persons with whom they had talked was favorable. One person put it this way: "All the people I know are certainly in favor of it. The general sentiment is that it is much needed and wanted." Two persons had noted a neutral sentiment regarding the project among some of their friends, and one person reported that his contacts were not in favor of the project. Again, however, there is no question about the overwhelming positive nature of thinking in the parish relative to the proposal.

Opinions About Willingness of Parish Officials to Support Project—Community influential were reminded that sometimes it is necessary for local groups to raise matching funds and to assure the provision of services such as roads and utilities before funding for a major development project can be obtained from state or federal sources. They were then asked whether or not they felt that the officials of their parish would commit themselves to this extent for the proposed reservoir. A follow-up question, "Would you personally support such action on the part of your parish leaders?" was designed as a probe for the respondents' depth of feeling. (See Appendix A, Question Number 5.)

The community influential interviewed overwhelmingly expressed the belief that their parish leaders would be willing to support the reservoir project with matching funds, provided the latter were not too high. There was also a strong feeling that parish officials would attempt to provide services such as roads and utilities, if this was necessary in order to obtain funding for the reservoir. Four of every five of the persons interviewed were of the opinion that the parish leaders would commit themselves in this way. The general feeling detected was expressed by one individual in this manner: "Our leaders would be willing to support the project to the extent they could." Only 11 persons felt that the local police jurors and other parish officials would not lend great support to the project. However, two persons were uncertain as to how their local officials would react.

An even greater percentage of the influential (85%) stated that they would personally support their officials in action designed to bring a second lake to the parish. Only five individuals were not willing to lend their personal support to the project, and an equal number were uncertain at the time of the interview as to whether they would support such action.

In concluding this review of the responses of influential and knowledgeable in Claiborne Parish relative to the proposed development, it is clear that there is strong support for the project. This fact should encourage support and subsidy from state and federal agencies.
Area to be flooded by proposed reservoir.
The Problems of Relocation and Property Acquisition

One of the most important considerations in the planning for a reservoir project is the magnitude of the relocation and land acquisition problems. In fact, the importance of this type of problem is why such projects are generally located in rural areas of the state and nation.7 Obviously, highly urbanized areas have such concentrations of people and ownership units that it is an almost impossible task to acquire the land necessary for a sizable water impoundment development.

With the above considerations in mind, a study was made to determine the dimension of property acquisition and relocation problems with respect to the proposed Middle Fork Bayou D'Arbonne reservoir project. Fortunately the State Department of Public Works engineers had surveyed the area and mapped the approximate boundaries of the reservoir at its completed stage. (See Figure 2 in center fold.)

The Relocation Problem

The first part of the investigation with regards to the above noted problems was devoted to a determination of the number of persons who might have to be relocated before water impoundment could begin. Again, fortunately, it was possible to find relatively recent aerial photographs of the whole area to be involved. These photographs were on file in the local office of the Agricultural Stabilization and Conservation Service, U.S. Department of Agriculture. The outline of the shoreline of the proposed reservoir, worked out by State Department of Public Works engineers, was scaled to size and superimposed on a mosaic of the aerial photographs of the area. (See Figure 2 in center fold.)

Careful scrutiny of Figure 2 is encouraging from the standpoint of the relocation problem. Only a small part of the land area to be flooded is not in woods. Also, the few small areas which appear to be cleared do not show evidence of recent cultivation or other use. Only one or two houses or other buildings can be seen within the area to be inundated, and none of these gives the appearance of being a dwelling place or of being regularly inhabited.

The conclusion derived from the study of the aerial photographs is that the problem of relocation would not be serious. At most it would involve only a very limited number of individuals or families, if indeed there were any permanent residents in the area to be flooded. Discussion of this problem with local knowledgeable confirmed the above conclusion. Those persons familiar with the area could not think of anyone permanently located within the limits of the area to be flooded. There was speculation that some hunters or fishermen might maintain camps in the locality, but there was no personal knowledge of such facilities.

7See: Ted L. Napier and Cathy J. Wright, An Evaluation of Forced Relocation Due to Rural Community Development (Wooster, Ohio, Ohio Agricultural Research and Development Center, 1974).
In light of the above findings, and after drives around the proposed reservoir site, it can be safely predicted that there will be virtually no problem of relocation. This is an important discovery which relates directly to the economic and social cost estimates for the project. It is a very positive factor insofar as feasibility is concerned.

