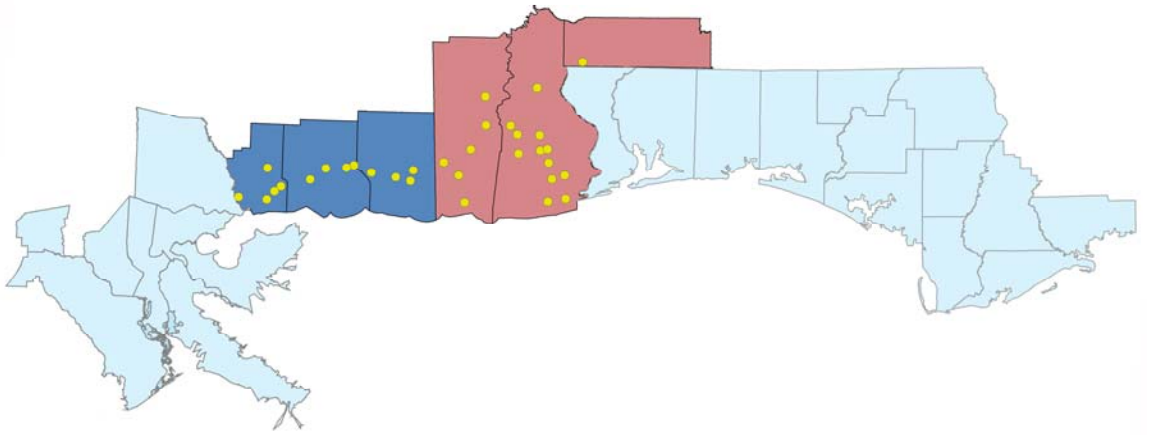
Identifying Communities Associated with the Fishing Industry in Alabama and Mississippi

-Final Report-



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Identifying Communities Associated with the Fishing Industry in Alabama and Mississippi

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Disclaimer

This report was compiled as specified by NOAA Fisheries under Contract WC133F-03-SE-0603. Project goals and objectives are directly related to agency needs per the Magnuson-Stevens Fisheries Management and Conservation Act as Amended, and National Standard 8. Neither the U.S. Government nor its contractor warrant or assume liability for external use or misuse of this information for other purposes.

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Identifying Communities Associated with the Fishing Industry in Alabama and Mississippi

1.0 Introduction

This and the following chapters provide a comprehensive report on the NOAA Fisheries study titled "Identifying Communities Associated with the Fishing Industry in Alabama and Mississippi." The report is companion to others developed through identical research along the Gulf coast of Florida, and in Louisiana and Texas. The research has been conducted for NOAA Fisheries Southeast Regional Office (SERO), in fulfillment of its goal to effectively manage the various fisheries upon which residents of certain towns and cities in the Gulf of Mexico have depended and/or continue to depend, to greater and lesser degrees, for economic and social purposes. Systematic description of relevant aspects of those places is the overarching goal of the current study.[1] The project was undertaken and completed by Impact Assessment, Inc. (IAI), a research firm specializing in maritime social science in the coastal zone of the United States.

IAI worked with SERO during autumn 2002 to develop a systematic methodology for investigating and describing Gulf communities likely to exhibit some or all of the attributes of "fishing communities" as defined by the Magnuson-Stevens Fishery Conservation and Management Act as Amended (the Magnuson Act; MSFCMA), and by National Standard 8 (NS-8).[2] The project methodology emphasizes: (a) collection and geospatial analysis of various fishing license, landings, economic, and demographic attribute data, and (b) collection and analysis of a variety of descriptive economic and social data considered viable indicators of fishing community status.

Successful completion of the project has been highly dependent on the gracious cooperation of numerous entities and individuals. These include, among others: the Gulf States Marine Fisheries Commission (GSMFC), various offices of NOAA Fisheries, the Gulf of Mexico Fishery Management Council (GMFMC), officials in state government agencies, local officials in the study towns and cities, and many hundreds of fishery participants in the region.

The scope of this study is quite large, encompassing 30 communities in three counties in Alabama, and 14 communities in three counties in Mississippi. The study areas were chosen for description by NOAA Fisheries based on evidence that some residents in each were in some manner involved in marine fisheries in the region. Given the number of study towns and cities, depth of coverage is necessarily cursory and descriptive rather than in-depth and highly analytical. We focus on providing descriptive information at a level of detail that will enable NOAA Fisheries staff to conduct or coordinate additional future research as needed to effect appropriate resource management decisions under the MSFCA, National Environmental Policy

[1]The project builds on the work of Jacob et al. (2000) who used similar methods and central place theory to develop socioeconomic profiles of a small number of fishing communities along the West Florida coastline.

[2]NS-8 is a component of the Sustainable Fisheries Act, Public Law 104-297, prepared by the National Oceanic and Atmospheric Administration Office of General Counsel in 1997; the Standard provides guidance for addressing community issues in the course of federal management of fisheries along the U.S. coastline.

Act (NEPA), Executive Order 12898, and other pertinent marine policy. As the final version of this report is being submitted just months following the passage of Hurricane Katrina in August 2005, the reports and associated data may also serve to inform readers about the general nature of fishing-related industry and associated social conditions in the affected and adjacent areas prior to the disaster.

1.1 Project Goals and Objectives

The overarching goal is to provide NOAA Fisheries staff with information needed to determine whether, or to what degree, each of the study communities fits the federal definition of "fishing community." Provision of relevant descriptive information about communities associated with the fishing industry in the region is therefore the overarching goal of this study. These data have been gathered through the following steps, as follow:

1. With due attention to issues of confidentiality and anonymity that surround collection and use of proprietary data, IAI acquired fishing license and trip ticket data from the GSMFC and states; federal permit, dealer, and processor data from NOAA Fisheries; and various public information data regarding fishing-related businesses;

2. Based on address fields in each database, the firm developed a Geographic Information System (GIS) enabling geospatial depiction and analysis of: (a) fishery participant residence patterns, and (b) the distribution of fishing-related businesses in and around the study communities;

3. Various pertinent secondary source data were collected to aid in describing relevant social, economic, and demographic trends and conditions in each of the prospective fishing communities across the region (including the location of processing and service sector facilities); these data were incorporated into the GIS database to depict social and economic linkages between fishery sectors, communities, and counties;

4. A team of researchers conducted Rapid Assessment field research in study communities across the region, with field methods including observation and documentation of local fishing and industry infrastructure, and discussions with key informants (resident fishery participants, local government officials, harbormasters, local and regional fishery managers, and representatives of local fishing groups and organizations). Discussions focused on: (a) the nature of local and regional fishing infrastructure, (b) relevant aspects of community life, and (c) salient fisheries issues and other issues of local importance. Sub-communities and supra-communities located within or surrounding the study communities were visually identified and described; and

5. Observational data, interview data, secondary source information, and other data collected through the rapid assessment process were used to complement development of the GIS and narrative description of the communities.

Based on information and products derived from meeting the objectives described above, this report provides: (a) fisheries-relevant narrative description of historic and contemporary life in

the study counties, cities, and towns, (b) tabular and spatial description of fisheries infrastructure and services, and fleet characteristics specific to those places, and (c) preliminary assessment of the manner in, and degree to which, each study town or city does or does not approximate the National Standard 8 definition of fishing community. As preface to the descriptive core of the report that follows in Section 3.0, we provide that definition, as follows:

> The term 'fishing community' means a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops) (Section 300.345, part 3).

1.2 Research Methods

The methodology used to characterize communities associated with the fishing industry in the study area involves multiple overlapping data collection techniques. Table 1, below, summarizes the general categories of information that were needed to conduct the research, and the various sources and methods through which those data were acquired.

Table 1-1 Principal Information Needs and Associated Data Sources and Methods

General Category of Information Need	Source and Research Methods
Nature of Community and its Social and Economic Involvement in Fishing Industries	Archival search and analysis of local history, collection/analysis of permit, license, trip ticket, landings, census data; observation and spatial analysis of local fleets and infrastructure; key person interviews and thematic analysis
Spatial Distribution of Harvesting Sector	Collection/geospatial analysis of permit, license, and census data; observation; key person interviews
Spatial Distribution of Support Sectors	Collection/geospatial analysis of processor, dealer, retail, and wholesale distribution data; observation; key person interviews

As noted in the table, review and synthesis of secondary source data focused on: (a) spatial aspects of participation in fisheries in state and federal jurisdiction waters in the region, (b) demographic characteristics of the study counties, cities, and towns, and (c) the nature of fishing-related industry in those places. Such extant information is of variable quality. Given our concern for providing the most accurate description of the communities and counties possible, we have proceeded with due awareness of potential problems in the use and interpretation of archival data, and we qualify use of such information as necessary.

Collection and analysis of primary source data focused on: (a) the nature and extent of local fishing infrastructure, (b) the operational dynamics of fisheries and industries in which participants are involved, and (c) fishery-specific aspects of local life. The data resulting from

both secondary and primary sources contribute to the narrative descriptions of the study towns and cities, and to the accompanying maps and spatial analyses. The resulting composite descriptions are the focus of this report.

Secondary Source Data Collection and Analysis. Following an initial round of data requests and discussions with data management personnel at the federal, state, and regional levels of government, our secondary source data collection efforts focused on acquisition and analysis of the following: (a) federal permit, processor, dealer, and head boat information, (b) state fishing license and trip ticket data (as available), (c) U.S. Census Bureau information, (d) information about the histories of the communities and counties, and (e) fishing-related commercial business listings from a private data source that included but was not limited to yellow page listings. Each acquired dataset was reviewed for its utility in meeting project objectives, subsequently formatted to improve its quality and to eliminate potential problems with confidentiality and propriety, and in the cases of (a), (b), and (e) above, ultimately organized and entered for purposes of geo-coding; that is, identification of latitude and longitude in decimal degrees for mapping purposes. Non-spatial data, including U.S. Census data, were tabulated for use in the community profiles.

Primary Source Data Collection and Analysis. The study team used Rapid Assessment procedures to collect various observation-based and interview data as time and resources would allow while present in the study areas. The effort relied heavily on: observation and documentation of local and regional: (a) fishing fleets, (b) fishing-related infrastructure, (c) fishing-specific industry, and (d) fisheries-relevant social and economic linkages within and between towns and cities. Follow-up telephone interviews with key informants were conducted to cross-validate and enhance data of observation, and to explore historic and current trends in and local perspectives on fishing and associated industry in and around the study areas.

1.3 Geographic Scope and Rationale for Organization of the Report

This study has involved field activities in, and archival data collection, analysis, and description for all the towns and cities of interest to NOAA Fisheries. While some are located in inland portions of the states, most are situated along the coastline in relatively close proximity to the Gulf of Mexico.

Various geographic concepts were considered as potential organizing principles for this report. But given interest in inter-community and regional social and economic linkages, and following review of various data and discussions with field staff and resource managers in the region, it was determined that the most logical way to organize the descriptions was by county. This strategy is deemed appropriate in that geo-political bounds were originally formulated based largely on aspects of the landscape that in various ways continue to condition transportation, commerce, and other social interaction in the coastal portions of the states of interest.

As such, we organize the community profiles by county, beginning with Escambia County in easternmost Alabama and finishing with Hancock County in west coastal Mississippi. The community descriptions are arranged alphabetically within each county section for ease of reference.

Table 1-2 Alabama and Mississippi Study Communities by County

Alabama Communities	
Escambia	Atmore
Baldwin	Bay Minette, Bon Secour, Daphne, Elberta, Fairhope, Foley, Gulf Shores, Lillian, Loxley, Magnolia Springs, Orange Beach, Perdido Beach, Robertsdale, Silverhill, Spanish Fort, Stapleton, and Summerdale
Mobile	Axis, Bayou La Batre, Coden, Dauphin Island, Eight Mile, Grand Bay, Irvington, Mobile, Saraland, Semmes, St. Elmo, and Theodore
Mississippi Communities	
Jackson	Gautier, Moss Point, Ocean Springs, and Pascagoula
Harrison	Biloxi, Gulfport, D'Iberville, Long Beach, and Pass Christian.
Hancock	Bay St. Louis, Kiln, Lakeshore, Pearlington, and Waveland
Jackson	Gautier, Moss Point, Ocean Springs, and Pascagoula

Each group of study communities is preceded by brief description of the parent county, with the content of that description providing basic social and demographic information needed to better understand the social and economic context of the study area. Where applicable and available, we also provide fishing-specific information, aggregated to the county level. County maps orient the reader to the location of the communities and depict offshore features of general economic interest (such as offshore oil platforms), and of specific interest to fishing captains (such as natural reefs and shipwrecks). We believe this narrative and spatial approach provides the best possibility for inferring potential linkages between communities, counties, and the larger region, and for describing the realities of those linkages where empirical data allow.

Following this introduction, Section 2.0 presents some prefatory materials in advance of the community descriptions and county-level discussions, presented in Sections Three and Four. Summary analysis is provided as the last substantive section of the report. References complete the report.

2.0 Preface to the Study Community Descriptions

While the tendency of sociologists and anthropologists specializing in community studies is to explore local social, economic, and demographic processes in great depth and detail, the extensive scope of this project, and the geographically-diffused nature of the study towns and cities demanded a different focus and strategy. Given limitations of time and resources amidst the many logistical challenges associated with data collection across a large study area, the focus of the current project is necessarily broad rather than in great depth, and its data collection strategy is one of systematic consistency in pertinent and readily available categories of

information, rather than attention to extensive detail. In short, the requested study was designed to systematically develop valid sketches of many study communities rather than detailed pictures of a few. This study did not involve detailed ethnographic or economic analysis. Thus, we were not able to pursue detailed information about crew composition, familial involvement in marine fisheries, and so forth. Rather than attempting to estimate such information, we use only those empirical data in hand to describe the communities. As such, the profiles may tend to be conservative as regards the actual scope of fishing-related industry in a given town or city.

The primary thrust of the work has been to identify and describe those aspects of the study towns and cities that are necessary precursors to local involvement in fishing-related industry. While the effort yielded extensive information that may be used to develop models of fisheries dependence and guide subsequent in-depth ethnographic inquiry, such work awaits a subsequent phase of research. The final chapter of this report develops a typology of study towns and cities, and provides a rationale for where and why future in-depth research would ideally be conducted.

2.1 Overarching Data Issues and Challenges

The research team did indeed seek consistency in data collection and description. Yet not all data were available for all communities – in large part an effect of the rural nature of many of the study towns and rural places, and the corresponding lack of available secondary source information describing those areas. For instance, this was frequently the case for local histories, since, in many cases, the place in question was without library or other information repository, and because the aforementioned resource limitations precluded conduct of oral histories, as might be pursued during the course of in-depth ethnographic research in a single or few communities. There were other challenges as well, as outlined below.

Paucity of "Subsistence" Fishing Data. Marine fisheries research has long focused primarily on aspects of commercial and recreational fishing activities. Consumption-oriented fishing in the U.S. has been consistently and thoroughly addressed only in Alaska, and there primarily in the Native context only. The semantic challenges of adequately defining subsistence fishing as distinct from recreational (or commercial) fishing notwithstanding, fishing for the purpose (or with the end result) of consumption or sharing has indeed been largely ignored by social scientists. Indeed, it is widely acknowledged that the consumptive component of both recreational and commercial fishing trips is an important motive for involvement; few directly relevant studies have been conducted outside of Alaska.

Yet our research in the study areas, and especially in the more rural areas, confirms the widespread importance of fishing for food. Observation and discussions with informants in these places made clear that many participants use at least some component of seafood landed during their commercial and recreational trips for consumptive purposes. But we were able to identify no published studies or data that would assist in describing the scope or importance of subsistence or consumptive activities to residents in the communities of interest. Systematic investigation of the topic exceeds the scope of this project, which is intended rather to identify towns and cities associated with fishing *industries*. We submit, however, that subsistence fishing issues are critically important to contemporary natural resource management in the U.S., and constitute an area ripe for research in the study region and elsewhere.

Recreational Fishing Data Challenges and Solutions. Despite the widespread importance of recreational fishing, relevant data specific to the study communities were also relatively sparse. For example, the NOAA Fisheries Marine Recreational Fisheries Statistics Survey (MRFFS) is not designed to generate information that could be used to infer degree and manner of community-level involvement in recreational fishing activities. The MRFSS sampling methodology and the information it generates are rather intended to address recreational fishing activity as it occurs across relatively large regions and as enacted by both residents and visitors. Efforts to generate analysis with more geographic specificity using MRFSS data may be prone to interpretation challenges since sampling occurs in locations and times that do not necessarily capture the full range of activities or intensity of recreational effort undertaken by anglers in a given study town or city.

While we make best use of available data, development of a detailed understanding of recreational fishing activities specific to any given community also exceeds the scope of this study. IAI *was* able to acquire state recreational license data for Alabama, and various additional data were used to indicate recreational fishing activity in and around the study communities, including those in Mississippi.

Challenges to Street-Level Mapping Resolution. Finally, address resolution issues have, to some extent, limited our ability to accurately document spatial aspects of participation in fishing-related industry at the community level of analysis. The primary challenge was that, in many cases, permit and license holders, seafood dealers, and seafood processors list a post office box address rather than a physical address on their permit and license applications. While this enables sufficient understanding and depiction of distribution patterns at the zip code level of resolution, it confounds efforts at the finer street-level resolution that was the preferred level of resolution for the current study given community definitions that require co-residence or co-location in a specific rural place or within specific municipal boundaries.

Understanding patterns of physical residence was considered important since participants in the harvest sector, and especially those in distant water fisheries such as offshore shrimping, may set up a post office box near place of vessel mooring, but quite often live elsewhere. But because it cannot be readily known whether persons maintaining post office box addresses actually do or do not reside in the town or city in question (since physical residence and post office box usage are not necessarily mutually exclusive), we also tallied and depicted the total number of permit and license holders using either form of local address. We believe this dual approach provides an

understanding of residence patterns across the full range of participants living or working in the study areas on a permanent, seasonal, or transient-remote basis.

Regarding the "Rule of Three." Marine resource management agencies, including NOAA Fisheries, typically allow reporting of fishing business information only in situations where there are at least three local businesses for any given category of activity (including harvesting, processing, and distribution). This reduces the possibility that available production or employment information could be attributed to any single business or individual, thereby affording potential business competitors the unfair advantage of inside knowledge.

While the protective value of the rule is obvious, it challenges our mission to report on fishing industry activities in small rural communities where the presence of even a single business can be an important indicator of local involvement in, or dependence on fishing. For instance, there are numerous communities in which one or two seafood processors provide local jobs, but relatively few in which there are sufficient numbers of such businesses to enable reporting of employment or production figures without concern for the potential effects on business owners. Similarly, we cannot and do not provide community landings or ex-vessel value information by species, and provide total combined pounds and values only.

2.2 Data Sources and Triangulation: A User's Guide and Cautionary Note

The profiles provided in the subsequent section of this report contain extensive information about the study towns and cities, with focus on local demographics, fishing infrastructure, and fishing-related activities and conditions. Wherever possible, multiple data sources contribute to the descriptions. Given the importance of demographic information from the year 2000 U.S. Census, we chose, for sake of compatibility, to collect and analyze wherever possible year 2000 state fishing license data, year 2000 federal permit data, and year 2000 processor, dealer, and head boat data. In the case of Alabama, we used year 2002 trip ticket data to determine landings data for all species, and 2002 dealer data to determine landings in Mississippi. In both cases, these were the highest quality data available. Note that the State of Alabama is in the process of developing a recreational fishing license database, but that these data were not available for use in the current study. Year 2002 yellow pages/public information records were used to identify and map fishing-related businesses and services. These data were complemented with observation of fishing infrastructure during 2003 and 2004.

An Extended Exposure Snapshot. This combination of data sources and years provides what might be called an "extended exposure" snapshot of contemporary fishing-related attributes and conditions in the study areas. Description of local history, and discussion of demographic and industry production trends lends some depth of time to the profiles. But the primary intent of the work is to generate valid composite descriptions that indicate or do not indicate, as the case may be, the degree to which the study towns and cities approximate the National Standard 8 definition of fishing community.

On Interpreting Apparently Conflicting Data Points. We note both the cross-validating usefulness of multiple data sources and points, and the danger of interpreting them without condition. It is critically important in this case to recognize that parity between data sources for a given variable cannot necessarily be expected since each single source is itself necessarily conditioned in terms of validity and reliability. Such is the nature of marine fisheries data.

The presence of seafood processors in a given study area is a good example of the issue and problem. Three primary data sources were used as indicators for this variable during the course of the study: (1) seafood processor data, (2) yellow page/public information data (business listings), and (3) field observation. If (1) and/or (2) above provided good physical address data, the location of the processor could be depicted on the community (and parish) map. But the table depicting enumerated fishing-related services and infrastructure derived from (3) would not include that business in the count if it was not visible to our field staff. This was sometimes the case, since many such businesses can be located on back roads out of the reach of Rapid Appraisal fieldwork. Further, it may have been the case that seafood processors active in 2000 may no longer have been active during the period of field observation. This was a potential trade-off in the decision to seek parity between the secondary source fisheries data and U.S. Census data.

As such, we stress the importance of envisioning the multiple data points and sources as *indicators* that provide individual and in some cases aggregate evidence that a town or city does or does not possess or reveal a given attribute (such as the presence of seafood processors), and to what degree it possesses or reveals that attribute. The following section further describes project data sources, and potential challenges (and solutions) to interpreting those data.

Organization of, and Data Sources for, the Community Profiles. Most of the profiles include a brief section highlighting the history of the place in question, though such information was not universally available. Sources ranged from documents found in local and regional libraries, to limited information available on county or community websites. In the interest of conserving space, and because the historical descriptions provided are based on both primary and secondary sources, sources generally are not cited parenthetically in the text, but are provided rather as bibliographic entries in a reference section at the end of the report.

In all cases, we provide an overview-style description of the study counties and communities. The *county overviews* provide basic social and economic information about the region of interest, along with a county map. We also provide a table that depicts the total number of state license and federal permit holders who were residing in or maintained post office boxes in the study communities in the county of interest during the year 2000. The federal permit numbers are tallied by type of permit. The *community overviews* describe local geography, and primary forms of local economic activity.

A map of each community is provided to depict, as data allow, the location and spatial distribution of state license holders, federal permit holders, fishing-related services and infrastructure, and important physical aspects of the local terrain, waterscape, and transportation

system. It should be noted that symbols for the location of state licenses and federal permits in actuality refer to the residential location of license-holders and permit-holders. As such, more than one license and/or permit may be "housed" at a particular location, and represented by a given symbol. Symbols are provided for cases in which state licenses and federal permits are both held by a given individual, with a unique symbol provided for persons who also hold federal charter permits. As noted above, in some rural areas, remote addressing presents a challenge to comprehensive mapping efforts. Geo-coded fishing business location data are also depicted on the maps.

The spatial scope of the community maps incorporate the maximum extent of area needed to depict all local license and permit holders with known physical addresses. Thus, in many cases, the maps depict data that extend beyond the political bounds of town or city (also depicted) to include permit or license holders residing on its outskirts or hinterlands (in Central Place Theory parlance). Municipal bounds naturally are depicted only for the incorporated towns and cities.

The "Current Conditions and Trends" section provides a variety of information: (a) trends in population per U.S. Census information, (b) a statement about the nature of local employment, (c) indication of predominant types of fishing and the nature of the local fleet or fleets derived from fisheries data and interview data, and (d) a report on federal Gulf shrimp permit activity for 2003, if any. Information about existing fishing-related services and infrastructure is also provided, as derived from field observation. In sum, the section derives from a mix of interview, secondary source, and observational data.

Table 1, in each profile, provides a broad range of demographic information for 1990 and 2000, per the stated interests of the sponsor. We note with double asterisks that changes in the Occupation and Industry categories between those years does not allow for direct diachronic comparison. Table 2 details our report on the existence and quantity of various fishing-related infrastructure and services for both the recreational and commercial sectors. Because all such businesses are not necessarily readily observable, we note again that that these data do not necessarily achieve parity with Table 3, which is derived from a private source listing of primary (high volume or value) fishing-related businesses, derived from occupation code analysis. Moreover, vessel and gear counts do not necessarily reflect the full range of activity of community residents in a fishery (the license and permit counts do a better job in that respect) since, as indicated above, it is sometimes the case (especially for the more inland communities) that vessels (especially larger vessels) are moored elsewhere.

Table 4 provides total pounds landed by persons residing in or maintaining post office boxes in the study town or city in Alabama, as derived from trip ticket data. In the case of Mississippi, where landings figures are based on dealer data by dealer location, we unavoidably cannot be sure all landings derive solely from residents in that town or city, or that the efforts of all residents are represented in the figures since some may distribute their products elsewhere. Ex-vessel values are provided in conjunction with the landings. These are based on state value figures for that landings year. As noted above, we cannot and do not report landings and/or value data for communities with less than three local dealers, or less than three resident state-licensed or federally-permitted commercial harvesters.

Table 5 provides a summary of state license and federal permit data for each community *as derived from physical address data only. Note that the full counts based on all address types are tabulated in the parent county overview.* It should be kept in mind that the counts are proxies for the activities of residents who may or may not be fishing locally. Recreational saltwater fishing license holders are also enumerated - per all address types. As noted above, these data were not available for Mississippi. Finally, the table includes an indication of overall involvement in the harvest sector. The total number of known resident license and permit holders is measured against the total number of households, to arrive at the percentage of households in each community in which there was at least one active commercial license or permit during 2000 (we also depict the fractional number of saltwater recreational licenses held in each household in the study community on average).

Since it is possible that a given household may, potentially, be home to more than one permit or license holder (e.g., father and son), the former figure represents the maximum allowable percentage, and, as such, is a simplified indicator of overall participation. It is also an indicator of relative rather than absolute involvement in marine fisheries. That is, it is an indicator of the involvement of the harvest sector relative to the entire community perceived in aggregate, but significantly, it is not an indicator of the absolute experience of the harvest sector in and of itself.

Resource Management Jurisdictional Boundaries in the Study Area. State jurisdictional boundaries and associated state resource management zones extend from the shoreline to three miles offshore Alabama, Mississippi, and Louisiana, and nine miles offshore Gulf Florida and Texas. NOAA Fisheries regulates fishing activity occurring in the federal jurisdiction waters of the Gulf of Mexico. The federal waters, also known as the Exclusive Economic Zone or EEZ, extend from the state boundaries to two hundred miles offshore, as depicted on the map that follows. Much commercial and recreational fishing in the region occurs in the nearshore and inshore waters, though some also occurs in federal waters. Enumeration of federal permit holders and permits by type is an important aspect of the following county- and community-level profiles, indicative of the scope of commercial fishing activity occurring in the EEZ in the region.

State and Federal Jurisdiction Waters of the Gulf of Mexico

3.0 Alabama Study Communities

This section of the report presents the Alabama community profiles. The materials are presented in a manner intended to be both readable and of maximal utility to NOAA fisheries staff and other analysts and readers. The section is prefaced with brief cultural geographic description of the region. This is followed by profiles of communities in Escambia County, which is located just northwest of the western portion of the Florida Panhandle. Description of towns and cities in Baldwin County follows, and the section ends with description of communities in Mobile County, which is located immediately east of the border with Mississippi.

A Brief Geography of Coastal Alabama. The coast of Mobile and Baldwin Counties is approximately 53 miles long and lies within two major physiographic provinces: the East Gulf Coastal Plain and the Continental Shelf Province (O'Neil et al. 1982). The three major land forms are the Miocene Series in the north, the Citronelle Formation in the central and south, and the alluvial coastal and low-terrace deposits along the coast and river bottoms. The study areas of interest are characterized by the third form, and much of the region is low-lying land with little relief, punctuated by alluvial zones and estuaries (Geological Survey of Alabama 2003).

The terrain of coastal Alabama includes diverse habitats, including: estuarine intertidal emergent wetland, palustrine emergent wetland, and a combination of palustrine forested and palustrine scrub-shrub wetland. The total combined wetland acreage for Mobile and Baldwin Counties is approximately 692,000 acres, or about 38 percent of the land area of the two counties. Mobile Bay comprises 77 percent of the estuarine system in the state (Smith et al. 1984).

A total of 310 fish species have been recorded in fresh and salt waters of south and coastal Alabama. Most occur in more than one habitat, though 176 species occur in estuarine systems at some time during their life cycle (O'Neil et al. 1982). Two of the more economically important species for Alabama fishery participants are shrimp and oysters. It has been projected that 99 percent of shrimp harvested in Alabama waters spend at least part of their life cycle in estuarine systems.

Mobile County encompasses 793,600 acres of land area. Baldwin County, the largest county in the state, encompasses 1,506,400 acres. Mobile County is characteristically urban and industrial, while Baldwin County is characteristically rural, with the exception of the metropolitan areas along Mobile Bay's Eastern Shore. The Alabama Gulf coast is comprised of approximately 50 miles of beachfront on the Gulf of Mexico and 64 miles of coastline on the back bays and along the Mississippi Sound. Most tourism-related activity occurs on the barrier islands.

As an historical indication of land use across the two coastal counties, we note that in 1984 Smith et al. (1984) indicated 48 percent timber and forest cover, 19 percent farm land, three percent transportation corridors, two percent residential areas, and one percent industrial and commercial zones. The majority of forest products derived from loblolly and shortleaf pine,

used for pulp wood and paper products. Cattle, soybean, and vegetables were important agricultural products in the region. Extensive population growth occurring in recent decades has, of course, been associated with increased use of land for residential and commercial purposes.

The year 2000 census enumerated 399,843 persons in Mobile County, making it the second most populous county in Alabama that year. The rate of population growth in Baldwin County has been particularly notable between 1970 and 2000, growing by 136 percent during the period. Its year 2000 population of 140,415 persons made it the seventh largest county in the state that year.

A Note on Fishing Regulations in Alabama. Alabama Marine Resources Division (AMRD) issues commercial licenses for shrimping, oystering (catcher and dredge), mussels, crabbing, live bait, and party boat fishing. Fishery participants may take saltwater finfish from Alabama waters with a commercial license. Currently, Alabama does not have a commercial license to harvest seafood using spears, gigs, or cast nets. However, AMRD has allowed fishermen using these gears to sell using a commercial hook and line license.

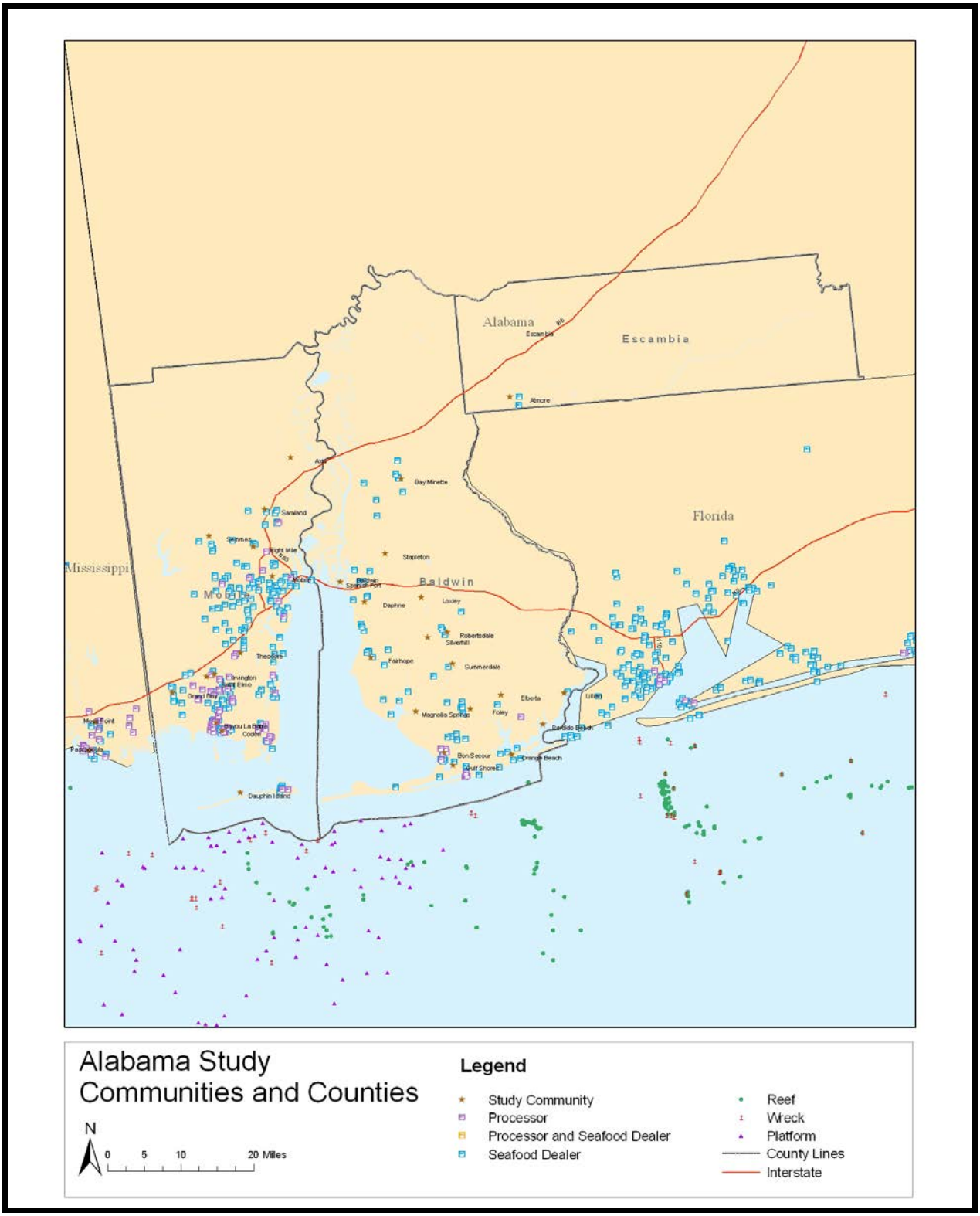
Permits for commercial net and seine permits are issued to persons who purchased licenses in two of five years from 1989 through 1993 and have proof of 50 percent of gross income from fishing, or persons who purchased such a license in all five years and have filed annual income tax returns in all years. All nets and seines must be licensed, with the exception of seines used for bait. The licensee must be present when nets are in use. It is unlawful to use purse seines for the taking of fish other than menhaden, herring, and anchovies.

Saltwater shrimp may only be taken in inside waters (bays, sounds, etc.) with a trawl or trawls used together; these cannot exceed 50 feet as measured along the main top line. No more than two trawls may operate at the same time (not including a "try trawl", which cannot exceed 10 feet as measured along the main top line). There are no restrictions on trawl size used offshore during open seasons.

A seafood dealer license is required anytime seafood is barter, traded, or sold. One participant in transaction must possess a seafood dealer license.

Shrimp (whether sold to an individual or business), hook and line, crab, oyster, and five of five gill net licenses are not transferable. Shrimp licenses are the only commercial fishing licenses that may be issued to a business. However, two of five gill net licenses and corresponding mullet/mackerel endorsements are transferable.

Alabama requires a saltwater fishing license for all recreational methods of finfish harvest in the coastal and marine waters of the state. Exception are persons under the age of 16, or 65 years of age or older. Persons are allowed to fish from a licensed public pier without a saltwater fishing license. Recreational licenses are also required for the harvest of shrimp recreationally and use of recreational nets, with the exception of cast nets.


Alabama
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Baldwin
Alabama Study Communities and Counties
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Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

3.1 Escambia County Communities

This section describes Atmore, the sole study community in Escambia County. This inland town is approximately 40 miles northeast of Mobile Bay and more than 70 miles northeast of the Gulf of Mexico.

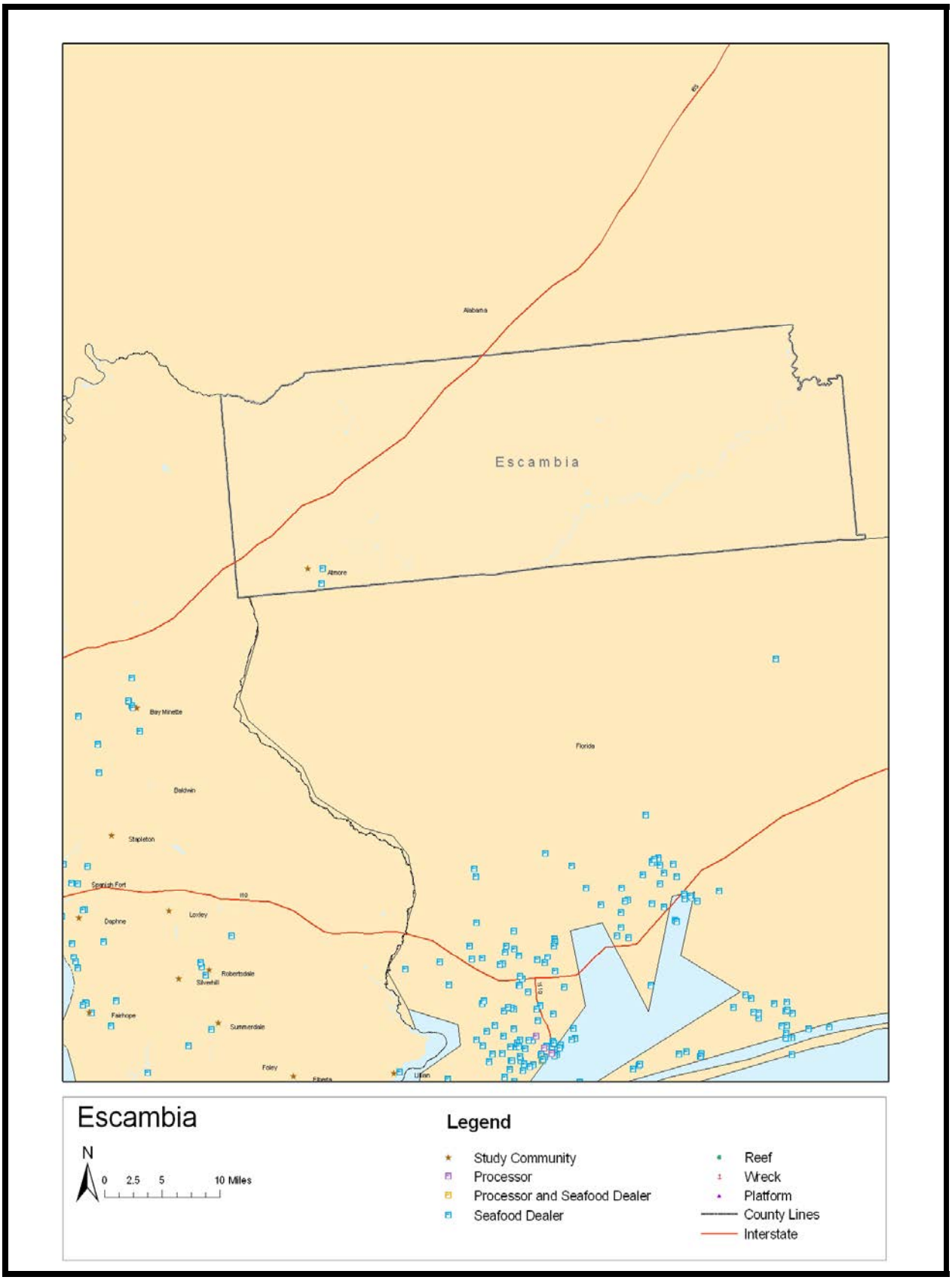
Escambia County encompasses 947 square miles of land and 92 square miles of water in south central Alabama. The county is bordered by Monroe and Conecuh Counties to the north, Covington County to the east, and Baldwin County to the west. Escambia had a year 2000 population of 38,440 persons, making it the 32nd most populous county in Alabama.

Escambia County was ceded from Spain to the United States in 1795 and formally established as an Alabama county in 1868. Its name derives from the Choctaw Indian language word for "cane brake" or "reed brake." The county is currently home to a Creek Nation and Poarch Band of Creek Indian Reservations.

Escambia County's economy was based in timber production and agriculture from the late 1800s through the 1940s. Manufacturing (lumber and wood products, apparel, and textiles) became the leading economic sector in the 1950s. Approximately 27 percent of county earnings derived from manufacturing in 2000 (Bureau of Economic Analysis 2000). Services and trade are increasingly important aspects of the region's economy.

The year 2000 Census recorded the population of Escambia County as comprised of 64 percent Caucasian, 31 percent African American, and three percent Native American. This basic distribution of racial backgrounds has been fairly consistent since the 1920s.

Median family income in Escambia County in 2000 was $36,086, which was 87 percent of the state median. This figure has remained relatively constant, relative to the state median, in recent decades. Some 15 percent of county households reported conditions of poverty and 14 percent of households were maintained by single women as of the year 2000 Census.


Escambia
Alabama
Escambia
Atmore
Florida
Bay Minette
Baldwin
Stapleton
Spanish Fort
Daphne
Loxley
Robertsdale
Silverhill
Fairhope
Summerdale
Foley
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Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

Table 3.1-1 Earnings in Escambia County: 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	$ Change 1990-2000
	1990	2000		
Earnings by place of work	424,399	532,081	100.0	107,682
Farm earnings	18,596	6,312	1.2	-12,284
Agricultural services, forestry, fishing	4,232	3,627	0.7	-605
Fishing	(L)	(L)	n/a	n/a
Mining	19,520	31,317	5.9	11,797
Oil and gas extraction	18,447	29,790	5.6	11,343
Construction	21,403	34,764	6.5	13,361
Special trade contractors	8,988	10,258	1.9	1,270
Manufacturing	131,535	141,270	26.6	9,735
Lumber and wood products	27,665	25,445	4.8	-2,220
Industrial machinery and equipment	5,523	5,425	1.0	-98
Other transportation equipment	(Confidential)	(Confidential)	n/a	n/a
Instruments and related products	(Confidential)	0	n/a	n/a
Food and kindred products	(Confidential)	(Confidential)	n/a	n/a
Paper and allied products	(Confidential)	(Confidential)	n/a	n/a
Chemicals and allied products	(Confidential)	3,255	0.6	n/a
Transportation and public utilities	27,951	78,229	14.7	50,278
Trucking and warehousing	10,519	(Confidential)	n/a	n/a
Water transportation	0	(Confidential)	n/a	n/a
Transportation by air	(Confidential)	0	n/a	n/a
Wholesale trade	9,717	14,556	2.7	4,839
Retail trade	40,352	50,480	9.5	10,128
Eating and drinking places	6,399	9,010	1.7	2,611
Finance, insurance, and real estate	16,871	21,605	4.1	4,734
Services	45,797	50,443	9.5	4,646
Hotels and other lodging places	1,213	1,712	0.3	499
Business services	5,389	4,973	0.9	-416
Amusement and recreation services	822	1,553	0.3	731
Health services	16,924	18,699	3.5	1,775
Legal services	3,470	2,680	0.5	-790
Engineering and management services	2,647	2,565	0.5	-82
Government and assoc. enterprises	88,426	99,478	18.7	11,052

Source: Bureau of Economic Analysis, Regional Economic Information System. (L) Less than $50,000, but the estimates for this item are included in the totals.

3.1.1 Atmore (incorporated, pop. 7,676)

Location and Overview. Atmore is located along U.S. Highway 31 and State Route 3 in the southwest corner of Escambia County. Atmore is a rural town approximately 50 miles northeast of the Mobile Metro area and less than 40 miles northwest of the Pensacola Metro area. There is no direct access to the Gulf of Mexico; marine fishery participants must travel approximately 30 miles southwest to Mobile Bay. Gulf waters are another 40 miles to the south.

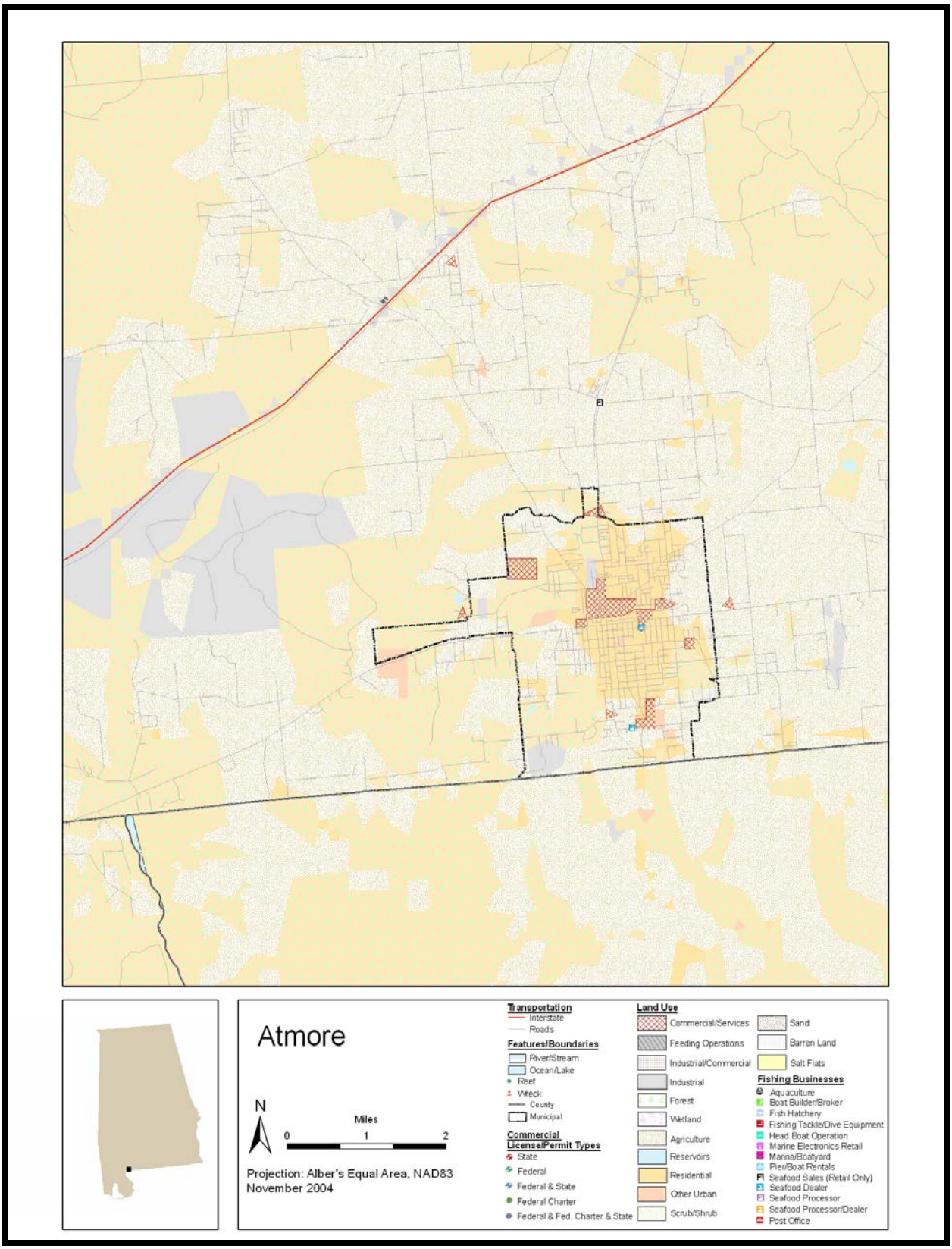
History. The Creek Indians are the earliest known native inhabitants of the Atmore area. Pioneers established Atmore in 1866 as a supply stop along the Mobile and Great Western Railroad. Settlers took advantage of the region's fertile soils and Atmore gradually became a center of agriculture and timber production. The W.M. Carney Mill Company employed many residents over the course of its history (Atmore Area Chamber of Commerce 2004).

Atmore Business District in 2004

Current Conditions and Trends. The population of Atmore was 7,676 persons in 2000, a decrease of 570 from 1990. Many residents are employed in agriculture, timber, and light industrial manufacturing, with the top three local industries producing fabricated plate works for industrial tanks, clutch plates, and non-woven fabrics. The City of Atmore recently purchased 150 acres to be developed as an industrial park, with hopes of attracting industrial diversification. The town is close enough to the metropolitan areas of Mobile and Pensacola to enable a reasonable commute time for residents.

One informant described Atmore as a hunting rather than fishing community. Most of the nearby lakes are part of hunting camps. Locals who want to fish tend to travel to either the Sardine or Tensas Rivers, or into Baldwin or Mobile Counties.

There is very little fishing infrastructure in Atmore, and, according to one city official, one of a small number of local seafood restaurants recently closed. Though not observed, data indicate two licensed seafood dealers were based here at the time of this study. We speculate that these operations interact with wholesalers based closer to the coast. We were unable to identify commercially-licensed residents during the year 2000. However, an AMRD official indicated that commercial licenses were issued to an unknown number of persons living in the general area during that period.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Atmore Demographics

Factor	1990	2000
Total population	8,046	7,676
Gender Ratio M/F (Number)	3,596/4,450	3,390/4,286
Age (Percent of total population)		
Under 18 years of age	27.6	26.4
18 to 64 years of age	55.6	56.5
65 years and over	16.8	17.0
Ethnicity or Race (Number)		
White	4,489	3,798
Black or African American	3,266	3,555
American Indian and Alaskan Native	278	185
Asian	11	36
Native Hawaiian and other Pacific Islander	N/A	4
Some other race	2	28
Two or more races	N/A	70
Hispanic or Latino (any race)	19	56
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	17.3	12.1
Percent high school graduate or higher	59.0	68.1
Percent with a Bachelor's degree or higher	10.4	12.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.1	2.3
Percent who speak English less than very well	0.9	1.0
Household income (Median $)	15,859	22,867
Poverty Status (Percent of population with income below poverty line)	37.9	23.9
Percent female headed household	27.4	20.0
Home Ownership (Number)		
Owner occupied	2,064	2,077
Renter occupied	1,029	1,071
Value Owner-occupied Housing (Median $)	39,700	62,900
Monthly Contract Rent (Median $)	147	352
Employment Status (Population 16 yrs and over)		
Percent in the labor force	55.6	54.5
Percent of civilian labor force unemployed	7.4	8.8
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	21.4
Service occupations	N/A	16.4
Sales and office occupations	N/A	20.8
Farming, fishing, and forestry occupations	3.1	1.3
Construction, extraction, and maintenance occupations	N/A	11.7
Production, transportation, and material moving occupations	N/A	28.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	3.4	0.7
Mining (includes the offshore oil/gas industry workforce)	0.6	1.0
Manufacturing	19.9	25.3
Percent government workers	20.2	15.3
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	22.0
Percent worked outside of county of residence	18.3	26.5

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Atmore in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	5
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale fish house	0
Fisheries research laboratories	0
Fishing monuments	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	5
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	Several
Seafood retail markets	3
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Atmore in 2003

Type of Business	Frequency
Seafood Dealer	1
Total	1

Table 4. Atmore Commercial Landings and Value Summary: 2002

Data not available.

Table 5. Atmore State License and Federal Permit Summary: 2000

Data not available.