The Land Acquisition Problem

The matter of land acquisition, as noted, is also an important factor in the planning for a water resources development project. Although time and resources were not available for an extensive interview of landowners concerning their views about a project that would require selling or ceding some of their holdings, it was possible to determine certain facts that have a bearing on this type of decision making.

First and foremost, it was considered necessary to determine the number and classes of owners of land that might be covered by the reservoir. As a first step, the land ownership maps for Claiborne Parish on file in the State Land Office were consulted. Although these maps were considerably out of date, it was readily determined that the number of landowners to be affected by the flooding for the project was relatively small. Only approximately 50 holdings were identified. At this stage it was considered wise to consult local sources knowledgeable about owners in the area of the proposed reservoir. Fortunately for the study group, a person well acquainted with landownership in Claiborne Parish, Mr. George Tigner, agreed to compile a list of landowners whose land probably would be affected. Although it was stressed that his list was not officially checked out, it was felt by its author to be essentially correct. It is of importance that no more than 25 owners were identified by Mr. Tigner. It is also most significant that the U.S. Forest Service was determined to be the largest landowner to be affected. Roughly half of the shoreline of the proposed reservoir would be bounded by the Kisatchie National Forest (see Figure 3). The importance of federal ownership goes far beyond a matter of mere economics. Among other things, it suggests a certain level of development and maintenance. Said another way, multiple recreational uses, such as hunting and riding trails as well as camping sites, are in keeping with U.S. Forest recreation area tradition. Federal ownership also assures public access (vs. privately restricted access, which is an important criticism of Lake Claiborne).

A discovery that the number of landowners is small is also relevant. Although the counts made may not be completely accurate, they are enough so to assure that the problem would be minimal by comparison with the usual case. Further, it appears from data published by the Louisiana Forestry Commission that at least half of the owners have holdings of over 500 acres in size. When large holdings are involved, owners are generally less reluctant to give up a part of their holdings.

Another indicator that the problem of land acquisition would not be too great is the fact that only woodland, primarily hardwood, is in-

---

Figure 3.—Map showing extent of holdings by U.S. Forest Service in area of proposed reservoir.

Involved. This type of cover is usually not too productive and thus does not represent a large investment loss. In actual fact, the proposed reservoir could well increase the value of land adjacent to it, enough to compensate owners for the worth of the land they might lose. This possibility was noted by one of the larger landholders in the affected area, who was interviewed as an influential. This man was an enthusiastic supporter of the project and felt that his neighbors and friends would be in favor of and support the action necessary for its implementation.

Again, the indicators available suggest that land acquisition problems would be minimal by comparison with other development of this general nature. The fact that most parish influencers are backing the project would obviously influence landholders who might otherwise be disinterested in selling or donating part of their holdings.

The Potential User Population

It seems appropriate to begin the discussion of the use potential of the proposed Middle Fork Bayou D'Arbonne Reservoir Project with a quotation which has relevance for development projects of all types. "Resources are not, they become."9 This is but to emphasize that all

---

a report such as this can do is to point out potentials; the realization of these potentials rests in the hands of those responsible for the design and management of the resource.

It is clear that the major use of the proposed reservoir would be for outdoor recreation. With this in mind, it is pertinent to note that there are three major evolving nationwide trends which have a direct causal association with increased demand for outdoor recreation. They are: (1) a growing and an urbanizing population; (2) an increasing amount of leisure time; and (3) a rapidly growing appreciation for the outdoors vs. the indoors. The latter has been identified as a "value" which derives from having to cope with a constant barrage of machines, vehicles, and other artifacts of city life and a relaxation of the so-called Protestant work ethic.10

The scope of what has been termed the "Leisure Boom" in the United States was outlined in an article in U.S. News and World Report. The author of the article noted that $105 billion was to be spent in 1972 by persons seeking a recreational experience. It is of interest to this report that water based activity, such as swimming, fishing, boating, and camping, ranked high in popularity.11

The above commentary on our emerging times indicates that the present social climate in the U.S. is such as to encourage, in fact to demand, outdoor recreation facilities. It is quite understandable why one of the growing concerns of the planners for the nation is the shortage of such facilities.12

In Louisiana, there is evidence from the recently developed Toledo Bend Reservoir that such facilities have a tremendous drawing power for outdoor recreationists. A user study conducted recently provided evidence that the reservoir attracted large numbers of users from cities as far away as 300 miles. The median distance traveled to get to Toledo Bend was approximately 150 miles.13 The annual number of visitor days for this facility was estimated at 4½ million in its first years and was projected to reach 10 million after development of roads and other facilities.

The experience with Lake Claiborne in the parish (which is now overcrowded) provides evidence of the attraction that a lake can have. The specifics with regards to the economic benefits of the lake will appear in another report. However, the fact of its popularity and of its proven

---


13Alvin L. Bertrand and James G. Hoover, Toledo Bend Reservoir: A Study of User Characteristics, Patterns, Preferences (Baton Rouge, La., Louisiana Agricultural Experiment Station Bulletin No. 675, 1973).
economic benefit to the parish has relevance for the proposed project.\textsuperscript{14}

With the appeal of outdoor recreational facilities as a given factor, the population base from which an outdoor recreation clientele might be drawn becomes critical. Toward shedding light on this variable, the number of people living within a given distance of the proposed dam site was estimated utilizing 1970 Census information.

It is both interesting and enlightening to discover that almost 75,000 persons live within 25 miles of the recommended site of the dam for the proposed reservoir. The territory covered by a 25-mile radius is shown as the smaller circle in Figure 4. In order of size the circles show the territory encompassed by a 50-, 75-, and 100-mile radius. As can be seen in Appendix B, some 619,764 persons live within 50 miles of the dam site, 1,003,851 live within 75 miles of the site, and well over 1\(\frac{1}{2}\) million persons could get to the reservoir by driving no more than 100 miles.

The population base within 100 miles of the proposed reservoir is large enough to provide more than an adequate consumer market for the reservoir. In fact, despite the presence of two or three other relatively large lakes and reservoirs in the area, it is still logical to predict that there will be early and constant pressure on the reservoir by fishermen, boaters, and others interested in water recreation. The popularity of the reservoir will hold if fishing and other development can be maintained at reasonably satisfactory levels. There are three relatively large cities within 50 miles of the site—El Dorado, Arkansas, and Shreveport and Monroe, Louisiana. These centers of population are close enough to represent substantial numbers of potential users of an attractive outdoor recreation facility.

Other Relevant Social Impact Factors

Several other factors of a social impact nature have more or less direct relevance for the proposed “Middle Fork” project. Perhaps the most important of these is the relative underdevelopment of Louisiana with respect to outdoor recreation areas.

It is a dismal but true fact that Louisiana has not exploited its potential for outdoor recreation areas. The state ranks essentially last among the 50 states in per capita expenditures for parks and per capita expenditure for the acquisition of lands suitable for parks.\textsuperscript{15}

Great strides have been made in the development of recreation areas in Louisiana within recent years, but there is still much to be desired. This fact is formally recognized in the Outdoor Recreation Plan recently released by the State Parks and Recreation Commission.\textsuperscript{16} This plan outlines extensive outdoor recreational needs from 1975 to 1990

\textsuperscript{14}See report by Dr. James R. Michael, Louisiana Polytechnic University.

\textsuperscript{15}See article in \textit{State-Times} (Baton Rouge, La., August 3, 1974) entitled “State Parks Have Grown Despite National Ranking.”

Figure 4.—Map showing area within 25, 50, 75, and 100 miles of proposed dam site.
and plans to alleviate these needs. A project, such as the proposed "Middle Fork" reservoir would most certainly be in keeping with these objectives. In fact, if the correct interpretation has been made, the proposed reservoir is the type of project that will be encouraged by the State Parks Bureau of Outdoor Recreation. According to the annual report (1974) of the State Parks and Recreation Commission:

The goal of the budget unit (Bureau of Outdoor Recreation) is to obligate as near to 100 per cent of the federal apportioned funds as possible in each fiscal year to high quality outdoor recreation projects of state agencies and political subdivisions and thus increase the capacity of the state for outdoor recreational opportunity. It suffices to note that the "Middle Fork" project, chiefly designed for recreation purposes, would contribute to such goals.