3.2 Baldwin County Communities

This section describes the study communities in Baldwin County. These are: Bay Minette, Bon Secour, Daphne, Elberta, Fairhope, Foley, Gulf Shores, Lillian, Loxley, Magnolia Springs, Orange Beach, Perdido Beach, Robertsdale, Silverhill, Spanish Fort, Stapleton, and Summerdale.

Baldwin County encompasses 1,590 square miles of land and 430 square miles of water in southwest Alabama. It is the seventh-largest county in the state. The county is bounded to the south by the Gulf of Mexico, by Mobile County to the west, Escambia County (Florida) to the east, Monroe County to the north, Washington and Clarke Counties to the northwest, and Escambia County (Alabama) to the northeast. With a year 2000 population of 140,415 residents, Baldwin County was one of the top three fastest-growing counties in Alabama (U.S. Census Bureau 2000).

The area that is now called Baldwin County became part of the Territory of Mississippi in 1809, but was formally established as a county of the newly-formed State of Alabama in 1819. The County's namesake is Abraham Baldwin, a signer of the U.S. Constitution.

Timber and cotton production were important aspects of the regional economy throughout the 19th century, and into the 20th century. Employment in the agriculture, fisheries, and forestry sectors declined significantly after 1950. Most jobs are now in the service sector, with many related to tourism. Baldwin is one of the top five counties in Alabama in terms of tourism-related products and services.

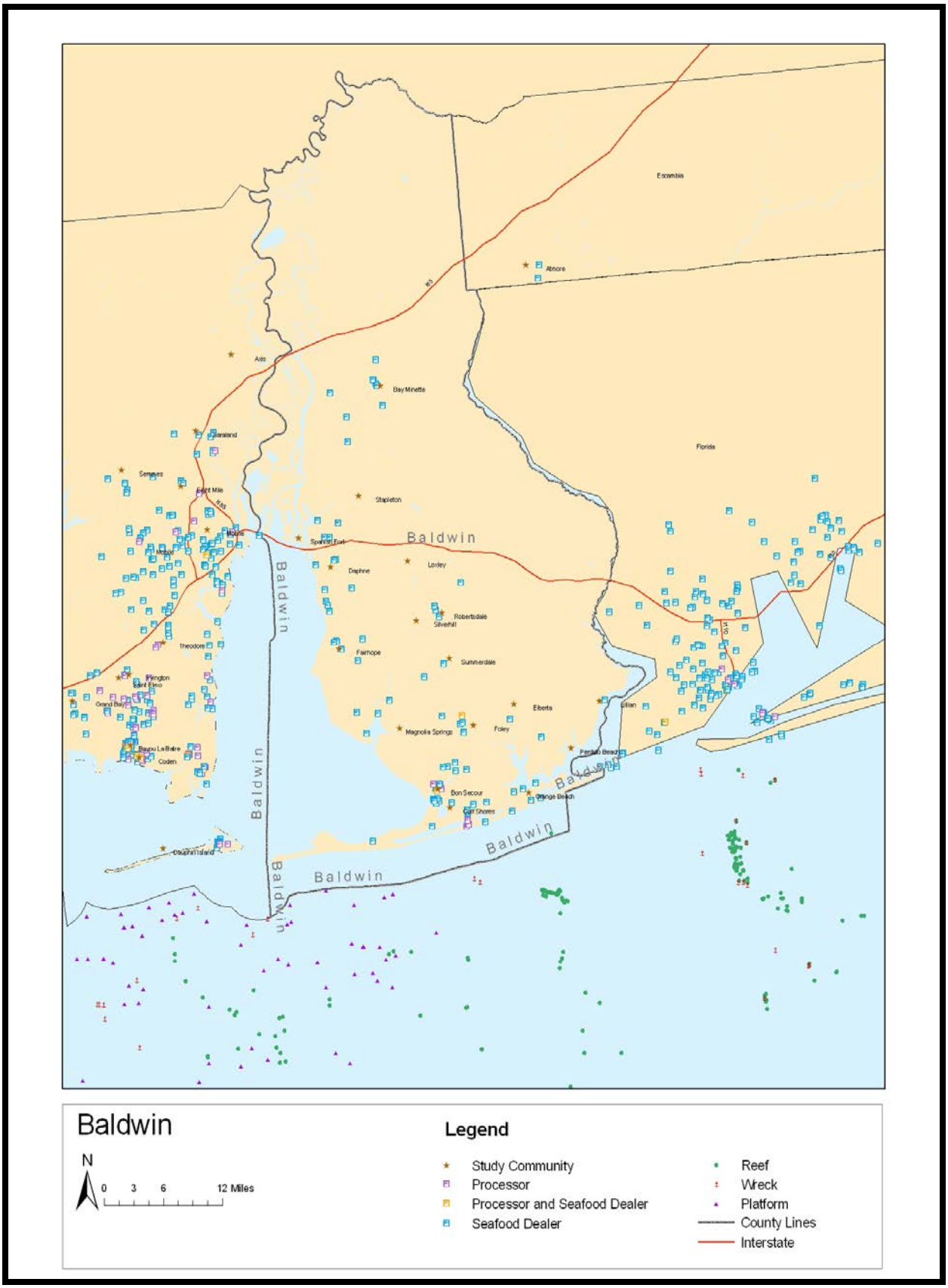
The oil and gas industry and its economic effects are evident in Mobile Bay and along the coastline of Baldwin County. Much activity relates to offshore drilling and shore-side services associated with deep gas reserves in the Norphlet Formation along lower Mobile Bay. There were 15 active wells in the area at the time of this study (Alabama Oil and Gas Board 2003).

The Bon Secour/Gulf Shores area is particularly productive in terms of value of seafood landings ($7 million), ranking 72nd among all U.S. ports of landing in 2004 (NMFS 2005). The Orange Beach area is homeport to a particularly extensive and active charter fleet.

Alabama's artificial reef program started offshore Baldwin County in 1953 at the behest of the Orange Beach charter fleet. The program has proven to be highly successful (Alabama Department of Conservation and Natural Resources 2005).

The year 2000 census recorded the population of Baldwin County as 87 percent Caucasian, ten percent African American, and two percent Hispanic. The size of the Caucasian population has been increasing gradually since 1960.

Median family income in Baldwin County in 2000 was $47,028: this figure is 112 percent of the state median, and has increased slowly each decade since 1950. The 2000 census enumerated eight percent of households below the threshold of poverty, and nine percent of families with children headed by single women.


Escambia
Atmore
Axis
Bay Minette
Saraland
Semmes
Eight Mile
Stapleton
Baldwin
Spanish Fort
Daphne
Loxley
Robertsdale
Silverhill
Theodore
Fairhope
Summerdale
Elberta
Lillian
Magnolia Springs
Foley
Perdido Beach
Bon Secour
Orange Beach
Gulf Shores
Dauphin Island
Florida
Baldwin
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Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate
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0 3 6 12 Miles

Table 3.2-1 Earnings in Baldwin County: 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	$ Change 1990-2000
	1990	2000		
Earnings by place of work	490,258.59	1,713,678.00	46.4	1,223,419.41
Farm earnings	8,147.11	27,275.00	1.6	19,127.89
Agricultural services, forestry, fishing	5,451.90	21,897.00	1.3	16,445.10
Fishing	2,055.37	(Confidential)	n/a	n/a
Mining	1,996.17	9,265.00	0.5	7,268.83
Oil and gas extraction	1,473.98	(Confidential)	n/a	n/a
Construction	26,278.86	168,349.00	9.8	142,070.14
Special trade contractors	17,882.80	114,058.00	6.7	96,175.20
Manufacturing	95,009.34	208,560.00	12.2	113,550.66
Lumber and wood products	6,815.06	14,670.00	0.9	7,854.94
Industrial machinery and equipment	5,569.54	15,873.00	0.9	10,303.46
Other transportation equipment	24,486.10	(Confidential)	n/a	n/a
Instruments and related products	4,928.95	4,216.00	0.2	-712.95
Food and kindred products	1,270.57	(Confidential)	n/a	n/a
Paper and allied products	(Confidential)	6,433.00	0.4	n/a
Chemicals and allied products	2,021.98	3,672.00	0.2	1,650.02
Transportation and public utilities	25,851.54	76,773.00	4.5	50,921.46
Trucking and warehousing	8,270.06	25,397.00	1.5	17,126.94
Water transportation	2,865.23	6,700.00	0.4	3,834.78
Transportation by air	(Confidential)	5,605.00	0.3	(Confidential)
Wholesale trade	22,712.32	72,889.00	4.3	50,176.68
Retail trade	72,274.26	282,759.00	16.5	210,484.74
Eating and drinking places	21,211.77	80,619.00	4.7	59,407.23
Finance, insurance, and real estate	22,421.62	155,209.00	9.1	132,787.38
Services	110,604.52	401,693.00	23.4	291,088.48
Hotels and other lodging places	17,438.78	38,246.00	2.2	20,807.22
Business services	12,360.32	56,733.00	3.3	44,372.69
Amusement and recreation services	4,684.55	16,811.00	1.0	12,126.45
Health services	32,091.28	131,612.00	7.7	99,520.72
Legal services	5,202.19	16,345.00	1.0	11,142.81
Engineering and management services	7,961.15	39,089.00	2.3	31,127.85
Government and assoc. enterprises	99,510.97	289,009.00	16.9	189,498.03

Source: Bureau of Economic Analysis, Regional Economic Information System

Table 3.2-2 Year 2002 Commercial Landings Summary: Baldwin County

Species	Pounds	Value ($)
Mullet, Striped	926,901	463,451
Shrimp, Northern Brown	549,313	1,032,708
Mackerel, Spanish	407,344	199,599
Shrimp, Royal Red	279,812	604,394
Shrimp, Northern White	217,240	519,204
Sheepshead	84,482	38,017
Flatfish	79,704	131,512
Crab, Blue	59,562	34,546
Ladyfish	42,815	22,692
Shrimp, Northern Pink	41,327	68,190
Bluefish	39,974	11,992
Mullet, White	32,424	13,618
Drum, Black	29,850	14,030
Menhadens	22,430	2,243
Tilefish	18,429	28,749
Seatrout, Sand	13,094	7,202
Spot	10,759	3,228
Grouper, Yellowedge	8,857	22,497
Mullets	8,745	4,722
Shrimp, Rock	8,404	13,783
Pompano, Florida	8,072	27,687
Runner, Blue	6,730	3,500
Shark, Blacktip	6,693	2,276
Whiting, King	5,165	3,616
Croaker, Atlantic	2,919	1,372
Harvestfishes	2,573	2,933
Catfish, Sea	1,141	365
Snapper, Vermillion	992	1,915
Grouper, Snowy	861	1,903
Triggerfish, Gray	744	885
Amberjack, Greater	680	673
Snapper, Red	652	1,571
Tunny, Little	634	723
Stingrays	163	42
Porgies	162	152
Groupers	144	291
Drums	122	66
Oyster, Eastern	109	246
Wahoo	89	101
Cobia	80	109
Squids	79	43
Amberjack, Lesser	69	45
Grouper, Black	62	132
Scamp	50	122
Porgy, Whitebone	39	49
Mackerel, King	36	50
Grouper, Gag	25	58
Brotula, Bearded	24	16
Tripletail	22	22

Tilefishes	19	8
Grouper, Red	18	30
Jack, Crevalle	18	21
Jack, Bar	16	18
Catfish, Channel	4	2
Snapper, Gray	4	4
Mackerels	2	1
Total	2,920,678	3,287,421

Table 3.2-3 Year 2000 Commercial Permits and Licenses, and 2003 Gulf Shrimp Permits: Baldwin County *

Permit Type	Study Communities†											
	Bay Minette	Bon Secour	Daphne	Elberta	Fairhope	Foley	Gulf Shores	Lillian	Loxley	Orange Beach	Perdido Beach	Robertsdale
Pelagic Charter	1	--	3	--	4	3	15	2	1	67	1	2
Reef Fish Charter	1	--	4	--	4	3	15	2	1	69	1	2
Swordfish	--	--	--	2	--	--	--	--	--	--	--	--
King Mackerel	--	--	--	1	--	1	--	2	--	1	--	--
Rock Shrimp	--	16	--	--	7	--	--		1	--	--	--
Red Snapper	1	--	--	2	--	1	2	3	--	6	--	--
Spiny Lobster	--	--	--	--	--	--	--		--	--	--	--
Spanish Mackerel	--	--	--	--	--	--	--	2	--	2	--	--
Gulf Reef Fish	1	--	--	2	--	3	2	4	--	9	--	--
Shark	--	--	--	2	--	--	--	2	--	--	--	--
South Atlantic Snapper Grouper	--	--	--	--	--	--	--	--	--	7	--	--
Total Federal Permits 2000	4	16	7	9	15	11	34	17	3	161	1	4
Total Federal Permit Holders 2000	1	26	4	2	11	7	15	4	2	72	1	2
Total State License Holders 2000	1	34	--	3	3	9	14	--	1	1	--	2
Gulf Shrimp Permits 2003‡	--	24	--	--	--	6	--	--	1	--	--	1

* Includes all permits and licenses that can be attributed to the communities by *both* street and post office box addresses; these data are used to generate counts of permit and license holders for whom evidence indicates actual residence, as provided in the community descriptions. † Places for which no federal permits can be attributed are not included here. ‡ 2003 is the first year for which Gulf shrimp permit data are available.

3.2.1 **Bay Minette** (incorporated, pop. 7,820)

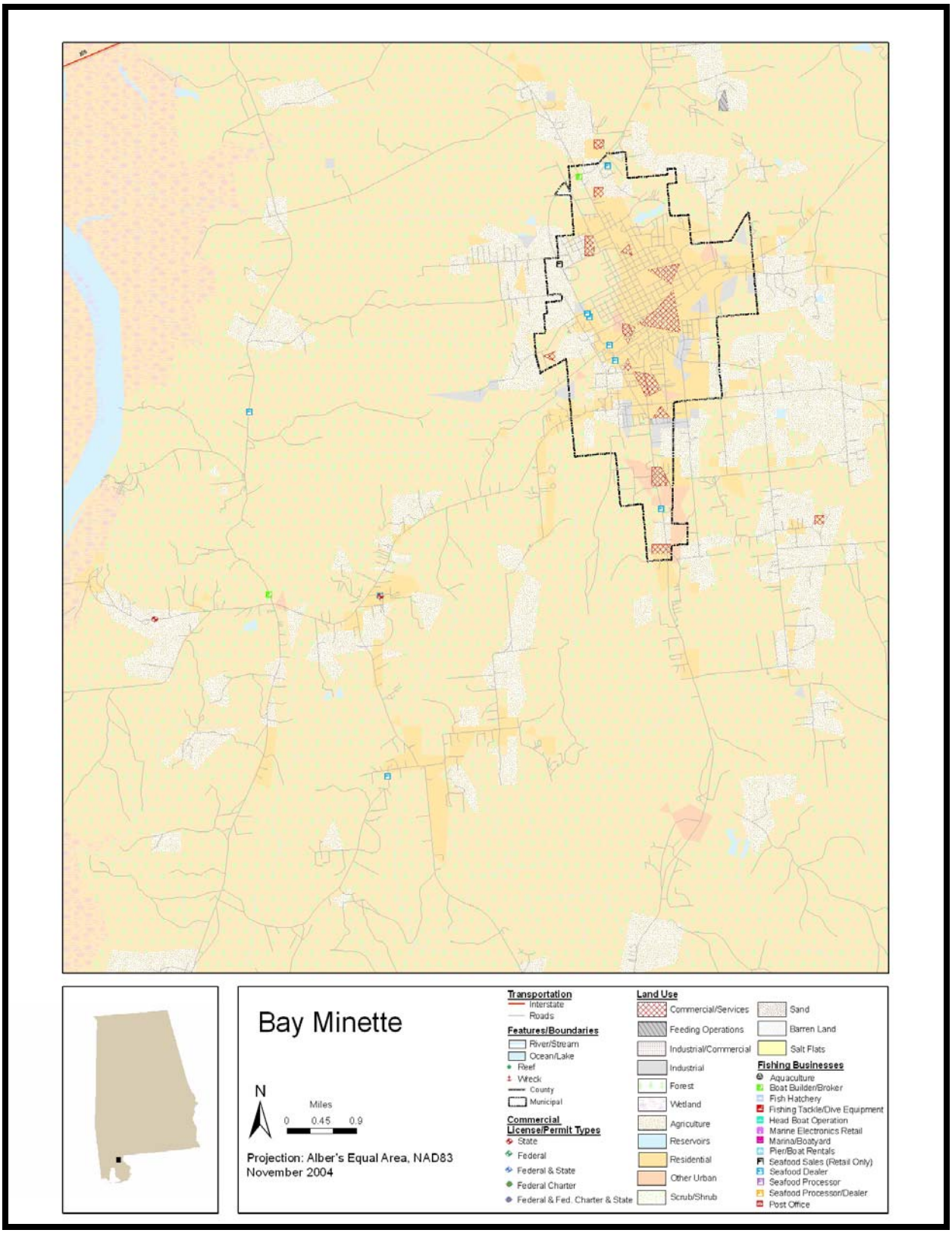
Location and Overview. Bay Minette, the county seat, is located along U.S. Highway 31 and State Route 3, and is surrounded by pine forests and agricultural lands. It is a little less than 30 miles northeast of Mobile, 45 miles west of Pensacola, and 75 miles east of Biloxi. The area is in close proximity to numerous creeks, the Tensaw River Delta, Mobile Bay, and the Gulf of Mexico. Bay Minette is some 50 miles northeast of the Gulf of Mexico, by way of Mobile Bay. Although its economy is based primarily in timber production, manufacturing is also an important and growing industrial sector (City of Bay Minette).

History. The town was named for a French surveyor, M. Minette. The original town was located on Minette Bay (near Bromley) until the late 1800s, when residents relocated to its present site to be closer to rail service. Bay Minette was then designated seat of government by the State Legislature, a distinction previously held by Daphne. The town was incorporated in 1907. In 1912, a large naval stores plant was built near Bay Minette.

Current Conditions and Trends. The year 2000 population of Bay Minette was 7,820 persons, up from 7,168 in 1990. Residents are employed in a variety of occupations, with the managerial and professional sector leading employment figures in 2000. Lumber and furniture industries employ more than 2,500 residents. Bay Minette has been referred to as one of the most diversified areas in the state for a city of its size. Affordable housing, relatively low cost of living, and various medical facilities reportedly have attracted new residents.

With the exception of seafood dealers, there is relatively little fishing infrastructure in the area. The owner of a newly-opened seafood shop buys most seafood locally from other wholesalers along the Alabama coast, although some finfish is imported in the off-season.

Seafood Restaurant in Bay Minette



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Bay Minette Demographics

Factor	1990	2000
Total population	7,168	7,820
Gender Ratio M/F (Number)	3,371/3,797	3,854/3,966
Age (Percent of total population)		
Under 18 years of age	29.8	25.7
18 to 64 years of age	57.3	59.9
65 years and over	12.9	14.4
Ethnicity or Race (Number)		
White	4,960	5,030
Black or African American	2,122	2,617
American Indian and Alaskan Native	59	47
Asian	24	34
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	3	33
Two or more races	N/A	58
Hispanic or Latino (any race)	43	80
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	14.4	8.2
Percent high school graduate or higher	62.2	69.3
Percent with a Bachelor's degree or higher	11.8	15.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.6	3.6
Percent who speak English less than very well	0.5	0.6
Household income (Median $)	18,145	27,226
Poverty Status (Percent of population with income below poverty line)	25.4	22.3
Percent female headed household	24.7	18.7
Home Ownership (Number)		
Owner occupied	1,617	1,749
Renter occupied	854	990
Value Owner-occupied Housing (Median $)	40,500	69,800
Monthly Contract Rent (Median $)	200	409
Employment Status (Population 16 yrs and over)		
Percent in the labor force	57.1	51.6
Percent of civilian labor force unemployed	11.1	8.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	27.3
Service occupations	N/A	16.5
Sales and office occupations	N/A	23.2
Farming, fishing, and forestry occupations	1.3	1.2
Construction, extraction, and maintenance occupations	N/A	10.6
Production, transportation, and material moving occupations	N/A	21.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.5	1.6
Mining (includes the offshore oil/gas industry workforce)	0.3	1.1
Manufacturing	33.4	19.7
Percent government workers	17.9	20.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	20.8
Percent worked outside of county of residence	21.7	20.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Bay Minette in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2 (boat dealers)
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	2
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Bay Minette in 2003

Type of Business	Frequency
Boat Builder/Broker	2
Seafood Dealer	1
Total	3

Table 4. Bay Minette Commercial Landings and Value Summary: 2002

Data may not be reported under the "Rule of Three"

Table 5. Bay Minette State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
1	1
Total = 2	
% Households Holding Commercial Permit or License: 2/2,739 = 0.07	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.2 Bon Secour (unincorporated, pop. 1,803)

Location and Overview. Bon Secour means "safe harbor" in French. The town is located on the northeast banks of Bon Secour Bay and the northwest banks of the Bon Secour River in southwestern Baldwin County. As one of Alabama's two major seaports (the other one being Bayou La Batre), an estimated one-fourth of all Alabama seafood landings are reported from here (Hosking & Perkins 1994). Today, a fleet of fishing boats and several major shrimp and oyster companies are based in the area. The town is some 22 sea miles east-northeast of the Gulf of Mexico, via Mobile Bay.

The 6,700-acre Bon Secour Wildlife Management Area and National Wildlife Refuge are regional attractions. These are located on Fort Morgan Peninsula, across Bon Secour Bay. The refuges are known for extensive salt marshes, rare cypress swamps, and dune systems (Alabama Environmental Council 2004).

History. Bon Secour is Baldwin County's oldest community. Founded in 1702 by French explorers, its early settlers fished and hunted for subsistence. Over time, Bon Secour developed into a thriving fishing community. Indeed, one of Alabama's oldest family-owned operations is the Bon Secour Fisheries, which has been in business since the late 1800s (South Baldwin Chamber of Commerce).

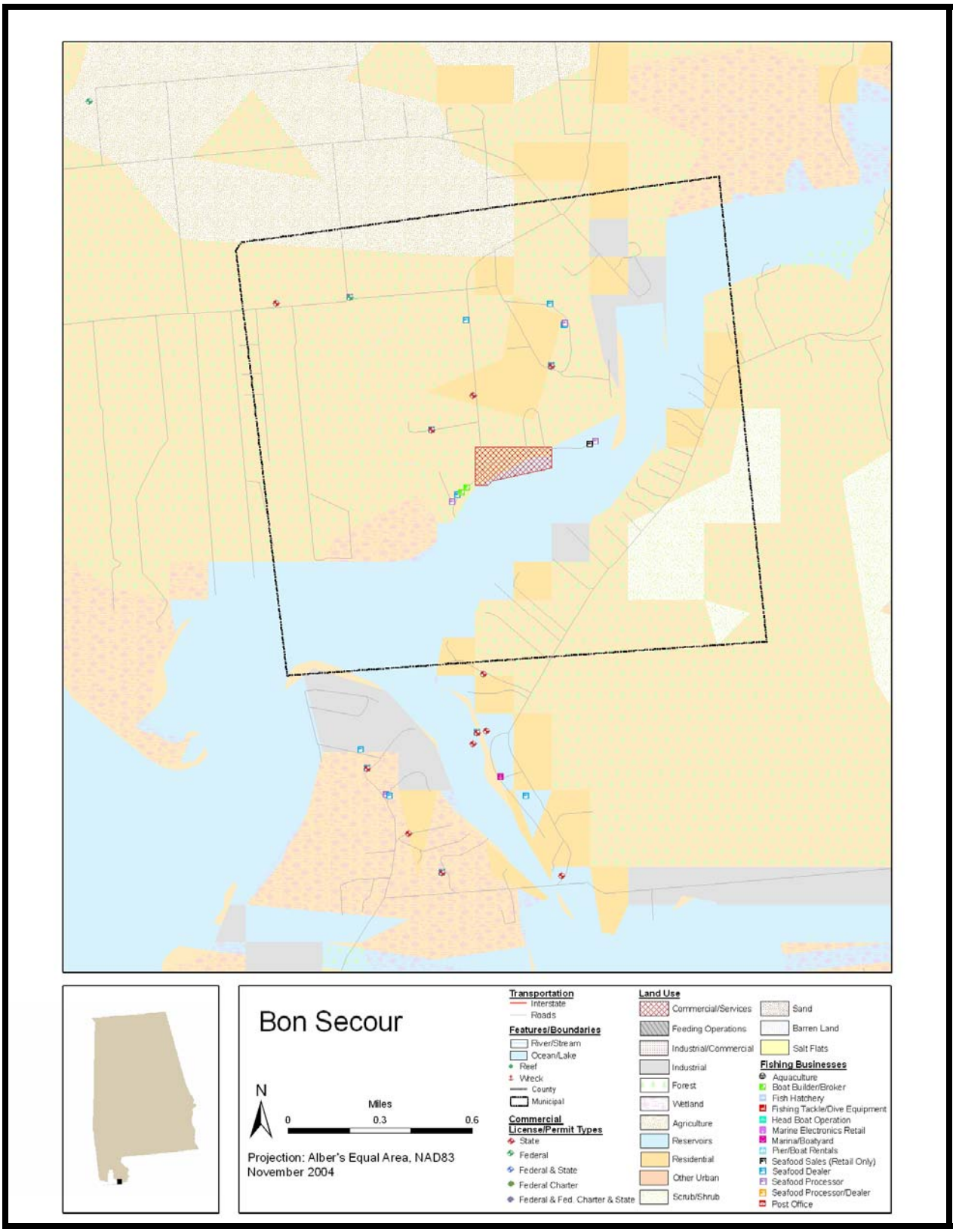
Gulf Shrimp Boats Docked at Bon Secour in 2004

Current Conditions and Trends. The year 2000 population of Bon Secour was 1,803 persons, up from 733 in 1990. Residents were employed in a variety of occupations in 2000, with the heaviest concentration in the sales and office-related sectors.

Bon Secour is rural in character, with modest homes and some unpaved roads. A few scattered businesses exist outside the significant concentration of seafood businesses on the waterfront. Five wholesale seafood operations are based here, offering oysters, crab, and finfish. But shrimp is the primary product, and landings are extensive. While we were able to prove residence for only a handful of captains, 34 state commercial license holders either lived here or maintained postal addresses in the area in 2000.

A large locally-based processor maintains a fleet of trucks to transport seafood across the region. Informants related that while approximately 150 commercial captains previously docked their vessels in Bon Secour, that number has steadily declined in recent years. According to one knowledgeable source, the decline relates to a combination of factors, including poor market conditions for domestic shrimp, increasing regulation, and rising fuel costs. Another seafood dealer operates vessels specifically rigged as reef fish, bay shrimp, and small gill net boats. This business reportedly has not been as significantly affected by regulatory changes. Some captains in the area report increasing difficulty finding reliable crew.

Fisherman's Church in Bon Secour, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Bon Secour Demographics

Factor	1990	2000
Total population	733	1,803
Gender Ratio M/F (Number)	356/377	864/939
Age (Percent of total population)		
Under 18 years of age	25.9	24.3
18 to 64 years of age	56.9	62.1
65 years and over	17.2	13.6
Ethnicity or Race (Number)		
White	723	1,777
Black or African American	0	10
American Indian and Alaskan Native	2	10
Asian	1	3
Native Hawaiian and other Pacific Islander	N/A	5
Some other race	7	14
Two or more races	N/A	26
Hispanic or Latino (any race)	8	63
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	12.3	7.9
Percent high school graduate or higher	70.6	71.0
Percent with a Bachelor's degree or higher	17.2	13.5
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.5	8.2
Percent who speak English less than very well	0.0	5.0
Household income (Median $)	31,597	39,120
Poverty Status (Percent of population with income below poverty line)	4.2	12.2
Percent female headed household	5.4	10.0
Home Ownership (Number)		
Owner occupied	236	586
Renter occupied	42	110
Value Owner-occupied Housing (Median $)	61,100	87,600
Monthly Contract Rent (Median $)	259	395
Employment Status (Population 16 yrs and over)		
Percent in the labor force	59.6	65.3
Percent of civilian labor force unemployed	5.3	3.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	18.6
Service occupations	N/A	16.8
Sales and office occupations	N/A	28.2
Farming, fishing, and forestry occupations	2.4	5.7
Construction, extraction, and maintenance occupations	N/A	17.0
Production, transportation, and material moving occupations	N/A	13.5
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	12.3	8.5
Mining (includes the offshore oil/gas industry workforce)	1.9	0.4
Manufacturing	32.2	9.0
Percent government workers	11.8	8.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	15.8	9.0

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Bon Secour in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	1
Churches with maritime theme	1
Docking facilities (commercial)	5+
Fishing Gear, Electronics, Welding, and other repair	1
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	5
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	0
Hotels/Inns (dockside)	1
Marine railways/haul out facilities	1
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	2
Trucking operations	1
Site-seeing/pleasure tours	2
Charter/Head Boats	0
Commercial Boats	100+

Table 3. Primary Fishing-related Businesses Listed for Bon Secour in 2003

Type of Business	Frequency
Boat Builder/Broker	2
Processor; Seafood Dealer	1
Seafood Dealer	2
Total	5

Table 4. Bon Secour Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	2,464,167	4,036,468

Table 5. Bon Secour State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
4	1
Total = 5	
% Households Holding Commercial Permit or License: 5/696 = .7	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.3 Daphne (incorporated, pop. 16,581)

Location and Overview. Daphne is located along U.S. Highway 98 and State Highway 42 in western Baldwin County. The town is situated along the rapidly developing eastern shore of Mobile Bay, just south of Interstate 10. The city is about 14 miles east of Mobile and 45 miles west of Pensacola, Florida. The Gulf of Mexico is some 35 miles south, by way of Mobile Bay.

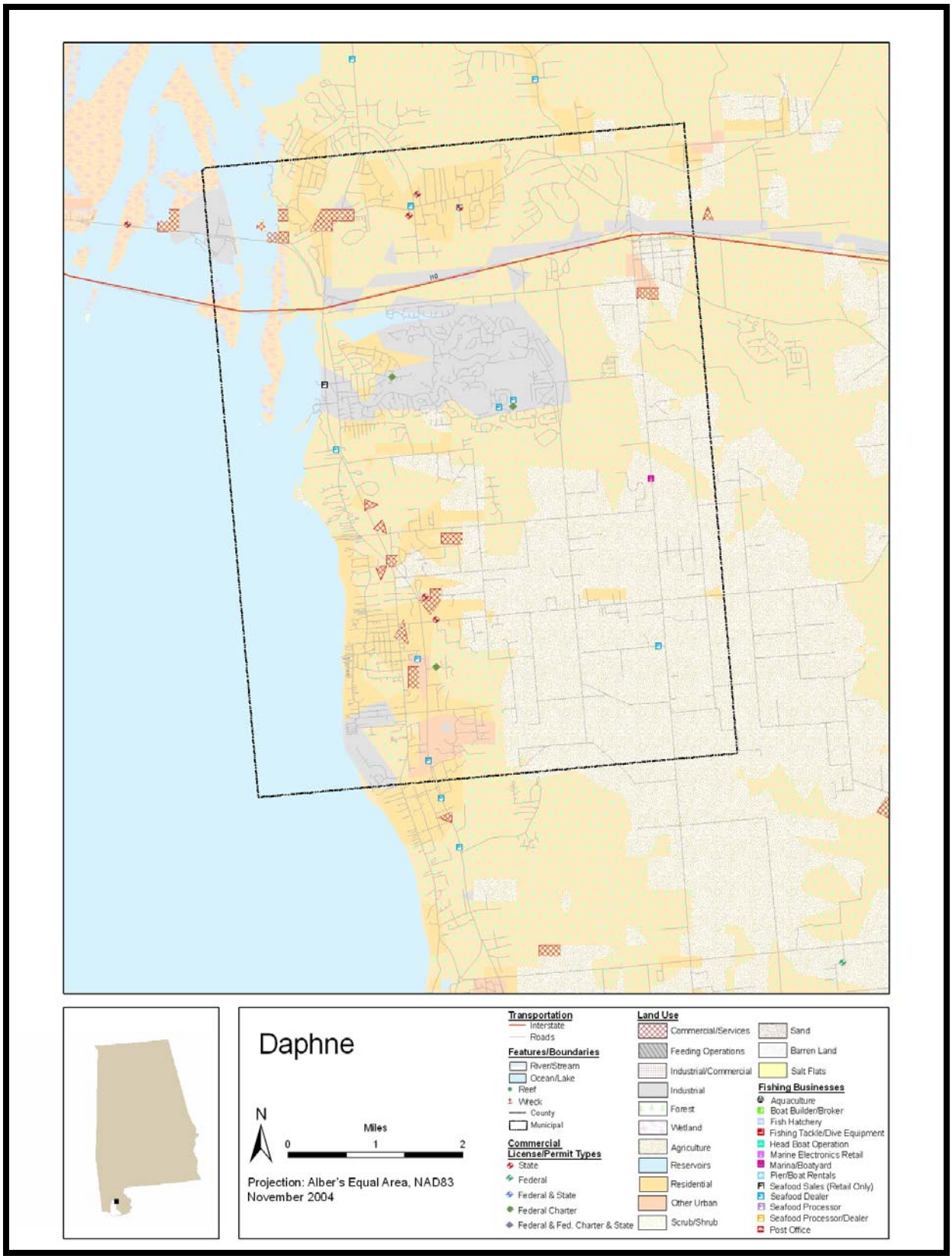
History. Historical evidence suggests that the Tensaw, Alabama, Choctaw, and Creek Indians were among the earliest inhabitants of this region. Spanish explorers were the first Europeans to arrive (in 1557), followed by the French and British in the mid-1700s. The town of Daphne was established in 1874. Italian immigrants arrived in the early 1900s. Agriculture was the primary enterprise for early residents. Daphne was incorporated in 1928 with 500 residents. The town later became a tourist destination for affluent residents of Mobile and New Orleans.

Fishing Pier in Daphne

Current Conditions and Trends. The year 2000 population of Daphne was 16,581 persons, up significantly from 11,290 persons in 1990. The contemporary economy of this suburban area is based primarily in retail trade and tourism. Many residents are employed by Wal-Mart. Mercy Medical Center also employs many residents.

The annual “Festa Italiana” is held to celebrate the Italian heritage of many of the town's residents. The “Jubilee Festival,” held each September, highlights the work of local artisans.

Relatively little fishing infrastructure is available here: a public pier, a public boat ramp, a private marina with boat slips, and a few fishing charter operations. There are several seafood restaurants and three seafood markets in the area. Many homeowners maintain waterfront docks.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Daphne Demographics

Factor	1990	2000
Total population	11,290	16,581
Gender Ratio M/F (Number)	5,528/5,762	8,073/8,508
Age (Percent of total population)		
Under 18 years of age	24.9	25.6
18 to 64 years of age	64.6	64.1
65 years and over	10.5	10.3
Ethnicity or Race (Number)		
White	9,406	14,148
Black or African American	1,794	2,048
American Indian and Alaskan Native	29	50
Asian	47	101
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	14	72
Two or more races	N/A	161
Hispanic or Latino (any race)	107	254
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	3.3	1.7
Percent high school graduate or higher	88.5	91.9
Percent with a Bachelor's degree or higher	35.3	37.5
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	1.7	3.9
Percent who speak English less than very well	0.4	0.8
Household income (Median $)	38,017	52,603
Poverty Status (Percent of population with income below poverty line)	7.0	4.5
Percent female headed household	12.1	9.8
Home Ownership (Number)		
Owner occupied	3,125	4,833
Renter occupied	1,286	1,730
Value Owner-occupied Housing (Median $)	76,300	125,300
Monthly Contract Rent (Median $)	364	666
Employment Status (Population 16 yrs and over)		
Percent in the labor force	67.3	67.1
Percent of civilian labor force unemployed	4.1	3.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	43.3
Service occupations	N/A	12.6
Sales and office occupations	N/A	30.8
Farming, fishing, and forestry occupations	1.9	0.1
Construction, extraction, and maintenance occupations	N/A	6.1
Production, transportation, and material moving occupations	N/A	7.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.3	0.6
Mining (includes the offshore oil/gas industry workforce)	0.8	0.0
Manufacturing	13.3	11.3
Percent government workers	11.3	16.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	26.5
Percent worked outside of county of residence	56.5	48.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Daphne in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	2
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	Several
Seafood retail markets	3
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Daphne in 2003

Type of Business	Frequency
Marina	1
Seafood Dealer	3
Total	4

Table 4. Daphne Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "Rule of Three."

Table 5. Daphne State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	3
Total = 3	
% Households Holding Commercial Permit or License: 3/6,563 = 0.04	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.4 **Elberta** (incorporated, pop. 552)

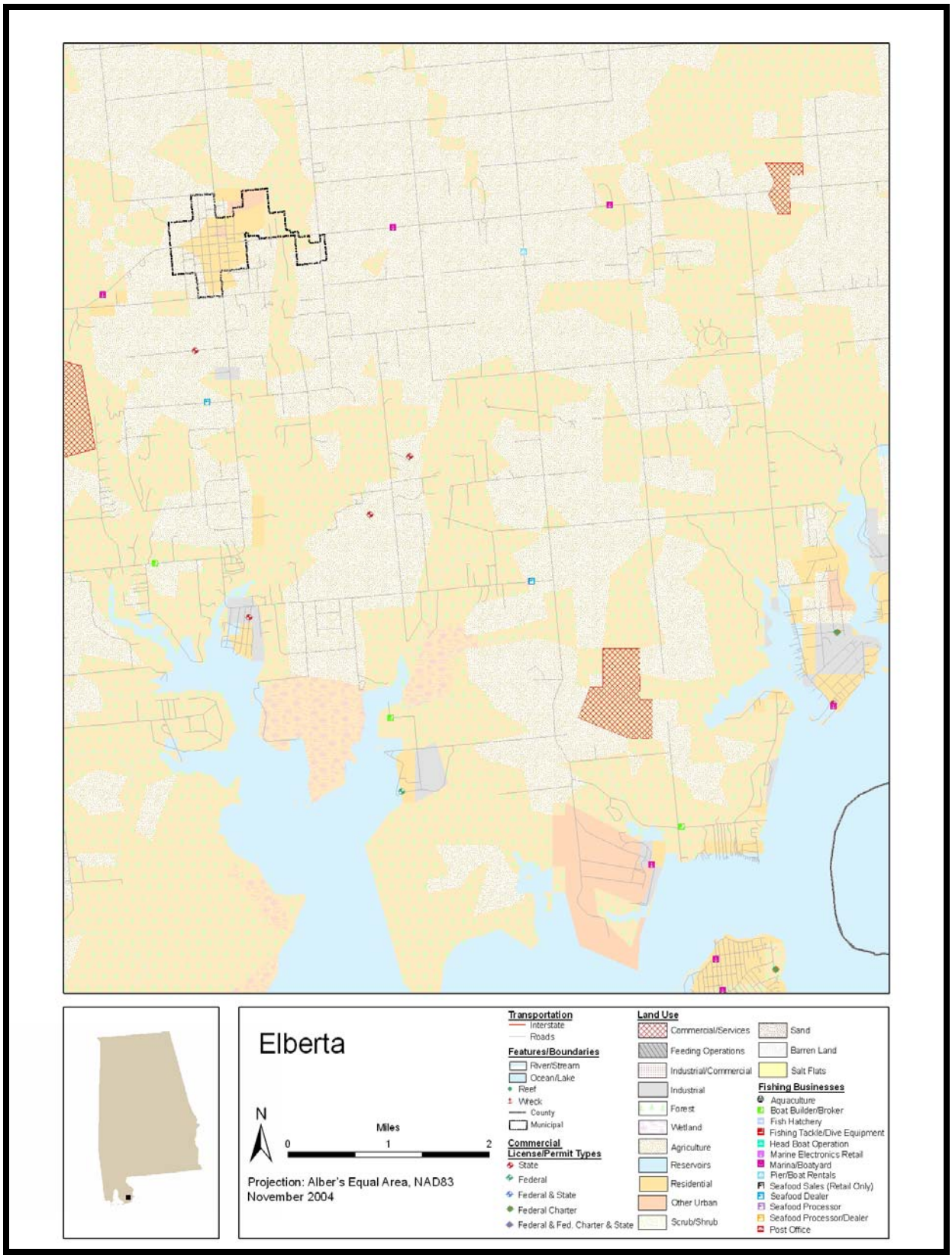
Location and Overview. Elberta is located along U.S. Highway 98 and State Route 42 in south central Baldwin County, between Foley and Lillian. This is a rural agricultural community. The town is 42 miles southeast of Mobile and 29 miles west of downtown Pensacola. Perdido Bay is less than 12 miles southeast, and Mobile Bay is approximately 18 miles to the west. Elberta is some 13 miles north of the Gulf of Mexico; local fishery participants can access Gulf waters via Perdido Pass.

History. German immigrants founded Elberta in 1905. They named their town after the Elberta peach.

Elberta Farmer's Co-op

Current Conditions and Trends. The year 2000 census enumerated 552 persons in Elberta, up from 458 in 1990. Most residents were employed in sales occupations during 2000, with many commuting to jobs in Foley, Gulf Shores/Orange Beach, or Pensacola.

While there is very little fishing infrastructure in the area, an AMRD representative reports that the sole seafood wholesaler based here is the most productive distributor of finfish products in Baldwin County. Some small businesses involved in sale of goods related to fishing are located along Highways 98 and 95. A small but productive commercial fleet is based in the area, though most captains moor in and work from the Dauphin Island area. A few captains are permitted for pelagic fishing in the offshore waters of the Gulf.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Elberta Demographics

Factor	1990	2000
Total population	458	552
Gender Ratio M/F (Number)	226/232	258/294
Age (Percent of total population)		
Under 18 years of age	27.1	24.5
18 to 64 years of age	56.3	56.5
65 years and over	16.6	19.0
Ethnicity or Race (Number)		
White	452	525
Black or African American	0	1
American Indian and Alaskan Native	5	6
Asian	1	0
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	0	17
Two or more races	N/A	2
Hispanic or Latino (any race)	7	21
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	14.7	8.8
Percent high school graduate or higher	67.4	75.5
Percent with a Bachelor's degree or higher	8.6	6.8
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.8	11.5
Percent who speak English less than very well	1.7	2.0
Household income (Median $)	21,484	22,375
Poverty Status (Percent of population with income below poverty line)	18.0	20.0
Percent female headed household	11.2	17.1
Home Ownership (Number)		
Owner occupied	127	153
Renter occupied	54	75
Value Owner-occupied Housing (Median $)	41,800	71,800
Monthly Contract Rent (Median $)	250	578
Employment Status (Population 16 yrs and over)		
Percent in the labor force	57.6	52.5
Percent of civilian labor force unemployed	3.2	4.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	23.1
Service occupations	N/A	15.1
Sales and office occupations	N/A	36.3
Farming, fishing, and forestry occupations	10.5	0.0
Construction, extraction, and maintenance occupations	N/A	14.6
Production, transportation, and material moving occupations	N/A	10.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	12.4	0.9
Mining (includes the offshore oil/gas industry workforce)	0.0	0.0
Manufacturing	11.0	8.5
Percent government workers	16.2	18.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.1
Percent worked outside of county of residence	23.2	12.8

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Elberta in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	1
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Elberta in 2003

Type of Business	Frequency
Boat Builder/Broker	3
Boat Builder/Broker; Marina	3
Boat Rentals & Pier	1
Marina	4
Seafood Dealer	1
Total	12

Table 4. Elberta Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	105,570	95,938

Table 5. Elberta State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
2	1
Total = 3	
% Households Holding Commercial Permit or License: 3/228 = 1.3	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Downtown Elberta, 2004

3.2.5 Fairhope (incorporated, pop. 12,480)

Location and Overview. Fairhope is located along the eastern shore of Mobile Bay in west-central Baldwin County. U.S. Highway 98 and State Route 42 are the main thoroughfares in the city. Fairhope is primarily a resort community. It is approximately 13 miles southeast of Mobile and 25 miles northeast of the Gulf of Mexico.

History. Fairhope was established as a "utopian" community by “single-tax colonists” in 1894. These political idealists embraced theories advanced by Henry George, advocating no taxes other than a single land tax. One of the first local endeavors was to build a municipal pier, completed in 1885. Fairhope is so named because its founders believed their town and way of life had a “fair hope” of succeeding. Incorporated in 1908, the area quickly became a resort destination (City of Fairhope). The City became the caretaker of the pier and beach-front park in the1930s, gifts from the single-tax colony.

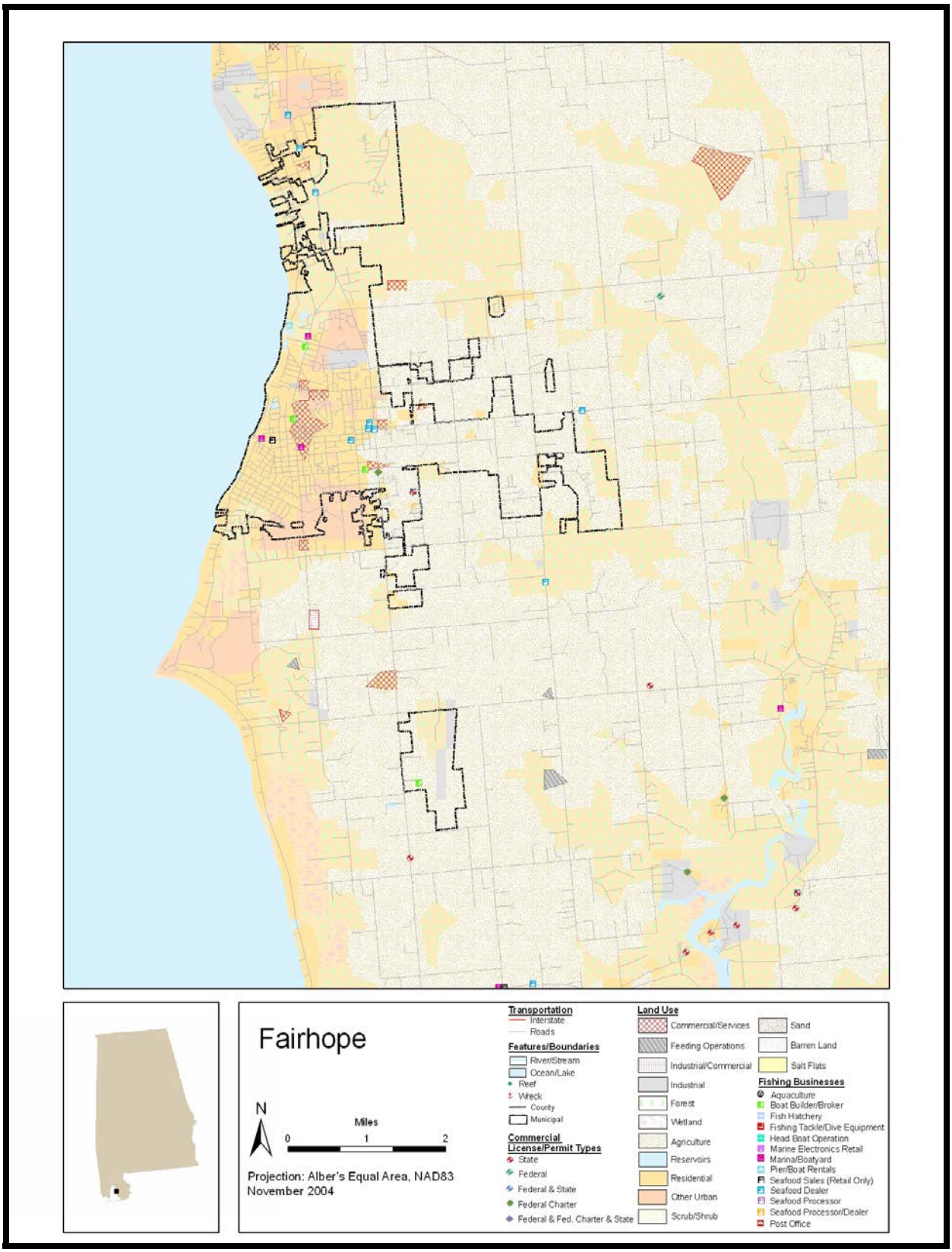
Castnet Fishermen on Fairhope Pier in 2004

Current Conditions and Trends. The year 2000 population of Fairhope was 12,480 persons, up from 8,485 in 1990. Most residents were employed in managerial, professional, and sales-related occupations during the census year, and some 30 percent of those were commuting to jobs in the Mobile area. Fairhope city planners redesigned and ultimately revitalized its downtown business district in the mid-1970s. Numerous exclusive shops and art galleries have since opened in the area.

The Fairhope Pier is often busy with cast netters and anglers, both during the day and in the evening. A public boat ramp and several marinas serve local and visiting recreational and commercial fishery participants. One marina offers dry storage while the others offer wet slips only. Several locally-owned shrimp boats are docked at one marina; according to the manager, the owners are retired and fish only occasionally. Two marina managers stated that most of their customers are interested in pleasure boating rather than fishing.

Four charter operations are based here, as is a small group of commercial license holders. Shrimp were the principal commercial landings during 2002.

Shrimp Boats Docked at Fairhope Marina in 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Fairhope Demographics

Factor	1990	2000
Total population	8,485	12,480
Gender Ratio M/F (Number)	3,889/4,596	5,670/6,810
Age (Percent of total population)		
Under 18 years of age	22.5	21.6
18 to 64 years of age	54.4	54.7
65 years and over	23.1	23.7
Ethnicity or Race (Number)		
White	7,850	11,259
Black or African American	580	972
American Indian and Alaskan Native	17	25
Asian	26	77
Native Hawaiian and other Pacific Islander	N/A	5
Some other race	12	26
Two or more races	N/A	116
Hispanic or Latino (any race)	91	130
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	7.1	2.5
Percent high school graduate or higher	82.3	89.1
Percent with a Bachelor's degree or higher	26.9	37.2
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.2	4.1
Percent who speak English less than very well	0.7	1.0
Household income (Median $)	28,824	42,913
Poverty Status (Percent of population with income below poverty line)	10.0	7.5
Percent female headed household	15.3	10.1
Home Ownership (Number)		
Owner occupied	2,560	4,084
Renter occupied	990	1,261
Value Owner-occupied Housing (Median $)	70,100	149,900
Monthly Contract Rent (Median $)	307	710
Employment Status (Population 16 yrs and over)		
Percent in the labor force	55.2	53.2
Percent of civilian labor force unemployed	3.8	2.4
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	43.4
Service occupations	N/A	12.6
Sales and office occupations	N/A	26.1
Farming, fishing, and forestry occupations	2.3	0.4
Construction, extraction, and maintenance occupations	N/A	9.2
Production, transportation, and material moving occupations	N/A	8.3
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.9	0.5
Mining (includes the offshore oil/gas industry workforce)	0.8	0.1
Manufacturing	12.6	7.2
Percent government workers	13.1	17.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.6
Percent worked outside of county of residence	31.4	30.5

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Fairhope in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	3
Churches with maritime theme	0
Docking facilities (commercial)	1
Fishing Gear, Electronics, Welding, and other repair	1
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	3
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	few
Commercial Boats	3

Table 3. Primary Fishing-related Businesses Listed for Fairhope in 2003

Type of Business	Frequency
Boat Builder/Broker	5
Boat Rentals & Pier	1
Marina	6
Seafood Dealer	3
Total	15

Table 4. Fairhope Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	131,501	252,186

Table 5. Fairhope State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
3	6
Total = 9	
% Households Holding Commercial Permit or License: 9/5,345 = 0.1	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.6 Foley (incorporated, pop. 7,590)

Location and Overview. Foley is located at the intersection of U.S. Highway 98 and State Routes 42 and 59 in south-central Baldwin County. The town is 38 miles southeast of Mobile, about 34 miles west of downtown Pensacola, and roughly 20 miles north of the Gulf of Mexico. Residents may access the Gulf waters via Mobile Bay, or more directly at Gulf Shores via Wolf Creek and the Intracoastal Waterway. With 1,800 employees, the Riviera Center Outlet Mall is the City's largest employer (Alabama Municipal Electric Authority 2001).