A second indirect social factor which has significance for the proposed project is the small percent of the area in Claiborne (1.7%) now devoted to reservoirs, lakes, rivers or streams. Only one parish (Lincoln) of the 10 which make up the Northwest planning district has less acreage devoted to such uses. In this regard, it is significant that Claiborne includes almost 200,000 more acres within its bounds than does Lincoln. Claiborne Parish can thus be seen as somewhat underdeveloped as its water resources are concerned. This, in itself, is an argument for a reservoir project in the parish.

There is a third factor which was considered of relevance to persons charged with making decisions relative to the proposed reservoir. This is the quality of development which has been maintained at Lake Claiborne. Persons who have studied lake and reservoir projects in the region judge the overall quality of the Lake Claiborne development as superior. This superiority is attributed to the parish regulatory bodies, who imposed strict sanitation and other requirements on landowners and lake users. Visitors to Lake Claiborne have no difficulty in detecting that care has been taken in its development and upkeep. In this regard, it was determined that the appearance of the lake and the close regulation of its use is a matter of pride to its manager and to the people of the parish.

The point of the above is that it can be anticipated that the same care and pride will be manifested in the development of the "Middle Fork" lake. Good development practices will attract investors and users alike and assure maximum returns to the people of the parish, state, and nation for their investment.

A fourth factor which has implication for a project such as the one to which this study is addressed comes from a recent study of the impact of reservoirs on rural settlement patterns. Calvin L. Beale of the U.S. Department of Agriculture, who made the study, points out that:

The era of major dam building brought sizable reservoirs to most

---

17Existing Land Use for Northwest Louisiana (Shreveport, La., Coordinating and Development Council of Northwest Louisiana, May 1974).

18Projected Ad Valorem Taxes Arising from the Development of the Toledo Bend Reservoir (Ruston, La., Division of Business and Economic Research, Louisiana Polytechnic Institute, 1969), p. 19.
parts of the country and visibly affected rural settlement. For example, nonmetro counties in the South that contained parts of major reservoirs (50 or more square miles) increased in population by an average of 10 percent, well above that of the nonmetro South as a whole. They did so despite the fact that a number of dams are comparatively isolated in location. 19

It can be anticipated from the above finding that the building of a second dam in Claiborne will increase the reservoir capacity in the parish to a size sufficient to attract settlement there. As noted previously, the development of Claiborne Parish is dependent upon keeping the present population in the parish and at the same time attracting new residents.

Conclusions and Recommendations

Study of the factual materials presented in this report leads to several basic conclusions. The first is that Claiborne Parish is in need of development projects of one type or another if it is to stem the flow of its younger, better educated and more vigorous residents to other regions. Such projects are needed not only to improve the opportunity structure within the parish, but to maintain and better the levels of living which exist therein.

The second conclusion which is readily apparent from the investigation conducted is that the people of Claiborne Parish are anxious and willing to promote and support projects that will increase the prosperity of and upgrade the quality of life in the parish. In a specific sense they are in near full support of the Middle Fork Bayou D'Arbonne Reservoir Project, which is seen as a potential economic boost to the area as well as a source of enjoyment for many persons.

A third conclusion evident from the research is that the proposed reservoir project will not entail exceptional cost, in either an economic or a social sense. Several factors are relevant here, including the large amount of federally owned land, the lack of intensively developed lands, the fact that relocation will not be a problem, and the fact that property acquisition will not involve a large number of holders.

The above findings lead to a final conclusion. This is that the proposed Middle Fork Bayou D’Arbonne Reservoir Project is, from a social impact point of view, not only feasible but recommended. It has a high potential as a low cost, high benefit development project and is in keeping with the goals and objectives of rural and outdoor recreation development of the state and nation.

APPENDIX A

INTERVIEW GUIDE:


Questions: (Answers to be taped or recorded on separate sheet)

I. You are, of course, acquainted with Lake Claiborne.
   a. Have you used the lake? If yes, in what manner? (Probe for frequency and types of use)
   b. If you have not used the lake personally, have you discussed the lake with persons who have used it? What is the general reaction of persons who use the lake?

II. What is your evaluation of Lake Claiborne? (Probe for specific illustrations as well as general observations relative to positive and/or negative impact)

III. You are aware, no doubt, of the proposal for a second lake to be made by damming the Middle Fork of Bayou D'Arbonne. What is your overall feeling about such a project?
   a. List specific types of benefits which you anticipate for the parish.
   b. List specific types of problems which you anticipate for the parish, if any.

IV. Have you discussed the project with others in your community or parish?
   If yes, what is the general sentiment of the persons with whom you have discussed the project?

V. Sometimes it is necessary for local groups to raise matching funds and to assure the provision of services such as roads and utilities before funding can be obtained from state or federal sources. Do you feel that the leaders of the parish would be willing to commit themselves in this manner for the proposed reservoir? Would you personally support such action on the part of your parish leaders?

VI. Any other comment you wish to make regarding the proposed reservoir project would be appreciated.

Personal Data Information:

Interviewee: Name: ____________________________________________________________
Address: _________________________________________________________________
Open Country Residence: _________________________________________________

1. Length of residence in Claiborne Parish: _____________________ If less than 10 years, previous place of residence: _______________________________________________
2. Occupation and/or position: ______________________________________________
3. Affiliation and offices of a civic and/or public agency nature: ____________________________
4. Membership in other organizations: List __________________________________________
   Officer? (Past or Present) ______
   ________________________________
5. Date of birth: ________________________________
6. Highest educational attainment: ________________________________

7. Marital status: _________________________________________

8. If married, number _____ and age of children: __________________________

9. Family income: (Please check appropriate blank)

   $1—999
   1,000—1,999
   2,000—2,999
   3,000—3,999
   4,000—4,999
   5,000—5,999
   6,000—6,999
   7,000—7,999
   8,000—8,999
   9,000—9,999
  10,000—11,999
  12,000—14,999
  15,000—24,999
  25,000 +

Date: ____________________    Interviewer: ____________________________
### APPENDIX B

**Population Distribution Within 25, 50, 75, and 100 Miles of Proposed Middle Fork Bayou D'Arbonne Dam Site**

#### Population Distribution Within 25 Miles

##### ARKANSAS
- **Columbia County:**
  - Emerson Township ........................................ 2,252
- **Union County:**
  - Garner, El Dorado, Jackson, Cornie, Tubal, Wesson, Henderson 
    (Junction City) Townships ................................ 32,871

##### LOUISIANA
- **Union Parish:**
  - Wards 5, 4, 10 ........................................... 5,971
- **Lincoln Parish:**
  - Wards 2, 5, 6, 7, 8 ..................................... 6,187
- **Claiborne Parish:**
  - .......................................................... 17,024
- **Bienville Parish:**
  - Wards 1, 2 .................................................. 6,873
- **Webster Parish:**
  - Ward 1 ...................................................... 2,014

**TOTAL POPULATION WITHIN 25 MILES:** 73,192

#### Population Distribution Within 50 Miles

##### ARKANSAS
- **Union County:** ........................................... 45,428
- **Columbia County:** ...................................... 25,952
- **Lafayette County:** ...................................... 10,018
- **Miller County:**
  - Red River, Cut Off Townships ........................... 1,016
- **Nevada County:**
  - Albany, Caney, Jackson, Parker, Alabama, Taylor, Leake Townships .......................... 3,083
- **Ouachita County:**
  - Valley, River, Bradley, Liberty, Bragg, Ecore, Jefferson, Marion, 
    Lafayette, Smackouer, Bridge Creek, Washington Townships .......................... 26,910
- **Calhoun County:**
  - River, Polk, Dallas, Jackson, Franklin, Champagnolle, Fayette Townships ............ 3,730
- **Bradley County:**
  - Sumpter, Ouachita, Washington, Eagle, River Townships .......................... 1,927
- **Ashley County:**
  - Egypt, Marie Saline Townships .......................... 12,144

##### LOUISIANA
- **Claiborne Parish:** ...................................... 17,024
- **Union Parish:** ........................................... 18,447
- **Lincoln Parish:** ........................................ 33,800
- **Jackson Parish:** ......................................... 15,963
- **Bienville Parish:** ........................................ 16,024
- **Bossier Parish:** .......................................... 64,519
- **Webster Parish:** .......................................... 39,999
- **Caddo Parish:**
  - Wards 9, 1, 4, 3, 8 ...................................... 194,575
- **Red River Parish:**
  - Wards 2, 3, 4, 7, 8 ...................................... 3,086
- **Natchitoches Parish:**
  - Ashland, Goldonna ......................................... 548
- **Winn Parish:**
  - Wards 4, 10 ................................................ 1,083
- **Ouachita Parish:**
  - Wards 1, 5, 6, 7, 8, 9, 10 .............................. 82,985