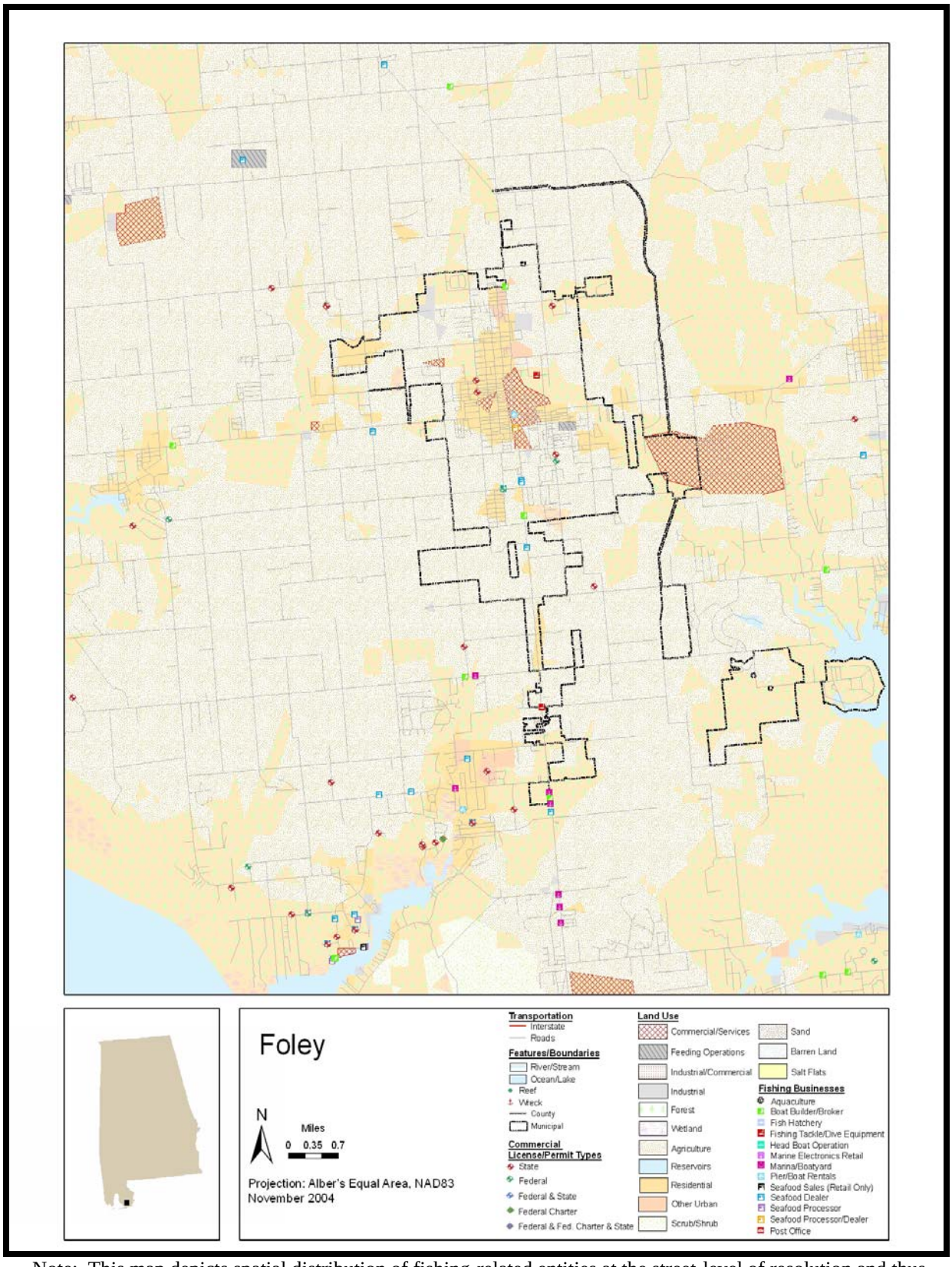
History. Foley is a planned city named for John Burton Foley, owner of Magnolia Land Company. Established in the early 1900s, the town developed as an agricultural product shipping center after the L&N railroad line was established in the area. Potatoes and corn were the primary crops shipped from Foley, along with timber products (City of Foley, Alabama; South Baldwin Chamber of Commerce).

The nearby Barin Field Naval Base was established in 1942. While its operations were suspended soon after World War II, it reopened during the Korean War and is now used for practice landings by naval pilots. Increased industrial activity helped diversify the economy during the 1960s.

Current Conditions and Trends. The population of Foley was 7,590 persons in 2000, up from 4,937 in 1990. The town has grown as businesses proliferate along Highway 59, which leads to the tourist destinations of Gulf Shores and Orange Beach. The Foley Chamber of Commerce holds an annual promotional demonstration focusing on the shrimp industry. Foley residents take part in Heritage Harbor Days, a cultural exchange program undertaken with other maritime towns and cities across the U.S.

Residents maintain ties to the fishing industry in nearby Bon Secour. The local net and supply company has been in business for over 50 years and produces both recreational cast and commercial trawl nets. While there is relatively little fishing infrastructure here, the town is home to a small number of highly productive shrimp trawl captains, and an even smaller but equally productive fleet of captains and crew who pursue finfish species in the Gulf.

Seafood Dealer in Foley



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Foley Demographics

Factor	1990	2000
Total population	4,937	7,590
Gender Ratio M/F (Number)	2,245/2,692	3,479/4,111
Age (Percent of total population)		
Under 18 years of age	26.4	23.1
18 to 64 years of age	53.1	55.2
65 years and over	20.5	21.7
Ethnicity or Race (Number)		
White	3,957	5,654
Black or African American	920	1,659
American Indian and Alaskan Native	15	45
Asian	16	42
Some other race	29	100
Two or more races	N/A	87
Hispanic or Latino (any race)	91	352
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	10.6	5.6
Percent high school graduate or higher	68.4	77.9
Percent with a Bachelor's degree or higher	10.8	15.5
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.6	5.7
Percent who speak English less than very well	6.1	2.1
Household income (Median $)	20,583	31,596
Poverty Status (Percent of population with income below poverty line)	22.8	11.5
Percent female headed household	20.7	15.7
Home Ownership (Number)		
Owner occupied	1,230	2,083
Renter occupied	667	1,043
Value Owner-occupied Housing (Median $)	54,800	97,900
Monthly Contract Rent (Median $)	250	465
Employment Status (Population 16 yrs and over)		
Percent in the labor force	56.9	57.0
Percent of civilian labor force unemployed	9.0	3.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	22.4
Service occupations	N/A	18.1
Sales and office occupations	N/A	30.8
Farming, fishing, and forestry occupations	4.8	0.9
Construction, extraction, and maintenance occupations	N/A	13.9
Production, transportation, and material moving occupations	N/A	13.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	3.1	0.7
Mining (includes the offshore oil/gas industry workforce)	0.0	0.3
Manufacturing	20.1	13.7
Percent government workers	11.6	13.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	16.5
Percent worked outside of county of residence	5.2	6.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Foley in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	1
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Foley in 2003

Type of Business	Frequency
Boat Builder/Broker	6
Boat Builder/Broker; Diving & Fishing Equipment	2
Boat Builder/Broker; Marina	1
Boat Rental & Pier	3
Marina	3
Processor; Seafood Dealer	1
Total	16

Table 4. Foley Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	768,490	663,943

Table 5. Foley State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
6	7
Total = 13	
% Households Holding Commercial Permit or License: 13/3,126 = 0.4	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.7 Gulf Shores (incorporated, pop. 5,044)

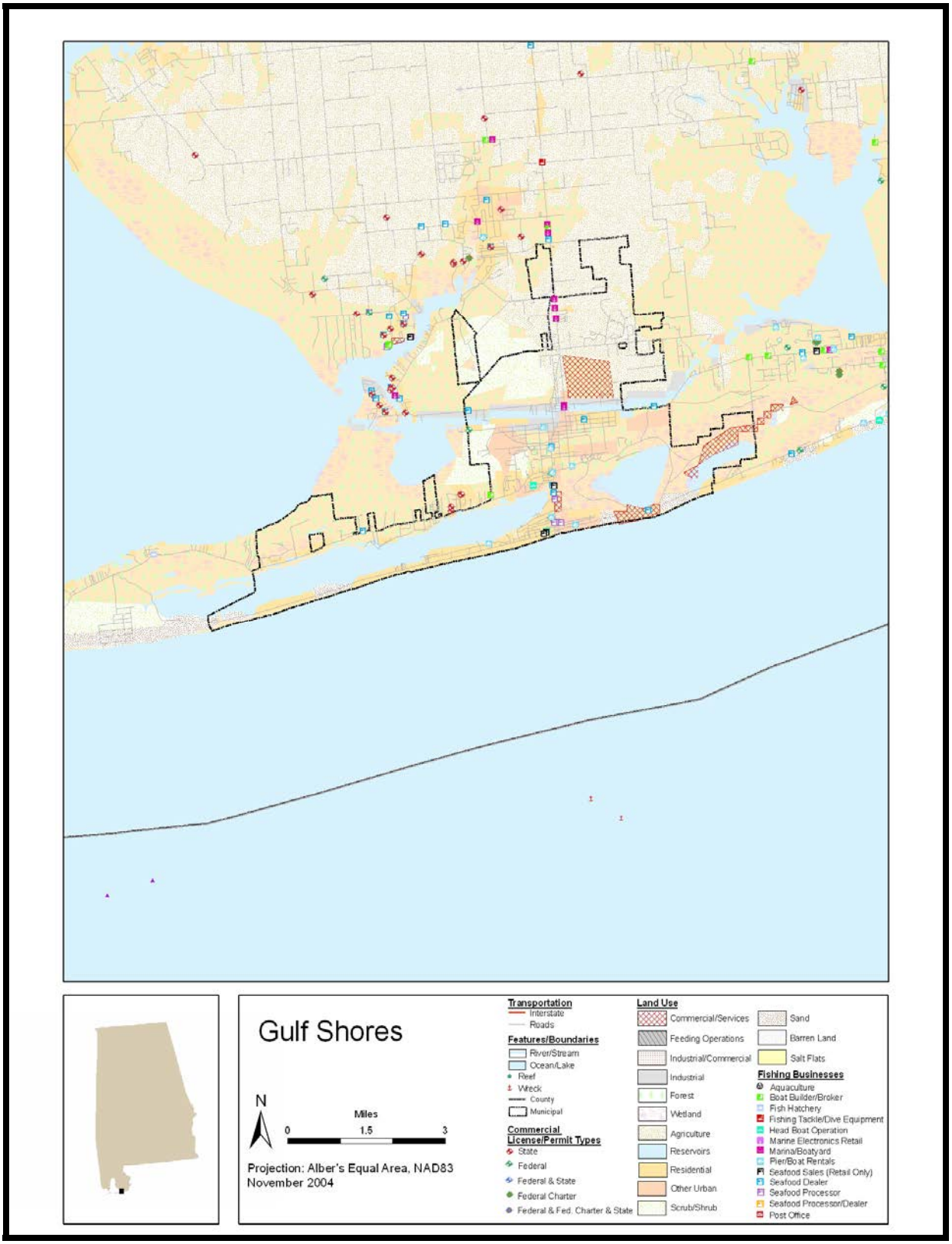
Location and Overview. Gulf Shores is located along State Highway 182 in southern Baldwin County. It is adjacent to the Gulf of Mexico some 50 miles southeast of Mobile. The town is a tourist, beach resort destination with a growing permanent population and thriving seasonal population.

History. The Town of Gulf Shores was incorporated in 1957. According to an employee with City Hall, this beachfront village had been a seasonal destination for inland vacationers, with few year-round residents, until the early 1980s.

Current Conditions and Trends. As of 2000, the population of Gulf Shores was 5,044, up from 3,266 in 1990. Many residents were employed in sales and office occupations in 2000. Gulf Shores is the central point of access to the Gulf beaches on Highway 59. It is a destination for tourists and seasonal residents, with high rise hotels and condominium resorts along its beachfront that stretches along State Road 182. Like neighboring Orange Beach, there are numerous businesses and restaurants intermingled with private residences.

Numerous charter fishing services are available from marinas located near the lagoon on the north side of the island. There is also a seafood dealer located in town. The local commercial fleet is productive in shrimp and various offshore finfish. Many captains moor and operate from Bon Secour.

Condominiums in Gulf Shores, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Gulf Shores Demographics

Factor	1990	2000
Total population	3,261	5,044
Gender Ratio M/F (Number)	1,565/1,696	2,487/2,557
Age (Percent of total population)		
Under 18 years of age	17.0	16.4
18 to 64 years of age	56.9	60.5
65 years and over	26.1	23.1
Ethnicity or Race (Number)		
White	3,242	4,920
Black or African American	1	11
American Indian and Alaskan Native	7	22
Asian	6	15
Native Hawaiian and other Pacific Islander	N/A	2
Some other race	5	20
Two or more races	N/A	54
Hispanic or Latino (any race)	20	62
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	4.5	2.8
Percent high school graduate or higher	87.3	90.8
Percent with a Bachelor's degree or higher	22.1	30.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	1.4	4.6
Percent who speak English less than very well	0.6	2.6
Household income (Median $)	28,421	41,826
Poverty Status (Percent of population with income below poverty line)	8.3	9.9
Percent female headed household	8.5	7.0
Home Ownership (Number)		
Owner occupied	1,023	1,702
Renter occupied	412	642
Value Owner-occupied Housing (Median $)	86,300	177,200
Monthly Contract Rent (Median $)	358	705
Employment Status (Population 16 yrs and over)		
Percent in the labor force	47.7	57.4
Percent of civilian labor force unemployed	2.6	3.2
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	24.9
Service occupations	N/A	19.4
Sales and office occupations	N/A	32.2
Farming, fishing, and forestry occupations	1.5	0.7
Construction, extraction, and maintenance occupations	N/A	14.6
Production, transportation, and material moving occupations	N/A	8.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	3.6	0.6
Mining (includes the offshore oil/gas industry workforce)	0.0	0.3
Manufacturing	9.1	5.0
Percent government workers	11.3	7.5
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	17.7
Percent worked outside of county of residence	14.8	9.4

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Gulf Shores in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	3
Bait & Tackle/fishing supplies	2
Recreational Fishing Tournaments	Several
Sea Grant Extension office	0
Seafood restaurants	Several
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	15+
Commercial Boats	Several

Table 3. Primary Fishing-related Businesses Listed for Gulf Shores in 2002

Type of Business	Frequency
Boat Builder/Broker	1
Boat Builder/Broker; Marina	5
Boat Rental & Pier	7
Hatchery	1
Marina	3
Processor	3
Seafood Dealer	5
Total	25

Table 4. Gulf Shores Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	798,450	823,427

Table 5. Gulf Shores State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
9	5
Total = 14	
% Households Holding Commercial Permit or License: 14/2,344 = .5	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.8 Lillian (unincorporated, pop. 4,492)

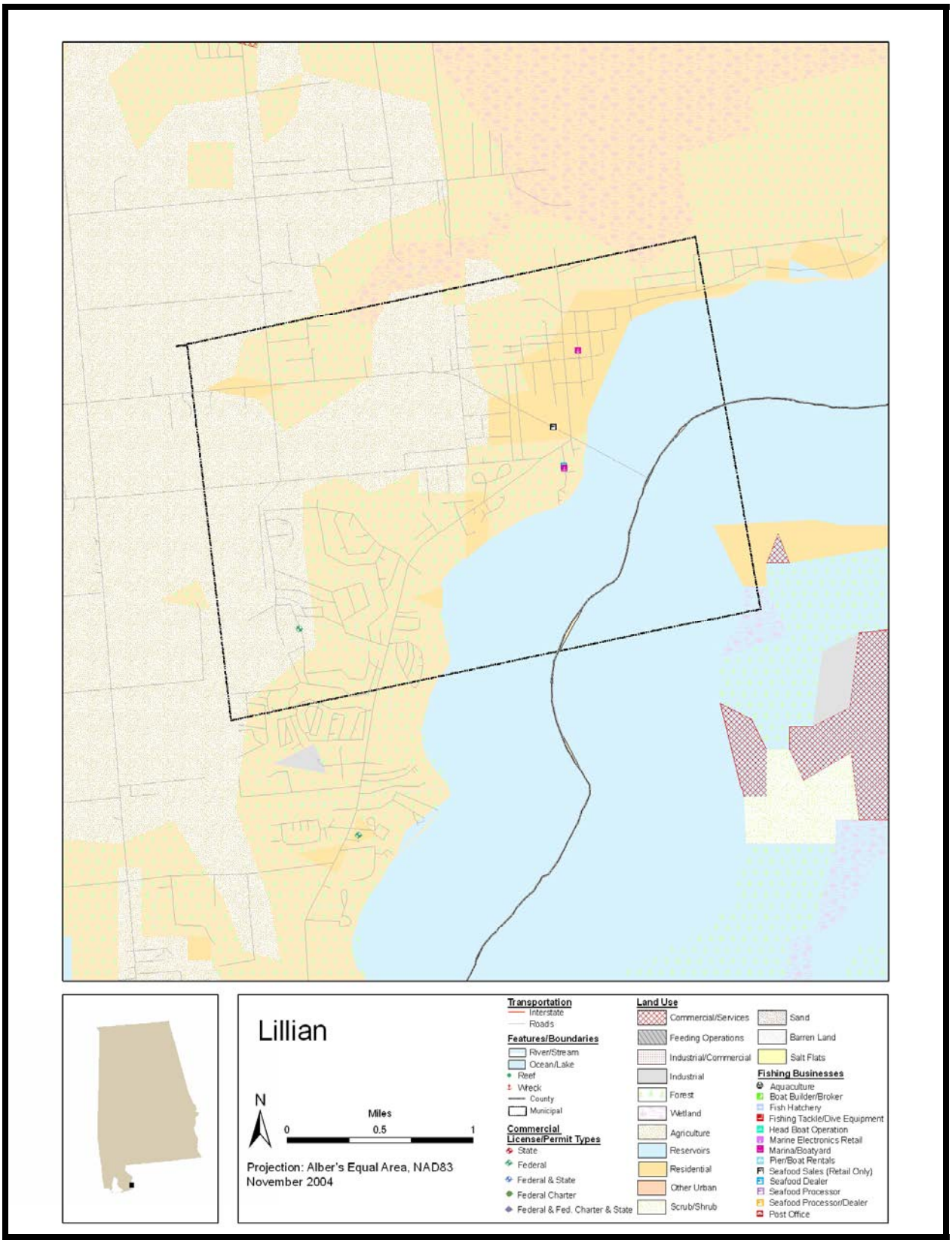
Location and Overview. Lillian is located on Perdido Bay in eastern Baldwin County. State Route 42 and U.S. Highway 98 are the main thoroughfares in the area. Lillian is about 56 miles southeast of Mobile and 16 miles west of downtown Pensacola. The Gulf of Mexico is 13 miles distant, via Perdido Bay to Bayou St. John.

History. The region surrounding what is now known as Lillian was explored by the Spanish in the early 1500s. Historically, the Florida/Alabama border was the dividing line between France and Spain. The protected bays and close proximity to the Gulf of Mexico were of strategic interest to both countries, and ultimately to the United States. Lillian became a resort community in the 1800s, long since eclipsed in importance in this regard by neighboring Pensacola.

Current Conditions and Trends. The year 2000 census enumerated 4,492 persons in Lillian, up from 2,898 in 1990. Residents of the town are employed in a variety of occupations, with many commuting to nearby Pensacola for work.

There is a small marina just south of the Highway 98 Bridge, and one seafood retailer is located near the business plaza. A small fleet local fleet operates in both state and federal waters. There is relatively little additional fishing infrastructure other than private docks at certain waterfront homes.

Marina on the Bay in Lillian, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Lillian Demographics

Factor	1990	2000
Total population	2,898	4,492
Gender Ratio M/F (Number)	1,459/1,439	2,201/2,291
Age (Percent of total population)		
Under 18 years of age	15.9	12.3
18 to 64 years of age	44.8	48.7
65 years and over	29.3	39.0
Ethnicity or Race (Number)		
White	2,713	4,249
Black or African American	162	144
American Indian and Alaskan Native	13	17
Asian	9	13
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	1	15
Two or more races	N/A	53
Hispanic or Latino (any race)	21	43
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	8.4	4.8
Percent high school graduate or higher	79.0	82.5
Percent with a Bachelor's degree or higher	15.3	20.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.3	3.3
Percent who speak English less than very well	0.8	0.5
Household income (Median $)	24,413	36,583
Poverty Status (Percent of population with income below poverty line)	8.4	9.8
Percent female headed household	5.5	4.7
Home Ownership (Number)		
Owner occupied	1,139	1,943
Renter occupied	108	164
Value Owner-occupied Housing (Median $)	72,950	84,500
Monthly Contract Rent (Median $)	252	510
Employment Status (Population 16 yrs and over)		
Percent in the labor force	36.9	35.2
Percent of civilian labor force unemployed	4.2	4.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	23.9
Service occupations	N/A	18.3
Sales and office occupations	N/A	28.7
Farming, fishing, and forestry occupations	6.0	0.7
Construction, extraction, and maintenance occupations	N/A	15.4
Production, transportation, and material moving occupations	N/A	12.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	5.0	0.7
Mining (includes the offshore oil/gas industry workforce)	1.5	0.0
Manufacturing	15.0	8.6
Percent government workers	16.1	11.6
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	56.1	32.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Lillian in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	1
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Lillian in 2003

Type of Business	Frequency
Boat Builder/Broker	1
Marina	1
Seafood Dealer	1
Total	3

Table 4. Lillian Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. Lillian State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	2
Total = 2	
% Households Holding Commercial Permit or License: 2/2,107 = 0.1	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

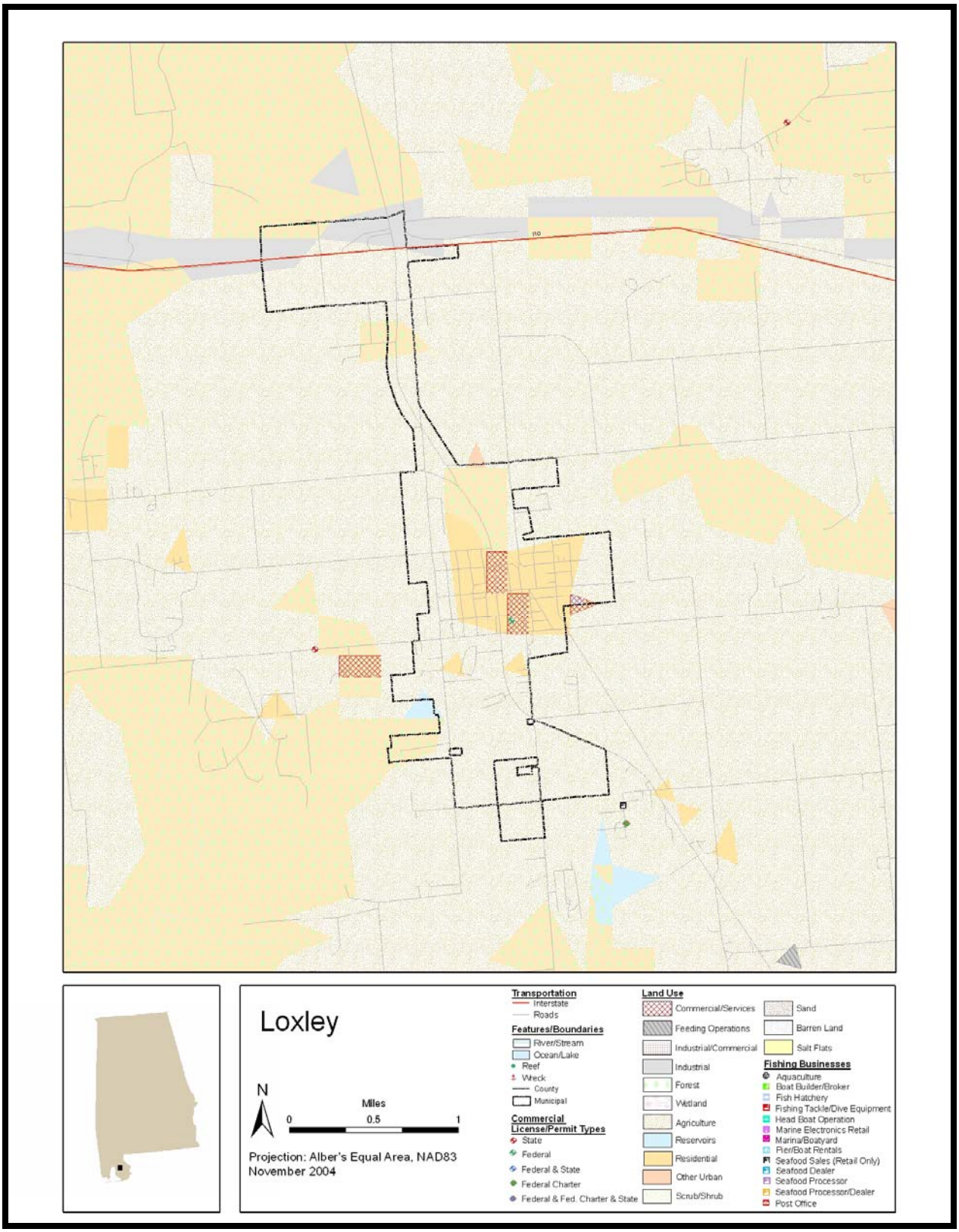
3.2.9 Loxley (incorporated, pop. 1,348)

Location and Overview. Loxley is located along U.S. Highway 90 and State Routes 16 and 59 in central Baldwin County. Highway 59 has become an important transportation route to the beach areas, approximately 25 miles south. This inland town is ten miles east of Mobile Bay's eastern shoreline, some 18 miles southeast of Mobile, and 30 miles northeast of the Gulf of Mexico. The area is primarily rural-agricultural in nature, surrounded by cotton fields and vegetable farms.

History. The town of Loxley was founded in the early 1900s as a lumber camp. By 1906, rail service had reached the community and the first post office was opened. During the 1920s, the rail lines were used extensively for the transport of agricultural products, especially oranges. However, the region's cyclical climate kept citrus crops from remaining a consistently important commodity, and after 1927 citrus production halted altogether. Loxley was incorporated in 1957.

Local Farm Market in Loxley

Current Conditions and Trends. The year 2000 population of Loxley was 1,348 persons, an increase of 187 from 1990. Most residents were employed in sales or managerial professions in 2000, with a majority of these commuting to the Daphne, Fairhope, and Mobile areas. Other than one seafood dealer located on County Road 64, there was little fishing infrastructure in the area at the time of this research. A charter operator and federally permitted Gulf shrimp fishery participant lived in the area at the time of this study.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Loxley Demographics

Factor	1990	2000
Total population	1,161	1,348
Gender Ratio M/F (Number)	552/609	624/724
Age (Percent of total population)		
Under 18 years of age	29.2	25.3
18 to 64 years of age	53.9	61.6
65 years and over	16.9	13.1
Ethnicity or Race (Number)		
White	1,136	1,221
Black or African American	11	72
American Indian and Alaskan Native	7	11
Asian	3	7
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	4	23
Two or more races	N/A	14
Hispanic or Latino (any race)	19	39
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	20.6	9.5
Percent high school graduate or higher	57.6	74.3
Percent with a Bachelor's degree or higher	6.7	12.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.0	2.7
Percent who speak English less than very well	0.5	1.4
Household income (Median $)	18,214	33,583
Poverty Status (Percent of population with income below poverty line)	24.0	15.7
Percent female headed household	19.8	13.7
Home Ownership (Number)		
Owner occupied	307	380
Renter occupied	152	182
Value Owner-occupied Housing (Median $)	42,400	78,300
Monthly Contract Rent (Median $)	190	331
Employment Status (Population 16 yrs and over)		
Percent in the labor force	57.4	62.6
Percent of civilian labor force unemployed	6.3	5.0
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	23.1
Service occupations	N/A	18.1
Sales and office occupations	N/A	27.5
Farming, fishing, and forestry occupations	3.6	0.9
Construction, extraction, and maintenance occupations	N/A	11.9
Production, transportation, and material moving occupations	N/A	18.6
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	4.4	2.2
Mining (includes the offshore oil/gas industry workforce)	0.4	0.0
Manufacturing	22.7	15.9
Percent government workers	11.1	15.1
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.5
Percent worked outside of county of residence	27.6	22.8

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Loxley in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Loxley in 2003

Type of Business	Frequency
Seafood Dealer	1
Total	1

Table 4. Loxley Landings Summary: 2002

Data may not be reported under the "rule of three"

Table 5. Loxley State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	2
Total = 2	
% Households Holding Commercial Permit or License: 2/562 = 0.3	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.10 **Magnolia Springs** (unincorporated, pop. 654)

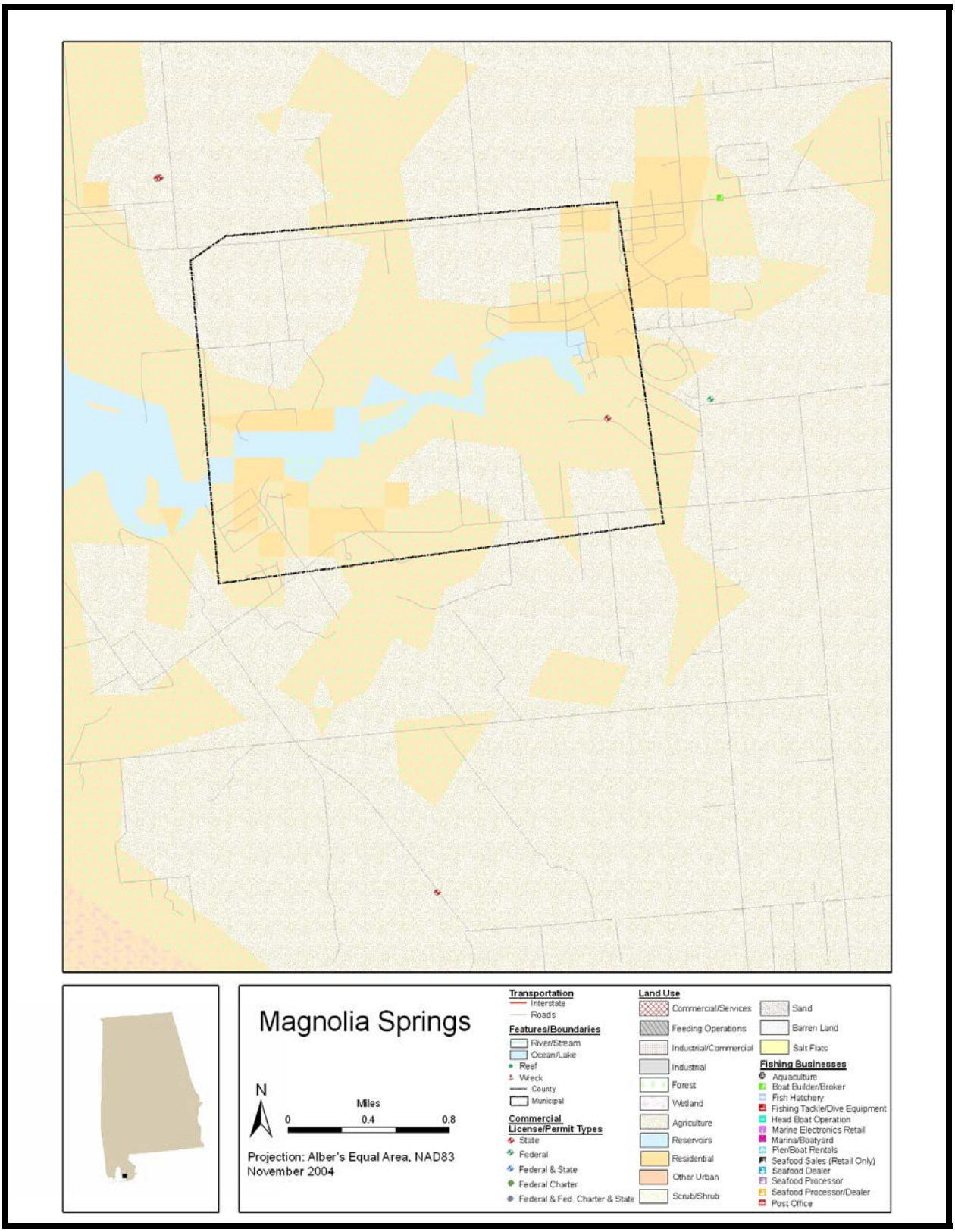
Location and Overview. Magnolia Springs is located along the Magnolia River in southwestern Baldwin County, less than a mile south of Highway 98/State Road 42. Residential areas are widely dispersed along winding roads adjacent to the river. There are many secluded home sites. A small business district is located along Highway 98. The Magnolia River enables access to Weeks Bay, Bon Secour Bay, Mobile Bay, and eventually the Gulf of Mexico. The river is also a main of transportation; this is one of the few remaining communities in the United States still receiving mail by boat. Magnolia Springs is about 34 miles southeast of Mobile, and about 41 miles west of downtown Pensacola. The Gulf of Mexico is some 18 miles to the southeast.

History. Magnolia Springs developed as a summer resort community in the late 1800s (South Baldwin Chamber of Commerce). The bubbling springs from which the town takes its name were alleged to possess curative properties, and many visitors came to the area in the early 1900s to avail themselves. Today the town is a popular weekend getaway spot, especially for residents of nearby Mobile and Pensacola.

Current Conditions and Trends. The year 2000 population of Magnolia Springs was 654 persons, a decline of 145 from 1990. The majority of employed residents held positions in managerial or professional occupations, mainly in adjacent urban areas.

Magnolia Springs has no fishing-related infrastructure, although owners of many of the homes along the river do maintain small dock facilities. One market/restaurant offers seafood on the menu, but it is not advertised exclusively as a seafood restaurant.

Market in Magnolia Springs on County Road 49



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Magnolia Springs Demographics

Factor	1990	2000
Total population	799	654
Gender Ratio M/F (Number)	387/412	309/345
Age (Percent of total population)		
Under 18 years of age	23.3	17.3
18 to 64 years of age	56.7	60.2
65 years and over	20.0	22.5
Ethnicity or Race (Number)		
White	787	633
Black or African American	0	0
American Indian and Alaskan Native	6	1
Asian	1	10
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	5	0
Two or more races	N/A	10
Hispanic or Latino (any race)	32	3
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	12.4	6.9
Percent high school graduate or higher	68.2	83.2
Percent with a Bachelor's degree or higher	17.8	27.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.6	4.5
Percent who speak English less than very well	0.0	3.3
Household income (Median $)	23,500	41,875
Poverty Status (Percent of population with income below poverty line)	10.4	10.3
Percent female headed household	2.7	8.4
Home Ownership (Number)		
Owner occupied	259	259
Renter occupied	78	49
Value Owner-occupied Housing (Median $)	70,800	144,600
Monthly Contract Rent (Median $)	226	459
Employment Status (Population 16 yrs and over)		
Percent in the labor force	48.2	56.5
Percent of civilian labor force unemployed	0.0	13.5
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	34.3
Service occupations	N/A	14.5
Sales and office occupations	N/A	24.3
Farming, fishing, and forestry occupations	11.4	2.4
Construction, extraction, and maintenance occupations	N/A	12.8
Production, transportation, and material moving occupations	N/A	11.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	11.4	0.0
Mining (includes the offshore oil/gas industry workforce)	0.0	0.0
Manufacturing	7.7	4.5
Percent government workers	15.8	6.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	23.1	19.0

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Magnolia Springs in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Magnolia Springs in 2003

None Listed

Table 4. Magnolia Springs Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. Magnolia Springs State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	--
Total = --	
% Households Holding Commercial Permit or License: --/308	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.11 Orange Beach (incorporated, pop. 3,784)

Location and Overview. Orange Beach is located along Wolf Bay at the junction of State Highways 180 and 161 in southern Baldwin County. This is just east of the terminus of Highway 59 at Gulf Shores. Orange Beach is some 60 miles southeast of Mobile. The Gulf of Mexico is directly accessible.

Orange Beach adjoins the barrier island beach community of Gulf Shores along Perdido Beach Boulevard (State Road 182). Canal Drive connects northern Gulf Shores to western Orange Beach at the Intracoastal Waterway, which separates both towns from the mainland.

High-rise Condominiums along Orange Beach

Current Conditions and Trends. The year 2000 census enumerated 3,784 persons in Orange Beach, an increase of 1,531 from 1990. Many residents were employed in management, sales, and construction sectors, with evidence of some residents commuting to Pensacola for work.

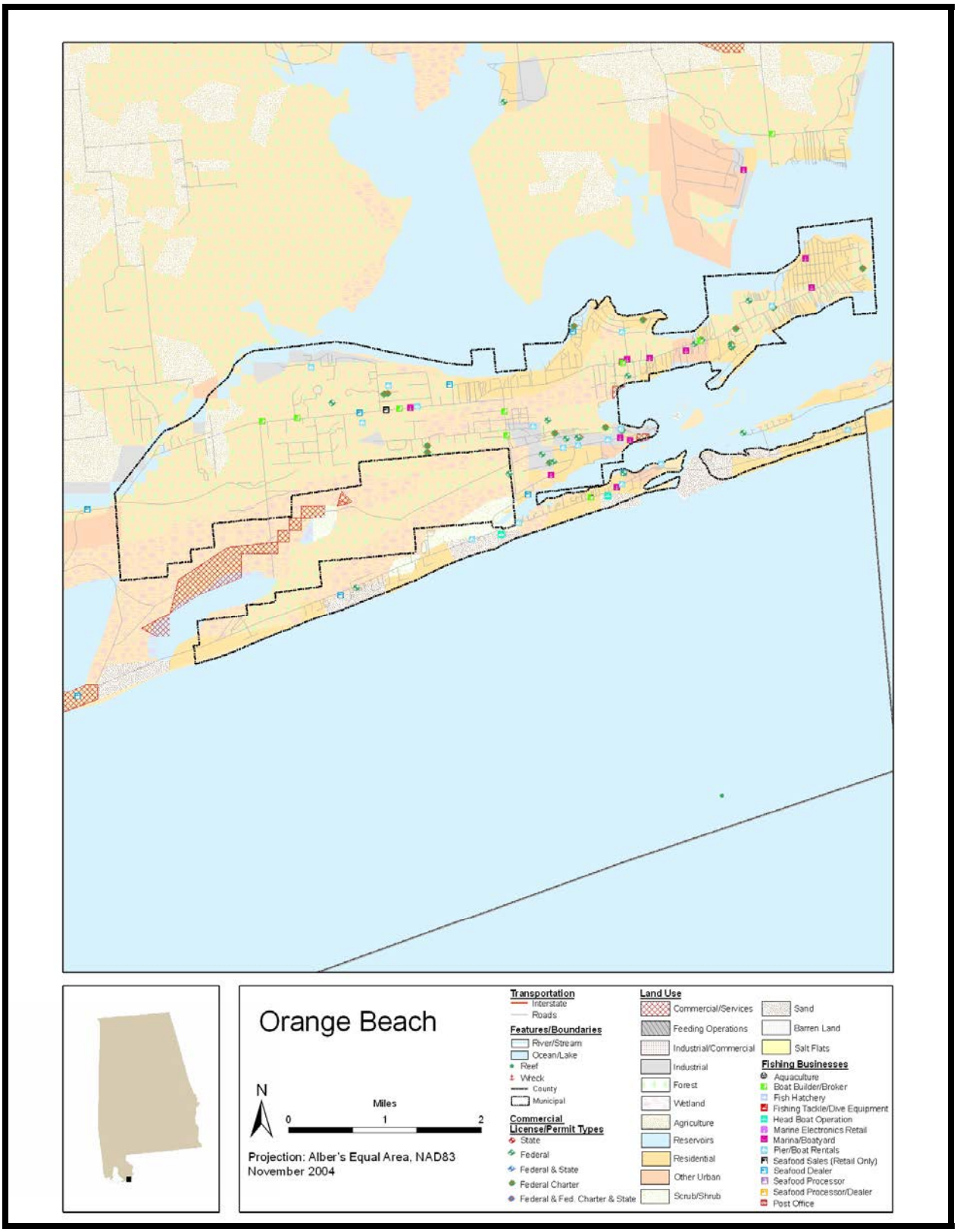
Orange Beach is primarily a tourist beach destination with high rise condominiums and hotels along the beachfront. Numerous retail businesses and restaurants are located along State Road 182. Private residences are scattered about the business corridor, with the majority of residences a few blocks from the beaches.

A substantial charter fishing fleet is based here. These are distributed across the ten local marinas. One marina is quite large, offering 180 slips. Most of the marinas sell fuel, bait, and tackle, while a few provide maintenance services and dry storage. Altogether, over 60 charter vessel operations are based in the Orange Beach area. Most are offshore vessels ranging in size from 30 to 65 feet, but some inshore charter captains use smaller boats. A head boat operation with capacity for 60 persons is based at one of the marinas. A small fleet of captains provide sightseeing cruises.

This area sustained extensive damage from Hurricane Ivan in September 2004; damage to several marinas was substantial. Most of the charter fleet was spared significant effects, but some owners were forced to find new locations for operation, if only temporarily. Residents celebrate an annual shrimp festival with food, music, arts, and crafts. Orange Beach is also the site of ten or more recreational fishing tournaments throughout the year.

As only post office box addressing is possible in the area, we have no physical address data with which to analyze residence patterns of the fleet. However, 72 federal permit holders (primarily charter operators) maintained addresses here during 2000. There is relatively little commercial fishing activity here.

Recreational Boat Harbor in Orange Beach (courtesy of www.orangebeachcondo.com)



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only: Numerous license holders are not depicted given lack of physical address data.

Table 1. Orange Beach Demographics

Factor	1990	2000
Total population	2,253	3,784
Gender Ratio M/F (Number)	1,153/1,100	1,967/1,817
Age (Percent of total population)		
Under 18 years of age	15.0	16.6
18 to 64 years of age	63.4	65.2
65 years and over	21.6	18.2
Ethnicity or Race (Number)		
White	2,236	3,588
Black or African American	2	14
American Indian and Alaskan Native	11	26
Asian	2	8
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	2	77
Two or more races	N/A	71
Hispanic or Latino (any race)	14	105
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	3.1	2.1
Percent high school graduate or higher	84.3	88.4
Percent with a Bachelor's degree or higher	21.2	24.7
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.3	6.3
Percent who speak English less than very well	1.1	4.3
Household income (Median $)	30,445	40,542
Poverty Status (Percent of population with income below poverty line)	8.6	10.6
Percent female headed household	5.9	7.8
Home Ownership (Number)		
Owner occupied	798	1,305
Renter occupied	228	474
Value Owner-occupied Housing (Median $)	94,700	204,500
Monthly Contract Rent (Median $)	374	577
Employment Status (Population 16 yrs and over)		
Percent in the labor force	56.7	62.7
Percent of civilian labor force unemployed	3.9	3.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	25.9
Service occupations	N/A	18.4
Sales and office occupations	N/A	27.6
Farming, fishing, and forestry occupations	3.7	1.2
Construction, extraction, and maintenance occupations	N/A	20.4
Production, transportation, and material moving occupations	N/A	6.5
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.7	0.6
Mining (includes the offshore oil/gas industry workforce)	0.2	0.3
Manufacturing	8.6	3.8
Percent government workers	10.3	9.4
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	21.7
Percent worked outside of county of residence	22.7	10.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Orange Beach in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	2
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	2
Hotels/Inns (dockside)	Several
Marine railways/haul out facilities	1
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	5
Recreational Fishing Tournaments	10+
Sea Grant Extension office	0
Seafood restaurants	Many
Seafood retail markets	3
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	50+
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Orange Beach in 2003

Type of Business	Frequency
Boat Builder/Broker	13
Boat Builder/Broker; Marina	5
Boat Rentals & Pier	18
Boat Rentals & Pier; Marina	2
Marina	15
Seafood Dealer	2
Total	55

Table 4. Orange Beach Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	959	1,588

Table 5. Orange Beach State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
0 (remote addressing)	52
Total = 52	
% Households Holding Commercial Permit or License: 53/1,779 = 2.9	

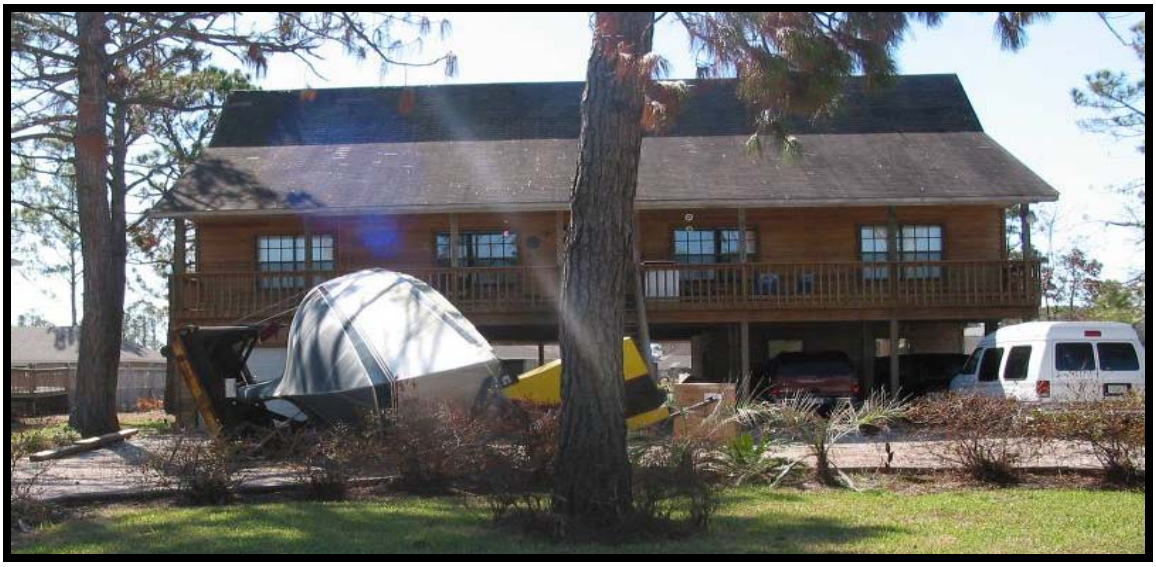
Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.12 Perdido Beach (unincorporated, pop. 1,560)

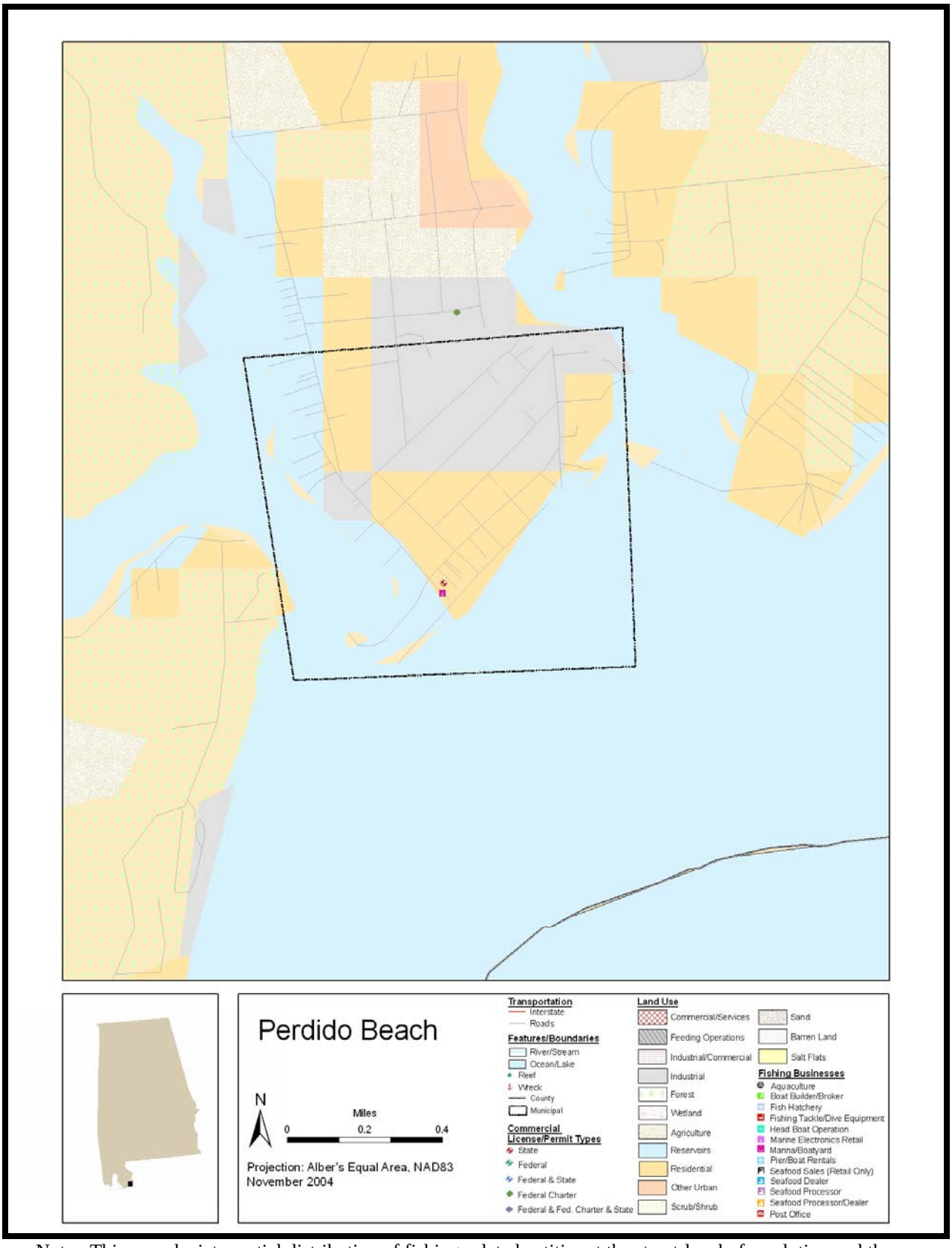
Location and Overview. Perdido Beach is located along the banks of Perdido Bay in southern Baldwin County at the end of County Road 97. This is a rural residential village with numerous waterfront homes situated along either Palmetto Creek or Soldier Creek. Perdido Beach is about 46 miles southeast of Mobile and 20 miles west of Pensacola, Florida. The Gulf of Mexico is approximately four miles to the south.

History. The area that was to become known as Perdido Beach was first explored by Europeans in 1693. Early settlers exploited marine resources in the nearby bays, estuaries, and waters of the Gulf of Mexico (Perdido Beach Service 2005).

Current Conditions and Trends. The year 2000 census enumerated 1,560 persons in Perdido Beach, an increase of 451 from 1990. Most residents were employed in sales or managerial occupations, with evidence of many commuting to Foley, Gulf Shores/Orange Beach or Pensacola for work. Nearly 25 percent of those employed in 2000 commuted outside of the county for work. There is little fishing infrastructure in place here. Town government does maintain a public boat ramp at Palmetto Creek.



Waterfront Home in Perdido Beach



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Perdido Beach Demographics

Factor	1990	2000
Total population	1,109	1,560
Gender Ratio M/F (Number)	553/556	781/779
Age (Percent of total population)		
Under 18 years of age	19.5	21.3
18 to 64 years of age	58.8	56.9
65 years and over	21.7	21.8
Ethnicity or Race (Number)		
White	1,106	1,514
Black or African American	2	8
American Indian and Alaskan Native	0	4
Asian	0	8
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	1	3
Two or more races	N/A	23
Hispanic or Latino (any race)	20	20
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	6.8	6.6
Percent high school graduate or higher	81.1	85.1
Percent with a Bachelor's degree or higher	16.4	29.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	0.8	1.6
Percent who speak English less than very well	0.0	0.0
Household income (Median $)	29,071	34,250
Poverty Status (Percent of population with income below poverty line)	2.0	9.9
Percent female headed household	4.0	5.9
Home Ownership (Number)		
Owner occupied	406	596
Renter occupied	39	64
Value Owner-occupied Housing (Median $)	92,600	131,900
Monthly Contract Rent (Median $)	219	454
Employment Status (Population 16 yrs and over)		
Percent in the labor force	49.5	56.6
Percent of civilian labor force unemployed	1.7	9.2
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	27.7
Service occupations	N/A	9.8
Sales and office occupations	N/A	31.2
Farming, fishing, and forestry occupations	6.6	0.0
Construction, extraction, and maintenance occupations	N/A	14.1
Production, transportation, and material moving occupations	N/A	17.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	6.6	1.4
Mining (includes the offshore oil/gas industry workforce)	0.0	0.0
Manufacturing	15.6	12.0
Percent government workers	15.6	5.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	49.3	24.5

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Perdido Beach in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Perdido Beach in 2003

None listed.

Table 4. Perdido Beach Commercial Landings and Value Summary: 2002

Data may not be reported under the "rule of three."

Table 5. Perdido Beach State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	1
Total = 1	
% Households Holding Commercial Permit or License: 1/660 = 0.2	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.2.13 Robertsdale (incorporated, pop. 3,782)

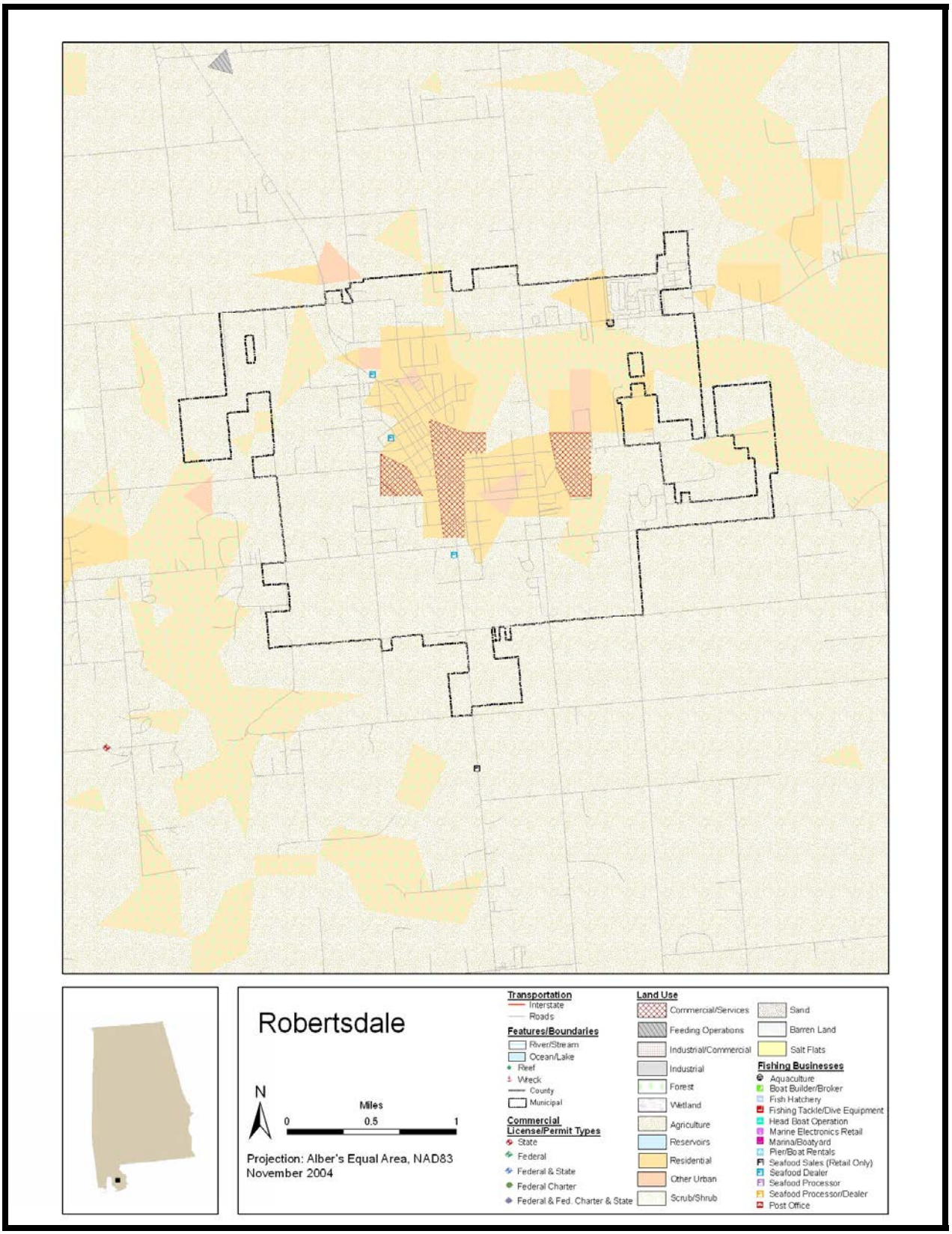
Location and Overview. Robertsdale is a rural-agricultural town located along U.S. Highway 90/ State Routes 16 and 59 in central Baldwin County. Route 59 is the primary business corridor in the area. The east coast of Mobile Bay is roughly six miles to the west, and the Greater Mobile area is about 25 miles northwest. The Gulf of Mexico is roughly 38 miles south via Mobile Bay. Residents often fish in nearby Rock Creek and Blackwater River.

History. The Southern Plantation Corporation (SPC) of Chicago founded the town of Robertsdale in 1905. Arable land and the completion of rail service to nearby Foley made the location an attractive option, and it was named after SPC official Dr. B.F. Roberts. The town was incorporated in 1921 (Robertsdale Online 2004).

Current Condition. The year 2000 population of Robertsdale was 3,782 persons, up from 2,401 in 1990. Over half of residents in the work force were employed in sales, office, and production/transportation occupations, with a little over 20 percent commuting to work in the Mobile area.

There is limited fishing infrastructure here, other than a seafood dealer located along Highway 59. Shrimp, mullet, and mackerel were top landings among the small fleet of commercial participants residing in the area in 2002.

Seafood Dealer along Highway 59 in Robertsdale



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Robertsdale Demographics

Factor	1990	2000
Total population	2,401	3,782
Gender Ratio M/F (Number)	1,133/1,268	1,795/1,987
Age (Percent of total population)		
Under 18 years of age	26.6	28.1
18 to 64 years of age	57.7	58.4
65 years and over	15.7	13.5
Ethnicity or Race (Number)		
White	2,341	3,565
Black or African American	24	125
American Indian and Alaskan Native	21	27
Asian	1	9
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	14	16
Two or more races	N/A	40
Hispanic or Latino (any race)	16	73
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	13.1	6.1
Percent high school graduate or higher	65.3	73.6
Percent with a Bachelor's degree or higher	9.3	11.5
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	0.8	5.4
Percent who speak English less than very well	0.2	0.9
Household income (Median $)	19,229	33,194
Poverty Status (Percent of population with income below poverty line)	14.1	11.2
Percent female headed household	14.4	13.7
Home Ownership (Number)		
Owner occupied	664	1,016
Renter occupied	268	428
Value Owner-occupied Housing (Median $)	46,300	84,800
Monthly Contract Rent (Median $)	207	390
Employment Status (Population 16 yrs and over)		
Percent in the labor force	58.3	62.8
Percent of civilian labor force unemployed	6.7	6.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	18.7
Service occupations	N/A	16.5
Sales and office occupations	N/A	27.5
Farming, fishing, and forestry occupations	2.9	0.0
Construction, extraction, and maintenance occupations	N/A	12.3
Production, transportation, and material moving occupations	N/A	25.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.9	0.0
Mining (includes the offshore oil/gas industry workforce)	0.6	0.0
Manufacturing	27.3	16.3
Percent government workers	13.8	6.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	24.9
Percent worked outside of county of residence	19.1	20.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Robertsdale in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Robertsdale in 2003

Type of Business	Frequency
Seafood Dealer	1
Total	1

Table 4. Robertsdale Commercial Landings and Value Summary: 2002

Landings may not be reported under the "rule of three."

Table 5. Robertsdale State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
2	1
Total = 3	
% Households Holding Commercial Permit or License: 3/1,444 = 0.2	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

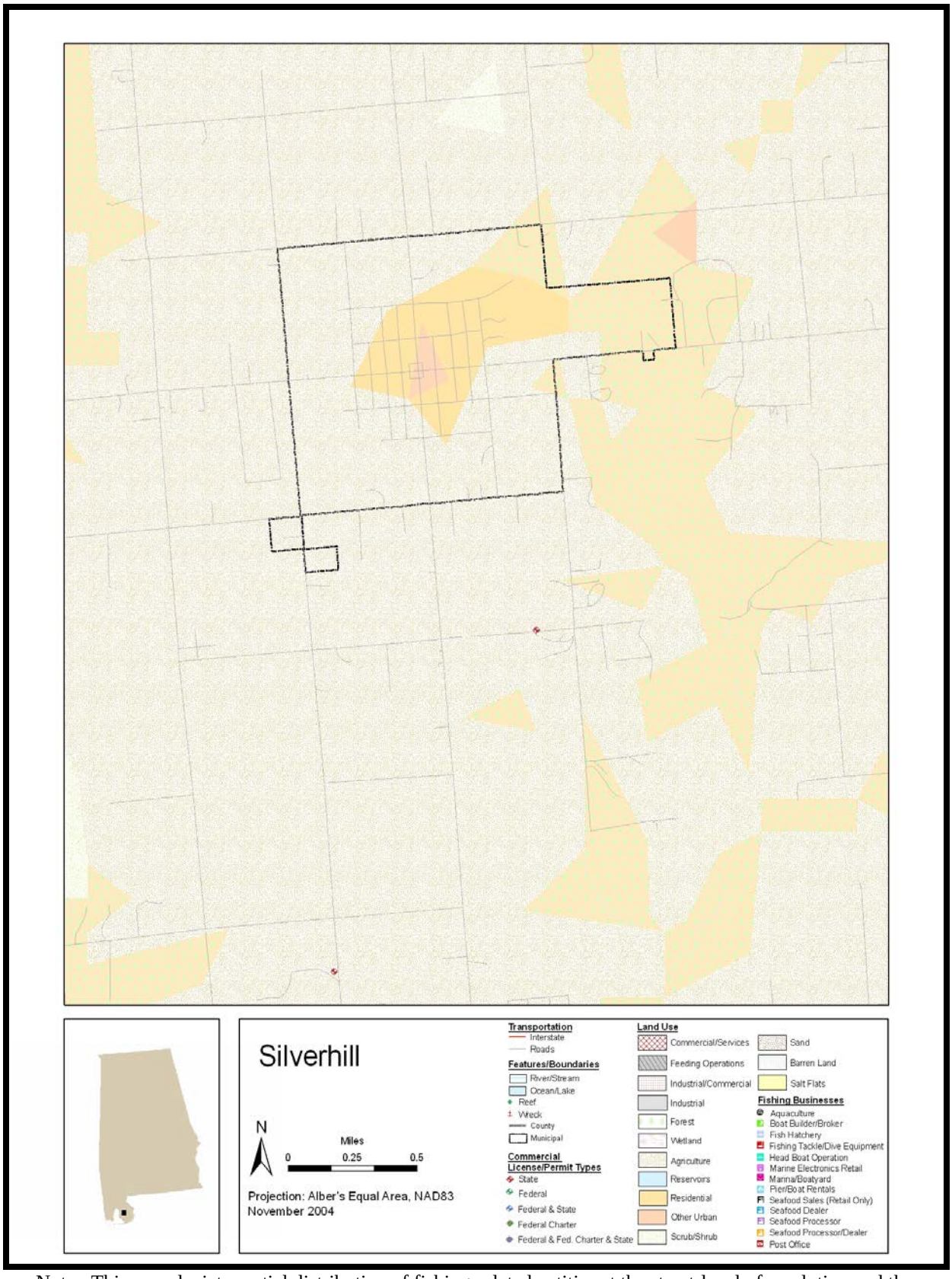
3.2.14 **Silverhill** (incorporated, pop. 616)

Location and Overview. Silverhill is small town located along State Route 104 in central Baldwin County. The area is surrounded by agricultural land and pine forests. A business district is dispersed along State Route 104. Robertsdale is just three miles to the east. The towns of Fairhope and Daphne are equidistant, approximately nine miles west. Mobile is approximately 25 miles northwest. Silverhill is some 35 miles northeast of the Gulf of Mexico.

Silverhill Business Corridor along State Route 104

History. Oscar Johnson and Svea Land Company developed what is now Silverhill in 1896. The town derived its name from the practice of workers at the local turpentine distillery on "the Hill" east of town being paid their wages in silver coin. Most early settlers were Swedish farmers.

Current Conditions and Trends. The year 2000 population was 616 persons, up from 556 persons in 1990. Many residents commute to the Mobile area, with the majority employed in managerial and sales-related occupations. There is no fishing infrastructure here. A bank, convenience store, and a few other retail businesses serve residents and visitors.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Silverhill Demographics

Factor	1990	2000
Total population	556	616
Gender Ratio M/F (Number)	257/299	294/322
Age (Percent of total population)		
Under 18 years of age	23.3	25.2
18 to 64 years of age	61.3	58.6
65 years and over	15.4	16.2
Ethnicity or Race (Number)		
White	547	604
Black or African American	0	0
American Indian and Alaskan Native	5	1
Asian	4	4
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	0	0
Two or more races	N/A	7
Hispanic or Latino (any race)	4	9
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	4.7	2.9
Percent high school graduate or higher	74.7	84.3
Percent with a Bachelor's degree or higher	8.8	23.8
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.9	6.0
Percent who speak English less than very well	1.7	0.7
Household income (Median $)	23,333	42,083
Poverty Status (Percent of population with income below poverty line)	7.2	4.8
Percent female headed household	8.5	8.7
Home Ownership (Number)		
Owner occupied	170	199
Renter occupied	41	42
Value Owner-occupied Housing (Median $)	49,800	93,600
Monthly Contract Rent (Median $)	232	619
Employment Status (Population 16 yrs and over)		
Percent in the labor force	58.9	66.7
Percent of civilian labor force unemployed	2.1	4.8
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	24.7
Service occupations	N/A	14.2
Sales and office occupations	N/A	30.7
Farming, fishing, and forestry occupations	2.9	0.0
Construction, extraction, and maintenance occupations	N/A	11.1
Production, transportation, and material moving occupations	N/A	19.3
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.1	0.6
Mining (includes the offshore oil/gas industry workforce)	1.3	0.0
Manufacturing	14.0	10.1
Percent government workers	15.2	14.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	21.7
Percent worked outside of county of residence	21.2	16.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Silverhill in 2003

None observed.

Table 3. Primary Fishing-related Businesses Listed for Silverhill in 2003

None listed

Table 4. Silverhill Commercial Landings and Value Summary: 2002

Data may not be reported under the "rule of three."

Table 5. Silverhill State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
1	--
Total = 1	
% Households Holding Commercial Permit or License: 1/241 = .4	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

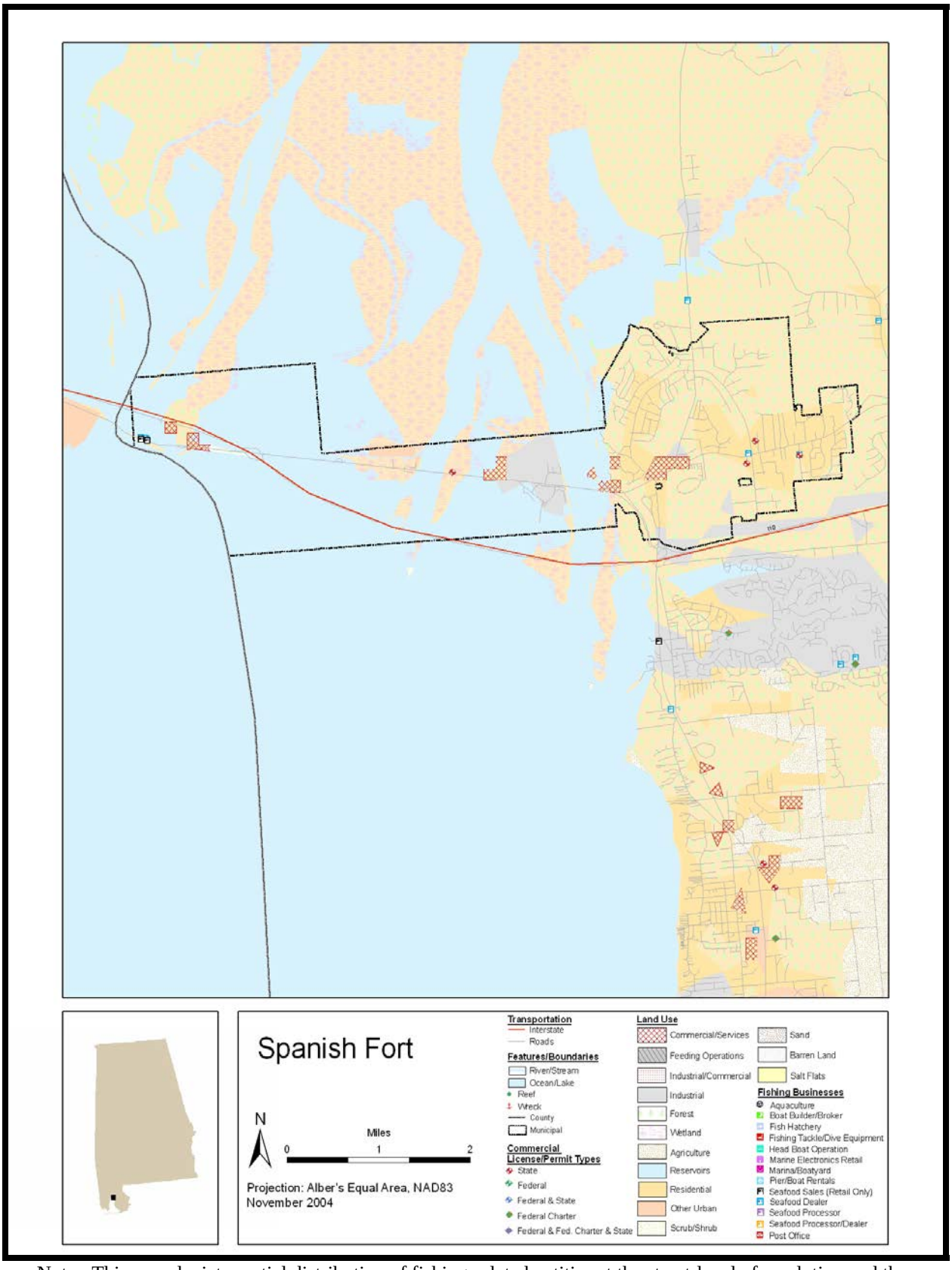
3.2.15 Spanish Fort (incorporated, pop. 5,423)

Location and Overview. Spanish Fort is located along U.S. Highways 31, 90 and State Route 3 in western Baldwin County. The eastern shoreline of Mobile Bay is less than one mile west, and Mobile is just ten miles west. The Gulf of Mexico is 35 miles south. Spanish Fort is a residential area with affordable housing and easy access to Interstate 10 and Highway 90.

History. The town's name refers to an episode during the American Revolutionary War. In 1780, the Spanish captured what is now Mobile, then crossed the bay to the Eastern Shore and built the "Old Spanish Fort" as a defense against retaliation. Its location on a bluff overlooking the bay and city lent to its strategic importance.

Current Conditions and Trends. The year 2000 census enumerated 5,423 persons in Spanish Fort, up from 3,723 in 1990. More than half of the resident workforce commutes to jobs in the Mobile area. Many residents are employed in management and professional positions.

Fishing-related infrastructure and services include several seafood restaurants and two fish camps. The fish camp operators maintain boat ramps and docking space for net fishers and captains of commercial shrimp vessels. A small local fleet focuses on shrimp and mullet.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Spanish Fort Demographics

Factor	1990	2000
Total population	3,732	5,423
Gender Ratio M/F (Number)	1,780/1,952	2,581/2,842
Age (Percent of total population)		
Under 18 years of age	23.5	26.2
18 to 64 years of age	56.1	56.1
65 years and over	20.4	17.7
Ethnicity or Race (Number)		
White	3,495	5,078
Black or African American	205	237
American Indian and Alaskan Native	26	20
Asian	5	40
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	4	14
Two or more races	N/A	34
Hispanic or Latino (any race)	20	51
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	9.1	2.9
Percent high school graduate or higher	77.8	91.9
Percent with a Bachelor's degree or higher	22.7	39.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.4	6.4
Percent who speak English less than very well	1.2	1.8
Household income (Median $)	33,158	56,699
Poverty Status (Percent of population with income below poverty line)	6.4	2.8
Percent female headed household	9.9	6.0
Home Ownership (Number)		
Owner occupied	1,188	1,684
Renter occupied	278	351
Value Owner-occupied Housing (Median $)	73,900	157,700
Monthly Contract Rent (Median $)	397	739
Employment Status (Population 16 yrs and over)		
Percent in the labor force	56.6	62.3
Percent of civilian labor force unemployed	2.9	1.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	46.8
Service occupations	N/A	7.5
Sales and office occupations	N/A	24.1
Farming, fishing, and forestry occupations	0.4	1.0
Construction, extraction, and maintenance occupations	N/A	8.2
Production, transportation, and material moving occupations	N/A	12.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.4	0.4
Mining (includes the offshore oil/gas industry workforce)	0.0	0.2
Manufacturing	14.3	12.6
Percent government workers	17.7	13.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	26.6
Percent worked outside of county of residence	55.8	54.3

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Spanish Fort in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	2
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	4
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	4+

Table 3. Primary Fishing-related Businesses Listed for Spanish Fort in 2003

Type of Business	Frequency
Seafood Dealer	2
Total	2

Table 4. Spanish Fort Commercial Landings and Value Summary: 2002

Data not available.

Table 5. Spanish Fort State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
4	--
Total = --	
% Households Holding Commercial Permit or License: 4/2,035 = .2	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

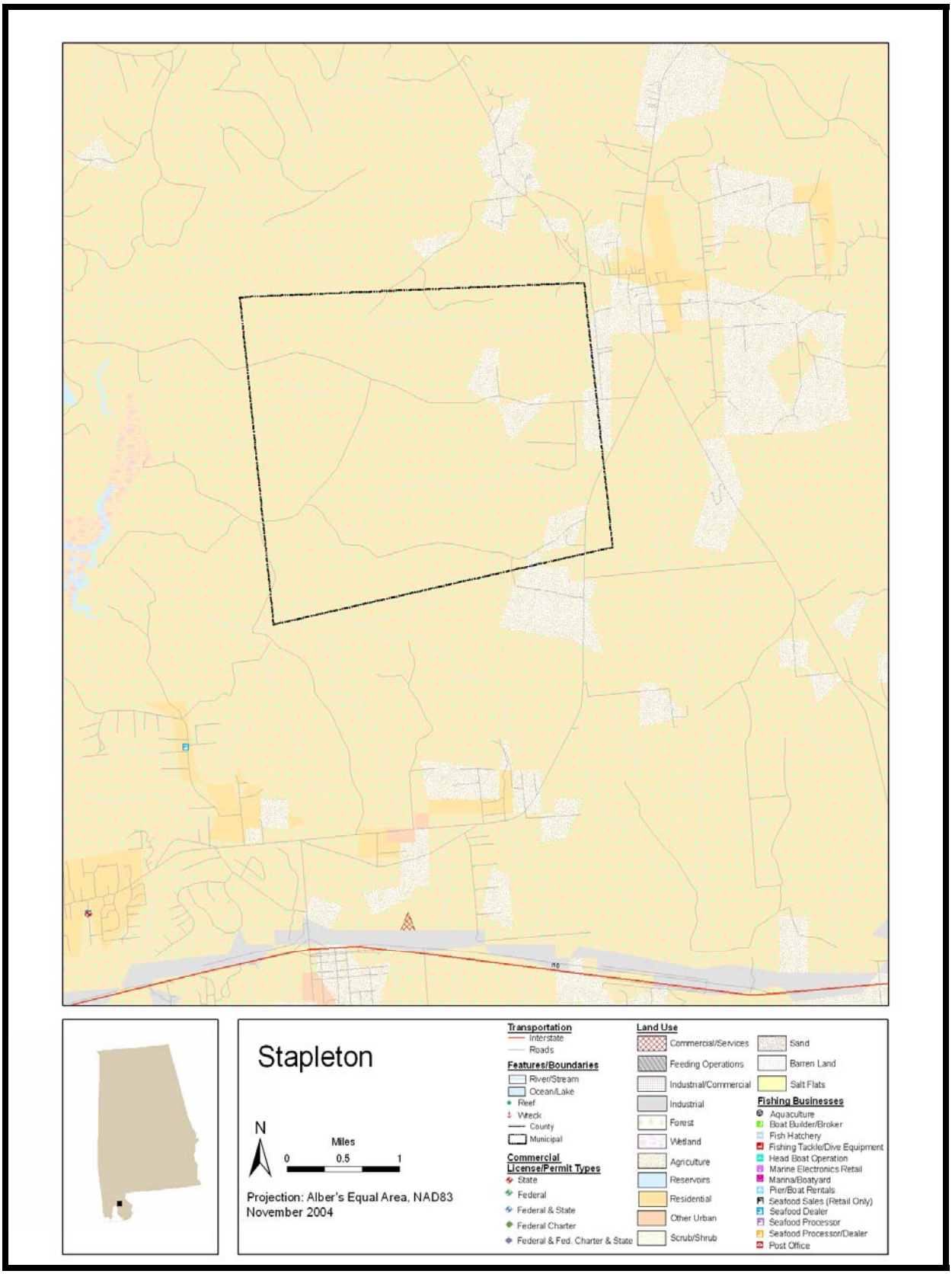
USGS Satellite Image of Spanish Fort

3.2.16 **Stapleton** (unincorporated, pop. 3,562)

Location and Overview. Stapleton is located along U.S. Highway 31 and State Routes 3 and 59 in central Baldwin County. This inland community is approximately six miles south of Bay Minette and about 18 miles east of Mobile. The Gulf of Mexico is some 45 miles south, accessible via Mobile Bay.

History. Stapleton was initially settled as "Canby" in 1896, in honor of a Civil War General. This was a timber town in its early years, with two turpentine mills and one sawmill built shortly after settlement. By 1906, a depot and warehouse for the L & N Railroad had been built with the financial backing of the Bay Minette Bank. The town was renamed for the lead banker of the time. A hurricane in 1905 and an influenza outbreak between 1917 and 1919 led to significant challenges for residents of the region.

Current Conditions and Trends. The year 2000 census enumerated 3,562 persons in Stapleton, an increase of 923 from 1990. Nearly one-fourth of working residents commuted to jobs in Mobile. Sales and office-related occupations or manufacturing jobs were leading employment sectors in 2000. There are a few small retail businesses along Highway 31, but no fishing-related services or infrastructure were observed here at the time of this study.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Stapleton Demographics

Factor	1990	2000
Total population	2,639	3,562
Gender Ratio M/F (Number)	1,326/1,313	1,835/1,727
Age (Percent of total population)		
Under 18 years of age	31.9	29.0
18 to 64 years of age	59.2	62.1
65 years and over	8.9	8.9
Ethnicity or Race (Number)		
White	2,412	3,255
Black or African American	184	228
American Indian and Alaskan Native	24	15
Asian	7	2
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	12	24
Two or more races	N/A	35
Hispanic or Latino (any race)	24	47
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	18.5	8.4
Percent high school graduate or higher	61.9	68.3
Percent with a Bachelor's degree or higher	5.9	7.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.4	4.7
Percent who speak English less than very well	1.1	2.1
Household income (Median $)	23,274	37,941
Poverty Status (Percent of population with income below poverty line)	7.9	11.5
Percent female headed household	7.4	8.8
Home Ownership (Number)		
Owner occupied	753	1,103
Renter occupied	133	154
Value Owner-occupied Housing (Median $)	42,400	66,200
Monthly Contract Rent (Median $)	175	355
Employment Status (Population 16 yrs and over)		
Percent in the labor force	62.6	67.4
Percent of civilian labor force unemployed	7.2	5.8
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	16.5
Service occupations	N/A	11.0
Sales and office occupations	N/A	27.2
Farming, fishing, and forestry occupations	1.6	0.8
Construction, extraction, and maintenance occupations	N/A	16.3
Production, transportation, and material moving occupations	N/A	28.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.9	1.0
Mining (includes the offshore oil/gas industry workforce)	0.4	1.4
Manufacturing	35.6	22.6
Percent government workers	11.7	10.5
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	26.9	23.7

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Stapleton in 2003

None observed.

Table 3. Primary Fishing-related Businesses Listed for Stapleton in 2003

None listed.

Table 4. Stapleton Commercial Landings and Value Summary: 2002

Not available.

Table 5. Stapleton State License and Federal Permit Summary: 2000

No permits or licenses attributable to residents in 2000.

Neighborhood in Stapleton in 2004

3.2.17 Summerdale (incorporated, pop. 655)

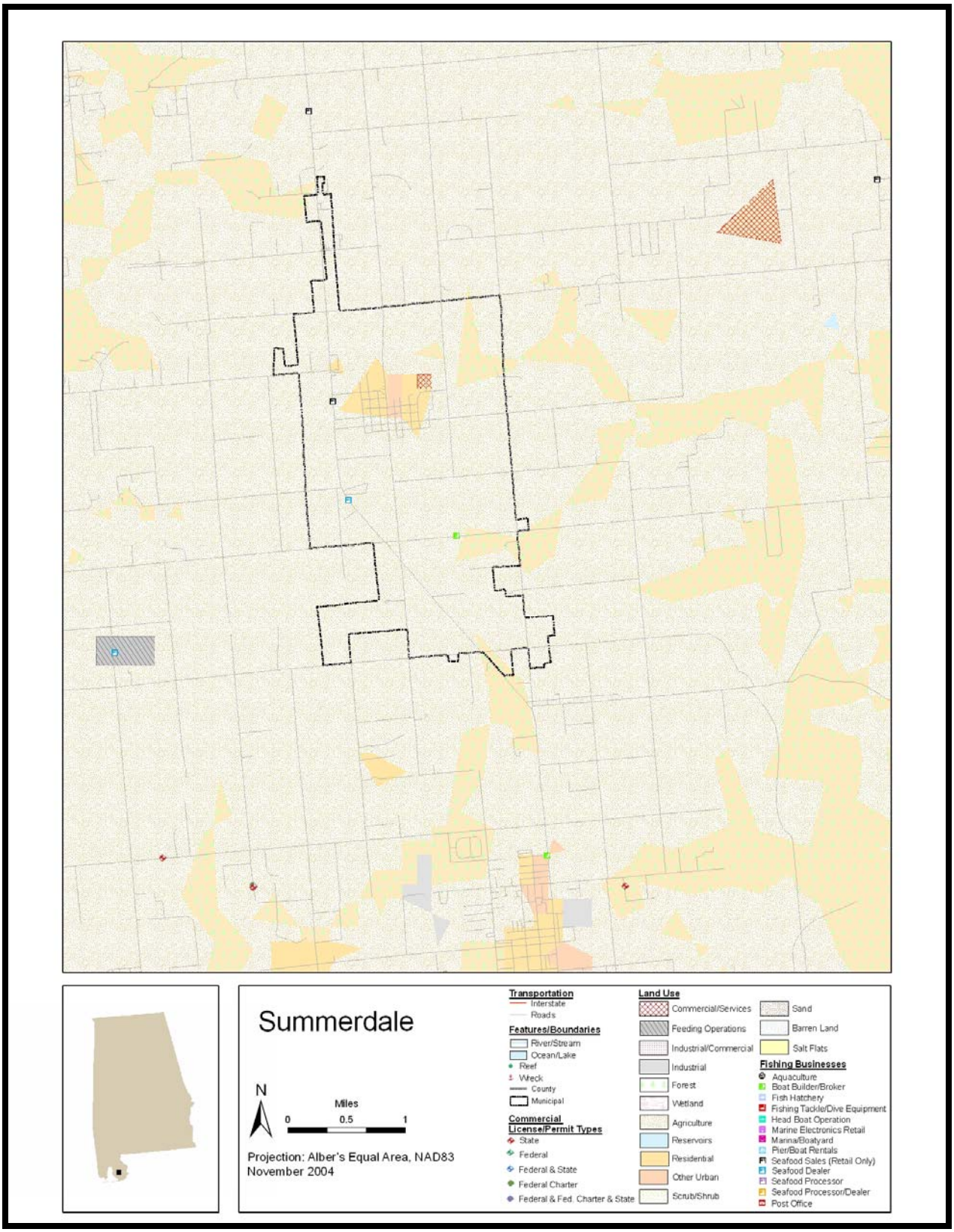
Location and Overview. Summerdale, also known as "Sunshine City," is located to the west of State Route 59 in central Baldwin County. Cotton and pecans are primary crops in this rural area. Mobile is about 31 miles northwest, and downtown Pensacola is approximately 41 miles southeast. The Gulf of Mexico is roughly 35 miles to the southwest.

History. Summerdale was established as a farming community in the 1930s. Principal crops at that time were potatoes and tobacco.

Seafood Dealer along Highway 59 in Summerdale

Current Conditions and Trends. Summerdale's year 2000 population of 655 persons is an increase of 96 persons from 1990. Residents report traveling nearly 30 minutes to work in a variety of occupations. About ten percent commuted to Mobile, while others traveled to Gulf Shores/Orange Beach for tourism-related occupations. Industry and land development are important in the area. There is little fishing infrastructure here, other than one seafood dealer on the south side of town.

Rural Summerdale, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Summerdale Demographics

Factor	1990	2000
Total population	559	655
Gender Ratio M/F (Number)	268/291	334/321
Age (Percent of total population)		
Under 18 years of age	27.0	27.6
18 to 64 years of age	57.3	61.4
65 years and over	15.7	11.0
Ethnicity or Race (Number)		
White	549	591
Black or African American	5	32
American Indian and Alaskan Native	4	7
Asian	0	1
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	1	6
Two or more races	N/A	18
Hispanic or Latino (any race)	24	15
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	9.8	5.0
Percent high school graduate or higher	62.7	73.6
Percent with a Bachelor's degree or higher	7.5	8.8
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.8	3.0
Percent who speak English less than very well	0.8	1.2
Household income (Median $)	22,550	27,917
Poverty Status (Percent of population with income below poverty line)	12.5	16.4
Percent female headed household	14.5	10.6
Home Ownership (Number)		
Owner occupied	161	193
Renter occupied	61	62
Value Owner-occupied Housing (Median $)	39,400	78,000
Monthly Contract Rent (Median $)	208	425
Employment Status (Population 16 yrs and over)		
Percent in the labor force	67.7	62.6
Percent of civilian labor force unemployed	7.0	3.0
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	22.6
Service occupations	N/A	17.4
Sales and office occupations	N/A	25.1
Farming, fishing, and forestry occupations	1.2	1.0
Construction, extraction, and maintenance occupations	N/A	16.4
Production, transportation, and material moving occupations	N/A	17.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.4	1.7
Mining (includes the offshore oil/gas industry workforce)	0.0	1.4
Manufacturing	21.6	11.1
Percent government workers	8.8	10.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	29.2
Percent worked outside of county of residence	19.2	10.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed for Summerdale in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Summerdale in 2003

Type of Business	Frequency
Boat Builder/Broker	1
Seafood Dealer	2
Total	3

Table 4. Summerdale Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. Summerdale State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
4	--
Total = 4	
% Households Holding Commercial Permit or License: 4/255 = 1.6	

Please reference Table 3.2-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3 Mobile County Communities

This section describes the study communities in Mobile County. These are: Axis, Bayou La Batre, Coden, Dauphin Island, Eight Mile, Grand Bay, Irvington, Mobile, Saraland, Semmes, St. Elmo and Theodore.

Located in the extreme southwest corner of Alabama, Mobile County encompasses 1,239 square miles of land. It is bordered by Washington County to the north, Baldwin County to the east, the State of Mississippi to the west, and the Gulf of Mexico to the south. With a year 2000 population of 399,843 persons, Mobile is the second most populous county in the state. It has been thus since 1920. The year 2000 census reported the racial composition of Mobile County as 63 percent Caucasian, 33 percent African American, one percent Hispanic, and one percent Asian.

In the first part of the 19th century, the growth and export of its cotton industry fueled the Mobile Bay area's economic development. Mobile County's shipbuilding industry, particularly the *Alabama Dry Dock and Shipbuilding Company* (ADDSCO) and *Gulf Shipbuilding* facilities, further expanded economic opportunities during World War I and II. By 1940, the County had further diversified: its economic base was based in manufacturing (paper and chemical products), services (health and business), and wholesale and retail trade. Manufacturing accounted for at least 22 percent of county employment through 1980. Although employment in this sector declined by 11 percent between 1980 and 1990, manufacturing- particularly chemicals and allied products- still contributes significantly to the contemporary economy of Mobile County (U.S. Census Bureau 2000).

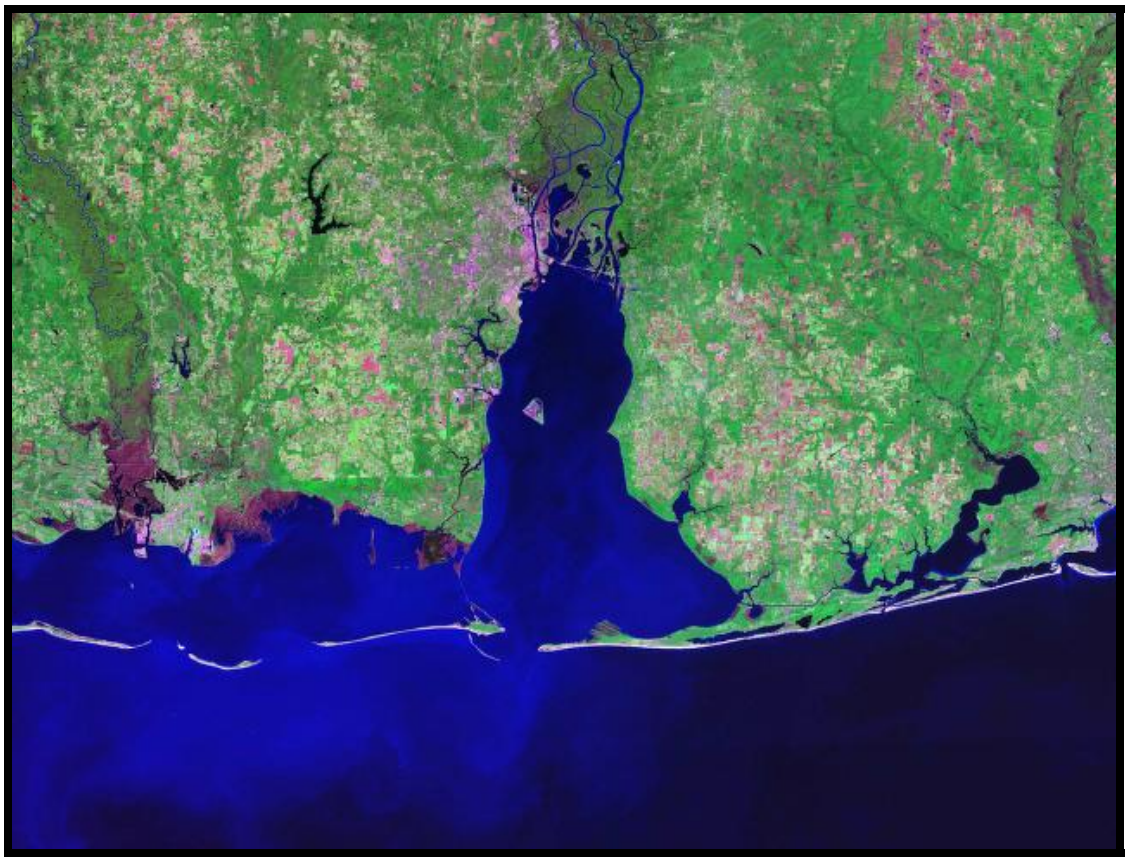
As for many other Gulf Coast communities, Mobile County has had a traditionally strong fishing sector. Most of Alabama's shrimp harvesting is undertaken in Mobile Bay and in the waters off of Mobile County. Although the significance of commercial fishing industry is said to be diminishing, the industry remains critically important to the region. Mobile County is home to over 50 seafood restaurants, many seafood processing firms, and scores of and wholesale and retail fish companies (thus was the status of the area prior to Hurricane Katrina).

Bayou La Batre typically accounted for some 75 percent of all Alabama landings in the early 1990s (Hosking and Perkins 1994). As recently as 2001, the port was ranked number ten in the nation for total value of landings (Auburn University 2001). With seafood products valued at some $28.4 million, Bayou La Batre ranked 23rd among all U.S. ports of landing in 2004 (NMFS 2005).

Recreational fishing also contributes to the county's economy. A number of charter operations and fishing lodges are located throughout the area. Alabama's artificial reef program provides recreational fishing opportunities here, as it does for Baldwin County. The program is a combined effort of the U.S. Army Corps of Engineers and the Marine Resources Division of the Alabama Department of Conservation and Natural Resources.

The economy of Mobile County is based primarily in health, education, and business services and, secondarily on manufacturing. A large number of offshore oil and gas operations, as well as three petrochemical refineries, are located here. As of 2000, there was one operational oil refinery in northern Mobile County and three natural gas refineries in southern Mobile County.

Median family income in Mobile County in 2000 was $40,378; this figure is 97 percent of the state median. Median family income has declined steadily, relative to state median, in recent decades. The 2000 census enumerated 11 percent of County households in poverty, and 17 percent of families with children headed by single women.