*Continued*
Population Distribution Within 50 Miles (continued)

**LOUISIANA (continued)**

Morehouse Parish:
Wards 1, 2 .......................................................... 1,563

**TOTAL POPULATION WITHIN 50 MILES:** 619,764

### Population Distribution Within 75 Miles

**ARKANSAS**

- **Union County:** ........................................ 45,428
- **Columbia County:** ...................................... 25,952
- **Lafayette County:** ...................................... 10,018
- **Miller County:** .......................................... 35,385
- **Nevada County:** .......................................... 10,111
- **Ouachita County:** ........................................ 30,896
- **Calhoun County:** ........................................ 5,573
- **Bradley County:** .......................................... 12,778

Ashley County:
- Longview, White, Bearhouse, Banner, Prairie, Carter, Mill Creek, Egypt,
  Marie Saline, Elon, Extra, Beech Creek, Wilmot Townships ...................... 21,148

Drew County:
- Saline, Crook, Veasey, Bearhouse Townships ........................................ 2,442

Cleveland County:
- Kingsland, Redland, Lee, Hurricane, Harper Townships .......................... 2,896

Dallas County:
- Manchester, Nix, Princeton, Bunn, Liberty, Southall, Owen,
  Holly Springs, Jackson, Fordyce, Dry Run Townships ............................ 8,892

Clark County:
- Gum Springs, Oklona, Missouri Township ........................................... 5,201

Pike County:
- Wolf Creek Township ........................................................................... 666

Howard County:
- Blackland, Saratoga Townships ......................................................... 853

Sevier County:
- Paraloma .............................................................................................. 60

Hempstead County:
- Wallacburg, Ozan, Saline, Garland, Noland, Bois d'Arc, Water
  Creek, De Roane, Spring Hill, Bodcaw Townships ................................ 17,724

**Little River County:**
- Red River, Cleveland, Franklin, Jefferson, Johnson Townships ............... 6,725

**LOUISIANA**

- **Caddo Parish:** ............................................... 230,184
- **Bossier Parish:** ............................................. 64,519
- **Webster Parish:** .............................................. 39,999
- **Claiborne Parish:** ........................................... 17,024
- **Union Parish:** .................................................. 18,447
- **Morehouse Parish:** ........................................... 32,463
- **Lincoln Parish:** .................................................. 33,800
- **De Soto Parish:** ................................................. 22,764
- **Red River Parish:** .............................................. 9,226
- **Bienville Parish:** .............................................. 16,624
- **Jackson Parish:** .................................................. 15,963
- **Ouachita Parish:** .............................................. 115,387
- **Richland Parish:** .................................................. 21,774
- **Caldwell Parish:** .................................................. 9,354
- **Winn Parish:** ...................................................... 16,369
- **Sabine Parish:**
  - Ward 7 .................................................................. 1,473
- **Natchitoches Parish:**
  - Ward 2 .................................................................. 5,701
- **Grant Parish:**
  - Wards 2, 4, 5 ........................................................ 3,659
- **La Salle Parish:**
  - Ward 2 .................................................................. 3,909

(Continued)
Population Distribution Within 75 Miles (continued)

**LOUISIANA** (continued)

Franklin Parish: 2,806
Wards 6, 8 4,000
West Carroll Parish (½): 4,000

**TEXAS**

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowie County</td>
<td>48,899</td>
</tr>
<tr>
<td>Hooks, Leary, Texarkana</td>
<td></td>
</tr>
<tr>
<td>Division, Maud</td>
<td></td>
</tr>
<tr>
<td>Cass County</td>
<td>11,950</td>
</tr>
<tr>
<td>Queen City-Bloomburg, Atlanta, Blvins McLeod Divisions</td>
<td></td>
</tr>
<tr>
<td>Marion County</td>
<td>8,517</td>
</tr>
<tr>
<td>Harrison County</td>
<td>5,204</td>
</tr>
<tr>
<td>Karnack, Waskom Division</td>
<td></td>
</tr>
<tr>
<td>Panola County</td>
<td>3,148</td>
</tr>
<tr>
<td>De Berry-Deadwood Division</td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL POPULATION WITHIN 75 MILES:** 1,003,851