Aerial View of Mobile Bay prior to Hurricane Katrina (courtesy of www.answers.com)

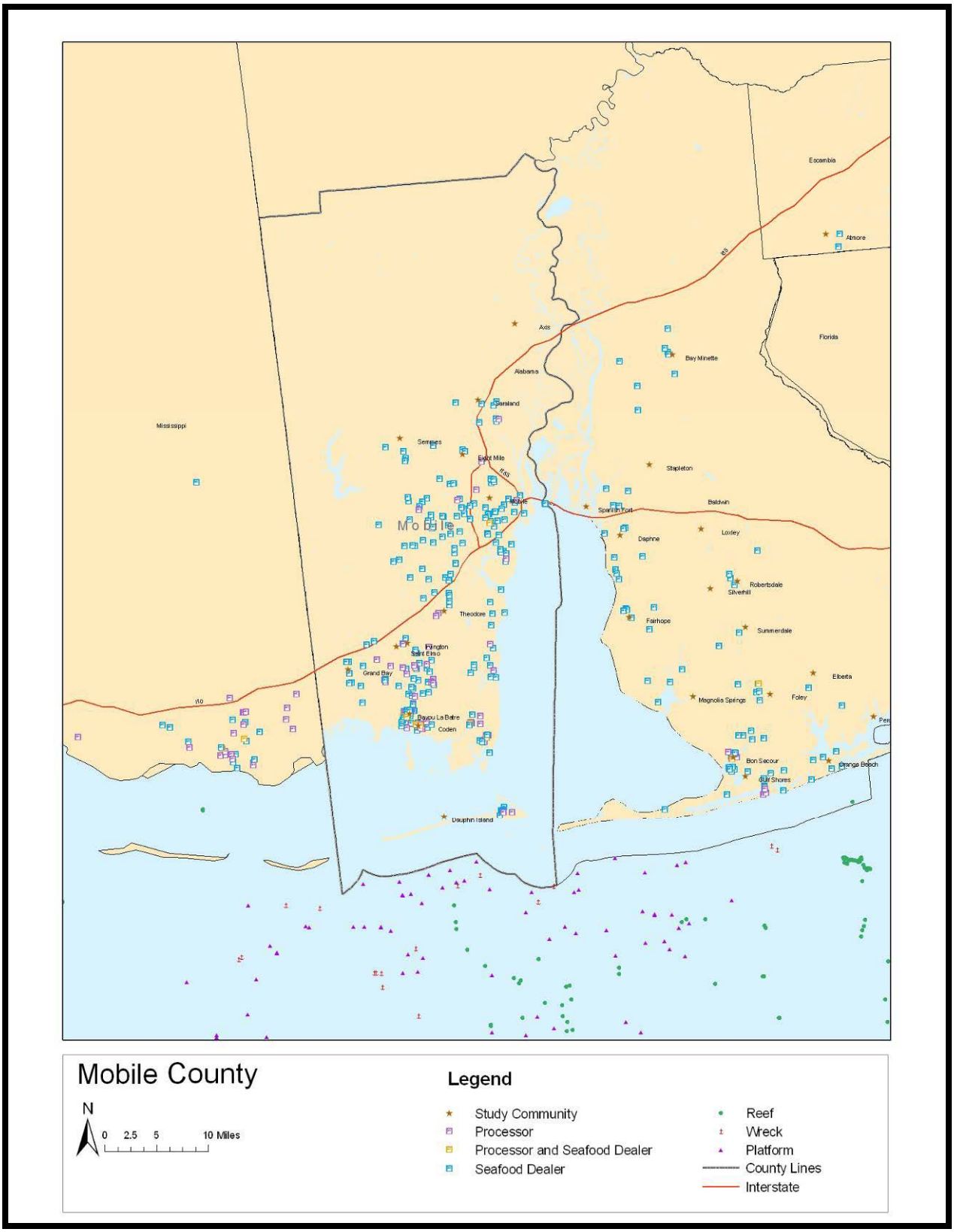

Mobile County
N
0 2.5 5 10 Miles
Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate
Escambia
Florida
Mississippi
Alabama
Axis
Bay Minette
Semmes
Stapleton
Baldwin
Daphne
Loxley
Robertsdale
Silverhill
Fairhope
Summerdale
Elberta
Foley
Magnolia Springs
Theodore
Grand Bay
Coden
Bayou La Batre
Dauphin Island
Bon Secour
Gulf Shores
Orange Beach

Table 3.3-1 Earnings in Mobile County, 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	Change 1990-2000
	1990	2000		
Earnings by place of work	5,689,065	6,887,215	100.0	1,198,150
Farm earnings	47,544	32,548	0.5	-14,996
Agricultural services, forestry, fishing	27,509	37,786	0.5	10,277
Fishing	10,879	2,544	0.0	-8,335
Mining	25,771	46,512	0.7	20,741
Oil and gas extraction	(Confidential)	(Confidential)	n/a	n/a
Construction	389,191	624,592	9.1	235,401
Special trade contractors	235,199	356,622	5.2	121,423
Manufacturing	1,140,590	1,019,128	14.8	-121,462
Lumber and wood products	59,578	58,115	0.8	-1,463
Industrial machinery and equipment	76,734	78,770	1.1	2,036
Other transportation equipment	120,046	133,275	1.9	13,229
Instruments and related products	1,231	(Confidential)	n/a	n/a
Food and kindred products	55,339	43,526	0.6	-11,813
Paper and allied products	394,335	196,762	2.9	-197,573
Chemicals and allied products	241,101	290,068	4.2	48,967
Transportation and public utilities	434,650	558,885	8.1	124,235
Trucking and warehousing	116,596	147,813	2.1	31,217
Water transportation	76,441	59,273	0.9	-17,168
Transportation by air	19,144	69,979	1.0	50,835
Wholesale trade	380,682	499,519	7.3	118,837
Retail trade	589,265	681,962	9.9	92,697
Eating and drinking places	130,038	150,975	2.2	20,937
Finance, insurance, and real estate	236,491	378,926	5.5	142,435
Services	1,433,759	1,856,669	27.0	422,910
Hotels and other lodging places	23,003	30,056	0.4	7,053
Business services	197,779	366,054	5.3	168,275
Amusement and recreation services	18,510	22,840	0.3	4,330
Health services	533,677	633,860	9.2	100,183
Legal services	158,109	154,902	2.2	-3,207
Engineering and management services	190,929	233,683	3.4	42,754
Government and assoc. enterprises	983,613	1,150,688	16.7	167,075

Source: Bureau of Economic Analysis, Regional Economic Information System

Table 3.3-2 Year 2002 Commercial Landings Summary: Mobile County in 2003

Species	Pounds	Value ($)
Shrimp, Northern Brown	4,618,175	8,682,169
Crab, Blue	2,147,574	1,245,593
Shrimp, Northern White	1,158,485	2,768,779
Menhadens	946,894	94,689
Oyster, Eastern	725,330	1,639,246
Mullet, Striped	452,852	226,426

Shrimp, Northern Pink	378,182	624,000
Mackerel, Spanish	221,077	108,328
Sheepshead	194,425	87,491
Shrimp, Rock	177,171	290,560
Shark	154,324	132,719
Shrimp, Royal Red	141,704	306,081
Snapper, Red	101,956	245,714
Mullets	83,068	44,857
Flatfish	57,897	95,530
Tilefishes	52,931	21,172
Ladyfish	52,505	27,828
Seatrout, Sand	29,187	16,053
Bluefish	25,967	7,790
Shark, Atlantic Sharpnose	22,103	19,009
Drum, Black	21,755	10,225
Fishes, Bony	14,633	16,682
Whiting, King	13,163	9,214
Runner, Blue	10,513	5,467
Snapper, Vermillion	10,439	20,147
Spot	8,480	2,544
Seatrout, Spotted	8,325	4,579
Stingrays	5,444	1,415
Tunny, Little	5,064	5,773
Drums	4,994	2,697
Triggerfish, Gray	4,868	5,793
Shark, Blacktip	3,474	1,181
Mackerel, King	3,124	4,374
Squids	2,326	1,279
Mullet, White	2,308	969
Snappers	2,115	2,432
Drum, Red	1,942	1,049
Catfish, Sea	1,768	566
Amberjack	1,396	1,382
Harvestfishes	1,126	1,284
Croaker, Atlantic	1,084	509
Tripletail	1,015	1,025
Groupers	948	1,915
Grouper, Gag	743	1,709
Grouper, Black	441	939
Amberjack, Lesser	415	270
Catfish, Blue	379	171
Scamp	372	904
Porgy, Whitebone	291	364
Porgy, Red	276	345
Cobia	261	355
Catfish, Channel	236	118

Dolphinfish	208	181
Pompano, Florida	199	683
Snapper, Lane	156	312
Grouper, Red	135	223
Grouper, Warsaw	127	254
Amberjack, Greater	123	122
Snapper, Gray	107	108
Jack, Crevalle	80	91
Wahoo	53	60
Shark, Bull	42	36
Fishes, Buffalo	40	.
Catfishes, Forktail	29	8
Tilefish	14	22
Ray, Bat	12	14
Grouper, Snowy	7	15
Mackerels	6	4
Porgies	5	5
Total	11,876,868	15,506,130

Oil Rig in Mobile Bay (courtesy of www.gulf-shores-alabama.net)

Table 3.3-3 Year 2000 Commercial Licenses and Permits, and 2003 Gulf Shrimp Permits: Mobile County*

Permit Type	Study Communities†								
	Bayou La Batre	Coden	Dauphin Island	Grand Bay	Irvington	Mobile	Saraland	Semmes	Theodore
Pelagic Charter	--	1	11	--	--	9	1	1	--
Reef Fish Charter	--	1	12	--	--	11	1	1	--
Swordfish	2	--	--	--	--	--	--	--	--
King Mackerel	1	--	1	1	--	7	--	--	--
Rock Shrimp	25	5	--	6	18	3	--	--	1
Red Snapper	1	1	7	--	--	6	--	--	--
Spiny Lobster	1	--	--	--	1	--	--	--	--
Spanish Mackerel	1	3	2	1	1	2	--	--	--
Gulf Reef Fish	2	1	8	--	--	8	--	--	--
Shark	2	--	--	--	--	--	--	--	--
South Atlantic Snapper Grouper	--	--	1	--	--	1	--	--	--
Total Federal Permits 2000	35	12	42	8	20	47	2	2	1
Total Federal Permit Holders 2000	33	10	18	7	19	24	1	1	1
Total State License Holders 2000	36	94	17	12	35	2	--	1	4
Gulf Shrimp Permits 2003‡	39	6	1	4	18	4	--	--	1

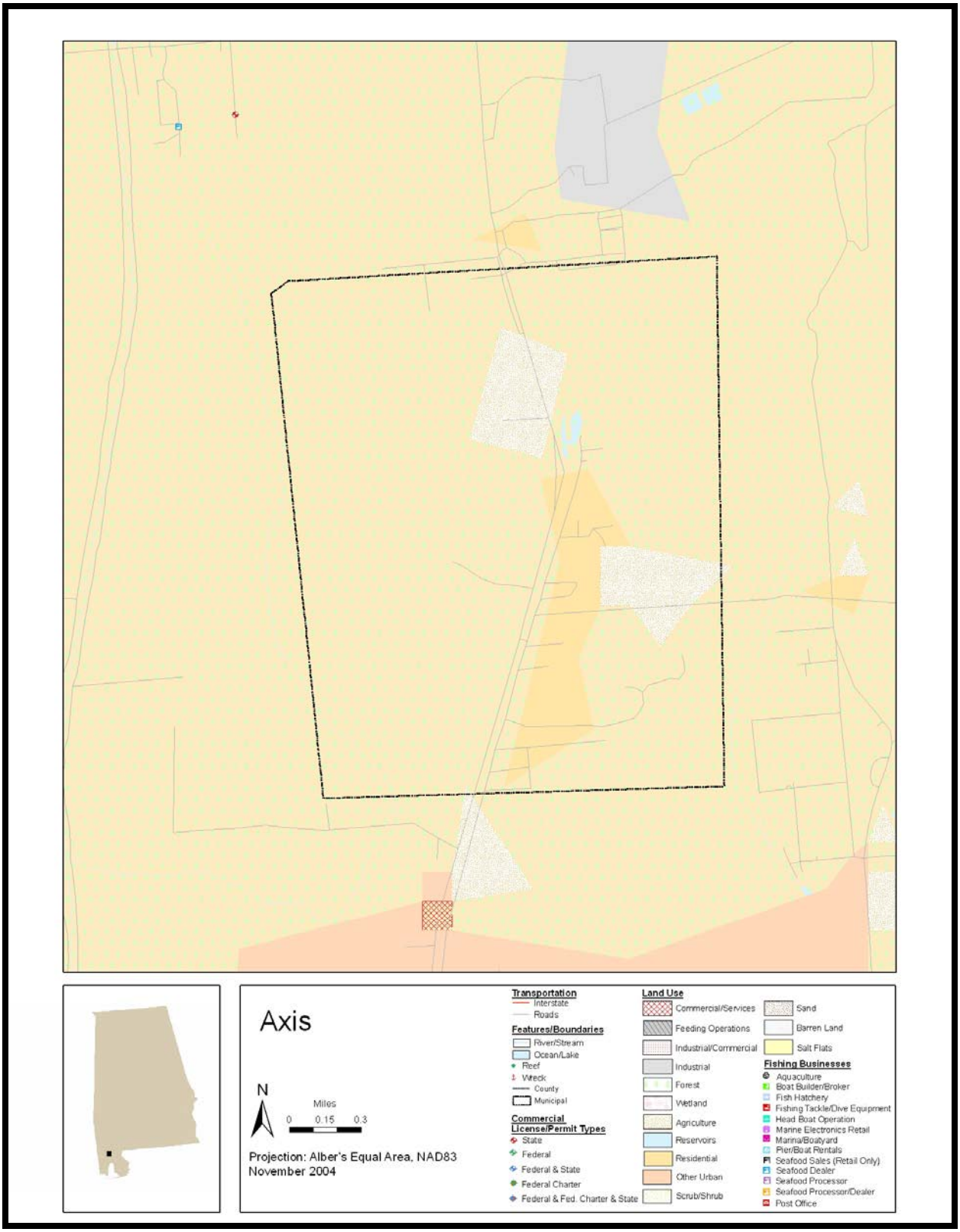
* Includes all permits and licenses that can be attributed to the communities by *both* street and post office box addresses; these data are used to generate counts of permit and license holders for whom evidence indicates actual residence, as provided in the community descriptions. † Places for which no federal permits can be attributed are not included here. ‡ 2003 is the first year for which Gulf shrimp permit data are available.

3.3.1 Axis (unincorporated, pop. 5,966)

Location and Overview. Axis is located along U.S. Highway 43 and State Route 13 in east-central Mobile County, just north of Creola. Mobile is about 18 miles south of town. Axis is some 55 miles north of the Gulf, by way of Mobile Bay.

History. The unincorporated town of Axis developed around a lumber mill. In subsequent years, other industries located here, due to its proximity to the Mobile metropolitan area.

Current Conditions and Trends. The 2000 population count for Axis was 5,966, up 4,342 persons from the 1990 census. Most residents in the workforce held jobs in the management, office, and sales-related occupations, with nearly 23 percent employed in industrial occupations. This is a rural-residential community, although the surrounding area is highly industrial, with chemical plants and paper mills nearby. A business corridor has developed along U.S. Highway 43. There are several retail franchise businesses here. Axis has very little fishing-related infrastructure. Most fishery participants travel to Saraland or Mobile for supplies.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Axis Demographics

Factor	1990	2000
Total population	1,624	5,966
Gender Ratio M/F (Number)	785/839	2,931/3,035
Age (Percent of total population)		
Under 18 years of age	33.7	28.9
18 to 64 years of age	57.9	63.0
65 years and over	8.4	8.1
Ethnicity or Race (Number)		
White	1,201	5,251
Black or African American	406	559
American Indian and Alaskan Native	17	74
Asian	0	10
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	0	4
Two or more races	N/A	67
Hispanic or Latino (any race)	6	40
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	10.5	4.5
Percent high school graduate or higher	64.3	77.0
Percent with a Bachelor's degree or higher	4.2	13.0
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	1.8	2.3
Percent who speak English less than very well	1.2	0.7
Household income (Median $)	21,136	46,764
Poverty Status (Percent of population with income below poverty line)	16.4	10.5
Percent female headed household	13.0	10.0
Home Ownership (Number)		
Owner occupied	452	1,838
Renter occupied	102	232
Value Owner-occupied Housing (Median $)	43,100	91,400
Monthly Contract Rent (Median $)	187	399
Employment Status (Population 16 yrs and over)		
Percent in the labor force	59.6	62.5
Percent of civilian labor force unemployed	10.1	5.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	24.2
Service occupations	N/A	12.6
Sales and office occupations	N/A	24.7
Farming, fishing, and forestry occupations	1.9	0.0
Construction, extraction, and maintenance occupations	N/A	17.6
Production, transportation, and material moving occupations	N/A	20.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.6	0.0
Mining (includes the offshore oil/gas industry workforce)	0.3	0.6
Manufacturing	26.4	22.7
Percent government workers	10.3	10.4
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	11.8	8.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Axis in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	1
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale fish house	0
Fisheries research laboratories	0
Fishing monuments	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Axis in 2003

Type of Business	Frequency
Fish Hatchery; Seafood Dealer	1
Total	1

Table 4. Axis Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. Axis State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	--
Total = --	
% Households Holding Commercial Permit or License: --/2,070 = --	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Neighborhood in Axis, 2004

3.3.2 Bayou La Batre (incorporated, pop. 2,313)

Location and Overview. Bayou La Batre is located along State Highway 188 in southern Mobile County. It is adjacent to the body of water of the same name. The bayou empties into Mississippi Sound, providing easy access to several major ship channels and the Gulf of Mexico. Bayou La Batre is some 25 miles south of Mobile and approximately 22 miles east of the Pascagoula-Moss Point, Mississippi Metro area. The Gulf of Mexico is about 17 miles south, accessible via Portersville Bay and the Mississippi Sound.

History. Bayou La Batre was founded in the 1780's by a Frenchman named Joseph Bosarge. "La Batre" refers to a strategic battery built by the French during that period. Following the introduction of rail service in the late 1800s, the area developed as a resort town (Howell 2003). A hurricane so devastated the area in 1906 that commercial fishing became the only source of income. Residents subsequently established a lengthy history of involvement in the harvest, processing, and distribution of seafood.

Marine Supply Store in Bayou La Batre in 2004

Current Conditions and Trends. The year 2000 census enumerated 2,313 persons in Bayou La Batre, a decline from the 1990 count of 2,456. Most residents were employed in manufacturing industries or sales occupations in 2000.

The commercial fishing and processing industries are vital to the local economy. Shrimp, oysters, crabs, and finfish are primary products. The commercial fishing industry here reportedly generates direct and indirect revenue of nearly $80 million per year, with an approximate annual ex-vessel value of nearly $30 million. According to the Auburn University Marine Extension and Research Center (2001), Bayou La Batre was ranked 10th in value of landings for all U.S. ports in 2000. Fishery participants from Bayou La Batre also produce the majority of Alabama seafood landings; shrimp accounts for 90 percent of landed seafood value. Crews for hundreds of shrimp vessels work out of and deliver product to Bayou La Batre. Local processing activities include cleaning, heading, picking, shucking, grading, breading, packaging, frozen storage, and transportation. Much of the seafood processed in Bayou La Batre's processing plants is trucked in from out-of-state. These plants employ approximately 1,500 year-round workers and 800 seasonal workers. An additional number of packing houses and wholesale seafood dealers employ many year-round and seasonal workers. There are also at least a dozen marine supply shops and marine electronics firms in Bayou La Batre (Bayou La Batre Chamber of Commerce).

Shipbuilding is Bayou La Batre's other major industry. Oil supply boats, work boats, barges, shrimp boats, tugs, cruisers, and casino boats are among the vessels built in Bayou La Batre (Bayou La Batre Chamber of Commerce).

Trawl Vessels in Bayou La Batre in 2004

Net Shop in Bayou La Batre

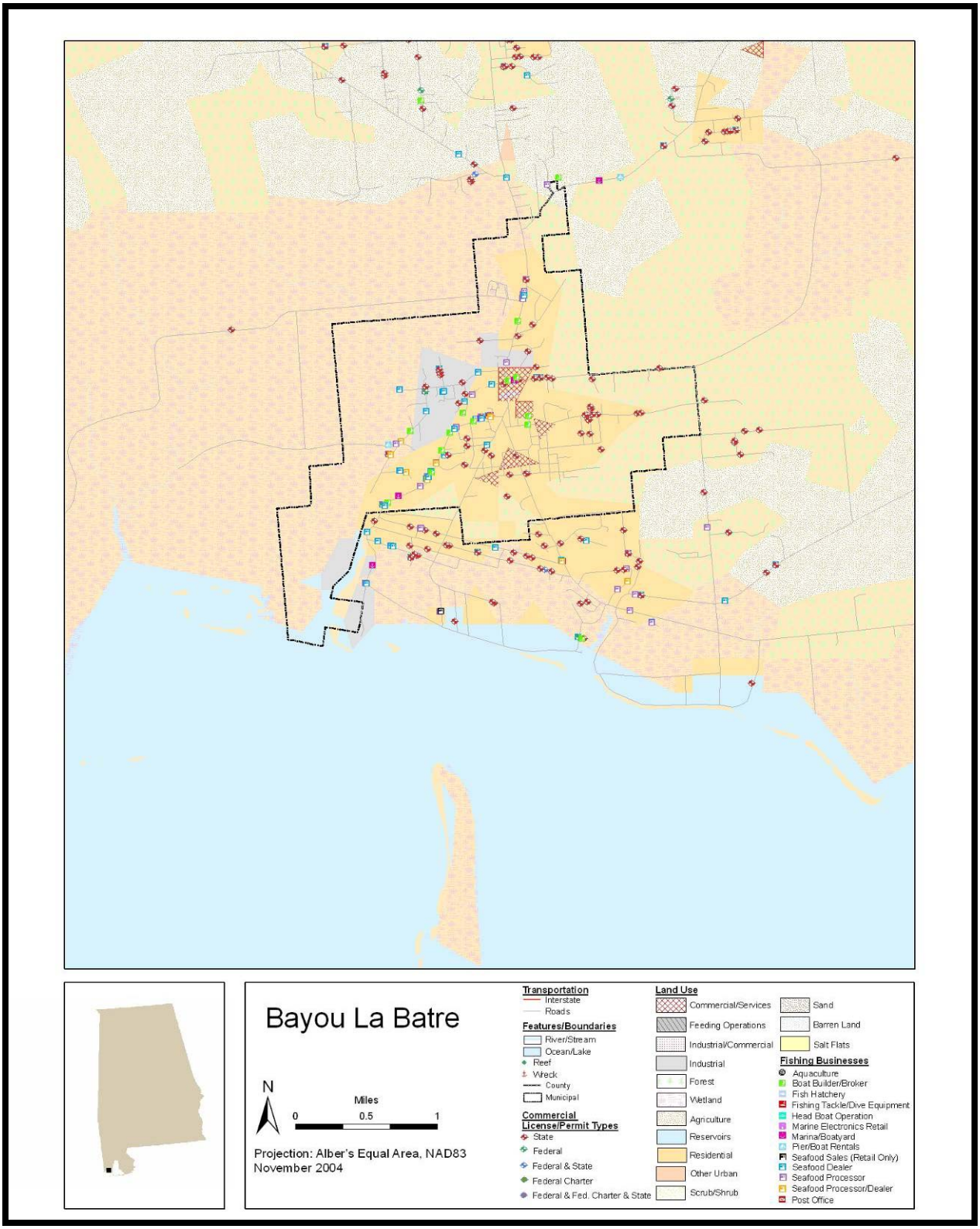
There is a small downtown business district at the intersection of Shell Belt Road and State Road 188. Shell Belt Road is the address of many fishing-related industries, such as seafood processors, fish houses, and boat building yards. Numerous shrimp vessels are docked nearby. There are no bars, hotels, or non-fishing related businesses located on the bayou. A NMFS port agent has an office in town.

A population of persons of Vietnamese ancestry is involved in all facets of the local seafood industry. Many settled in the community with the help of the Catholic Church after the end of the Vietnam War.

The local fishing fleet here ranges from small bay boats that fish for shrimp and finfish to large Gulf vessels (called "steel slabs") that make extended trips throughout the Gulf of Mexico and Southeast Atlantic. There are small seafood dealers that handle shrimp, crab, oysters, and finfish and large-scale processors that ship specialty products worldwide. All types of support businesses from net manufacturers to marine electronics dealers are located here. A blessing of the fleet" and a "Miss Seafood Contest" are held here each year.

According to one fishery specialist, the recent rise in fuel prices and the increase in imports and subsequent drop in price for domestic shrimp have forced Alabama shrimp fishermen to adjust their annual fishing pattern. In the past, fishing trips would be made during the off-season even though shrimp were not as abundant since the trips were still economically feasible. That is no longer the case, and many vessels remain tied to the dock during the off-season - returns can no longer cover operating costs.

In 2000, 24 processors were located in Bayou La Batre, average of 30 employees were employed by each that year. Some 36 million pounds of seafood valued at over $123 million were produced that year. A large federally-permitted shrimp fleet is based in Bayou Labatre, and many vessels from around the region are moored here.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Bayou La Batre Demographics

Factor	1990	2000
Total population	2,456	2,313
Gender Ratio M/F (Number)	1,201/1,255	1,159/1,154
Age (Percent of total population)		
Under 18 years of age	34.3	29.9
18 to 64 years of age	54.7	59.0
65 years and over	11.0	11.2
Ethnicity or Race (Number)		
White	1,605	1,213
Black or African American	250	237
American Indian and Alaskan Native	3	6
Asian	595	770
Native Hawaiian and other Pacific Islander	N/A	10
Some other race	3	22
Two or more races	N/A	55
Hispanic or Latino (any race)	67	44
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	30.0	24.0
Percent high school graduate or higher	45.2	54.9
Percent with a Bachelor's degree or higher	6.0	7.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	26.3	29.1
Percent who speak English less than very well	18.0	15.8
Household income (Median $)	15,775	24,539
Poverty Status (Percent of population with income below poverty line)	36.1	28.2
Percent female headed household	15.6	17.6
Home Ownership (Number)		
Owner occupied	537	501
Renter occupied	234	268
Value Owner-occupied Housing (Median $)	35,200	45,800
Monthly Contract Rent (Median $)	164	366
Employment Status (Population 16 yrs and over)		
Percent in the labor force	54.2	53.7
Percent of civilian labor force unemployed	9.7	11.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	14.1
Service occupations	N/A	18.3
Sales and office occupations	N/A	20.7
Farming, fishing, and forestry occupations	8.6	5.2
Construction, extraction, and maintenance occupations	N/A	10.8
Production, transportation, and material moving occupations	N/A	30.9
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting, (and mining)	11.6	8.4†
Manufacturing	23.4	21.9
Percent government workers	9.0	7.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.9
Percent worked outside of county of residence	12.2	9.5

**Differences in the types of data used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years. † Year 2000 figures include mining in this group; 1990 figures do not. Mining includes the offshore oil industry workforce.

Table 2. Fishing Infrastructure and Services Observed in Bayou LaBatre in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	2
Docking facilities (commercial)	Several
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	50
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	Several
Museums—fishing/marine-related	0
Net makers	2
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	0
Trucking operations	3
Site-seeing/pleasure tours	0
Charter/Head Boats	3
Commercial Boats	~ 300

Table 3. Primary Fishing-related Businesses Listed for Bayou La Batre in 2003

Type of Business	Frequency
Boat Builder/Broker	12
Boat Builder/Broker; Marina	3
Boat Rentals & Pier	1
Fish Hatchery	1
Marina	1
Processor	5
Processor; Retail/Wholesale Seafood Dealer	4
Processor; Wholesale Seafood Dealer	2
Retail/Wholesale Seafood Dealer	1
Wholesale Seafood Dealer	9
Total	39

Table 4. Bayou La Batre Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	4,615,977	7,744,316

Table 5. Bayou La Batre State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
30	10
Total = 45	
% Households Holding Commercial Permit or License: 45/769 = 5.8	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

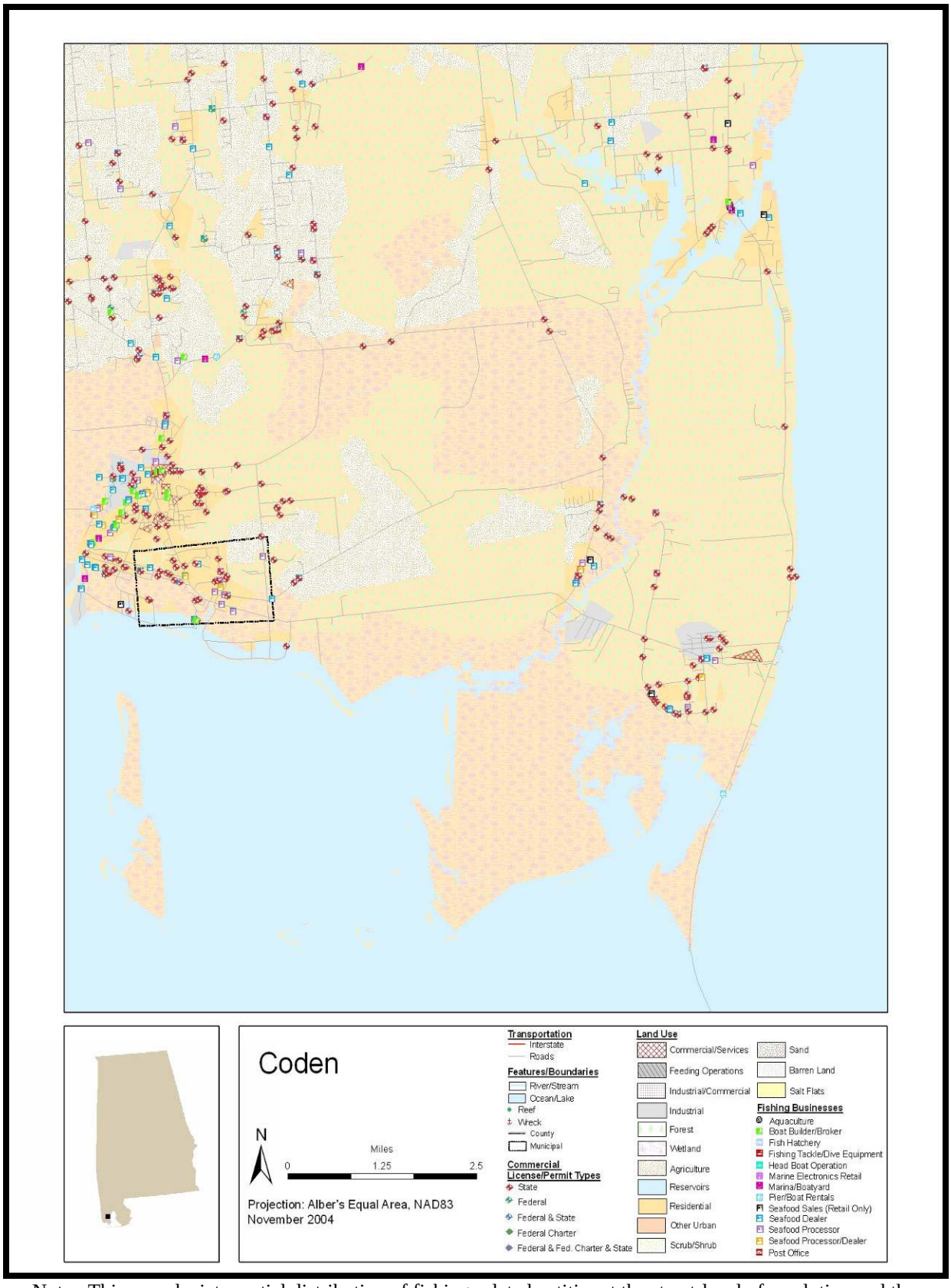
3.3.3 Coden (unincorporated, pop. 1,318)

Location and Overview. Coden is located along State Highway 188 on the northern banks of the Mississippi Sound in southern Mobile County. Bayou La Batre is adjacent. Many seafood-related businesses are spread throughout the community and along its bayou. Coden is some 20 miles southwest of Mobile, and nearly 20 miles east of Pascagoula-Moss Point. Gulf of Mexico access is approximately 15 miles distant via Portersville Bay to Mississippi Sound and out through Petit Bois Pass.

Small Shrimp Business in Coden, 2004

History. Coden was named for the French word for "turkey," which is "Coq d'Inde." The town was once a tourist destination, but a hurricane in 1906 ruined the then-popular Rolston Hotel.

Current Conditions and Trends. The year 2000 census enumerated 1,318 persons, up from 1,233 in 1990. Residents are employed in a variety of occupations, primarily service and sales-related. There are several boat building facilities and seafood operations along both sides of Coden Bayou. Coden is home to over 20 oyster houses and at least ten crab processing facilities, many of which are located along Highway 188. Most of these businesses are small family-owned shucking houses that may employ from three to ten workers, depending on the time of year. The 27 local processors produced over three million pounds of seafood valued over 11 million dollars during 2000. The local commercial fleet focuses on oysters and shrimp. Most locally-operated vessels are moored at Bayou LaBatre. While we were able to prove physical residence for only 18 state license holders, a total of 94 held some form of local address in 2000.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Coden Demographics

Factor	1990	2000
Total population	1,233	1,318
Gender Ratio M/F (Number)	613/620	679/639
Age (Percent of total population)		
Under 18 years of age	31.5	27.7
18 to 64 years of age	57.0	60.9
65 years and over	11.5	11.4
Ethnicity or Race (Number)		
White	902	716
Black or African American	211	198
American Indian and Alaskan Native	2	2
Asian	116	354
Native Hawaiian and other Pacific Islander	N/A	6
Some other race	2	4
Two or more races	N/A	38
Hispanic or Latino (any race)	31	20
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	24.4	20.4
Percent high school graduate or higher	47.4	54.6
Percent with a Bachelor's degree or higher	4.8	7.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	14.1	25.0
Percent who speak English less than very well	7.9	12.1
Household income (Median $)	17,250	24,750
Poverty Status (Percent of population with income below poverty line)	26.1	29.4
Percent female headed household	8.2	14.4
Home Ownership (Number)		
Owner occupied	343	334
Renter occupied	69	90
Value Owner-occupied Housing (Median $)	34,500	42,400
Monthly Contract Rent (Median $)	184	323
Employment Status (Population 16 yrs and over)		
Percent in the labor force	55.0	50.0
Percent of civilian labor force unemployed	14.4	12.0
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	14.2
Service occupations	N/A	20.9
Sales and office occupations	N/A	15.6
Farming, fishing, and forestry occupations	13.0	10.0
Construction, extraction, and maintenance occupations	N/A	15.1
Production, transportation, and material moving occupations	N/A	17.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	18.8	12.8
Mining (includes the offshore oil/gas industry workforce)	1.6	3.1
Manufacturing	23.2	22.3
Percent government workers	9.9	12.5
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	17.0	5.5

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Coden in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	3
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	22
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	10
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	5+

Table 3. Primary Fishing-related Businesses Listed for Coden in 2003

Type of Business	Frequency
Boat Builder/Broker	1
Boat Builder/Broker; Marina	1
Boat Rentals & Pier	1
Marina	1
Processor	2
Processor; Seafood Dealer	4
Seafood Dealer	9
Total	19

Table 4. Coden Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	2,350,023	2,824,003

Table 5. Coden State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
18	6
Total = 24	
% Households Holding Commercial Permit or License: 24/424 = 5.6	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Coden Area Boatyard in 2004

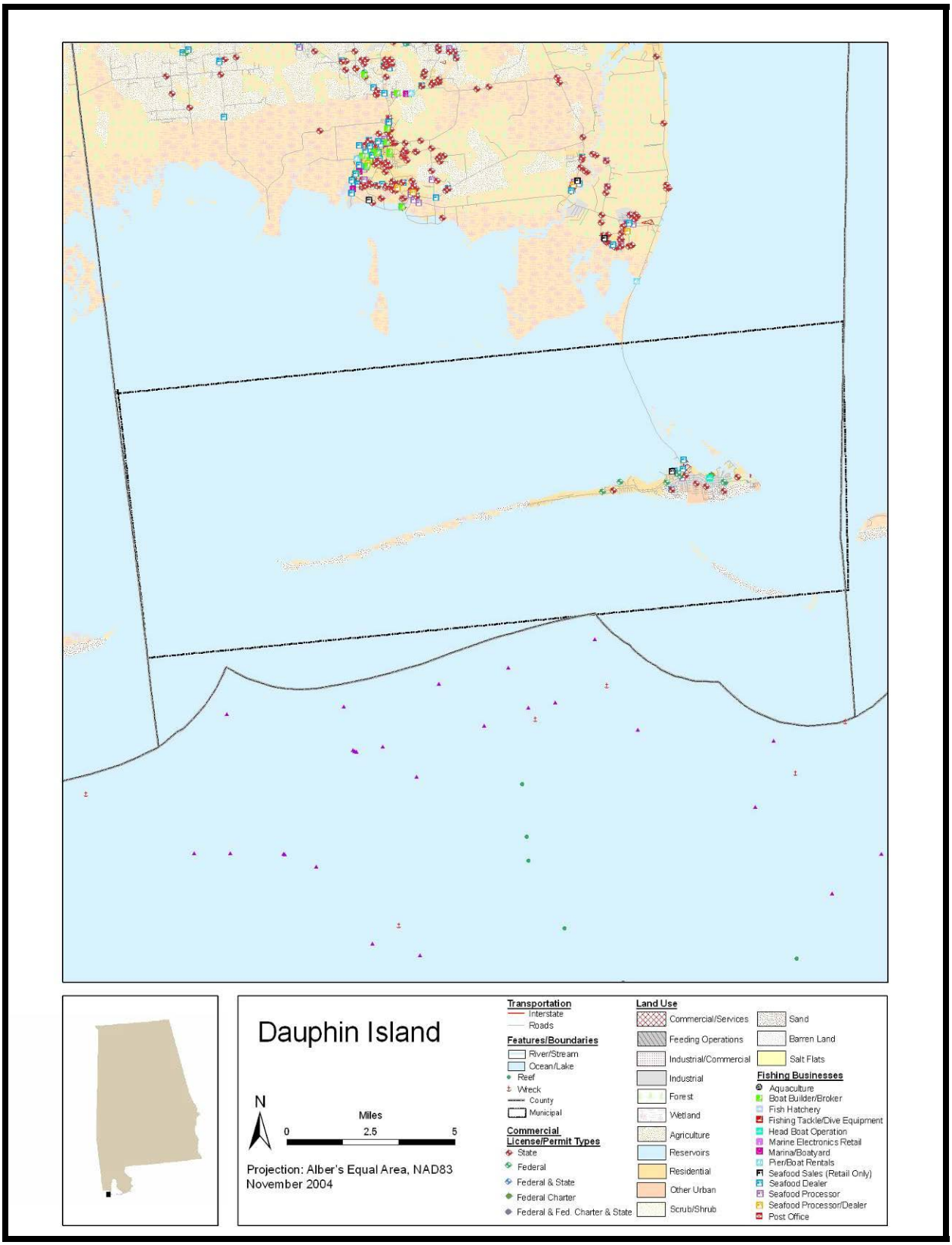
3.3.4 Dauphin Island (incorporated, pop. 1,371)

Location and Overview. Dauphin Island is a barrier island located near the mouth of Mobile Bay, roughly 32 miles south of Mobile. The town is bordered by the Mississippi Sound to the north and the Gulf of Mexico to the south. A small public beach area and business district comprised of seafood restaurants and various retail businesses is located in the mid-town area. The far west end of the island is uninhabited.

History. French explorers arrived on the island in 1699. Abundant timber, fresh water, and a navigable harbor enabled the French to colonize the area over subsequent decades. The area became part of the U.S. territories in 1813. Most early residents were fishermen and oyster harvesters. Dauphin Island was incorporated in 1988 (Town of Dauphin Island 2004).

Current Conditions and Trends. The year 2000 population of Dauphin Island was 1,371 persons, up from 824 in 1990. Many working residents commute to jobs in Coden, Bayou La Batre or Grand Bay.

The Dauphin Island charter fleet and a few commercial vessels dock in two marinas adjacent to Highway 193. The Dauphin Island Marine Lab, two public boat ramps, and a ferry dock are located on the eastern end of the island; a few commercial fishing captains also dock their vessels at the ferry dock. Dauphin Island is the site of the Alabama Deep Sea Rodeo, one of the larger fishing tournaments along the Alabama coast. While we could not prove residence for the small fleet of state commercial license holders, as many as 17 such persons maintain postal addresses here. The local fleet lands large quantities of shrimp and various finfish.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Dauphin Island Demographics

Factor	1990	2000
Total population	824	1,371
Gender Ratio M/F (Number)	424/400	723/648
Age (Percent of total population)		
Under 18 years of age	17.7	17.4
18 to 64 years of age	62.4	66.4
65 years and over	19.9	16.2
Ethnicity or Race (Number)		
White	812	1,322
Black or African American	0	6
American Indian and Alaskan Native	10	22
Asian	2	8
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	0	0
Two or more races	N/A	13
Hispanic or Latino (any race)	4	13
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	6.8	2.8
Percent high school graduate or higher	78.0	88.1
Percent with a Bachelor's degree or higher	18.4	24.7
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.1	4.7
Percent who speak English less than very well	1.6	0.6
Household income (Median $)	29,345	44,219
Poverty Status (Percent of population with income below poverty line)	8.6	9.2
Percent female headed household	11.6	5..0
Home Ownership (Number)		
Owner occupied	289	480
Renter occupied	66	121
Value Owner-occupied Housing (Median $)	73,400	139,000
Monthly Contract Rent (Median $)	344	706
Employment Status (Population 16 yrs and over)		
Percent in the labor force	56.6	59.5
Percent of civilian labor force unemployed	4.5	1.9
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	28.1
Service occupations	N/A	14.6
Sales and office occupations	N/A	26.1
Farming, fishing, and forestry occupations	6.8	2.9
Construction, extraction, and maintenance occupations	N/A	15.6
Production, transportation, and material moving occupations	N/A	12.8
Industry ** (Percent in workforce)		
Agriculture, forestry, fishing and hunting	4.5	1.6
Mining (includes the offshore oil/gas industry workforce)	0.0	0.4
Manufacturing	8.9	7.8
Percent government workers	16.8	24.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	27.7
Percent worked outside of county of residence	5.5	7.4

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Dauphin Island in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	1
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	1
Fishing monuments/ festivals	0
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	5+
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	2
Charter/Head Boats	10+
Commercial Boats	5

Table 3. Primary Fishing-related Businesses Listed for Dauphin Island in 2003

Type of Business	Frequency
Seafood Dealer	1
Total	1

Table 4. Dauphin Island Landings Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value
Total	299,750	492,868

Table 5. Dauphin Island State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	16
Total = 16	
% Households Holding Commercial Permit or License: 16/601 = 2.6	

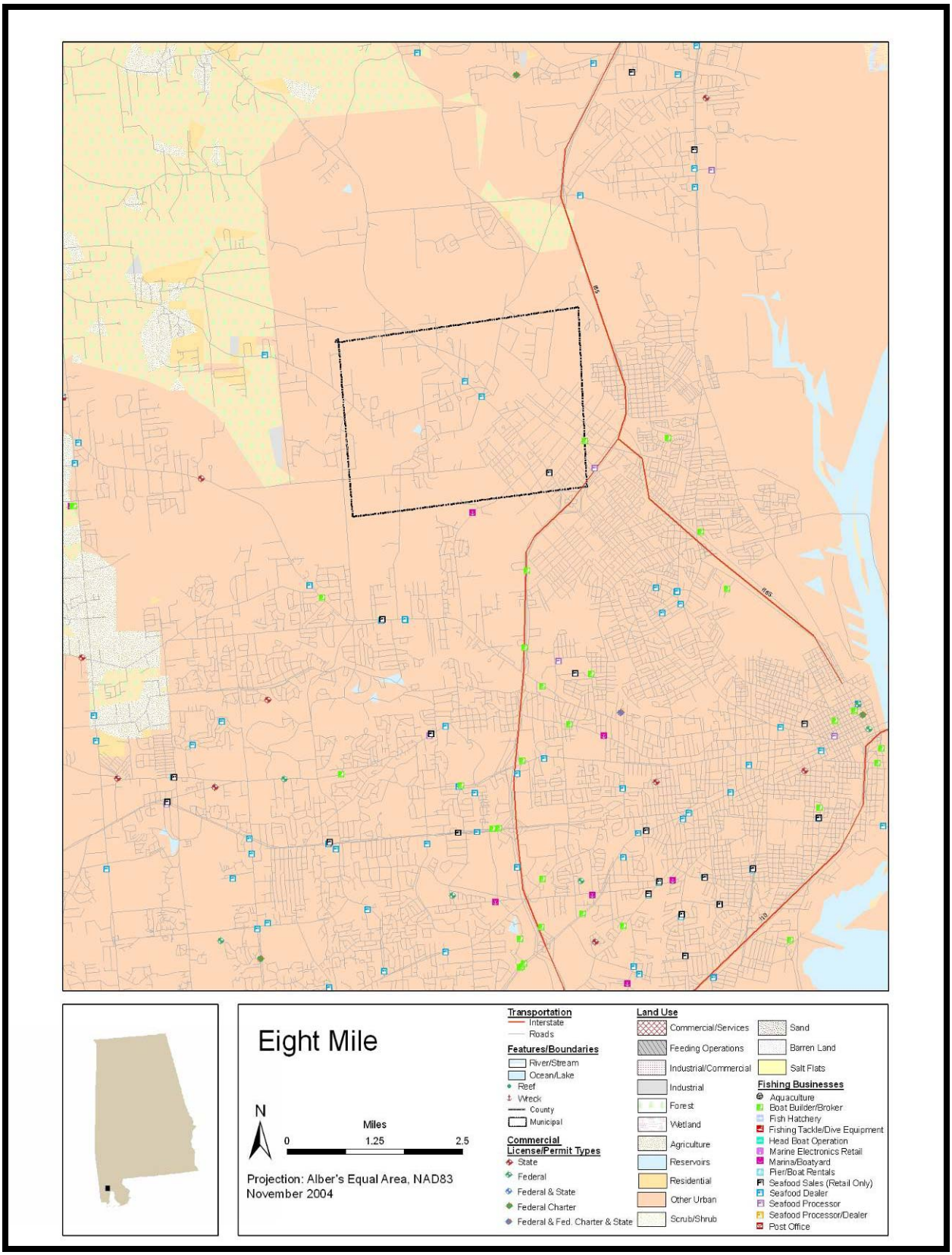
Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.5 Eight Mile (unincorporated, pop. 1,658)

Location and Overview. Eight Mile is located at the junction of U.S. Route 45 and State Routes 17 and 213. This unincorporated town is less than four miles north of Mobile in east-central Mobile County. Mobile Bay is roughly nine miles southeast , and the Gulf of Mexico approximately 35 miles further south. There is no direct Gulf access from this inland town.

Seafood Dealer in Eight Mile

Current Conditions and Trends. The year 2000 population of Eight Mile was 1,658 persons, an increase of 1,081 from 1990. Many residents commute to jobs in Mobile, though some job opportunities are available at numerous retail businesses located along U.S. Highway 45. A seafood retail business is located along the highway.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Eight Mile Demographics

Factor	1990	2000
Total population	577	1,658
Gender Ratio M/F (Number)	277/300	791/867
Age (Percent of total population)		
Under 18 years of age	31.5	30.9
18 to 64 years of age	57.6	57.1
65 years and over	10.9	12.0
Ethnicity or Race (Number)		
White	427	724
Black or African American	146	889
American Indian and Alaskan Native	2	12
Asian	1	6
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	1	2
Two or more races	N/A	25
Hispanic or Latino (any race)	3	11
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	15.8	11.8
Percent high school graduate or higher	53.5	68.3
Percent with a Bachelor's degree or higher	1.3	3.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.7	3.2
Percent who speak English less than very well	1.2	1.6
Household income (Median)	15,250	31,493
Poverty Status (Percent of population with income below poverty line)	28.5	11.4
Percent female headed household	17.3	20.3
Home Ownership (Number)		
Owner occupied	171	453
Renter occupied	31	114
Value Owner-occupied Housing (Median)	30,100	52,800
Monthly Contract Rent (Median $)	192	377
Employment Status (Population 16 yrs and over)		
Percent in the labor force	49.6	62.0
Percent of civilian labor force unemployed	12.0	12.4
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	11.4
Service occupations	N/A	19.5
Sales and office occupations	N/A	21.3
Farming, fishing, and forestry occupations	4.0	0.0
Construction, extraction, and maintenance occupations	N/A	26.7
Production, transportation, and material moving occupations	N/A	21.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	4.0	0.0
Mining (includes the offshore oil/gas industry workforce)	0.0	0.8
Manufacturing	17.0	16.5
Percent government workers	19.3	11.4
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	0.0	3.4

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Eight Mile in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Eight Mile in 2003

None Listed

Table 4. Eight Mile Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. Eight Mile State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	--
Total = --	
% Households Holding Commercial Permit or License: --	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.6 Grand Bay (incorporated, pop. 3,918)

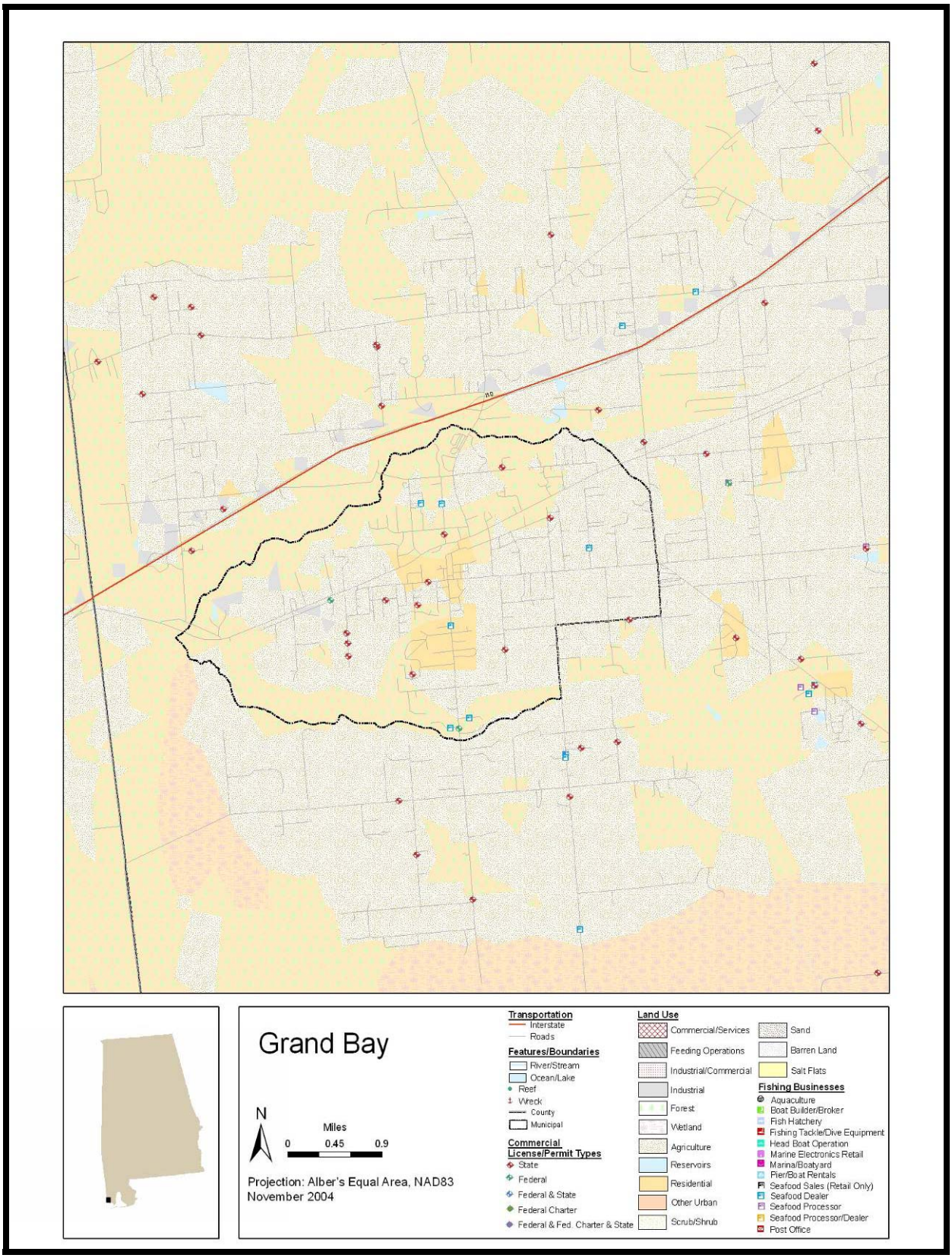
Location and Overview. Grand Bay is located at the junction of U.S. Highway 90 and State Routes 16 and 188 in southern Mobile County. This rural town is surrounded by cotton fields and pecan groves. Homes are modest and often widely dispersed. Grand Bay is approximately three miles east of the Mississippi state line and some 25 miles southwest of downtown Mobile. **T**he Gulf of Mexico is 25 miles south.

History. Grand Bay was founded in 1870. The town was one of many stops along the historic rail route from Mobile to Pascagoula.

Current Conditions and Trends. The year 2000 census enumerated 3,918 persons in Grand Bay, an increase of 535 from 1990. Many residents were employed in manufacturing, with more than 33 percent commuting to jobs in the Pascagoula/Moss Point area.

Two wholesale seafood dealers are based here. One processes primarily oysters and the other crab. Most commercial fishermen who live in Grand Bay work from Bayou La Batre. The fleet is highly productive in shrimp, crabs, and oysters. Four Gulf shrimp permit holders were working from the area in 2003.

Business Plaza in Grand Bay



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Grand Bay Demographics

Factor	1990	2000
Total population	3,383	3,918
Gender Ratio M/F (Number)	1,664/1,719	1,959/1,959
Age (Percent of total population)		
Under 18 years of age	28.4	27.7
18 to 64 years of age	61.6	59.5
65 years and over	10.0	12.7
Ethnicity or Race (Number)		
White	2,998	3,487
Black or African American	665	348
American Indian and Alaskan Native	13	9
Asian	12	31
Native Hawaiian and other Pacific Islander	N/A	2
Some other race	5	5
Two or more races	N/A	36
Hispanic or Latino (any race)	33	34
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	8.8	7.6
Percent high school graduate or higher	70.1	68.1
Percent with a Bachelor's degree or higher	13.2	9.3
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.1	2.3
Percent who speak English less than very well	1.0	1.1
Household income (Median $)	26,651	38,941
Poverty Status (Percent of population with income below poverty line)	13.0	8.1
Percent female headed household	10.8	10.0
Home Ownership (Number)		
Owner occupied	944	1,117
Renter occupied	188	247
Value Owner-occupied Housing (Median $)	53,600	76,500
Monthly Contract Rent (Median $)	238	521
Employment Status (Population 16 yrs and over)		
Percent in the labor force	60.0	57.9
Percent of civilian labor force unemployed	4.3	6.2
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	22.4
Service occupations	N/A	11.3
Sales and office occupations	N/A	22.9
Farming, fishing, and forestry occupations	1.7	2.5
Construction, extraction, and maintenance occupations	N/A	15.0
Production, transportation, and material moving occupations	N/A	25.8
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.7	0.8
Mining (includes the offshore oil/gas industry workforce)	0.0	3.1
Manufacturing	20.4	26.5
Percent government workers	11.4	10.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	29.4
Percent worked outside of county of residence	31.0	33.7

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Grand Bay in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	2
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Grand Bay in 2003

Type of Business	Frequency
Seafood Dealer	2
Total	2

Table 4. Grand Bay Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total	978,851	1,391,535

Table 5. Grand Bay State License and Federal Permit Summary: 2000

Commercial	
State License Holders	Federal Permit Holders
6	7
Total = 13	
% Households Holding Commercial Permit or License: 13/1,364 = .9	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.7 Irvington (unincorporated, pop. 2,524)

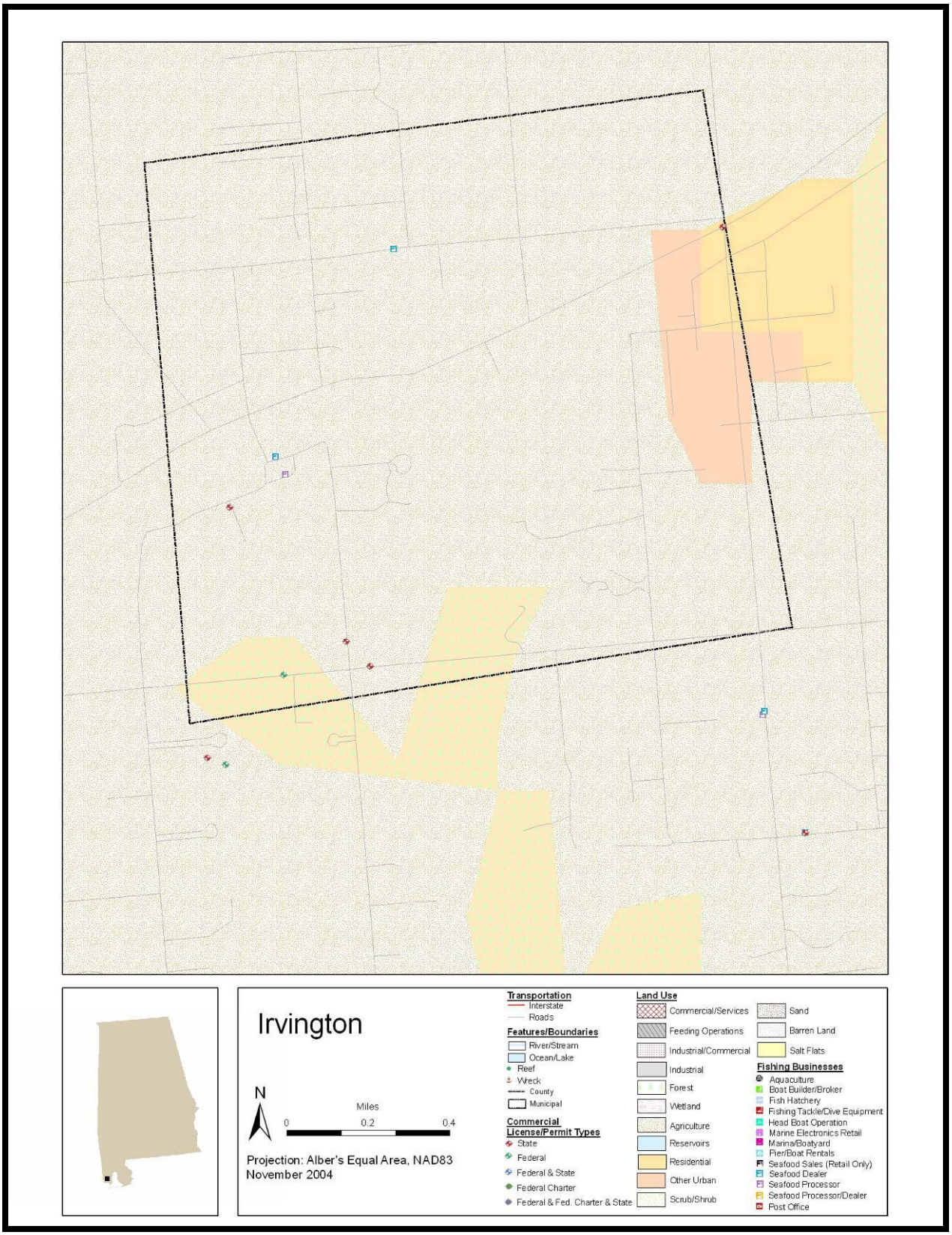
Location and Overview. Irvington is located along U.S. Highway 90/State Route 16, between St. Elmo and Theodore. The town is approximately eight miles west of Mobile Bay and ten miles north of the Mississippi Sound. Mobile is 14 miles northeast. Irvington is some 26 miles north of the Gulf of Mexico. Fishing and seafood processing are important aspects of local society and economy.