---

Population Distribution Within 100 Miles

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARKANSAS</strong></td>
<td></td>
</tr>
<tr>
<td>Miller County</td>
<td>33,385</td>
</tr>
<tr>
<td>Lafayette County</td>
<td>25,952</td>
</tr>
<tr>
<td>Columbia County</td>
<td>45,428</td>
</tr>
<tr>
<td>Union County</td>
<td>24,976</td>
</tr>
<tr>
<td>Ashley County</td>
<td>18,164</td>
</tr>
<tr>
<td>Chicot County</td>
<td>15,157</td>
</tr>
<tr>
<td>Drew County</td>
<td>12,778</td>
</tr>
<tr>
<td>Bradley County</td>
<td>5,573</td>
</tr>
<tr>
<td>Calhoun County</td>
<td>30,896</td>
</tr>
<tr>
<td>Ouachita County</td>
<td>10,111</td>
</tr>
<tr>
<td>Nevada County</td>
<td>19,308</td>
</tr>
<tr>
<td>Hempstead County</td>
<td>11,194</td>
</tr>
<tr>
<td>Little River County</td>
<td>8,711</td>
</tr>
<tr>
<td>Pike County</td>
<td>21,537</td>
</tr>
<tr>
<td>Clark County</td>
<td>21,963</td>
</tr>
<tr>
<td>Hot Spring County</td>
<td>10,022</td>
</tr>
<tr>
<td>Dallas County</td>
<td>9,711</td>
</tr>
<tr>
<td>Grant County</td>
<td>6,605</td>
</tr>
<tr>
<td>Cleveland County</td>
<td></td>
</tr>
<tr>
<td>Sevier County</td>
<td></td>
</tr>
<tr>
<td>Buckhorn, Bear Creek, Saline, Clear Creek, Red Colony</td>
<td></td>
</tr>
<tr>
<td>Paracifita, Ben Lomond, Washington Townships</td>
<td>9,554</td>
</tr>
<tr>
<td>Howard County</td>
<td></td>
</tr>
<tr>
<td>Clay, Blue Ridge, Madison, Holly Creek, Muddy Fork, Brewer,</td>
<td></td>
</tr>
<tr>
<td>Center Point, Nashville, County Line, Saline, Dillard, Blue Bayou,</td>
<td></td>
</tr>
<tr>
<td>Mineral Springs, Buck Range, Franklin, Blackland,</td>
<td></td>
</tr>
<tr>
<td>Saratoga Townships</td>
<td>10,712</td>
</tr>
<tr>
<td>Montgomery County</td>
<td></td>
</tr>
<tr>
<td>Walnut, Caney Townships</td>
<td>615</td>
</tr>
<tr>
<td>Garland County</td>
<td></td>
</tr>
<tr>
<td>Mazarn, Mill, Antioch Townships</td>
<td>3,418</td>
</tr>
<tr>
<td>Jefferson County</td>
<td></td>
</tr>
<tr>
<td>Pine Bluff, Washington, Niven, Victoria, Melton, Spring,</td>
<td></td>
</tr>
<tr>
<td>Talladega, Richland Townships</td>
<td>71,687</td>
</tr>
<tr>
<td>Lincoln County</td>
<td></td>
</tr>
<tr>
<td>Spring, Bartholomew, Wells Bayou, Crane Creek, Owen, Smith,</td>
<td></td>
</tr>
<tr>
<td>Long Pine, Mill Creek Townships</td>
<td>8,095</td>
</tr>
<tr>
<td>Desha County</td>
<td></td>
</tr>
<tr>
<td>Randolph, Walnut Lake, Jefferson, Richland, Clayton, Franklin,</td>
<td></td>
</tr>
<tr>
<td>Halley, Bowie Townships</td>
<td>15,817</td>
</tr>
</tbody>
</table>

**LOUISIANA**

<table>
<thead>
<tr>
<th>Parish</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Carroll</td>
<td>12,884</td>
</tr>
<tr>
<td>West Carroll</td>
<td>13,028</td>
</tr>
</tbody>
</table>

(Continued)
### Population Distribution Within 100 Miles (continued)

**LOUISIANA (continued)**

<table>
<thead>
<tr>
<th>Parish</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morehouse Parish</td>
<td>32,463</td>
</tr>
<tr>
<td>Union Parish</td>
<td>18,447</td>
</tr>
<tr>
<td>Claiborne Parish</td>
<td>17,024</td>
</tr>
<tr>
<td>Webster Parish</td>
<td>39,939</td>
</tr>
<tr>
<td>Bossier Parish</td>
<td>64,519</td>
</tr>
<tr>
<td>Caddo Parish</td>
<td>230,184</td>
</tr>
<tr>
<td>De Soto Parish</td>
<td>22,764</td>
</tr>
<tr>
<td>Red River Parish</td>
<td>9,226</td>
</tr>
<tr>
<td>Bienville Parish</td>
<td>16,024</td>
</tr>
<tr>
<td>Lincoln Parish</td>
<td>33,800</td>
</tr>
<tr>
<td>Jackson Parish</td>
<td>15,963</td>
</tr>
<tr>
<td>Ouachita Parish</td>
<td>115,387</td>
</tr>
<tr>
<td>Richland Parish</td>
<td>21,774</td>
</tr>
<tr>
<td>Franklin Parish</td>
<td>23,946</td>
</tr>
<tr>
<td>Caldwell Parish</td>
<td>9,354</td>
</tr>
<tr>
<td>Winn Parish</td>
<td>16,369</td>
</tr>
<tr>
<td>Grant Parish</td>
<td>13,671</td>
</tr>
<tr>
<td>Natchitoches Parish</td>
<td>35,219</td>
</tr>
<tr>
<td>Sabine Parish</td>
<td>18,638</td>
</tr>
<tr>
<td>Madison Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 3, 4, 5, 6, 7, 8</td>
<td>13,884</td>
</tr>
<tr>
<td>Tensas Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 2, 4, 5, 7</td>
<td>4,004</td>
</tr>
<tr>
<td>Concordia Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 3, 4</td>
<td>3,885</td>
</tr>
<tr>
<td>Catahoula Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 1, 2, 3, 4, 5, 6</td>
<td>10,464</td>
</tr>
<tr>
<td>La Salle Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 1, 2, 3, 4, 5, 6, 7, 8</td>
<td>13,047</td>
</tr>
<tr>
<td>Rapides Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 7, 8, 9, 10</td>
<td>43,723</td>
</tr>
<tr>
<td>Vernon Parish</td>
<td></td>
</tr>
<tr>
<td>Wards 2, 6</td>
<td>5,031</td>
</tr>
</tbody>
</table>

**MISSISSIPPI**

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claiborne County</td>
<td></td>
</tr>
<tr>
<td>Districts 1, 2</td>
<td>7,072</td>
</tr>
<tr>
<td>Warren County</td>
<td></td>
</tr>
<tr>
<td>Districts 2, 3, 4, 5</td>
<td>35,154</td>
</tr>
<tr>
<td>Issaquena County</td>
<td></td>
</tr>
<tr>
<td>Districts 2, 3, 4, 5</td>
<td>2,249</td>
</tr>
<tr>
<td>Bolivar County</td>
<td></td>
</tr>
<tr>
<td>Districts 1, 2</td>
<td>11,927</td>
</tr>
<tr>
<td>Washington County</td>
<td></td>
</tr>
<tr>
<td>Districts 1, 2, 3</td>
<td>52,557</td>
</tr>
</tbody>
</table>

**TEXAS**

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cass County</td>
<td>24,133</td>
</tr>
<tr>
<td>Bowie County</td>
<td></td>
</tr>
<tr>
<td>New Boston, Hooks, Texarkana, Maud-Elliott Creek Divisions</td>
<td>60,144</td>
</tr>
<tr>
<td>Harrison County</td>
<td>44,841</td>
</tr>
<tr>
<td>Marion County</td>
<td>8,517</td>
</tr>
<tr>
<td>Panola County</td>
<td>15,894</td>
</tr>
<tr>
<td>Rusk County</td>
<td></td>
</tr>
<tr>
<td>Tatum, Pine Hill, Overton, Mount Enterprise Divisions</td>
<td>9,887</td>
</tr>
<tr>
<td>Shelby County</td>
<td>19,672</td>
</tr>
<tr>
<td>San Augustine County</td>
<td></td>
</tr>
<tr>
<td>San Augustine</td>
<td>2,539</td>
</tr>
<tr>
<td>Sabine County</td>
<td></td>
</tr>
<tr>
<td>Milam Division</td>
<td>1,502</td>
</tr>
</tbody>
</table>

**TOTAL POPULATION WITHIN 100 MILES:** 1,632,136