Family-Owned Business along State Route 16 in Irvington

Current Conditions and Trends. With a population of 2,524 persons as of the year 2000 census, Irvington gained 1,060 residents from 1990. A majority of these individuals were employed in office and sales-related occupations, primarily in nearby Theodore.

Irvington is a rural-residential area with modest homes and manufactured housing, both often widely dispersed along unpaved roads. There is no distinct business district.

The Irvington area is home to numerous oyster and crab processing firms. Most are small family-owned businesses. Over 1.7 million pounds of seafood valued at $9.7 million was processed here in 2000. Numerous commercial fishermen live here but work on vessels docked in Bayou La Batre. The fleet focuses on shrimp and crab, but finfish are also landed, including various pelagic species. There were 18 federally-permitted Gulf shrimp permit holders residing or maintaining postal addresses in the area in 2003.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Irvington Demographics

Factor	1990	2000
Total population	1,464	2,524
Gender Ratio M/F (Number)	737/727	1,236/1,288
Age (Percent of total population)		
Under 18 years of age	32.5	32.0
18 to 64 years of age	59.0	59.9
65 years and over	8.5	8.1
Ethnicity or Race (Number)		
White	1,448	2,312
Black or African American	4	98
American Indian and Alaskan Native	7	25
Asian	5	68
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	0	2
Two or more races	N/A	19
Hispanic or Latino (any race)	6	26
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	12.0	7.7
Percent high school graduate or higher	67.5	65.7
Percent with a Bachelor's degree or higher	3.7	4.2
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.2	7.0
Percent who speak English less than very well	0.6	4.5
Household income (Median $)	25,833	33,537
Poverty Status (Percent of population with income below poverty line)	11.9	19.9
Percent female headed household	3.2	14.8
Home Ownership (Number)		
Owner occupied	410	737
Renter occupied	59	104
Value Owner-occupied Housing (Median $)	54,000	71,400
Monthly Contract Rent (Median $)	272	371
Employment Status (Population 16 yrs and over)		
Percent in the labor force	58.5	61.7
Percent of civilian labor force unemployed	5.2	5.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	18.3
Service occupations	N/A	13.8
Sales and office occupations	N/A	32.4
Farming, fishing, and forestry occupations	7.4	3.1
Construction, extraction, and maintenance occupations	N/A	17.2
Production, transportation, and material moving occupations	N/A	15.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	5.9	2.2
Mining (includes the offshore oil/gas industry workforce)	0.0	2.6
Manufacturing	31.1	18.8
Percent government workers	12.1	10.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	11.9	8.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Irvington in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	Several small
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Irvington in 2003

Type of Business	Frequency
Boat Builder/Broker	3
Boat Rentals & Pier	1
Seafood Dealer	2
Total	6

Table 4. Irvington Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total	2,076,729	2,301,731

Table 5. Irvington State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
11	16
Total = 27	
% Households Holding Commercial Permit or License: 27/841 = 3.2	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.8 Mobile (incorporated, pop. 198,915)

Location and Overview. Mobile is located in east-central Mobile County at the northern end of Mobile Bay. The city area encompasses 158 square miles. The Gulf of Mexico lies approximately 30 miles south of Mobile's southeastern perimeter, with access to the Gulf via Mobile Bay.

Important industries in the Mobile area include shipping and shipbuilding, computer hardware and software production, textile manufacturing, commercial fishing, seafood processing, oil and gas production, paper and lumber production, chemical production, aviation services, and tourism. Alabama's only port - the Port of Mobile - is one of the ten largest in the nation. Oil and gas production is critically important here. Today there are more than 500 oil-producing wells operating throughout the Mobile area (Mobile Chamber of Commerce).

Downtown Mobile in 2004

History. Mobile was founded in 1702 as the original capital of the Louisiana Territory. Shipping was critically important in the early days of development. Imported products included pitch, tar, lumber, tobacco, rice, corn, beans, indigo, and cotton. By the mid 1700s, hides, timber, cattle, corn, tallow, bear's oil, myrtle wax, salted beef and fish, pecans, sassafras, and oranges were also being exported. Mobile now has a centuries-long history as a vital international seaport.

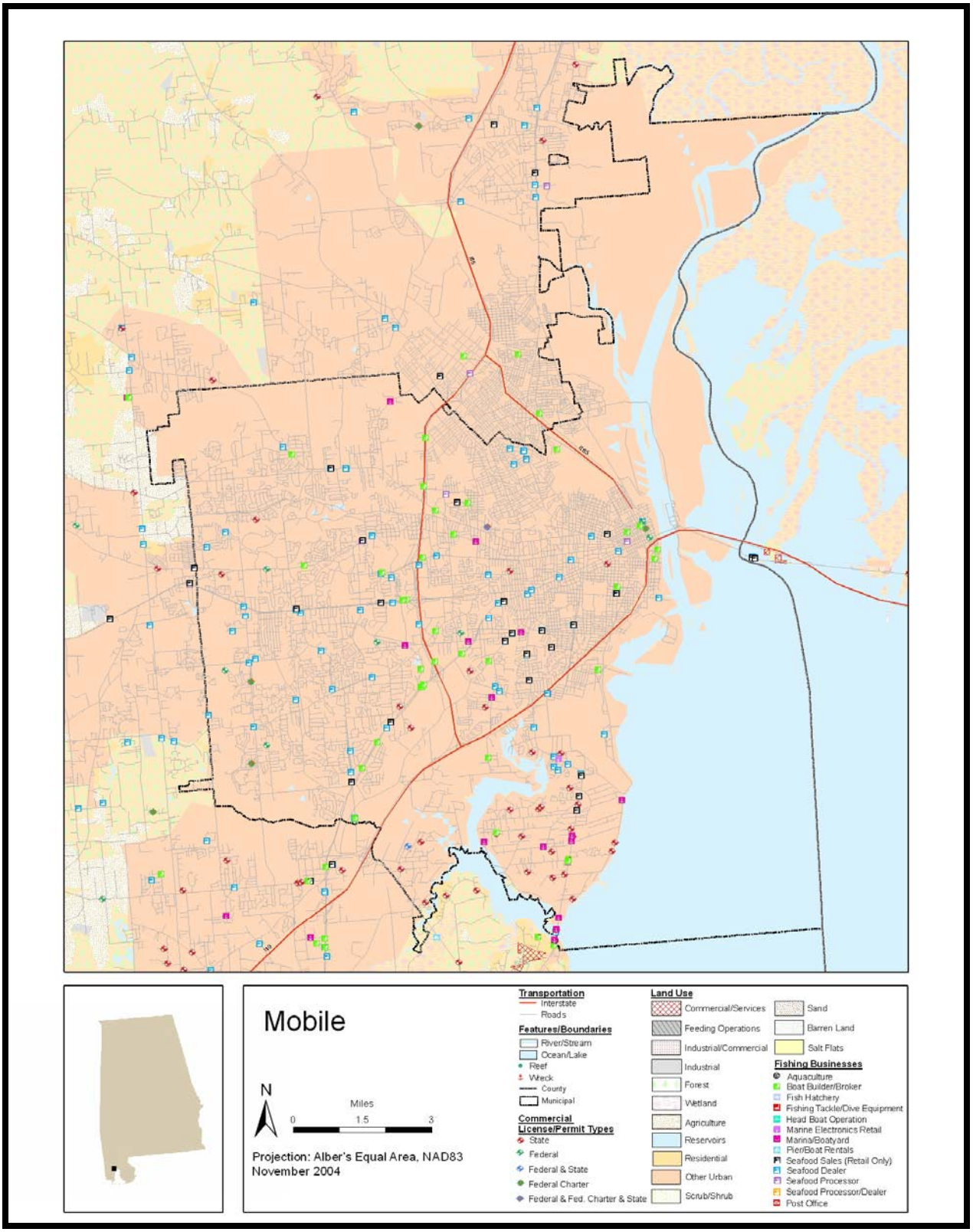
Current Conditions and Trends. The year 2000 census enumerated 198,915 persons in Mobile, a slight increase from 1990. Management, professional, and sales-related occupations were the leading employment sectors.

Mobile's waterfront has traditionally been home to industry, but with the recent addition of a cruise ship terminal, tourism is increasingly important. Mobile administrators host numerous large events such as pageants and college football bowl games.

Cruise Ship Terminal in Mobile in 2004

Fish Camp along Causeway to Mobile, 2004

Many seafood dealers and restaurants are located throughout this metropolitan area. Four processors were located in the city in 2000; these averaged 24 employees and processed $9.7 million of product that year. The Mobile-based commercial fleet focuses on shrimp, crab, and various finfish, including various pelagic species. Recreational fishing is also important here, and numerous marinas and recreational services are available for resident and visiting boaters and anglers.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Mobile Demographics

Factor	1990	2000
Total population	196,278	198,915
Gender Ratio M/F (Number)	91,040/105/238	93,015/105,900
Age (Percent of total population)		
Under 18 years of age	26.5	26.5
18 to 64 years of age	59.8	59.8
65 years and over	13.7	13.7
Ethnicity or Race (Number)		
White	117,022	100,251
Black or African American	76,407	92,068
American Indian and Alaskan Native	443	487
Asian	1,992	3,022
Native Hawaiian and other Pacific Islander	N/A	52
Some other race	414	1,046
Two or more races	N/A	1,989
Hispanic or Latino (any race)	2,002	2,828
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	9.0	5.5
Percent high school graduate or higher	74.8	80.5
Percent with a Bachelor's degree or higher	21.4	24.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.1	5.4
Percent who speak English less than very well	1.4	2.1
Household income (Median $)	22,446	31,445
Poverty Status (Percent of population with income below poverty line)	22.4	21.2
Percent female headed household	27.1	19.9
Home Ownership (Number)		
Owner occupied	43,806	46,529
Renter occupied	31,636	31,951
Value Owner-occupied Housing (Median $)	55,400	81,400
Monthly Contract Rent (Median $)	248	482
Employment Status (Population 16 yrs and over)		
Percent in the labor force	60.7	58.7
Percent of civilian labor force unemployed	9.2	8.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	34.0
Service occupations	N/A	16.4
Sales and office occupations	N/A	27.4
Farming, fishing, and forestry occupations	0.7	0.2
Construction, extraction, and maintenance occupations	N/A	8.7
Production, transportation, and material moving occupations	N/A	13.3
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.8	0.3
Mining (includes the offshore oil/gas industry workforce)	0.2	0.3
Manufacturing	12.8	11.4
Percent government workers	15.1	16.1
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	21.9
Percent worked outside of county of residence	3.5	6.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Mobile in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	3
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	1
Public boat ramps	3
Recreational docks/marinas	5+
Bait & Tackle/fishing supplies	20+
Recreational Fishing Tournaments	0
Sea Grant Extension office	1
Seafood restaurants	20+
Seafood retail markets	15+
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	10
Commercial Boats	20

Table 3. Primary Fishing-related Businesses Listed for Mobile in 2003

Type of Business	Frequency
Boat Builder/Broker	47
Boat Builder/Broker; Boat Rentals & Pier	1
Boat Builder/Broker; GPS/Instrumentation	1
Boat Builder/Broker; Marina	8
Marina	13
Processor	1
Processor; Seafood Dealer	1
Seafood Dealer	31
Total	103

Table 4. Mobile Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	824,704	1,238,992

Table 5. Mobile State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	20
Total = 20	
% Households Holding Commercial Permit or License: 20/78,480 = 0.02	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.9 Saraland (incorporated, pop. 12,288)

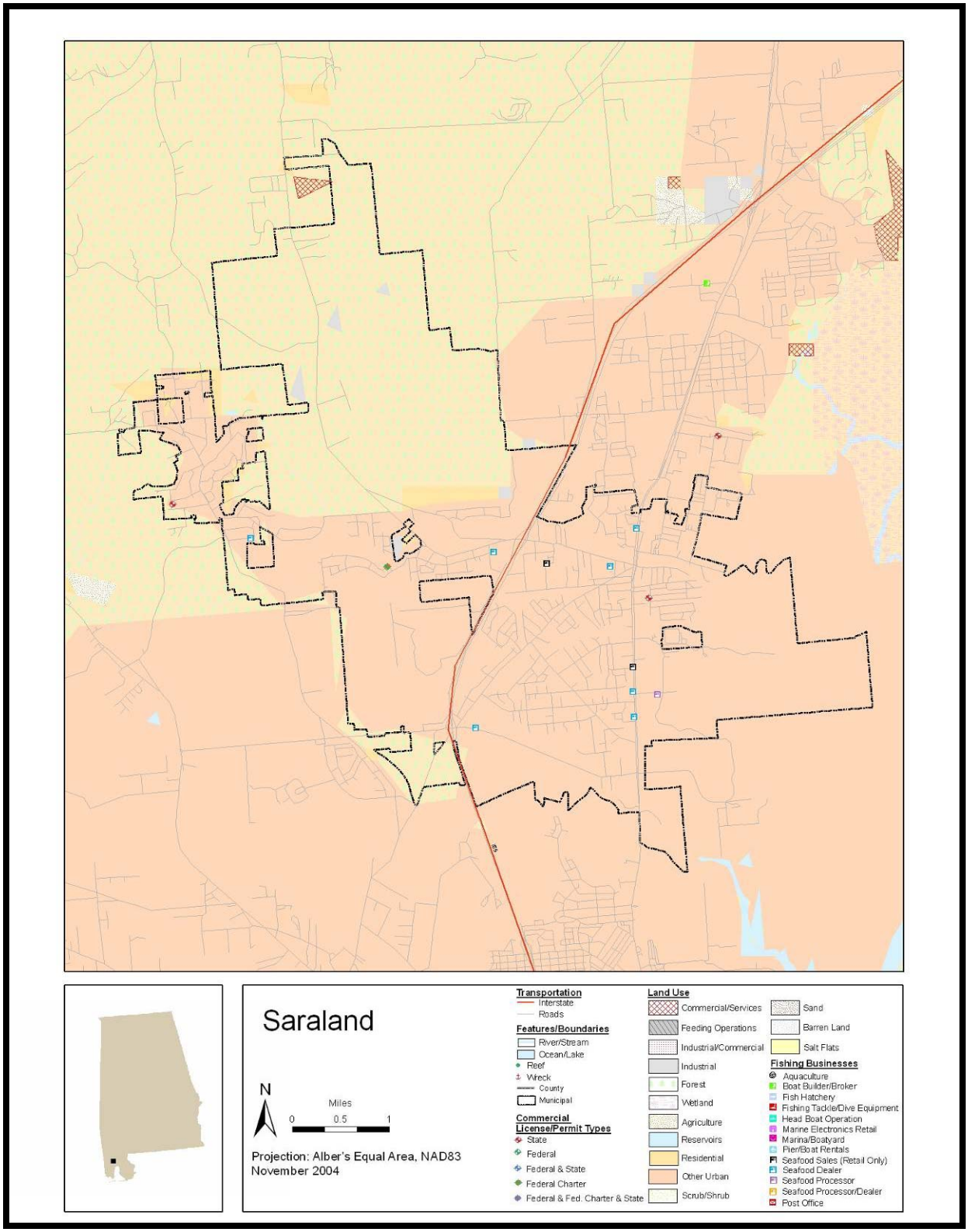
Location and Overview. Saraland is located along U.S. Highway 43 and State Routes 13 and 213, less than four miles north of Mobile. The town is primarily residential in nature, with numerous modest to upper middle class homes dispersed in well-kept neighborhoods. Saraland residents may access Mobile Bay via Bayou Sara and Mobile River. The Gulf of Mexico is some 50 miles south.

History. Saraland began as a French settlement in the early 18th century. Nineteenth century enterprises included grist and saw mills, small shipbuilding and repair yards, and fishing. The timber industry contributed extensively to economic growth in Saraland.

Current Conditions and Trends. Saraland was home to 12,288 persons in 2000, an increase of 537 persons from 1990. Management, professional and sales-related occupations, and manufacturing were leading employment sectors in 2000.

A business district is located along the important transportation routes leading to Interstate 65. An industrial park located on the east side of town, is the site of several petrochemical-related businesses, and a seafood processing plant that processes crabmeat and produces several crab-related seafood products. A number of seafood dealers were located in Saraland at the time of this study.

Seafood Processor in Saraland Area, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Saraland Demographics

Factor	1990	2000
Total population	11,751	12,288
Gender Ratio M/F (Number)	5,774/5,977	5,998/6,290
Age (Percent of total population)		
Under 18 years of age	26.0	23.4
18 to 64 years of age	63.3	63.1
65 years and over	10.7	13.5
Ethnicity or Race (Number)		
White	10,838	10,875
Black or African American	789	1,102
American Indian and Alaskan Native	101	69
Asian	21	56
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	2	46
Two or more races	N/A	139
Hispanic or Latino (any race)	58	144
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	9.3	5.7
Percent high school graduate or higher	73.0	75.7
Percent with a Bachelor's degree or higher	9.1	11.6
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.7	3.9
Percent who speak English less than very well	0.0	1.2
Household income (Median $)	30,147	38,318
Poverty Status (Percent of population with income below poverty line)	7.2	9.0
Percent female headed household	11.7	10.5
Home Ownership (Number)		
Owner occupied	3,268	3,621
Renter occupied	1,023	1,189
Value Owner-occupied Housing (Median $)	55,400	79,300
Monthly Contract Rent (Median $)	265	501
Employment Status (Population 16 yrs and over)		
Percent in the labor force	61.6	62.7
Percent of civilian labor force unemployed	4.4	7.4
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	24.7
Service occupations	N/A	13.9
Sales and office occupations	N/A	27.9
Farming, fishing, and forestry occupations	0.4	0.1
Construction, extraction, and maintenance occupations	N/A	13.2
Production, transportation, and material moving occupations	N/A	20.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.2	0.1
Mining (includes the offshore oil/gas industry workforce)	0.9	0.7
Manufacturing	23.1	20.1
Percent government workers	13.6	10.7
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.0
Percent worked outside of county of residence	7.8	7.3

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Saraland in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Saraland in 2003

Type of Business	Frequency
Seafood Dealer	2
Total	2

Table 4. Saraland Commercial Landings and Value Summary: 2002

Data may not be reported under the "rule of three."

Table 5. Saraland State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	1
Total = 1	
% Households Holding Commercial Permit or License: 1/4,810 = 0.02	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

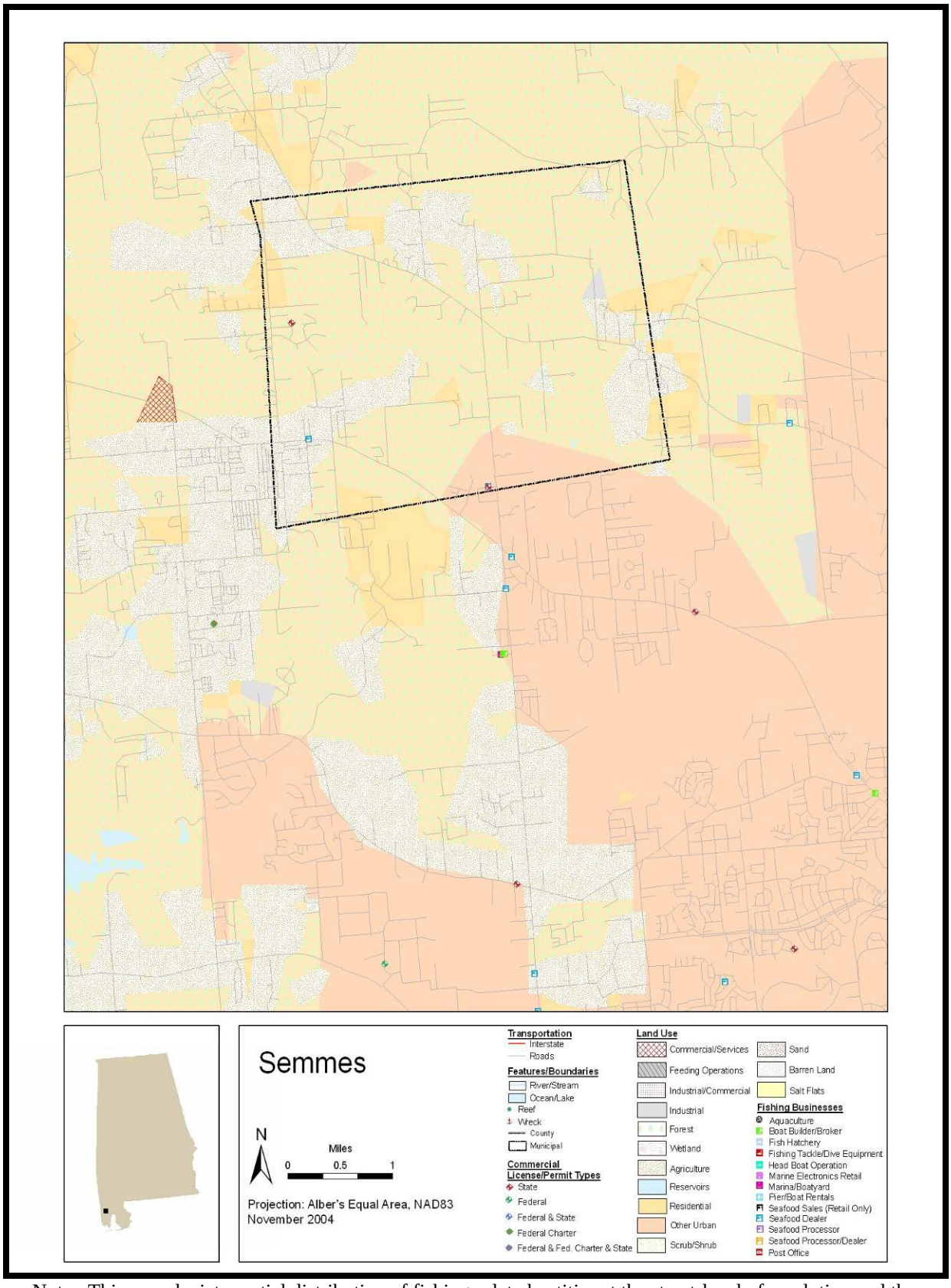
3.3.10 Semmes (unincorporated, pop. 7,951)

Location and Overview. Semmes is located along U.S. Highway 98 and State Route 42 in central Mobile County. Big Creek Lake is two miles west and Mobile is about 13 miles southeast. Mobile Bay is nearly 15 miles southeast. Fishery participants who trailer their boats to the Gulf Coast may access the Gulf of Mexico via the Mississippi Sound and Petit Bois Pass.

History. The town was named in honor of Confederate Naval Officer, Raphael Semmes. He was commander of the *Alabama* and the *Sumter*.

Current Conditions and Trends. The year 2000 census enumerated 7,951 residents, an increase of 2,330 from 1990. Semmes is a rural-agricultural community with several large nurseries on the outskirts of town. There is no central business district, but businesses have developed along U.S. 98. Marine engine and propeller businesses are located on the western edge of town.

Nursery on the Outskirts of Semmes



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Semmes Demographics

Factor	1990	2000
Total population	5,621	7,951
Gender Ratio M/F (Number)	2,796/2,852	3,951/4,000
Age (Percent of total population)		
Under 18 years of age	30.4	30.1
18 to 64 years of age	61.3	61.5
65 years and over	8.3	8.4
Ethnicity or Race (Number)		
White	5,551	7,717
Black or African American	19	65
American Indian and Alaskan Native	43	51
Asian	6	7
Native Hawaiian and other Pacific Islander	N/A	3
Some other race	2	26
Two or more races	N/A	82
Hispanic or Latino (any race)	26	127
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	11.4	6.6
Percent high school graduate or higher	61.6	68.8
Percent with a Bachelor's degree or higher	5.0	6.7
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.1	2.2
Percent who speak English less than very well	0.2	0.9
Household income (Median $)	24,942	37,600
Poverty Status (Percent of population with income below poverty line)	13.7	13.8
Percent female headed household	7.2	9.7
Home Ownership (Number)		
Owner occupied	1,613	2,363
Renter occupied	274	416
Value Owner-occupied Housing (Median $)	51,500	70,100
Monthly Contract Rent (Median $)	232	380
Employment Status (Population 16 yrs and over)		
Percent in the labor force	61.3	62.8
Percent of civilian labor force unemployed	7.6	3.6
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	19.5
Service occupations	N/A	13.2
Sales and office occupations	N/A	27.4
Farming, fishing, and forestry occupations	4.2	0.8
Construction, extraction, and maintenance occupations	N/A	19.8
Production, transportation, and material moving occupations	N/A	19.2
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	4.6	1.9
Mining (includes the offshore oil/gas industry workforce)	0.3	0.0
Manufacturing	23.8	11.7
Percent government workers	9.9	13.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	3.7	5.3

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Semmes in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Semmes in 2003

Type of Business	Frequency
Boat Builder/Broker	2
Total	2

Table 4. Semmes Commercial Landings and Value Summary: 2002

Data may not be reported under the "rule of three."

Table 5. Semmes State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	1
Total = 1	
% Households Holding Commercial Permit or License: 1/2,779 = 0.03	

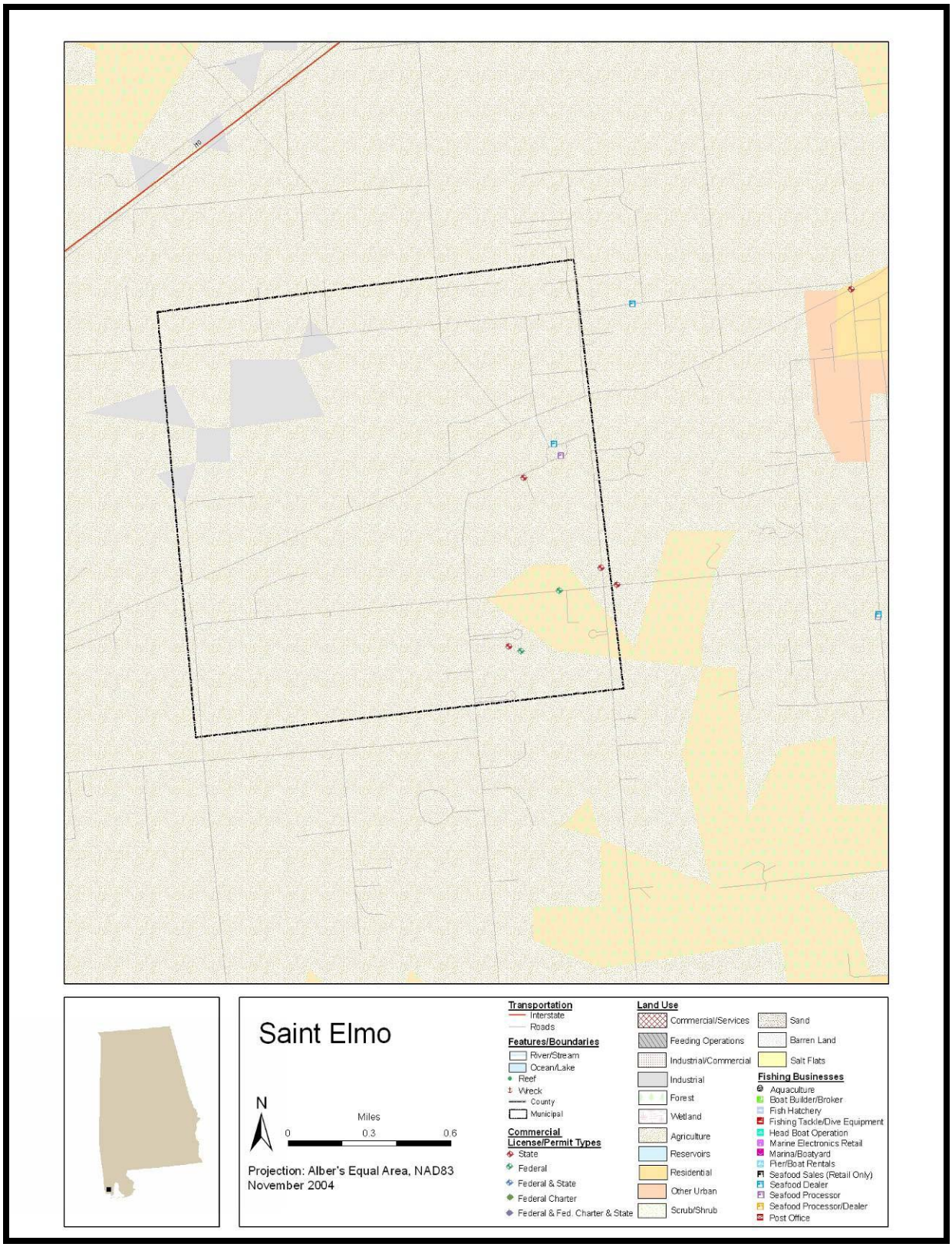
Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.11 St. Elmo (unincorporated, pop. 1,385)

Location and Overview. St. Elmo is located along U.S. Highway 90 and State Route 16 in eastern Mobile County. The town is less than two miles west of Irvington and 13 miles southwest of Mobile. Like Irvington, it is a rural town with characteristically modest homes and paved and unpaved roads surrounded by agricultural fields and pecan groves. Mobile Bay is approximately five miles east and the Mississippi Sound is nearly ten miles south.

St. Elmo Neighborhood

Current Conditions and Trends. The population of St. Elmo was 1,385 persons in 2000, up from 1,083 in 1990. Most residents were employed in production-related jobs, with manufacturing leading the industry sector. No fishing-related infrastructure was observed here in 2004.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. St. Elmo Demographics

Factor	1990	2000
Total population	1,083	1,385
Gender Ratio M/F (Number)	537/546	694/691
Age (Percent of total population)		
Under 18 years of age	32.6	29.5
18 to 64 years of age	58.3	60.8
65 years and over	9.1	9.7
Ethnicity or Race (Number)		
White	756	926
Black or African American	303	306
American Indian and Alaskan Native	3	2
Asian	21	130
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	0	0
Two or more races	N/A	21
Hispanic or Latino (any race)	1	7
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	21.9	8.5
Percent high school graduate or higher	47.4	68.4
Percent with a Bachelor's degree or higher	0.0	7.6
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	0.0	8.5
Percent who speak English less than very well	0.0	5.8
Household income (Median $)	14,468	34,402
Poverty Status (Percent of population with income below poverty line)	40.7	18.6
Percent female headed household	17.9	13.4
Home Ownership (Number)		
Owner occupied	292	396
Renter occupied	60	74
Value Owner-occupied Housing (Median $)	42,000	65,400
Monthly Contract Rent (Median $)	205	346
Employment Status (Population 16 yrs and over)		
Percent in the labor force	48.2	47.6
Percent of civilian labor force unemployed	6.8	11.4
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	13.9
Service occupations	N/A	13.4
Sales and office occupations	N/A	19.9
Farming, fishing, and forestry occupations	0.0	0.0
Construction, extraction, and maintenance occupations	N/A	18.5
Production, transportation, and material moving occupations	N/A	34.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.6	3.7
Mining (includes the offshore oil/gas industry workforce)	0.0	0.0
Manufacturing	44.1	30.4
Percent government workers	7.6	5.3
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	14.5	12.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in St. Elmo in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for St. Elmo in 2003

None listed

Table 4. St. Elmo Commercial Landings and Value Summary: 2002 (based on all address fields)

Data may not be reported under the "rule of three."

Table 5. St. Elmo State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
--	--
Total = --	
% Households Holding Commercial Permit or License: --/470 = --	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.3.12 Theodore (incorporated, pop. 6,811)

Location and Overview. Theodore is located along U.S. Highway 90/ State Route 16 in eastern Mobile County. It is a residential suburb of Mobile, which is 14 miles north. Fowl River and Rabbit Creek flow through town. Mobile Bay is approximately three miles to the east, and the Gulf of Mexico is 30 miles south.

Theodore Business Corridor along Highway 90

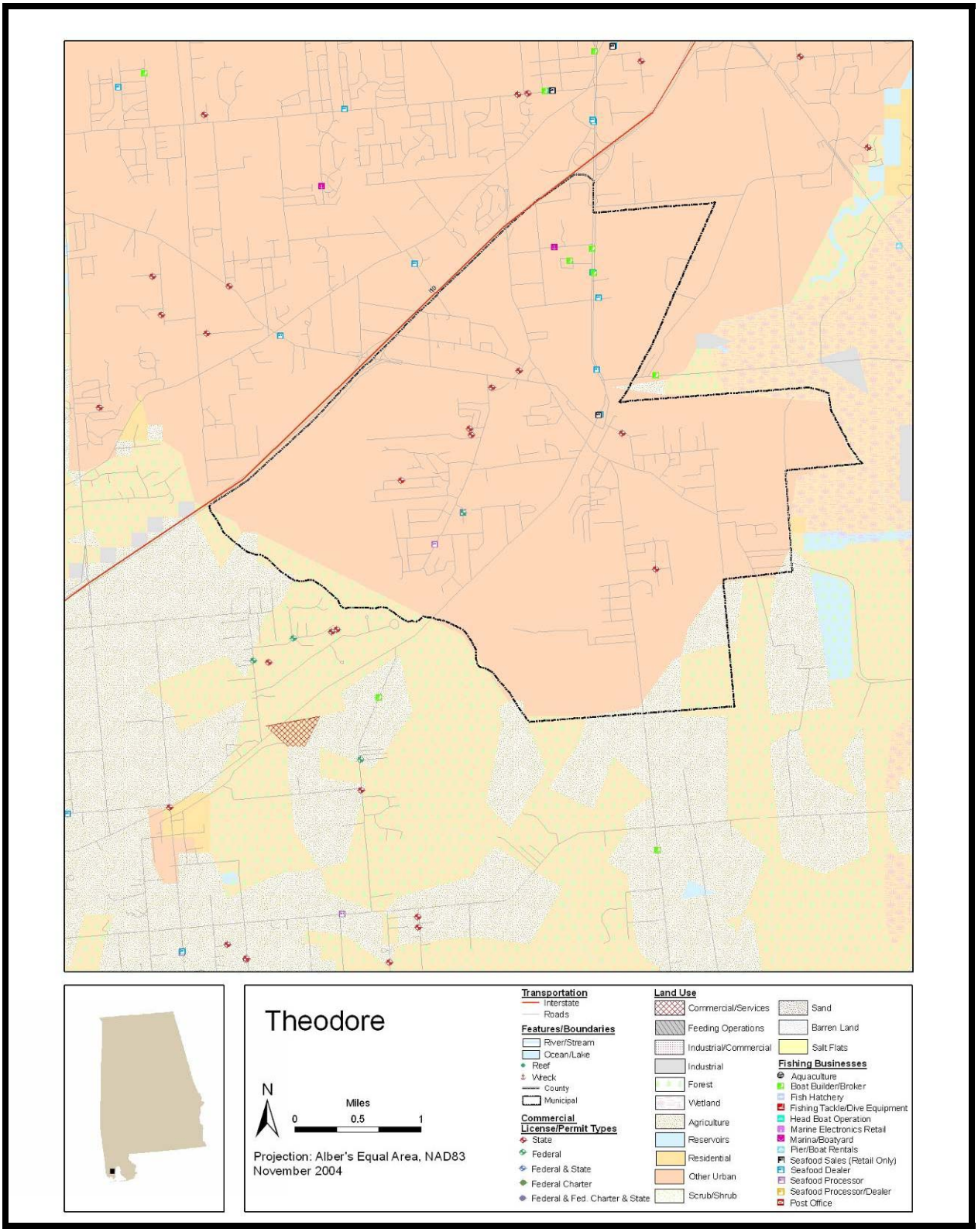
History. Theodore was named for William Theodore Hieronymous. He was a local sawmill operator and postmaster.

Current Conditions and Trends. The year 2000 census enumerated 6,811 persons in Theodore, an increase of 302 from 1990. Residents were employed in a wide variety of jobs at the time of the 2000 Census. Many persons commute to jobs in Mobile.

As for most towns connected by Highway 90, there are many retail businesses located along the thoroughfare to and from Theodore. A large industrial park with a paint manufacturer, millworks, and waste management plant is just off of Highway 90 on County Road 59.

As of the year 2000, three local processors employed an average of two employees, and processed nearly 60,000 pounds of product valued over $300,000. A very small but productive fleet resided here in 2000, with extensive landings of shrimp and a variety of other species.

Aerial Image of Industrial Area in Theodore
(Courtesy of midstreamfuel.com)



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Theodore Demographics

Factor	1990	2000
Total population	6,509	6,811
Gender Ratio M/F (Number)	3,101/3,408	3,280/3,531
Age (Percent of total population)		
Under 18 years of age	29.6	28.5
18 to 64 years of age	61.1	61.0
65 years and over	9.3	10.5
Ethnicity or Race (Number)		
White	4,828	4,843
Black or African American	1,640	1,742
American Indian and Alaskan Native	22	42
Asian	18	88
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	1	28
Two or more races	N/A	68
Hispanic or Latino (any race)	21	94
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	12.7	9.2
Percent high school graduate or higher	60.7	70.5
Percent with a Bachelor's degree or higher	5.6	9.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	1.7	2.8
Percent who speak English less than very well	0.5	1.2
Household income (Median $)	23,075	33,750
Poverty Status (Percent of population with income below poverty line)	19.1	18.7
Percent female headed household	21.1	19.4
Home Ownership (Number)		
Owner occupied	1,686	1,880
Renter occupied	561	603
Value Owner-occupied Housing (Median $)	48,800	77,800
Monthly Contract Rent (Median $)	231	428
Employment Status (Population 16 yrs and over)		
Percent in the labor force	64.0	58.6
Percent of civilian labor force unemployed	4.3	7.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	19.4
Service occupations	N/A	14.6
Sales and office occupations	N/A	26.5
Farming, fishing, and forestry occupations	3.4	0.4
Construction, extraction, and maintenance occupations	N/A	16.2
Production, transportation, and material moving occupations	N/A	22.9
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	5.6	0.7
Mining (includes the offshore oil/gas industry workforce)	0.2	0.1
Manufacturing	20.9	17.9
Percent government workers	11.7	11.5
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	26.9
Percent worked outside of county of residence	10.2	9.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Theodore in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	9
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	2
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	2
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Theodore in 2003

Type of Business	Frequency
Boat Builder/Broker	9
Boat Builder/Broker; Marina	3
Boat Rentals & Pier	2
Marina	2
Seafood Dealer	3
Total	20

Table 4. Theodore Commercial Landings and Value Summary: 2002 (based on all address fields)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	640,055	740,270

Table 5. Theodore State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)	
State License Holders	Federal Permit Holders
4	1
Total = 5	
% Households Holding Commercial Permit or License: 5/2,483 = .48	

Please reference Table 3.3-3 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

3.4 Alabama Summary

This project has revealed considerable variability in the characteristics of the study towns and cities in Alabama, and in the nature of relationships between their residents and fishing-related industry. In some of the study areas, residents are deeply involved in fishing. In others, residents participate in many forms of urban and suburban enterprise. Mobile, for instance, is a large metropolitan area with a highly diversified economy, while towns such as St. Elmo are quite small and exhibit relatively few options for enterprise and recreation.

Many coastal areas in Alabama are growing rapidly with the arrival of retirees, seasonal residents, and short-term visitors. This is particularly evident on the eastern shore of Mobile Bay, where expansion in sales and service industries relates to an increase in tourism. Construction of new freeways and interstate highways has facilitated such growth.

The more rural and interior communities, however, have grown little or not at all. Here, dated transportation routes and associated businesses are less trafficked than in days past. Towns along the western shore of Mobile Bay are also growing slowly if at all. Some informants attribute diminishing populations of certain towns to increasingly limited involvement in commercial fisheries.

Residents in towns along the barrier islands of Alabama were still experiencing the effects of Hurricane Ivan at the time of the field research conducted for this study. The storm plowed through the area with damaging winds and torrential rains. Indications that rebuilding would likely take years are now overshadowed by the far more significant effects of Hurricane Katrina initiated with landfall in August 2005.

Similar to findings in other study areas, many informants in the Alabama communities report that commercial fishing has diminished in recent years in association with market problems resulting from import of shrimp from Asia and South America. Rising fuel prices reportedly have further reduced economic incentives for the Alabama shrimp fleet. These problems appear to have affected seafood distributors as well. More detailed analysis of these events is available in a recent draft business plan for the shrimp industry recently published by the National Marine Fisheries Service (NMFS 2004). Again, the effects of Hurricane Katrina may render such problems superfluous for many operations in the region.

The following pages summarize select research findings for the Alabama study communities. We provide in sequence three summary tables, prefaced with discussion of their basic content and rationale. Finally, we provide an empirically-based typology of fishing-oriented towns and cities in the state. Additional related discussion and analyses are provided in the third and final volume of this report.

A Scaled Inventory of Involvement in Marine Fisheries. We include in our summary of Alabama communities Table 3.4-1 that inventories the presence or absence of fishing-related attributes for each study town and city. We also use, *with condition*, the Guttman Scale[1] to indicate the degree to which each place approximates a hypothetical "model" fishing community exhibiting all listed attributes.

It is advisable to interpret the scale with caution, since many attributes derive from address fields in fisheries data files. Thus, some communities achieve spuriously low scores. Moreover, the process does not take into account the strength of any given attribute. Thus, for example, the presence of a single license holder in a community generates a positive score for that variable in the same manner that a community with hundreds of resident license holders. Finally, given a relative abundance of commercial fishing data, recreational attributes are under-represented. Given these qualifications, we present the table and scale not as a definitive statement on which communities might be considered fishing communities based on the presence of the various attributes, but rather as a systematically organized and scaled inventory of summary indicators.

Summary Matrix. We also develop a matrix summarizing relevant community characteristics. In constructing the matrix, we reviewed all types of fisheries data for all of the Alabama study towns and cities, assessed each against a hypothetical "model" community solely involved in fishing-related industry, and arrived at a tripartite scale for categorizing each place. Summary level of engagement in fishing-related industry is therefore based on a qualitative and comparative assessment of degree of involvement, rather than on a quantitative-based absolute determination. We note that use of the same scale for assigning relative extent of fishing infrastructure is based on rough quantitative assessment of the many relevant factors observed and reviewed during the course of the study. Description of fishing-related physical and service infrastructure was one of the primary goals of this study, and results indicate extensive variation across the communities. In most cases, residents are involved in multiple forms of industry and enterprise. There are few places in which fishing and associated industry can be considered primary forms of economic activity and the main venues through which social interaction occurs. Though such places do exist, it is more common that emphasis on fishing occurs within a sub-population or sub-component of a larger, mixed economy and set of social relations. In other study areas, fishing is clearly tangential to social and economic life. Table 3.4-2 depicts this range of situations.

Rankings. Table 3.4-3 depicts the top study towns and cities ranked in terms of total landings and total commercial permits and licenses held by residents and business owners. The figures are provided as rudimentary indicators and preliminary means for conceptualizing and defining degree of community involvement in fishing-related industry in Alabama.

[1] The Guttman Scale tests how well index data approximate a model scale, where the model has a reproducibility index value of one, derived from the formula: 1 – (number of deviations or errors / number of variable entries).

Table 3.4-1 Fishing Attributes Inventory and Guttman Scale for Alabama Coastal Communities

Community	Federal Commercial Permits	State Commercial Licenses	Federal Charter Permits	Seafood Landings	Seafood retail markets	Fish processors, Wholesale fish house	Docking facilities (commercial)	Fishing monuments / Festivals	Recreational docks / marinas	Bait & Tackle / fishing supplies	Fishing pier	Public boat ramps	Recreational Fishing Tournaments	Boat yards/ Boat builders	Score
Orange Beach	+	+	+	+	+	+	-	+	+	+	+	+	+	+	0.93
Mobile	+	+	+	+	+	+	+	-	+	+	+	+	-	+	0.86
Bayou La Batre	+	+	-	+	+	+	+	+	-	+	+	+	-	+	0.79
Dauphin Island	+	+	+	+	+	-	+	-	+	+	+	+	+	-	0.79
Bon Secour	+	+	-	+	+	+	+	+	-	+	-	+	-	+	0.71
Fairhope	+	+	+	+	-	-	+	-	+	+	+	+	-	+	0.71
Daphne	+	+	+	+	+	-	-	+	+	-	+	+	-	-	0.64
Gulf Shores	+	+	+	+	+	-	-	-	+	+	-	+	+	-	0.64
Coden	+	+	+	+	+	+	+	-	-	-	-	-	-	+	0.57
Foley	+	+	+	+	+	-	-	+	-	-	-	-	-	+	0.50
Elberta	+	+	-	+	+	-	-	-	-	+	-	-	-	+	0.43
Lillian	+	-	+	-	+	-	-	-	+	+	-	-	-	+	0.43
Irvington	+	+	-	+	+	+	-	-	-	-	-	-	-	+	0.43
Bay Minette	+	+	+	-	+	-	-	-	-	-	-	-	-	+	0.36
Loxley	+	+	+	+	+	-	-	-	-	-	-	-	-	-	0.36
Robertsdale	+	+	+	+	+	-	-	-	-	-	-	-	-	-	0.36
Grand Bay	+	+	-	+	+	+	-	-	-	-	-	-	-	-	0.36
Saraland	+	+	+	+	-	+	-	-	-	-	-	-	-	-	0.36
Atmore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.29
Perdido Beach	+	+	+	+	-	-	-	-	-	-	-	-	-	-	0.29
Semmes	+	+	+	+	-	-	-	-	-	-	-	-	-	-	0.29
St. Elmo	-	+	-	+	-	-	-	-	-	-	-	-	-	-	0.29
Theodore	+	+	-	+	-	+	-	-	-	-	-	-	-	-	0.29
Spanish Fort	-	+	-	+	-	-	+	-	-	-	-	-	-	-	0.21
Summerdale	-	+	-	+	+	-	-	-	-	-	-	-	-	-	0.21
Silverhill	-	+	-	+	-	-	-	-	-	-	-	-	-	-	0.14
Magnolia Springs	-	-	-	+	-	-	-	-	-	-	-	-	-	-	0.07
Axis	-	+	-	-	-	-	-	-	-	-	-	-	-	-	0.07
Eight Mile	-	-	-	-	+	-	-	-	-	-	-	-	-	-	0.07
Stapleton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00

Table 3.4-2 Alabama Study Community Summary Matrix

Community By County	2000 Licenses/ Permits		Geographic Type	Primary Local Economy					Level of Engagement in Fishing Industry			Extent of Fishing Infrastructure and Services		
	Federal Permits	State Commercial License Holders *		Fishing	Service/Sales	Farming	Management/Prof	Other/Mixed	Extensive	Moderate	Minimal	Extensive	Moderate	Minimal
Escambia														
Atmore	--	--	Rural Incorporated		•		•	•			•			•
Baldwin														
Bay Minette	4	1/1	Rural Incorporated		•		•	•			•			•
Bon Secour	16	4/34	Rural Unincorporated	•	•			•	•			•		
Daphne	7	--	Suburban Incorporated		•		•				•			•
Elberta	9	2/3	Rural Incorporated		•	•	•				•			•
Fairhope	15	3/3	Suburban Incorporated		•		•				•		•	
Foley	11	6/9	Rural Incorporated		•		•				•			•
Gulf Shores	34	9/14	Barrier Isle Incorporated		•		•			•				•
Lillian	17	--	Rural Incorporated		•	•	•				•			•
Loxley	3	0/1	Rural Unincorporated		•		•				•			•
Magnolia Springs	--	--	Rural Unincorporated		•		•				•			•
Orange Beach	161	0/1	Barrier Isle Incorporated	•	•		•			•			•	
Perdido Beach	1	--	Rural Unincorporated		•		•				•			•
Robertsdale	4	2/2	Rural Incorporated		•	•		•			•			•
Silverhill	--	1/1	Rural Incorporated		•		•				•			•
Spanish Fort	--	--	Rural Incorporated		•		•				•			•
Stapleton	--	--	Rural Unincorporated		•	•		•			•			•
Summerdale	--	3/4	Rural Incorporated		•	•		•			•			•

* Physical address data/all address data types

Table 3.4-2 Alabama Study Community Summary Matrix (continued)

Community By County	Licenses/ Permits		Geographic Type	Primary Local Economy					Level of Engagement in Fishing Industry			Extent of Fishing Infrastructure and Services		
	Federal Permits	State Com. License *		Fishing	Service/Sales	Farming	Management/Prof	Other/Mixed	Extensive	Moderate	Minimal	Extensive	Moderate	Minimal
Mobile														
Axis	--	--	Rural Unincorporated		•		•	•			•			•
Bayou La Batre	35	5/36	Rural Incorporated	•	•			•	•			•		
Coden	12	18/94	Rural Unincorporated	•	•			•	•				•	
Dauphin Island	42	0/17	Barrier Isle Incorporated		•		•			•			•	
Eight Mile	--	--	Rural Unincorporated		•			•			•			•
Grand Bay	8	6/12	Rural Incorporated		•		•	•		•				•
Irvington	20	11/35	Rural Unincorporated		•		•	•		•				•
Mobile	47	0/2	Urban		•		•	•			•			•
Saraland	2	--	Suburban Incorporated		•		•	•			•			•
Semmes	2	0/1	Rural Unincorporated		•	•		•			•			•
St. Elmo	--	--	Rural Unincorporated		•		•	•			•			•
Theodore	1	3/4	Suburban Incorporated		•		•	•			•			•

* Physical address data/all address data types

Table 4-3 Alabama Community Rankings for Total Landings, Licenses, and Permits

Rank	Total Landings and Value				State Comm. Licenses **		Federal Fishing Permits		Federal Dealer Permits	
	Community	Total Pounds	Community	Total Value	Community	# Licenses	Community	# Permits	Community	# Permits
1	Bayou La Batre	4,615,991	Bayou La Batre	7,744,321	Coden	18/94	Orange Beach	161	Mobile	92
2	Bon Secour	2,474,832	Bon Secour	4,036,472	Irvington	11/35	Mobile	47	Coden	50
3	Coden	2,350,034	Coden	2,824,015	Gulf Shores	9/14	Dauphin Island	42	Bayou La Batre	47
4	Irvington	2,076,732	Irvington	2,301,733	Grand Bay	6/12	Bayou La Batre	35	Irvington	39
5	Grand Bay	978,881	Grand Bay	1,391,559	Foley	6/9	Gulf Shores	34	Theodore	22
6	Mobile	824,837	Mobile	1,239,067	Bayou La Batre	5/36	Irvington	20	Gulf Shores	16
7	Gulf Shores	798,467	*	*	Bon Secour	4/34	Lillian	17	Grand Bay	14
8	Foley	768,528	Gulf Shores	830,433	Summerdale	3/4	Bon Secour	16	Fairhope	12
9	*	*	*	*	Theodore	3/4	Fairhope	15	Foley	11
10	*	*	*	*	Fairhope	3/3	Foley	11	Bon Secour	10
11	*	*	*	*	Elberta	2/3	Coden	12	Orange Beach	10
12	*	*	*	*	Robertsdale	2/2	Elberta	9	Bay Minette	9
13	*	*	*	*	Bay Minette	1/1	Grand Bay	8	Dauphin Island	9
14	*	*	*	*	Silverhill	1/1	Daphne	7	Saraland	9
15	*	*	*	*	Dauphin Island	0/17	Robertsdale	4	Spanish Fort	8
16	*	*	*	*	Mobile	0/2	Bay Minette	4	Daphne	7
17	*	*	*	*	Loxley	0/1	Loxley	3	Semmes	6
18	*	*	*	*	Orange Beach	0/1	Saraland	2	Robertsdale	5
19	*	*	*	*	Semmes	0/1	Semmes	2	Eight Mile	4
20	*	*	*	*	--	--	Perdido Beach	2	Elberta	3

* Data may not be reported under the "rule of three"

* * Physical address data only/all address data types; although we provide data for both physical address data and all address data types, the State Licenses rankings are based on physical address data only.

Toward a Typology of Fishing-Oriented Communities in Alabama. Finally, we arrive at a preliminary typology of fishing-involved communities in Alabama. This is provided in Table 3.4-4 below. Based on what is now known about the attributes of these communities, there are but a few in which residents clearly exhibit primary involvement in fishing and related industry. These communities are typed here as *Primarily-Involved*. While the economies and primary foci of social interaction in such places may be mixed to greater and lesser degrees, there remains an observable collective focus on fishing and its associated industries.

A few towns and cities are typed as *Secondarily-Involved*. Residents of these Alabama places are quite often primarily involved in sales and service, agriculture, tourism, and/or manufacturing enterprises. The significance of commercial fishing and associated industry is important, but, demonstrably, secondary to these pursuits. Included in this type are places in which sub-groups of residents are very active in fishing and related industry, but hidden in economic scale and focus of collective social interaction by those activities of the surrounding population that are not related to fishing.

Finally, we suggest a type called *Tangentially-Involved* communities. These are places in which fishing clearly plays an ancillary role to other forms of economic and social activity. While there may be small sub-groups of residents who are active in fishing and related industry, the scope of those activities are minor relative to the local social and economic mainstream.

Table 4-4 Preliminary Characterization of Fishing-Oriented Towns and Cities in Alabama*

Primarily-Involved	Secondarily-Involved	Tangentially-Involved
Bayou La Batre	Daphne	Axis
Bon Secour	Fairhope	Bay Minette
Coden	Foley	Eight Mile
Dauphin Island	Mobile	Elberta
Grand Bay	Theodore	Lillian
Gulf Shores	--	Loxley
Irvington	--	Magnolia Springs
Orange Beach	--	Perdido Beach
--	--	Robertsdale
--	--	Semmes
--	--	Silverhill
--	--	Spanish Fort
--	--	St. Elmo
--	--	Stapleton
--	--	Summerdale
--	--	Saraland

* Cell entries in each category are alphabetized and do not indicate degree of involvement.

4.0 Mississippi Study Communities

This section describes the study counties and communities in Mississippi. These are limited to the immediate coastal zone where marine fisheries have been so important over the course of history. While offshore oil and gas production, petrochemical manufacturing, shipbuilding, and maritime commerce are critically important to the region, given the intent and focus of this report, our description of these sectors is secondary in detail to those associated with the fishing industries. We begin the discussion with a geographic overview of the region, and progress through description of communities in Jackson, Hancock, and Harrison Counties, respectively. The section concludes with summary discussion of the communities and their fishing-related attributes.

A Brief Geography of Coastal Mississippi. The geology of the Mississippi coast is categorized as Mississippi Deltaic Plain. Over the last 5,000 years, this particular geologic formation developed and shaped an indented and irregular estuarine coastline that extends from the Alabama-Mississippi border to Vermilion Bay in Louisiana. The terrain is distinguished by the absence of notable relief and is the product of continuous build up of sediments from the Mississippi River. The geomorphic elements consist of alluvial plain, alluvial basins, and Pleistocene terraces. Landforms along the coast include natural levees, point bars, cheniers/beach ridges, riverine areas, wetland, and terraces (Larsen, et al. 1981).

Mississippi's coast is approximately 70 miles in length; including the barrier islands, the entire coastal shoreline is close to 370 miles in length. Within this area are two distinct physiographic regions: the coastal meadows and the coastal plain. The coastal meadows extend across each of the three counties along the Mississippi Sound from the shoreline to almost 25 feet in elevation. This topographic feature includes approximately one-third of Harrison County and one-half of both Hancock and Jackson Counties. The coastal plain covers the remaining land area within each county (Larsen, et al. 1981).

Jackson County has the largest land area with 465,886 acres, followed by Harrison County with 380,000 acres and Hancock County with a total land area of 308,000 acres. Wetlands are estimated to cover as much as 30 to 50 percent of land area within coastal Mississippi. As of 1969, approximately 66,931 acres of coastal marsh existed in Mississippi, but recent estimates figure the total at about 58,800 acres. It has been estimated that up to 10,000 acres of tidal wetlands were lost to industrial and suburban development prior to 1973 (MASGC 2005).

The U.S. Census Bureau designates the Mississippi coast as a combined statistical area. It covered 1,784.5 square miles in 1990 and included the entire Mississippi coastline. This area is comprised of the Metropolitan Statistical Areas of Gulfport-Biloxi and Pascagoula. Its 1997 population enumerated 343,423 persons; a 9.9 percent increase from 1990. The state's three coastal counties have seen continued population growth, with Hancock County experiencing the most growth from 1990 to 2000 at 35 percent. The other two counties had over 14 percent growth in population. The top three areas for economic development have been tourism

(particularly the gaming industry), manufacturing/distribution, and military/federal installations. In fact, revenue from the gaming industry has grown steadily from over $727 million in 1994 to over $1 billion in 1999 for the region (Harrison County 2004). The government and services sectors are the top employers for coastal Mississippi.

A Note on Fishing Regulations in Mississippi. The Mississippi Department of Marine Resources requires a saltwater fishing license for all recreational methods of finfish harvest in the coastal and marine waters of the state except if the person is under the age of 16, 65 years of age or older, or is disabled. Furthermore, saltwater sport fishermen are not permitted to sell, barter, trade, or offer for sale any saltwater fish caught or landed in Mississippi. Saltwater fishermen are not allowed to use multiple-point hooks (i.e. treble hooks) when fishing.

Commercial licenses are required for the following types of fishing: Gill/Trammel Net; Charter Boat; Commercial Hook and Line vessel; Commercial Hook and Line angler; Menhaden Boat/Net; Oyster Tonging and Dredging; and Crabbing. Business licenses are required for the following types of commerce: Seafood Dealer; Seafood Processor; and Menhaden Processor.

Saltwater finfish may be taken from Mississippi waters with hook-and-line; trotline; spear or gig; cast nets and brail (brill) nets; small-mesh beach seines; trammel or gill nets, and seines. Purse seines may not exceed 1,500 feet in length, unless used expressly to catch menhaden. All nets, regardless of type, must be clearly marked with the owner's name or license number. Floats or buoys must be placed at intervals of 100 feet or less. Nets, seines, or fish traps are not permitted in any river, bayou, creek, canal, stream, tributary, lake, bay, inlet, or other water body. Nets, seines, or fish traps used for catching fish are not permitted within 1,200 feet of any pier or harbor, nor are they permitted within 100 feet of the mouth of any bay, bayou, creek, canal, stream, lake, inlet, channel or tributary or within any area that would block the mouth of any such water body.

Saltwater shrimp may only be taken with shrimp trawls, trawls, butterfly nets, skimmer nets, push trawls, beach seines and cast nets during open seasons. The above gear may be used south of a line formed by the barrier islands of Cat, Ship, Horn and Petit Bois. North of this line, that is within Mississippi Sound, shrimp may only be taken with a single net measuring no larger than 50 feet along the head rope and 60 feet along the footrope or not more than two nets, each measuring no more than 25 feet on the head rope and 32 feet on the footrope. A test (or try) trawl no longer than 12 feet along the head rope and 15 feet along the foot rope used with boards not more than 30 inches in length is permitted. All shrimp trawl vessels with a power retrieval system must utilize a Turtle Excluder Device.

Hancock
Harrison
Jackson
Mississippi
Alabama
Louisiana
Bay St. Louis
Gulfport
Biloxi
Ocean Springs
Pascagoula
Moss Point
Long Beach
Pass Christian
Waveland
Kiln
Harrison
Jackson
Mississippi Study Communities and Counties
N
0
4.5
9
18 Miles
Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

4.1 Jackson County Communities

This section of the report describes the study communities in Jackson County. These are Gautier, Moss Point, Ocean Springs, and Pascagoula.

Jackson County is located in the southeast corner of Mississippi. It is part of the greater Biloxi-Gulfport-Pascagoula Metropolitan Statistical Area. The county is bordered by Harrison County to the west, Stone County to the northwest, George County to the north, Mobile County (Alabama) to the east. Jackson County encompasses approximately 731 square miles of land, with 72 percent of this area used for commercial forestry.

Timber production was central to the regional economy from the late 1880s through about 1940, when various forms of manufacturing became increasingly important. Shipbuilding was critical during World War II; many residents of the county are employed in the industry to this day. The Port of Pascagoula, a full service, deep-water port, is located here. This is the largest port in Mississippi and the 16th largest in the nation.

Chevron's Pascagoula oil and gas refinery employs many Jackson County residents. With 20 processing units and more than 200 storage tanks, this is the largest such facility in the United States (Chevron 2004).

Commercial and recreational fishing, crabbing, and shrimp harvesting, processing, and distribution are important aspects of life in the area. Pascagoula-Moss Point is among the leading ports in the nation for seafood landings, and the primary point of landing in Mississippi. The port ranked fifth in the nation in total pounds of landed species in 2000, and sixth in 2003 (NOAA Fisheries 2004). The National Seafood Inspection Laboratory and the National Oceanic and Atmospheric Administration (NOAA) Office of Marine and Aviation Operations are based here.

The year 2000 population of Jackson County was 131,420 persons, making it the third most populous county in Mississippi that year. Its racial composition was 75 percent Caucasian, 21 percent African American, two percent persons of Hispanic ancestry, and two percent persons of Asian ancestry. Median family income was $45,091. Some 13 percent of households reported conditions of poverty, and single women headed 12 percent of households (U.S. Census Bureau).

View of the Port of Pascagoula Following Hurricane Katrina in 2005
(Photo courtesy of NOAA)

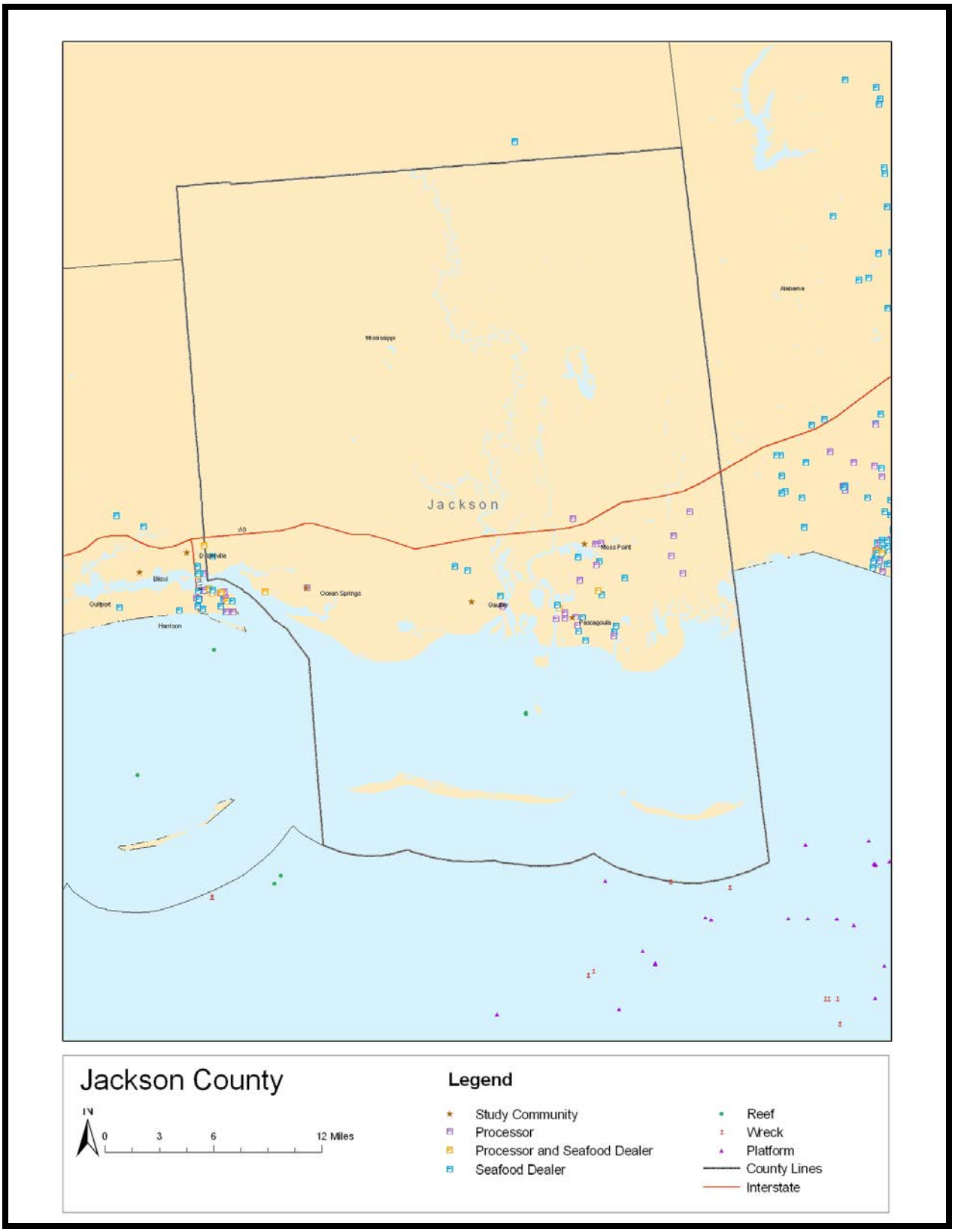

Jackson
Mississippi
Alabama
Ocean Springs
Moss Point
Pascagoula
Gautier
Gulfport
Biloxi
Harrison
Jackson County
N
0
3
6
12 Miles
Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

Table 4.1-1 Earnings in Jackson County, 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	$ Change 1990-2000
	1990	2000		
Earnings by place of work	1,730,892	2,255,356	100.0	524,464
Farm earnings	1,427	-181	0.0	-1,608
Agricultural services, forestry, fishing	13,908	(Confidential)	n/a	n/a
Fishing	10,661	(Confidential)	n/a	n/a
Mining	2,809	(Confidential)	n/a	n/a
Oil and gas extraction	2,721	(Confidential)	n/a	n/a
Construction	89,402	251,528	11.2	162,126
Special trade contractors	42,444	71,950	3.2	29,506
Manufacturing	857,918	876,378	38.9	18,460
Lumber and wood products	5,041	4,201	0.2	-840
Industrial machinery and equipment	9,142	4,409	0.2	n/a
Other transportation equipment	(Confidential)	(Confidential)	n/a	n/a
Instruments and related products	13,364	10,825	0.5	-2,539
Food and kindred products	22,097	10,832	0.5	-11,265
Paper and allied products	(Confidential)	(Confidential)	n/a	n/a
Chemicals and allied products	33,643	49,232	2.2	15,589
Transportation and public utilities	62,336	40,864	1.8	-21,472
Trucking and warehousing	15,304	12,311	0.5	-2,993
Water transportation	16,328	8,847	0.4	-7,481
Transportation by air	(Confidential)	3,217	0.1	n/a
Wholesale trade	24,740	26,420	1.2	1,680
Retail trade	120,364	168,505	7.5	48,141
Eating and drinking places	21,407	40,124	1.8	18,717
Finance, insurance, and real estate	36,924	62,125	2.8	25,201
Services	213,567	344,198	15.3	130,631
Hotels and other lodging places	3,858	8,678	0.4	4,820
Business services	19,762	54,937	2.4	35,175
Amusement and recreation services	2,528	4,392	0.2	1,864
Health services	59,523	106,871	4.7	47,348
Legal services	28,020	39,321	1.7	11,301
Engineering and management services	48,260	69,960	3.1	21,700
Government and assoc. enterprises	307,498	469,348	20.8	161,850

Source: Bureau of Economic Analysis, Regional Economic Information System

Table 4.1-2 Year 2000 Commercial Permits and Licenses, and 2003 Gulf Shrimp Permits: Jackson County *

Permit Type	Study Communities			
	Gautier	Moss Point	Ocean Springs	Pascagoula
Pelagic Charter	2	--	20	2
Reef Fish Charter	2	--	17	2
Swordfish	--	--	--	--
King Mackerel	--	1	--	2
Rock Shrimp	1	--	--	1
Red Snapper	--	1	--	2
Spiny Lobster	--	--	1	--
Spanish Mackerel	--	--	2	2
Gulf Reef Fish	--	1	4	3
Shark	--	1	--	1
South Atlantic Snapper Grouper	--	--	--	--
Total Federal Permits 2000	5	4	44	15
Total Federal Permit Holders 2000	3	1	22	5
Total State License Holders 2000	107	70	267	330
Gulf Shrimp Permits 2003**	2	--	24	5

* Includes all permits and licenses that can be attributed to the communities by *both* street and post office box addresses; these data are used to generate counts of permit and license holders for whom evidence indicates actual residence, as provided in the community descriptions. ** 2003 is the first year for which Gulf shrimp permit data are available.

USGS Satellite View of Gautier in 2004

4.1.1 Gautier (incorporated, pop. 11,681)

Location and Overview. Gautier is located along U.S. Highway 90 on the banks of Pascagoula River and Bay in south-central Jackson County. The U.S. Highway 90 corridor has become a principal route to Biloxi-area casinos, and thus the local economy is in some measure related to the spending patterns of travelers who frequent the gambling establishments. Pascagoula and Moss Point are approximately three and five miles to the east, respectively. Biloxi is approximately 17 miles to the west. Gulf of Mexico access is via Mississippi Sound and Ship Island Pass, about 13 miles south.

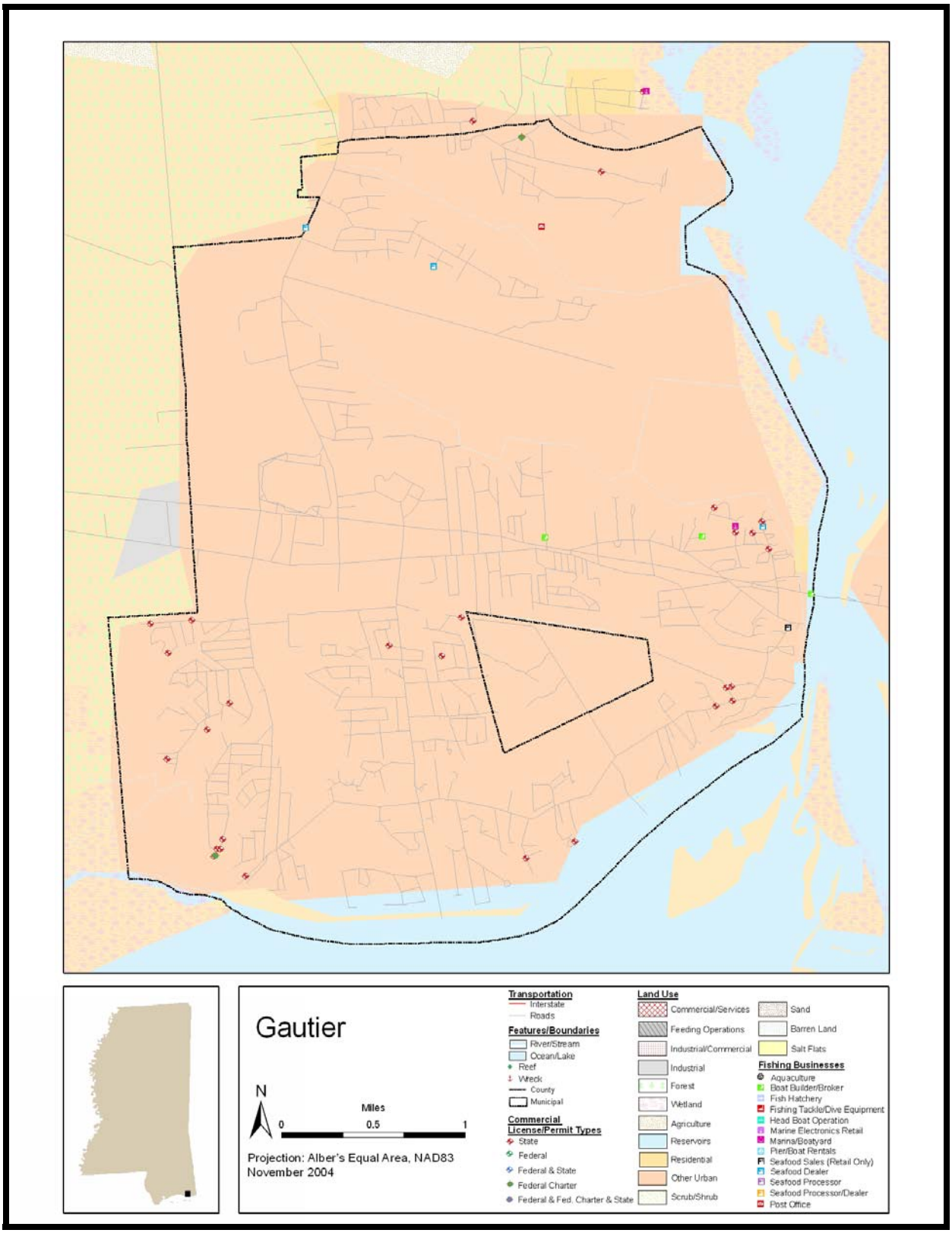
History. Gautier was established in 1867 by Fernando Gautier, for whom the city is named. Timber and milling industries were important during subsequent decades, and many residents were employed at a local ship yard during World War II (City of Gautier 2002). The town was incorporated in 1986.

Gautier Fish Camp

Current Conditions and Trends. The year 2000 census enumerated 11,681 residents, up from 10,088 in 1990. Gautier is primarily a residential area, with a small business district. Nearly one-fourth of the workforce was employed in manufacturing in 2000, most commuting outside of the city for employment. Fishing guide services are available to assist anglers seeking redfish, trout, and other species in the river and sound areas.

A marina, primarily used by recreational boaters and anglers, is located just north of the bridge from Pascagoula. This operation is located amidst a residential "fish camp" area. The marina has over 200 slips, with fuel, tackle, and dry storage also available on the premises. A seafood restaurant is adjacent. Bait and tackle shops provide live bait and assorted fishing gear, and a public boat ramp and fishing pier is part of the City Park complex. The annual Mullet Festival is held during the month of October.

There are three retail seafood markets and one wholesale seafood dealer based here. Numerous small vessel operators fish on a commercial basis in the inshore and nearshore waters, though most land their seafood elsewhere, such as in the Pascagoula area. A total of 106 persons held commercial licenses in the area, though we were able to prove physical residence for only 28. Two charter fishing operations were based here at the time of this study.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Gautier Demographics

Factor	1990	2000
Total population	10,088	11,681
Gender Ratio M/F (Number)	4,922/5,166	5,780/5,901
Age (Percent of total population)		
Under 18 years of age	32.8	28.4
18 to 64 years of age	60.9	63.3
65 years and over	6.3	8.3
Ethnicity or Race (Number)		
White	7,491	7,965
Black or African American	2,454	3,230
American Indian and Alaskan Native	32	60
Asian	88	150
Native Hawaiian and other Pacific Islander	N/A	5
Some other race	23	105
Two or more races	N/A	166
Hispanic or Latino (any race)	121	373
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	4.5	3.4
Percent high school graduate or higher	79.8	83.3
Percent with a Bachelor's degree or higher	15.8	17.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.3	5.8
Percent who speak English less than very well	0.8	2.4
Household income (Median $)	27,873	41,244
Poverty Status (Percent of population with income below poverty line)	20.8	17.3
Percent female headed household	20.2	11.8
Home Ownership (Number)		
Owner occupied	2,388	2,982
Renter occupied	1,101	1,278
Value Owner-occupied Housing (Median $)	58,400	85,100
Monthly Contract Rent (Median $)	298	568
Employment Status (Population 16 yrs and over)		
Percent in the labor force	68.6	64.8
Percent of civilian labor force unemployed	6.9	6.7
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	29.3
Service occupations	N/A	16.2
Sales and office occupations	N/A	23.8
Farming, fishing, and forestry occupations	0.9	0.3
Construction, extraction, and maintenance occupations	N/A	14.2
Production, transportation, and material moving occupations	N/A	16.2
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.1	0.4
Mining (includes the offshore oil/gas industry workforce)	0.8	0.6
Manufacturing	32.1	23.2
Percent government workers	20.4	15.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	23.3
Percent worked outside of county of residence	10.5	22.3

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Gautier in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	1
Bait & Tackle/fishing supplies	4
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	3
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	2
Commercial Boats	Few (moorings elsewhere)

Table 3. Primary Fishing-related Businesses Listed for Gautier in 2003

Type of Business	Frequency
Boat Builder/Broker	3
Marina	2
Seafood Dealer	2
Total	7

Table 4. Gautier Commercial Landings and Value Summary: 2002

Landings data not available; many resident commercial operators land their products elsewhere.

Table 5. Gautier State License and Federal Permit Summary: 2000

<table>
<tr><th colspan="2">Commercial (based on physical address data only)</th><th>Recreational</th></tr>
<tr><td>State License Holders</td><td>Federal Permit Holders</td><td>State Saltwater License Holders</td></tr>
<tr><td>28</td><td>3</td><td rowspan="2">2,028</td></tr>
<tr><td colspan="2">Total = 31</td></tr>
<tr><td colspan="2">% Households Holding Commercial Permit or License:
32/4,260 = 0.8</td><td>Average Number of Licenses per Household:
2,028/4,260 = 0.5</td></tr>
</table>

Please reference Table 4.1-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Fuel Tanks at Marina in Gautier

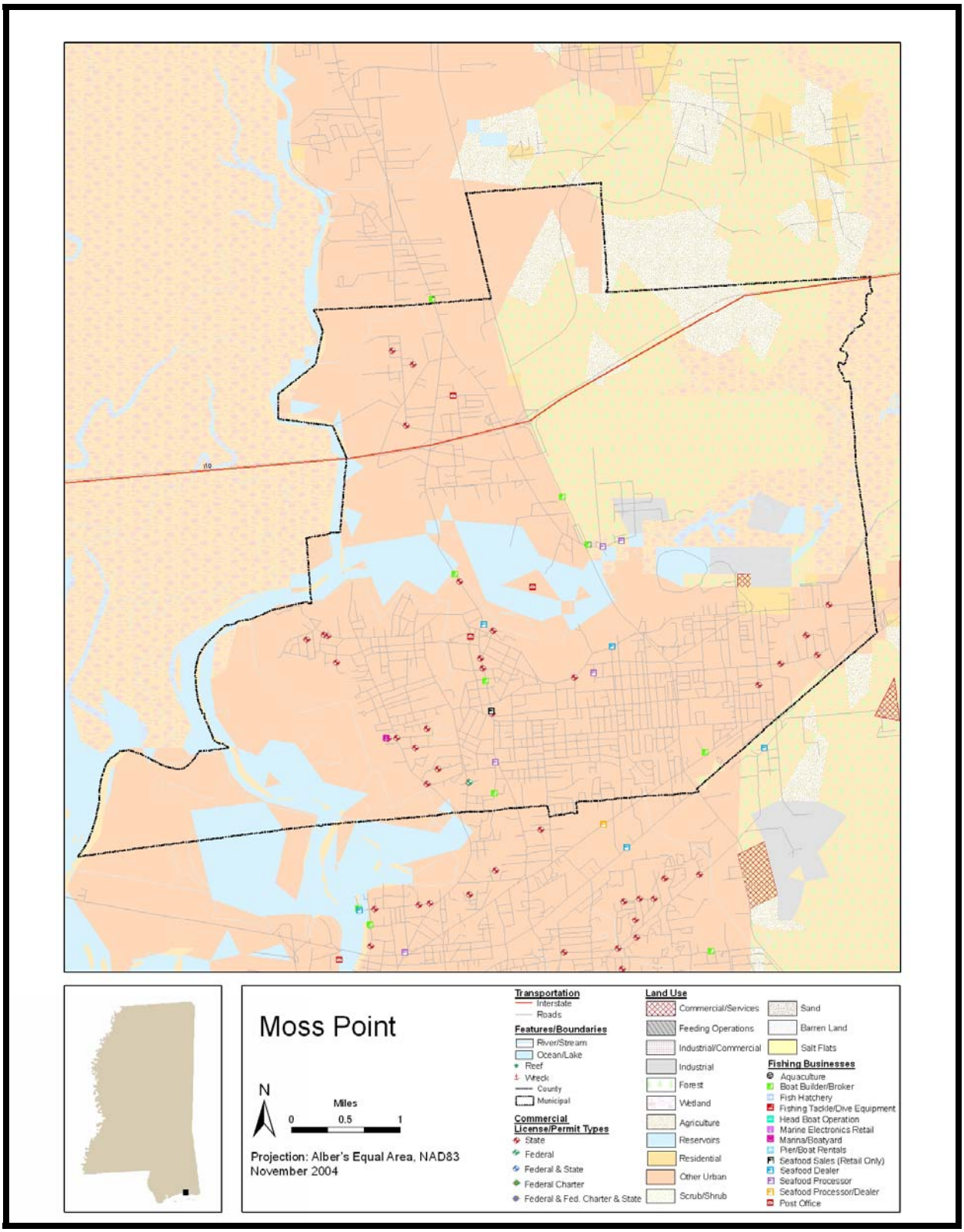
4.1.2 Moss Point (incorporated, pop. 15,851)

Location and Overview. Moss Point is a small riverfront city located along State Route 63 and U.S. Highway 90 in southeastern Jackson County. Pascagoula is directly south. Mobile is about 38 miles east, and New Orleans is 100 miles west. Although manufacturing contributes significantly to the Moss Point economy, fishing and coastal tourism are also significant.

History. Moss Point takes its name from the Spanish moss draping its many oak trees. The town was incorporated in 1901. Manufacturing of rubber, latex, metal parts, and fish oil have long been important forms of industry. Ecotourism is increasingly important here, and civic programs have been established to enhance and promote the attractions of the Pascagoula River.

Current Conditions and Trends. The year 2000 population of Moss Point was 15,851 persons, a decrease of 1,986 persons from the 1990 Census. Residents are employed in a variety of occupations, with the largest concentration in manufacturing. Two of Moss Point's leading employers are ship building operations, with the largest employing over 300 persons.

A productive menhaden operation is based here. Various forms of fishing infrastructure are in place, including two public boat ramps, two marinas, bait and tackle shops, retail seafood outlets, and a retail/wholesale dealer. The menhaden (fish meal and fish oil) processing plant is located near Highway 63. Most resident commercial fishing captains land their products in Pascagoula. Many are involved in commercial oystering.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Moss Point Demographics

Factor	1990	2000
Total population	17,837	15,851
Gender Ratio M/F (Number)	8,509/9,328	7,560/8,291
Age (Percent of total population)		
Under 18 years of age	31.0	26.8
18 to 64 years of age	57.7	60.6
65 years and over	11.3	12.6
Ethnicity or Race (Number)		
White	6,113	4,445
Black or African American	11,679	11,184
American Indian and Alaskan Native	11	24
Asian	21	34
Native Hawaiian and other Pacific Islander	N/A	4
Some other race	13	69
Two or more races	N/A	91
Hispanic or Latino (any race)	70	159
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	27.0	7.0
Percent high school graduate or higher	64.7	72.8
Percent with a Bachelor's degree or higher	10.4	11.9
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.9	2.3
Percent who speak English less than very well	1.6	0.6
Household income (Median $)	21,201	32,075
Poverty Status (Percent of population with income below poverty line)	22.7	17.8
Percent female headed household	26.1	23.7
Home Ownership (Number)		
Owner occupied	4,630	4,237
Renter occupied	1,352	1,477
Value Owner-occupied Housing (Median $)	43,100	58,900
Monthly Contract Rent (Median $)	212	452
Employment Status (Population 16 yrs and over)		
Percent in the labor force	58.8	55.3
Percent of civilian labor force unemployed	15.9	9.9
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	23.6
Service occupations	N/A	22.1
Sales and office occupations	N/A	19.5
Farming, fishing, and forestry occupations	1.5	0.6
Construction, extraction, and maintenance occupations	N/A	13.8
Production, transportation, and material moving occupations	N/A	20.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.4	0.7
Mining (includes the offshore oil/gas industry workforce)	0.2	0.4
Manufacturing	37.9	31.7
Percent government workers	18.8	21.4
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	22.4
Percent worked outside of county of residence	4.1	13.0

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Moss Point in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2
Recreational docks/marinas	2
Bait & Tackle/fishing supplies	3
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	2
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	Few (most moored elsewhere)

Table 3. Primary Fishing-related Businesses Listed for Moss Point in 2003

Type of Business	Frequency
Aquaculture	1
Boat Builder/Broker	8
Marina	1
Processor	2
Seafood Dealer	2
Total	14

Table 4. Moss Point Commercial Landings and Value Summary: 2002

Data may not be reported under the "rule of three."

Table 5. Moss Point State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
70	1	3,155
Total = 71		
% Households Holding Commercial Permit or License: 71/5,714 = 1.2		Average Number of Licenses per Household: 3,155/5,714 = 0.6

Please reference Table 4.1-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Moss Point Boat Ramp and Dock in 2004

4.1.3 Ocean Springs (incorporated, pop. 17,225)

Location and Overview. Ocean Springs is a small city located along the banks of Biloxi Bay in southwestern Jackson County. It is located along U.S. Highway 90, about 80 miles east of New Orleans, and about 55 miles southwest of Mobile. Local fleets typically access the Gulf of Mexico via Biloxi Bay and Mississippi Sound to Dog Keys Pass, some 12 miles south.

History. Ocean Springs has the distinction of being one of the oldest cities in the country. It was founded in 1699 by French explorer Pierre LeMoyne D'Iberville who established Fort Maurepas as the first capital of Louisiana, then a French colony that encompassed modern-day Mississippi. Ocean Springs became a tourist destination in the late 1800s after rail service was established in the region. Contemporary Ocean Springs takes its name from a sanitarium built in the area to take advantage of mineral springs found here. The resort era ended when fire destroyed two

hotels in the early 1900s. Ocean Springs was formally established in 1892. In 1905, L.A. Lundy developed a thriving seafood canning industry on Biloxi Bay. The plant was purchased by E.W. Illing in 1934 and employed around 100 people. The firm shipped canned oysters and shrimp worldwide (Works Progress Administration, n.d.).

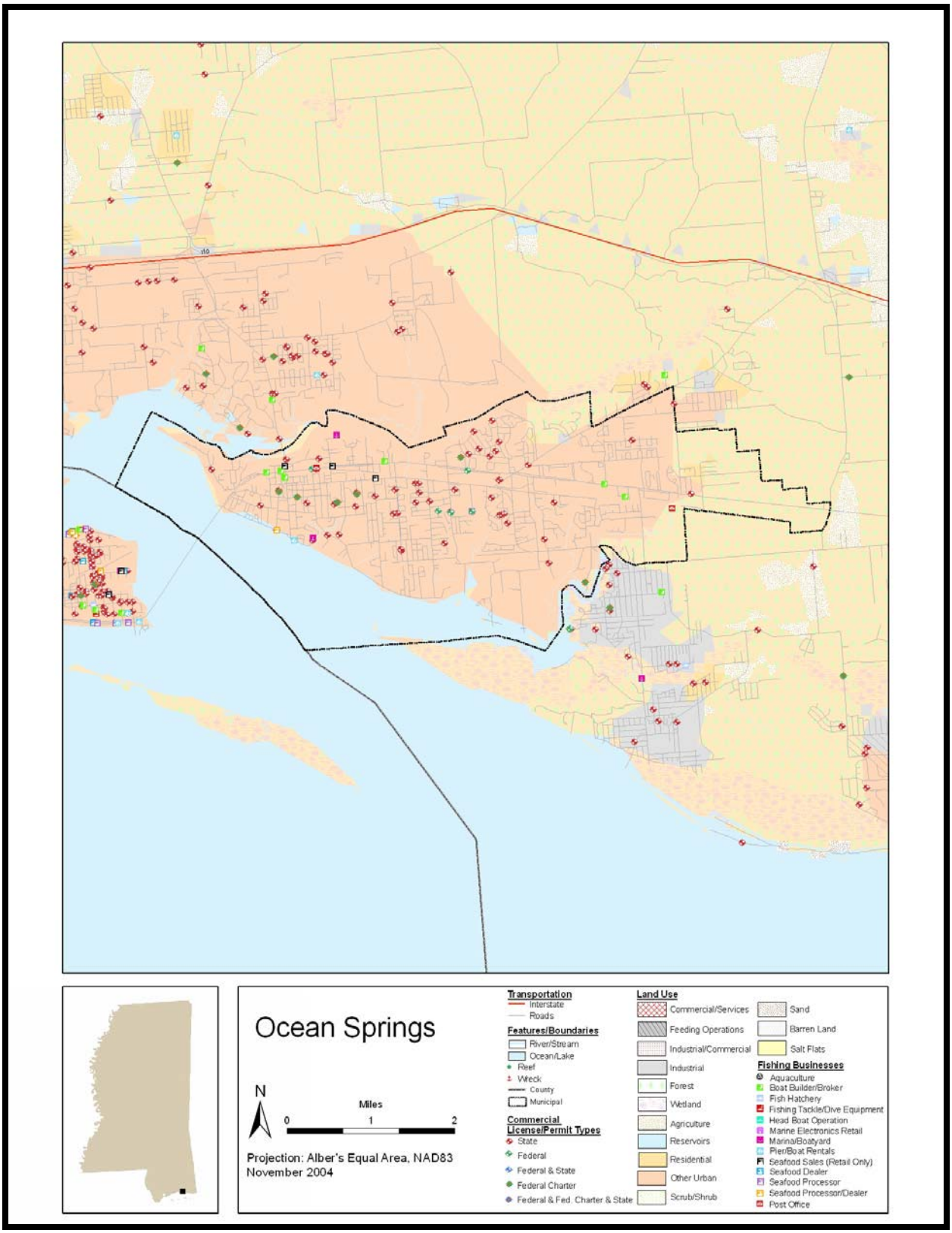
Current Conditions and Trends. As of 2000, the population of Ocean Springs was 17,225 persons, an increase of 2,567 from 1990. Nearly 44 percent of employed residents worked outside the county that year, primarily in managerial/professional, sales, and service occupations.

The local fishing industry reportedly has diminished in terms of employment and production, though a significant shrimp trawl fleet remains based here. A wholesale dealer/processor located along the waterfront no longer maintains docking facilities and receives seafood from vessels moored at the east end of Beach Drive and from elsewhere in Mississippi. Shrimp are shipped to regional and national markets. A retail store is attached to the facility. Captains of a large commercial small boat fleet reside in the Ocean Springs area, though most moor elsewhere. Commercial oystering is popular here. Recreation-oriented fishing has become increasingly important. For instance, three local marinas and boat ramps, seven charter fishing operations, and five fishing piers enable recreational angling in the area. Numerous other charter captains live here but operate from other ports in the region. The Gulf States Marine Fisheries Commission is based here.

Shrimp Boats at Harbor in Ocean Springs, Summer 2004

Marina in Ocean Springs, Summer 2004

View of Harbor Area in Ocean Springs Following Hurricane Katrina in 2005
(photo courtesy of NOAA)



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Ocean Springs Demographics

Factor	1990	2000
Total population	14,658	17,225
Gender Ratio M/F (Number)	6,947/7,711	8,300/8,925
Age (Percent of total population)		
Under 18 years of age	27.2	26.3
18 to 64 years of age	62.3	61.3
65 years and over	10.5	12.5
Ethnicity or Race (Number)		
White	13,327	15,113
Black or African American	907	1,211
American Indian and Alaskan Native	36	69
Asian	353	453
Native Hawaiian and other Pacific Islander	N/A	13
Some other race	35	108
Two or more races	N/A	258
Hispanic or Latino (any race)	217	430
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	5.0	2.9
Percent high school graduate or higher	83.3	88.6
Percent with a Bachelor's degree or higher	25.8	30.5
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	6.2	6.5
Percent who speak English less than very well	2.7	2.0
Household income (Median $)	31,161	45,885
Poverty Status (Percent of population with income below poverty line)	10.1	5.3
Percent female headed household	14.5	11.1
Home Ownership (Number)		
Owner occupied	3,680	4,801
Renter occupied	1,850	1,849
Value Owner-occupied Housing (Median $)	62,100	98,900
Monthly Contract Rent (Median $)	318	597
Employment Status (Population 16 yrs and over)		
Percent in the labor force	65.9	68.1
Percent of civilian labor force unemployed	7.2	4.6
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	38.6
Service occupations	N/A	19.2
Sales and office occupations	N/A	23.5
Farming, fishing, and forestry occupations	1.9	0.6
Construction, extraction, and maintenance occupations	N/A	9.2
Production, transportation, and material moving occupations	N/A	9.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.9	0.6
Mining (includes the offshore oil/gas industry workforce)	0.3	0.6
Manufacturing	9.2	10.3
Percent government workers	21.9	19.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	21.4
Percent worked outside of county of residence	39.8	43.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Ocean Springs in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	3
Churches with maritime theme	0
Docking facilities (commercial)	1
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	6
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	1
Public boat ramps	2
Recreational docks/marinas	3
Bait & Tackle/fishing supplies	3
Recreational Fishing Tournaments	1
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	2
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	7
Commercial Boats	20+

Table 3. Primary Fishing-related Businesses Listed for Ocean Springs in 2003

Type of Business	Frequency
Boat Builder/Broker	10
Boat Rentals & Pier	5
Fish Hatchery	2
Marina	3
Processor; Seafood Dealer	1
Seafood Dealer	3
Total	24

Table 4. Ocean Springs Commercial Landings and Value Summary: 2002

Dealer data may not be reported under the "rule of three."

Table 5. Ocean Springs State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
266	21	5,545
Total = 448		
% Households Holding Commercial Permit or License: 448/6,650 = 4.0		Average Number of Licenses per Household: 5,545/6,650 = 0.8

Please reference Table 4.1-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.1.4 Pascagoula (incorporated, pop. 26,200)

Location and Overview. Pascagoula is the Jackson County seat of government. It is located along U.S. Highway 90 and State Routes 63 and 613 in the southeastern part of the county. Mobile is about 40 miles northeast, and New Orleans is approximately 100 miles west. The city is bordered by three bodies of water: Pascagoula Bay to the west, Mississippi Sound to the south, and Point aux Chenes Bay to the east. The Gulf of Mexico is roughly ten miles south.

This city is home to the Naval Station Pascagoula and one of Mississippi's leading and busiest deepwater ports, the Port of Pascagoula. The shipbuilding industry is very active in Pascagoula, as are the oil and petrochemical industries (City of Pascagoula).

History. The Pascagoula Indians were the earliest known inhabitants of this region. "Pascagoula" is an Indian term for "bread people" or "bread eaters." The region was claimed for France in the late seventeenth century. It became part of the fledgling colonies in the late eighteenth century. The city was incorporated in 1892.

According to one report (Works Progress Administration for Mississippi, n.d.), there were several seafood packing plants in Pascagoula in the 1930s. Two of these operations shipped fish, shrimp, and oysters to several national markets and employed close to 900 persons and over 70 fishing captains. Additional plants received seafood from hundreds of commercial harvesters working in the region at the time.

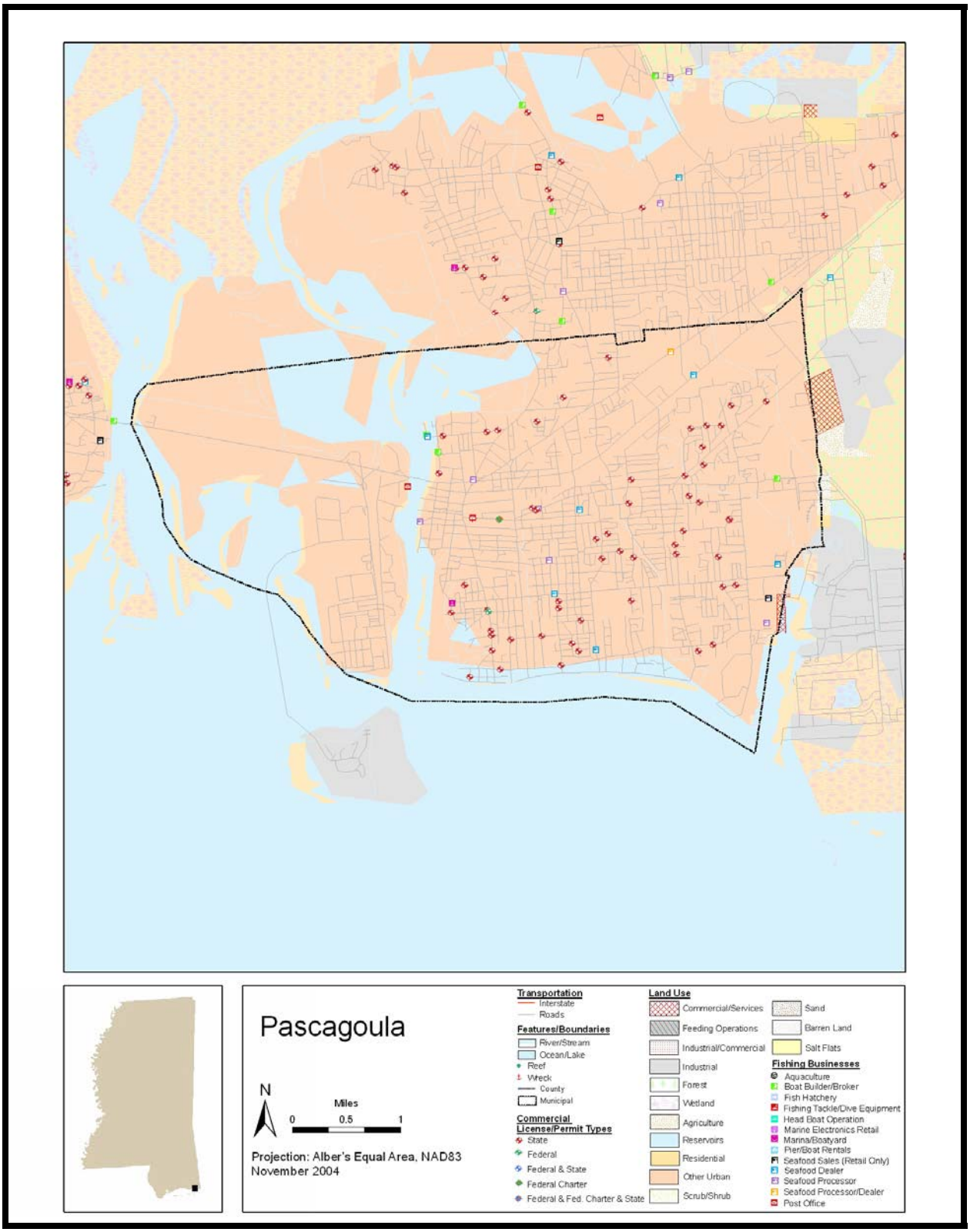
Current Conditions and Trends. The year 2000 census enumerated 26,200 persons in Pascagoula, an increase of 301 from 1990. Over 50 percent of residents were employed in sales and management occupations, while close to 25 percent worked in manufacturing positions.

The Pascagoula seafood industry is an important source of local jobs and income. The shipbuilding industry is particularly important, however, and one of the larger shipbuilding operations in the area employees more than 11,000 persons. The operation is the largest employer in the state. Several area petrochemical plants also employ many residents.

There are seven seafood dealers based here. Five are wholesale dealers and two combine retail and wholesale operations. The largest employs 100 persons. Three of the dealers produce value-added seafood products, such as breaded shrimp or pasteurized crab products. As of the year 2000, six seafood processors employed an average of 24 persons each. Some 12.4 million pounds of seafood totaling 8.2 million dollars were processed in Pascagoula that year. A large fleet of small boat commercial operators is also based here; most pursue shrimp and various finfish in the inshore and nearshore waters of the sound and Gulf.

Recreational fishing is also important. For instance, five boat launches, two fishing piers, a marina, and approximately five charter boat operations serve recreational anglers in the area.

Scene at a Marina in Pascagoula, Summer 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Pascagoula Demographics

Factor	1990	2000
Total population	25,899	26,200
Gender Ratio M/F (Number)	12,637/13,262	13,216/12,984
Age (Percent of total population)		
Under 18 years of age	28.0	26.9
18 to 64 years of age	60.6	61.3
65 years and over	11.4	11.9
Ethnicity or Race (Number)		
White	19,998	17,594
Black or African American	5,557	7,590
American Indian and Alaskan Native	49	47
Asian	239	253
Native Hawaiian and other Pacific Islander	N/A	6
Some other race	56	437
Two or more races	N/A	273
Hispanic or Latino (any race)	252	1,019
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	9.0	5.2
Percent high school graduate or higher	73.9	78.5
Percent with a Bachelor's degree or higher	16.3	15.6
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	2.9	6.8
Percent who speak English less than very well	1.0	2.7
Household income (Median $)	24,986	32,042
Poverty Status (Percent of population with income below poverty line)	19.7	20.7
Percent female headed household	22.9	18.8
Home Ownership (Number)		
Owner occupied	5,794	5,607
Renter occupied	3,980	4,271
Value Owner-occupied Housing (Median $)	49,100	69,000
Monthly Contract Rent (Median $)	265	486
Employment Status (Population 16 yrs and over)		
Percent in the labor force	62.8	61.3
Percent of civilian labor force unemployed	7.8	9.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	28.0
Service occupations	N/A	15.2
Sales and office occupations	N/A	25.6
Farming, fishing, and forestry occupations	0.9	0.4
Construction, extraction, and maintenance occupations	N/A	14.8
Production, transportation, and material moving occupations	N/A	16.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.3	0.4
Mining (includes the offshore oil/gas industry workforce)	0.2	1.3
Manufacturing	31.5	24.4
Percent government workers	15.2	16.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	18.1
Percent worked outside of county of residence	5.8	46.6

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Pascagoula in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	2
Churches with maritime theme	0
Docking facilities (commercial)	2
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	5
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	2
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	5
Recreational docks/marinas	2
Bait & Tackle/fishing supplies	3
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	2
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	5
Commercial Boats	13

Table 3. Primary Fishing-related Businesses Listed for Pascagoula in 2003

Type of Business	Frequency
Boat Builder/Broker	4
Boat Builder/Broker; Marina	1
Processor	2
Processor; Seafood Dealer	2
Seafood Dealer	3
Total	12

Table 4. Pascagoula Commercial Landings and Value Summary: 2002 (based on dealer data)

Species	Pounds Reported	Ex-Vessel Value ($)
Total	9,357,683	4,021,747

Table 5. Pascagoula State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
329	5	3,180
Total = 334		
% Households Holding Commercial Permit or License: 334/9,878 = 3.3		Average Number of Licenses per Household: 3,180/9,878 = 0.3

Please reference Table 4.1-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Waterfront Homes in Pascagoula, Summer 2004

4.2 Harrison County Communities

This section describes the study communities in Harrison County. These are: Biloxi, D'Iberville, Gulfport, Long Beach, and Pass Christian.

Harrison County encompasses approximately 581 square miles of land in south central Mississippi. It is bordered by Hancock County to the west, Jackson County to the east, Stone County to the north, and the Gulf of Mexico to the south. Harrison had a year 2000 population of 89,601 persons, making it the second most populous county in Mississippi for that year and the previous 50 years (U.S. Census Bureau 2000).

Harrison County was formed from parts of Hancock, Jackson, and Perry Counties, and officially established in 1841. It was named in honor of General William Henry Harrison (Rowland 1907).

Seafood processors in Biloxi were world leaders in the canning of oysters and shrimp during the early 1900s. The service, manufacturing, and trade sectors have employed a majority of county workers since 1940. Extensive revenue now derives from activities at Keesler Air Force Base, and from casinos in Gulfport and Biloxi. Gaming accounted for approximately $724 million, about 25 percent, of all tourist expenditures in 2003 (City of Biloxi 2004).

Commercial fishing is vital to the Harrison County economy. An issue of importance to captains in the area is increasing demand for mooring facilities for small commercial and recreational vessels. The Coastal Research and Extension Center (2004), reports that current demand surpasses existing available mooring space, particularly in Biloxi and Gulfport, and in Ocean Springs in neighboring Jackson County.

The racial composition of Harrison County as 73 percent Caucasian, 21 percent African-American, three percent persons of Hispanic ancestry, and three percent persons of Asian ancestry. Median family income in Harrison County in 2000 was $41,445. Fifteen percent of households reported conditions of poverty in 2000, and single women headed nine percent of households.

Harrison
Mississippi
Jackson
Harrison
Gulfport
Biloxi
Ocean Springs
Kiln
Hancock
Long Beach
Bay St Louis
Waveland
Lakeshore
Harrison
N
0
3
6
12 Miles
Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

Table 4.2-1 Earnings in Harrison County, 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	$ Change 1990-2000
	1990	2000		
Earnings by place of work	2,530,758	4,009,822	100.0	1,479,064
Farm earnings	-74	-420	0.0	-346
Agricultural services, forestry, fishing	11,275	17,322	0.4	6,047
Fishing	8,837	(Confidential)	n/a	n/a
Mining	3,374	4,316	0.1	942
Oil and gas extraction	(Confidential)	(Confidential)	n/a	n/a
Construction	94,248	227,050	5.7	132,802
Special trade contractors	54,964	139,561	3.5	84,597
Manufacturing	224,398	238,624	6.0	14,226
Lumber and wood products	7,441	6,212	0.2	-1,229
Industrial machinery and equipment	6,244	22,126	0.6	15,882
Other transportation equipment	27,277	(Confidential)	n/a	n/a
Instruments and related products	1,292	723	0.0	-569
Food and kindred products	27,792	17,195	0.4	-10,597
Paper and allied products	(Confidential)	0	n/a	n/a
Chemicals and allied products	48,171	(Confidential)	n/a	n/a
Transportation and public utilities	160,843	286,708	7.2	125,865
Trucking and warehousing	(Confidential)	44,847	1.1	n/a
Water transportation	13,742	14,752	0.4	1,010
Transportation by air	6,260	14,227	0.4	7,967
Wholesale trade	75,142	115,992	2.9	40,850
Retail trade	248,638	384,123	9.6	135,485
Eating and drinking places	76,547	112,864	2.8	36,317
Finance, insurance, and real estate	99,922	149,865	3.7	49,943
Services	422,888	1,258,246	31.4	835,358
Hotels and other lodging places	21,964	300,176	7.5	278,212
Business services	52,862	102,998	2.6	50,136
Amusement and recreation services	7,144	273,931	6.8	266,787
Health services	143,024	251,864	6.3	108,840
Legal services	48,009	95,105	2.4	47,096
Engineering and management services	20,539	59,129	1.5	38,590
Government and assoc. enterprises	1,190,103	1,327,996	33.1	137,893

Source: Bureau of Economic Analysis, Regional Economic Information System. (N/A) Data not available for this year.

Table 4.2-2 Year 2000 Commercial Permits and Licenses, and 2003 Gulf Shrimp Permits: Harrison County *

Permit Type	Study Communities				
	Biloxi	D'Iberville	Gulfport	Long Beach	Pass Christian
Pelagic Charter	40	6	11	2	3
Reef Fish Charter	43	6	11	2	3
Swordfish	--	--	--	--	--
King Mackerel	1	--	--	2	--
Rock Shrimp	1	--	--	--	--
Red Snapper	2	--	--	1	--
Spiny Lobster	--	--	--	--	--
Spanish Mackerel	--	--	1	2	--
Gulf Reef Fish	1	--	--	2	--
Shark	2	--	--	--	1
South Atlantic Snapper Grouper	2	--	2	--	--
Total Federal Permits 2000	92	12	25	11	7
Total Federal Permit Holders 2000	46	6	12	4	4
Total State License Holders 2000	592	91	213	145	221
Gulf Shrimp Permits 2003 **	65	15	7	5	6

* Includes all permits that can be attributed to the communities by *both* street and P.O. Box addresses; these data are subsequently refined to provide counts of permit holders for whom evidence suggests actual residence in the community in 2000. ** 2003 is the first year for which Gulf shrimp permit data are available.

4.2.1 **Biloxi** (incorporated, pop. 50,644)

Location and Overview. Biloxi is located along U.S. Highway 90 and Interstate 110 in the southeastern corner of Harrison County: Pascagoula is nearly 20 miles to the east and Gulfport is about 12 miles west. The city is bordered on the south by the Mississippi Sound, on the east by Biloxi Bay, and on the north by the Back Bay of Biloxi. The Gulf of Mexico is approximately 12 miles south, with access via Mississippi Sound.

Gaming is particularly important here, and there are nine waterfront casinos. This underlies the city's status as one of the top tourist destinations in the nation. The seafood industry is vitally important, and typically generates as much as $400 million annually in direct and indirect benefits to the local economy. Many residents are employed in the seafood harvesting, processing, and distribution sectors in the area (Coast Chamber 2003).

History. French explorers founded Biloxi in 1699. Biloxi became part of the Mississippi Territories in 1811. Early residents planted vegetables and rice, and pursued fish and shellfish resources in adjacent waters (Boudreaux 2004; Coast Chamber 2003). At the time, the town had a population of approximately 420 persons, primarily of French and Creole ancestry. In the mid-1800s, the lumber industry and tourism became increasingly important to the livelihood of residents. Biloxi was incorporated in 1817 (Boudreaux 2004).

Although early residents enjoyed modest success in fishing exploits, the seafood industry really began to boom in 1881, after the opening of the region's first seafood cannery. Less than ten years later, four additional canneries had opened in Biloxi (Boudreaux 2004). By the early

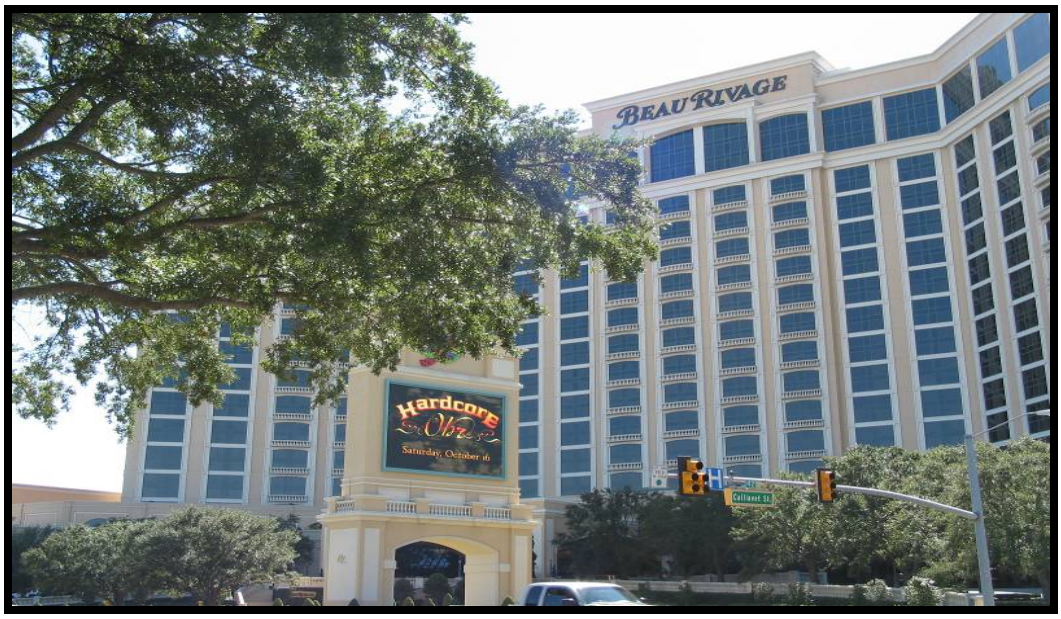
1900s, more raw oysters were exported from Biloxi than anywhere else in the world. The demand for fishermen and cannery laborers attracted immigrants from as far away as Austria, Greece, and Italy. Biloxi's next significant period of growth coincided with the opening of Keesler Air Force Base in 1947. More recently, legalization of dockside gambling in 1992 transformed the region's economy.

Maritime and Seafood Museum in Biloxi

Current Conditions and Trends. The year 2000 census enumerated 50,644 persons in Biloxi, up 4,325 from 1990. Residents were employed in a variety of local jobs in 2000. Many held government positions, but the majority worked in tourism services and jobs associated with the commercial fishing industry.

Biloxi's waterfront has changed significantly over the past ten years. Commercial and recreational docking facilities, once the primary waterfront structures, are now adjacent to casinos. The gaming industry has brought considerable prosperity. Increased local revenue and tax-derived funding have led to improvement in the city's infrastructure and services. According to some, the arrival of the gaming industry was concurrent with decline in the size and level of production of the local commercial fishing fleets. It is argued that this relates in part to diminished availability of waterfront space for vessel mooring, and for seafood processing and distribution businesses (Posadas, 1996).

The history of the seafood industry in the region is on display at the Biloxi Maritime and Seafood Industry Museum. The museum chronicles Biloxi's storied history of seafood production and displays various technological innovations used by local harvesters and processors. A Blessing of the Fleet has been held in Biloxi since 1929.



Casino along Biloxi's Waterfront in 2004

Noteworthy fishing infrastructure is located in Biloxi. Some 25 wholesale dealers are based here, mostly on Biloxi's Back Bay and Point Cadet. Bay fisheries include shrimp, oysters, and crab, along with finfish. While production of local oysters is lucrative, over 80 percent of oysters processed in Biloxi are harvested from other states. Several hundred commercial fishing vessels are docked at both commercial and recreational facilities in the area.

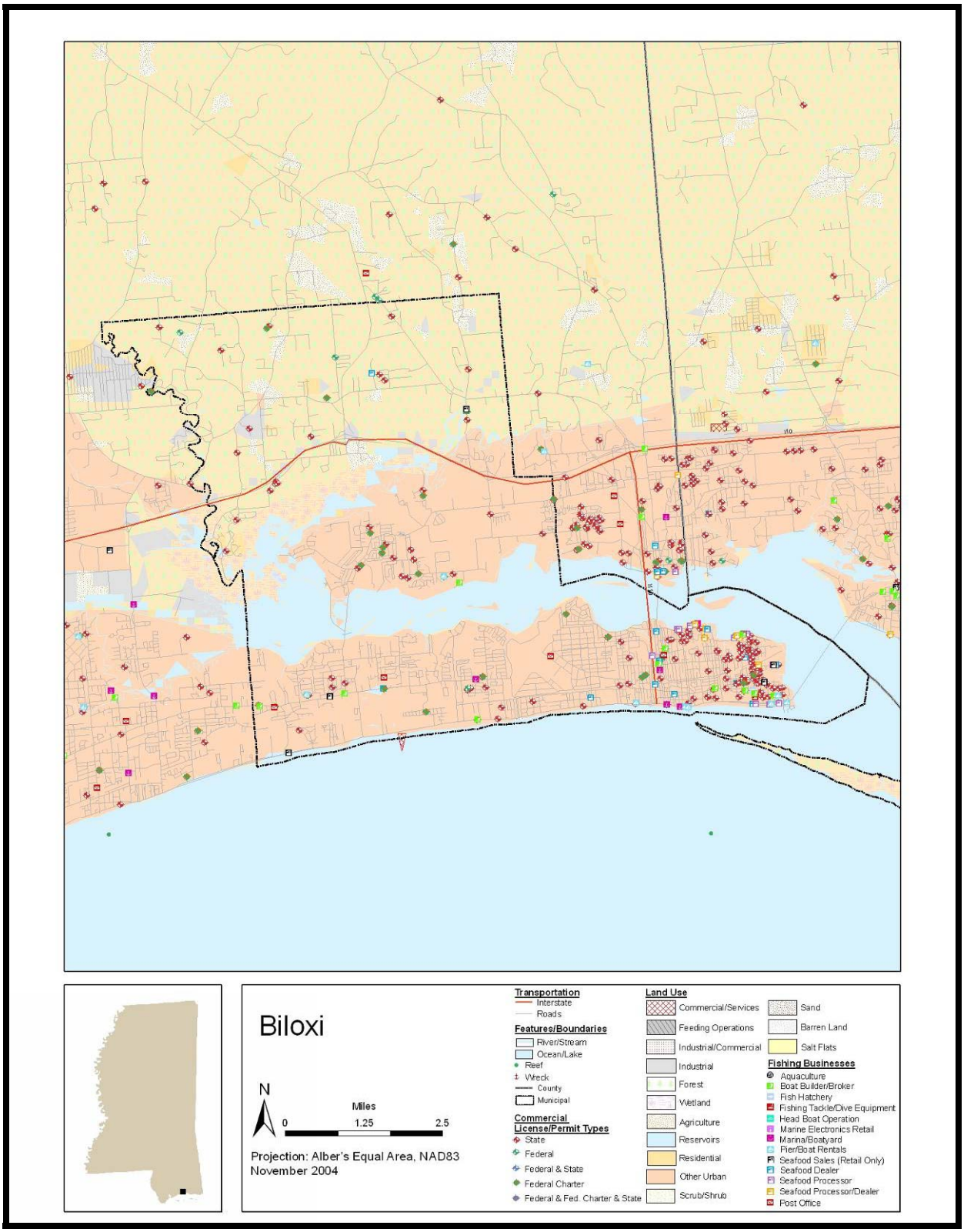
Many persons of Vietnamese ancestry are employed in many facets of the seafood industry in Biloxi. According to one informant, a contingent of this group came to Biloxi after leaving Louisiana, where they worked in the oyster fishery. Many such captains have moved from the bay shrimp fishery and now own and captain large Gulf shrimp vessels.

The recreational fishing infrastructure in Biloxi is growing in importance, and there are six marinas in the city, with well over 60 charter boat operations. According to a harbormaster, the charter fleet grew after the hurricanes of 2004, as charter vessels once operated out of Florida and Alabama moved to Biloxi to continue operations. It is not known whether this was a permanent move or not. Biloxi is also home to at least eight recreational fishing tournaments held throughout the year. Six boat launches and five fishing piers in and around the city are available for recreational enthusiasts, and at least ten bait and tackle shops.

In 2000, there were 14 processors located in Biloxi, employing an average of 14 persons per plant. These plants processed 46.9 million pounds of product valued at $171 million.

Commercial Docks on Back Bay in Biloxi in 2004

Biloxi's Waterfront in 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Biloxi Demographics

Factor	1990	2000
Total population	46,319	50,644
Gender Ratio M/F (Number)	23,890/22,429	25,563/25,081
Age (Percent of total population)		
Under 18 years of age	25.3	24.2
18 to 64 years of age	63.3	63.8
65 years and over	11.4	12.0
Ethnicity or Race (Number)		
White	34,547	36,177
Black or African American	8,625	9,643
American Indian and Alaskan Native	153	248
Asian	2,658	2,590
Native Hawaiian and other Pacific Islander	N/A	58
Some other race	336	725
Two or more races	N/A	1,203
Hispanic or Latino (any race)	1,283	1,848
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	10.7	6.4
Percent high school graduate or higher	75.2	81.9
Percent with a Bachelor's degree or higher	18.0	19.2
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	9.6	10.1
Percent who speak English less than very well	4.0	3.9
Household income (Median $)	19,824	34,106
Poverty Status (Percent of population with income below poverty line)	21.4	14.6
Percent female headed household	19.4	14.0
Home Ownership (Number)		
Owner occupied	7,297	9,573
Renter occupied	9,347	10,015
Value Owner-occupied Housing (Median $)	55,400	92,600
Monthly Contract Rent (Median $)	279	531
Employment Status (Population 16 yrs and over)		
Percent in the labor force	64.5	66.8
Percent of civilian labor force unemployed	8.0	6.5
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	28.2
Service occupations	N/A	24.7
Sales and office occupations	N/A	26.8
Farming, fishing, and forestry occupations	2.4	0.8
Construction, extraction, and maintenance occupations	N/A	9.8
Production, transportation, and material moving occupations	N/A	9.6
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.8	0.9
Mining (includes the offshore oil/gas industry workforce)	0.5	0.3
Manufacturing	9.8	6.2
Percent government workers	29.2	20.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	18.8
Percent worked outside of county of residence	9.1	9.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Biloxi in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	6+
Churches with maritime theme	0
Docking facilities (commercial)	6+
Fishing Gear, Electronics, Welding, and other repair	4+
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	13
Fisheries research laboratories	1
Fishing monuments/ festivals	2
Fishing pier	6
Hotels/Inns (dockside)	Several
Marine railways/haul out facilities	0
Museums—fishing/marine-related	1
Net makers	0
NMFS or state fisheries office (port agent, etc.)	1
Public boat ramps	8
Recreational docks/marinas	11
Bait & Tackle/fishing supplies	11
Recreational Fishing Tournaments	9
Sea Grant Extension office	1
Seafood restaurants	6+
Seafood retail markets	5
Trucking operations	0
Site-seeing/pleasure tours	3
Charter/Head Boats	60+
Commercial Boats	200+

Table 3. Primary Fishing-related Businesses Listed for Biloxi in 2003

Type of Business	Frequency
Boat Builder/Broker	15
Boat Builder/Broker; Boat Rentals & Pier; Marina	1
Boat Builder/Broker; Diving & Fishing Equipment	1
Boat Builder/Broker; Marina	4
Boat Rentals & Pier	11
Fish Hatchery	2
Marina	8
Processor	7
Processor; Seafood Dealer	9
Seafood Dealer	14
Total	72

Table 4. Biloxi Commercial Landings and Value Summary: 2002 (based on dealer data)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	10,484,019	28,542,889

Table 5. Biloxi State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
402	39	8,312
Total = 441		
% Households Holding Commercial Permit or License: 441/19,588 = 2.2		Average Number of Licenses per Household: 8,312/19,588 = 0.4

Please reference Table 4.2-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.2.2 D'Iberville (incorporated, pop. 7,608)

Location and Overview. D'Iberville is located adjacent to the junction of I-10 and I-110 in southeastern Harrison County. The town is two miles north of Biloxi and about 23 miles northwest of Pascagoula. The Back Bay of Biloxi defines D'Iberville's southern perimeter. D'Iberville's location along Back Bay has historically enabled commercial fishing in the area, though this is said to have diminished in recent years. Many D'Iberville residents maintain social and economic connections to persons and businesses in Biloxi.

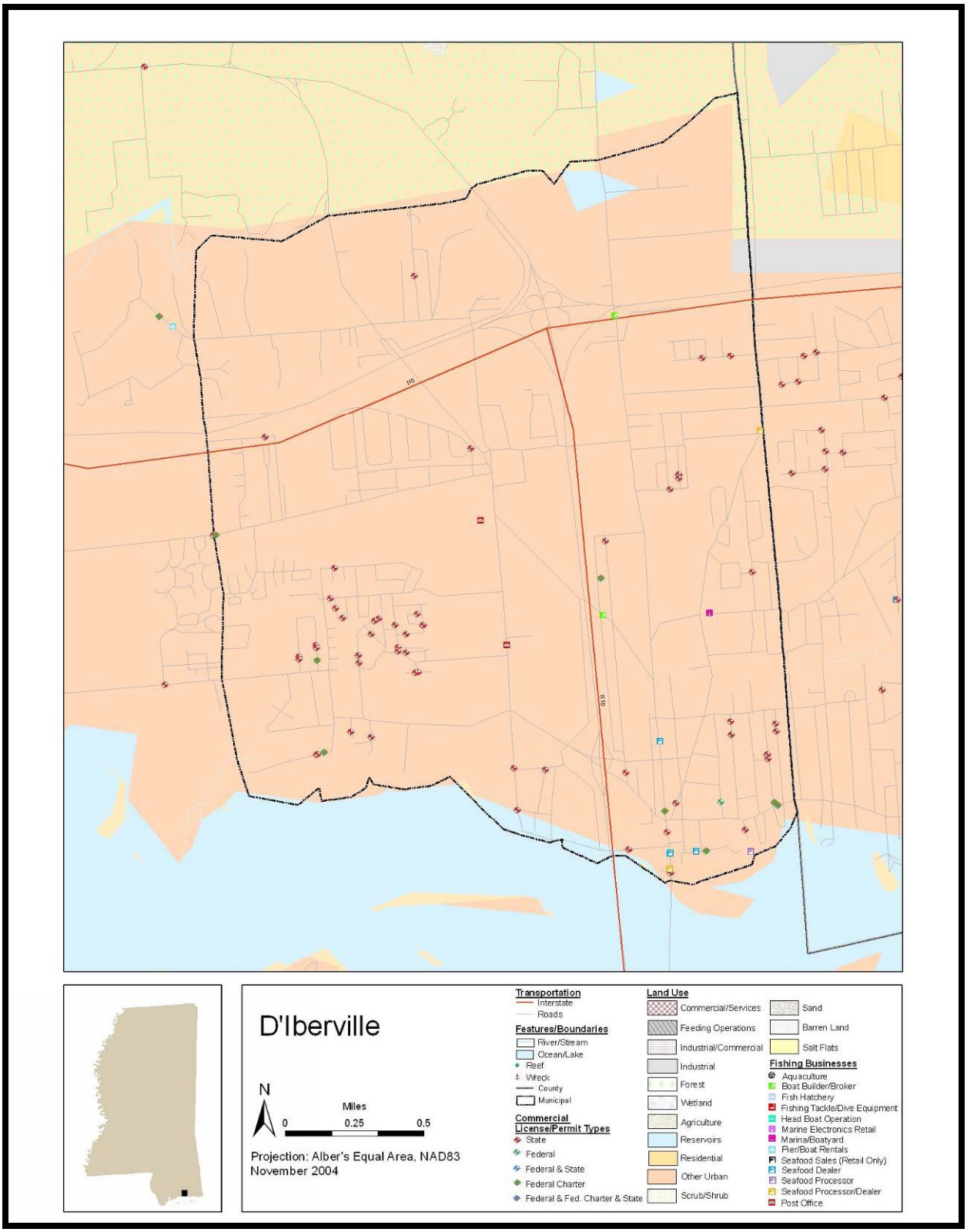
History. D'Iberville's first settlers were farmers and trappers from France, Spain, and Canada. They named their community after the French explorer of the same name who arrived in 1699. American colonists began immigrating to the area during the early 19th century. Fishing and boat building were important endeavors. D'Iberville was incorporated in 1988 (Pow Publishing).

Current Conditions and Trends. The year 2000 census enumerated 7,608 persons in D'Iberville, an increase of 1,042 persons from 1990. Many residents were employed in the region's tourism industry and related occupations in the Biloxi area.

Some commercial fishing infrastructure is in place here. Three wholesale seafood dealers are located along Back Bay. Two boat launching facilities, one marina, and at least five charter boat operators operate in the area. Several bait and tackle stores serve local and visiting anglers.

Cold Storage Facility in D'Iberville, 2004

D'Iberville Wholesale Seafood Dealer in 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. D'Iberville Demographics

Factor	1990	2000
Total population	6,566	7,608
Gender Ratio M/F (Number)	3,288/3,278	3,794/3,814
Age (Percent of total population)		
Under 18 years of age	29.2	27.0
18 to 64 years of age	62.9	64.4
65 years and over	7.9	8.6
Ethnicity or Race (Number)		
White	5,836	5,950
Black or African American	499	867
American Indian and Alaskan Native	11	28
Asian	197	535
Native Hawaiian and other Pacific Islander	N/A	1
Some other race	23	65
Two or more races	N/A	162
Hispanic or Latino (any race)	141	201
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	10.7	8.3
Percent high school graduate or higher	71.4	78.5
Percent with a Bachelor's degree or higher	5.1	8.0
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	6.7	9.5
Percent who speak English less than very well	2.2	5.2
Household income (Median $)	23,967	34,700
Poverty Status (Percent of population with income below poverty line)	10.9	11.7
Percent female headed household	17.3	15.2
Home Ownership (Number)		
Owner occupied	1,671	2,049
Renter occupied	605	778
Value Owner-occupied Housing (Median $)	47,700	75,100
Monthly Contract Rent (Median $)	287	653
Employment Status (Population 16 yrs and over)		
Percent in the labor force	67.4	70.4
Percent of civilian labor force unemployed	6.4	6.8
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	19.6
Service occupations	N/A	26.7
Sales and office occupations	N/A	25.6
Farming, fishing, and forestry occupations	2.2	2.6
Construction, extraction, and maintenance occupations	N/A	12.4
Production, transportation, and material moving occupations	N/A	13.1
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.2	1.5
Mining (includes the offshore oil/gas industry workforce)	0.7	0.0
Manufacturing	13.4	10.8
Percent government workers	23.3	15.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	21.3
Percent worked outside of county of residence	14.4	18.9

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in D'Iberville in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	3
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2
Recreational docks/marinas	2
Bait & Tackle/fishing supplies	3
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	5
Commercial Boats	10+

Table 3. Primary Fishing-related Businesses Listed for D'Iberville in 2003

None listed

Table 4. D'Iberville Commercial Landings and Value Summary: 2002

Dealer data may not be reported for D'Iberville under the "rule of three."

Table 5. D'Iberville State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
67	5	604
Total = 72		
% Households Holding Commercial Permit or License: 72/2,827 = 2.5		Average Number of Licenses per Household: 604/2,827 = 0.2

Please reference Table 4.2-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.2.3 **Gulfport** (incorporated, pop. 71,127)

Location and Overview. Gulfport is the seat of government for Harrison County. The city is located along U.S. Highway 90 on the northern shores of Mississippi Sound. Biloxi is nearly 15 miles east, and New Orleans is approximately 75 miles west. The city is bordered by Mississippi City to the east and Long Beach to the west. Encompassing 62 square miles, Gulfport is the second largest city in Mississippi. Many residents work in manufacturing and maritime-related industry at the Port of Gulfport. Tourism and gaming contribute significantly to the local economy.

History. Gulfport was founded in 1887 and incorporated in 1899. An important harbor project was completed in 1902, facilitating extensive commerce around the region. By 1907, more long-leaf pine lumber (then used primarily in ship-building) was being exported from Gulfport than anywhere else in the country (Coast Chamber 2003).

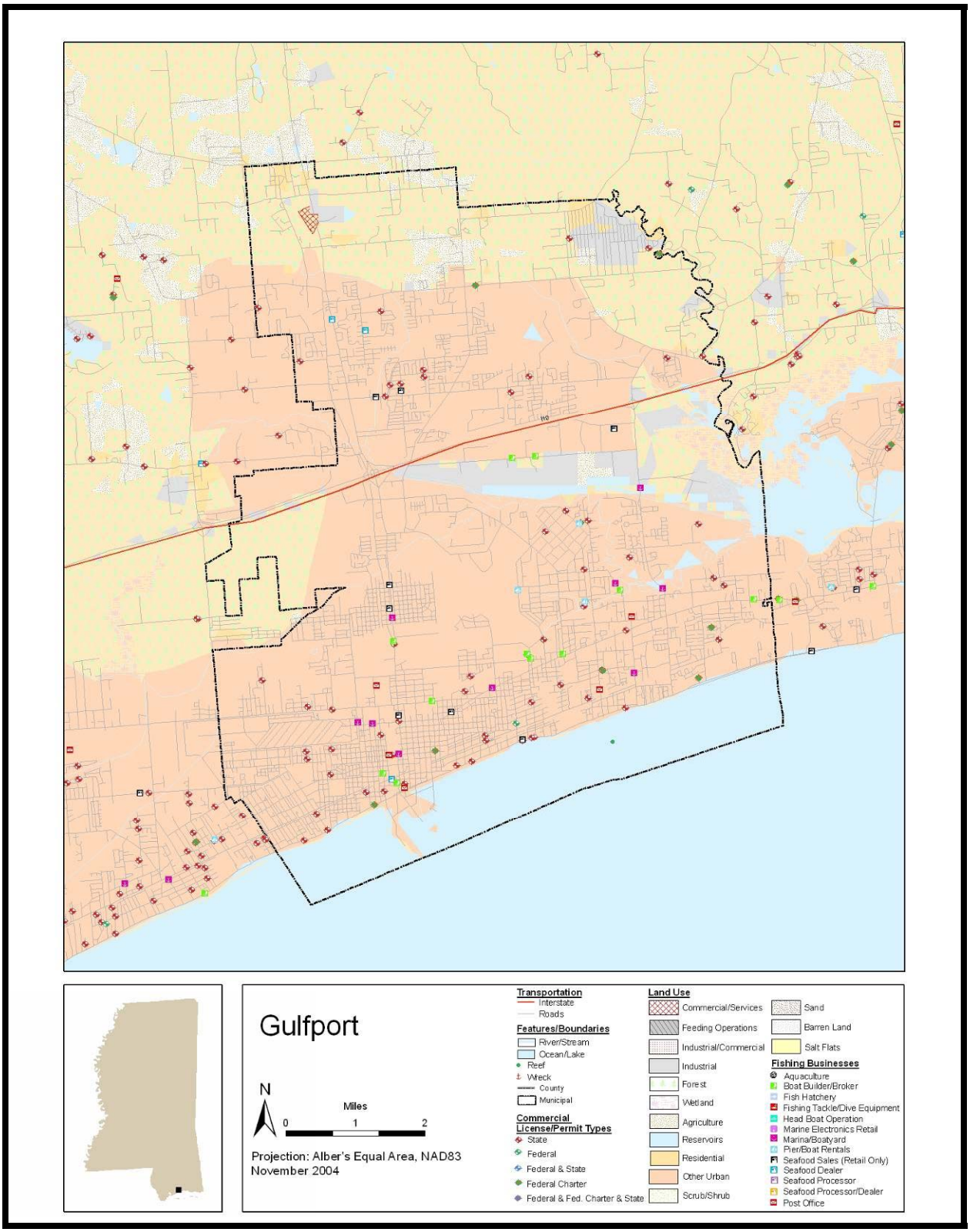
Gulfport Commercial Harbor in 2004

Current Conditions and Trends. Gulfport had a year 2000 population of 71,127 persons, up from 64,737 persons in 1990. Maritime trade and industry remain important, but as with other coastal communities in the region, many residents are now employed in tourism-related businesses. These are located both in the city and along the coastline to Biloxi.

Gulfport fishing infrastructure is located primarily along Highway 90 at the City Harbor. More than 100 fishing vessels are moored here. As with commercial and recreational participants in Biloxi, there is competition with casino owners for waterfront space. The harbor is divided; most commercial vessels are located to the west and most recreational vessels including charter and head boat operations are moored to the east. Two marinas, two fishing piers, and one public boat launch are available for recreational anglers. More than ten charter boat operations are based here. Several fishing tournaments are held in the area each year.

Casino on Gulfport Waterfront near Commercial Harbor in 2004

Gulfport Charter Boat Harbor, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Gulfport Demographics

Factor	1990	2000
Total population	40,775	71,127
Gender Ratio M/F (Number)	19,964/20,811	35,244/35,883
Age (Percent of total population)		
Under 18 years of age	25.1	26.0
18 to 64 years of age	60.5	62.6
65 years and over	14.4	11.4
Ethnicity or Race (Number)		
White	28,496	44,229
Black or African American	11,656	23,848
American Indian and Alaskan Native	114	305
Asian	376	891
Native Hawaiian and other Pacific Islander	N/A	65
Some other race	133	622
Two or more races	N/A	1,167
Hispanic or Latino (any race)	632	1,814
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	8.9	6.3
Percent high school graduate or higher	74.8	79.2
Percent with a Bachelor's degree or higher	18.3	19.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.4	5.2
Percent who speak English less than very well	1.4	1.7
Household income (Median $)	21,174	32,779
Poverty Status (Percent of population with income below poverty line)	20.3	17.7
Percent female headed household	25.1	18.2
Home Ownership (Number)		
Owner occupied	8,957	15,827
Renter occupied	6,840	11,116
Value Owner-occupied Housing (Median $)	52,100	80,300
Monthly Contract Rent (Median $)	274	538
Employment Status (Population 16 yrs and over)		
Percent in the labor force	59.2	63.6
Percent of civilian labor force unemployed	8.3	7.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	26.8
Service occupations	N/A	23.5
Sales and office occupations	N/A	27.4
Farming, fishing, and forestry occupations	0.7	0.2
Construction, extraction, and maintenance occupations	N/A	10.6
Production, transportation, and material moving occupations	N/A	11.5
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.8	0.3
Mining (includes the offshore oil/gas industry workforce)	0.3	0.2
Manufacturing	11.0	6.8
Percent government workers	21.5	18.6
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	20.2
Percent worked outside of county of residence	7.3	7.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Gulfport in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	2
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	2
Hotels/Inns (dockside)	Several
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	2
Bait & Tackle/fishing supplies	5
Recreational Fishing Tournaments	5
Sea Grant Extension office	0
Seafood restaurants	10+
Seafood retail markets	3
Trucking operations	0
Site-seeing/pleasure tours	2
Charter/Head Boats	17
Commercial Boats	~75

Table 3. Primary Fishing-related Businesses Listed for Gulfport in 2003

Type of Business	Frequency
Boat Builder/Broker	12
Boat Builder/Broker; Marina	4
Boat Rentals & Pier	3
Marina	3
Total	22

Table 4. Gulfport Commercial Landings and Value Summary: 2002 (based on dealer data)

Species	Pounds Reported	Ex-Vessel Value ($)
Total	755,415	1,787,658

Table 5. Gulfport State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
152	10	8,591
Total = 162		
% Households Holding Commercial Permit or License: 162/26,943 = 0.6		Average Number of Licenses per Household: 8,591/26,943 = 0.3

Please reference Table 4.2-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.2.4 Long Beach (incorporated, pop. 17,320)

Location and Overview. Long Beach is located along U.S. Highway 90 on the Mississippi Sound in south-central Harrison County. Gulfport is about five miles east on Highway 90, while Bay St. Louis is about 11 miles west. The open water of the Gulf of Mexico is roughly 15 miles south.

The Long Beach area is primarily residential in nature, with many of its residents commuting to work in the gaming industry in nearby Gulfport, Biloxi, or New Orleans, Louisiana (City of Long Beach; Coast Chamber 2003). Like so many coastal towns and cities in Mississippi, the waterfront is now bordered with stately homes and condominiums.

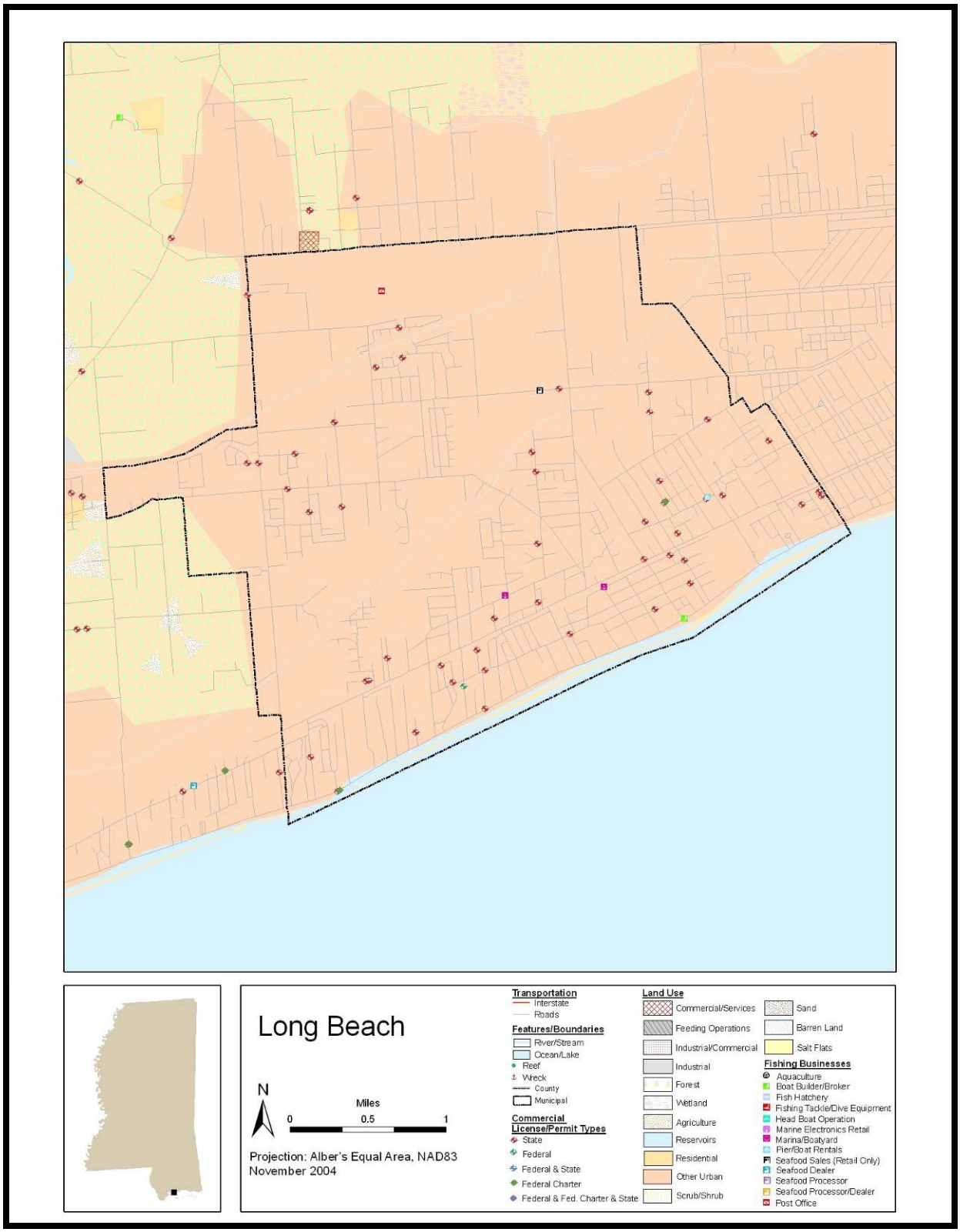
History. Long Beach was incorporated in August, 1905 (Alexander 1980). Prior to incorporation, it was a seaside community often visited by persons from Biloxi and Gulfport.

Current Conditions and Trends. The year 2000 population of Long Beach was 17,320 persons, up 1,516 from 1990. Most residents were employed in management/professional occupations, with some commuting up to 20 minutes to work in adjacent towns and cities.

Waterfront Homes in Long Beach

Some commercial fishing infrastructure is located along the waterfront side of Highway 90. Mostly recreational vessels are docked in the municipal harbor. The only fishing pier is also located at the harbor. There is one retail/wholesale seafood dealer based in Long Beach. Numerous commercial fishing captains reside in the area. Shrimp led the landings figures in 2000.

Long Beach Harbor



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Long Beach Demographics

Factor	1990	2000
Total population	15,804	17,320
Gender Ratio M/F (Number)	7,650/8,154	8,349/8,971
Age (Percent of total population)		
Under 18 years of age	29.2	27.1
18 to 64 years of age	61.7	61.6
65 years and over	9.1	11.2
Ethnicity or Race (Number)		
White	14,504	15,154
Black or African American	849	1,275
American Indian and Alaskan Native	36	67
Asian	368	445
Native Hawaiian and other Pacific Islander	N/A	12
Some other race	47	117
Two or more races	N/A	250
Hispanic or Latino (any race)	234	397
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	4.6	5.0
Percent high school graduate or higher	85.1	86.3
Percent with a Bachelor's degree or higher	24.2	24.3
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	6.0	6.2
Percent who speak English less than very well	2.4	2.1
Household income (Median $)	30,695	43,289
Poverty Status (Percent of population with income below poverty line)	9.9	9.0
Percent female headed household	15.0	13.5
Home Ownership (Number)		
Owner occupied	3,801	4,348
Renter occupied	1,801	2,212
Value Owner-occupied Housing (Median $)	62,000	92,100
Monthly Contract Rent (Median $)	313	621
Employment Status (Population 16 yrs and over)		
Percent in the labor force	66.6	65.7
Percent of civilian labor force unemployed	5.2	3.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	34.6
Service occupations	N/A	19.7
Sales and office occupations	N/A	27.2
Farming, fishing, and forestry occupations	0.7	0.1
Construction, extraction, and maintenance occupations	N/A	9.1
Production, transportation, and material moving occupations	N/A	9.3
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	0.7	0.6
Mining (includes the offshore oil/gas industry workforce)	0.6	0.5
Manufacturing	11.4	7.7
Percent government workers	29.0	18.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	20.3
Percent worked outside of county of residence	10.3	13.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Long Beach in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	1
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	1
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	2
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	1
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	1
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	5
Commercial Boats	2

Table 3. Primary Fishing-related Businesses Listed for Long Beach in 2003

Type of Business	Frequency
Boat Builder/Broker	1
Boat Builder/Broker; Boat Rentals and Pier	1
Boat Rentals & Pier	1
Marina	3
Seafood Dealer	1
Total	7

Table 4. Long Beach Commercial Landings and Value Summary: 2002

Dealer data may not be reported for Long Beach under the "rule of three."

Table 5. Long Beach State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
106	3	2,753
Total = 109		
% Households Holding Commercial Permit or License: 109/6,560 = 1.6		Average Number of Licenses per Household: 2,753/6,560 = 0.4

Please reference Table 4.2-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.2.5 Pass Christian (incorporated, pop. 6,579)

Location and Overview. Pass Christian is located along U.S. Highway 90 in the southwestern portion of Harrison County. The town is surrounded by two large bodies of water: the Mississippi Sound (with Intracoastal Waterway) and St. Louis Bay. To the west are Bay St. Louis (six miles) and New Orleans (55 miles), with Gulfport nearly 20 miles to the east.

The seafood industry has been prominent throughout the town's history. Indeed, one of the largest oyster reefs on the Mississippi Gulf Coast is near Pass Christian. Residents have long been involved in harvest and processing of this important resource.

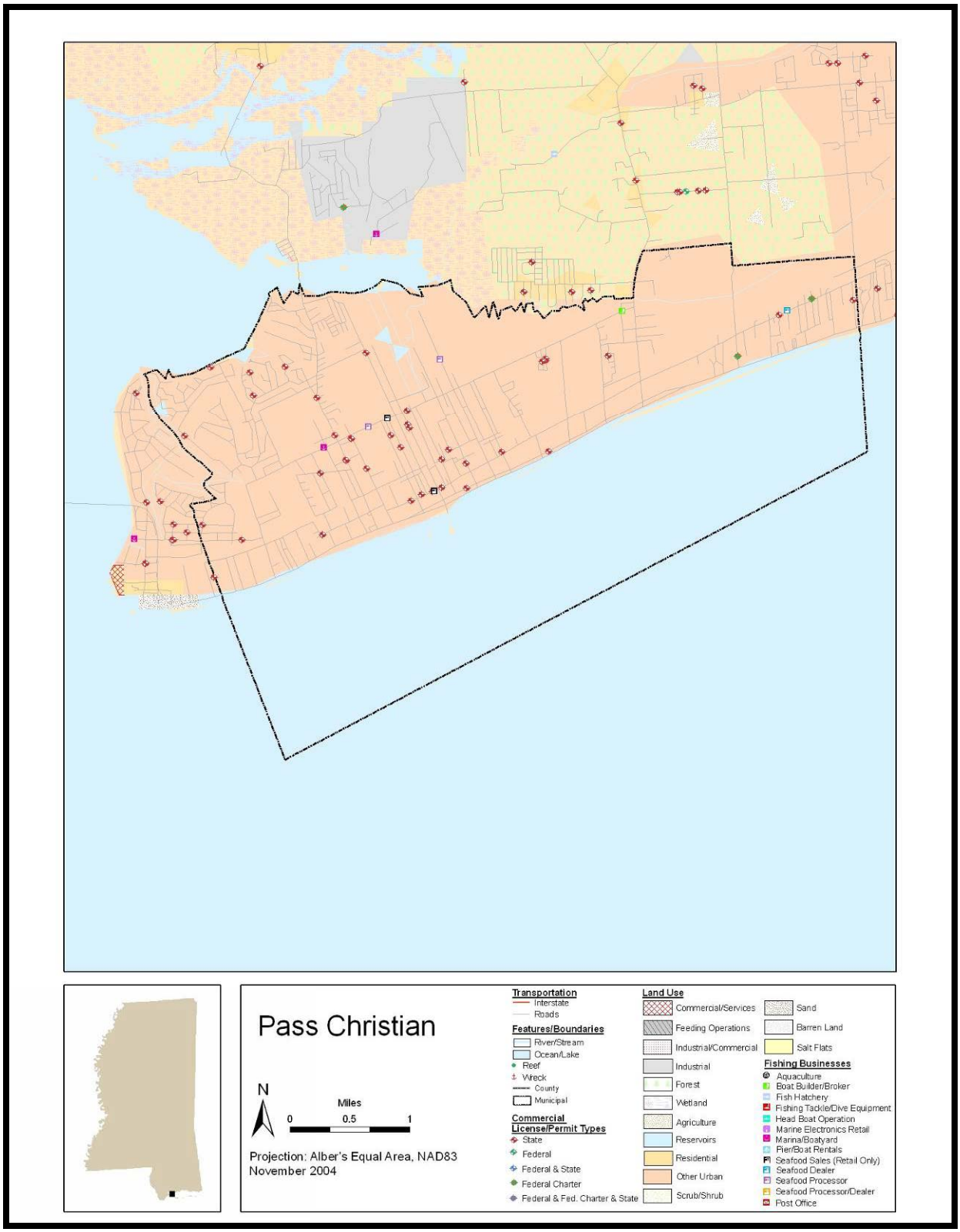
Pass Christian Commercial Harbor

History. Pass Christian was initially settled by French-Canadian explorers. Its name derives from the deepwater passage between the barrier islands and coastline along the Mississippi Sound. By the early 1800s, Pass Christian was an important center of trade on Mississippi Sound. The town eventually developed a reputation as fishing community. It was chartered as a town in 1838. A seafood-canning factory once operated where the present Yacht Club stands (Carlin 1998). In 1969, the eye of Hurricane Camille passed close to Pass Christian. The storm destroyed over 6,000 homes and damaging over 14,000 others along the Mississippi coast. Overall, the storm caused over $4.2 billion worth of damage and killed an estimated 225 persons in the region.

Pass Christian Welcome Sign

Current Conditions and Trends. As of 2000, the population of Pass Christian was 6,579 persons, up 1,018 from 1990. Many residents are employed in management/professional and sales-related occupations. Tourism and gambling enterprises are also major sources of employment. The coastal strand from Bay St. Louis to the west and Biloxi to the east encompasses six towns/cities within easy commuting distance of Pass Christian.

Pass Christian is home port to over 75 commercial fishing vessels. While most are rigged for trawling, some are also geared as oyster dredges. There are five wholesale seafood dealers in the area, with one located at the city docks. Three marinas are located in and around town, as is one bait and tackle shop. A fishing pier and a boat launch are located at the harbor. At least three charter boat operations are based in Pass Christian. An annual seafood festival celebrates the historic significance of the seafood industry here.



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Pass Christian Demographics

Factor	1990	2000
Total population	5,557	6,579
Gender Ratio M/F (Number)	2,601/2,956	3,059/3,520
Age (Percent of total population)		
Under 18 years of age	25.1	23.4
18 to 64 years of age	55.4	57.4
65 years and over	19.5	19.1
Ethnicity or Race (Number)		
White	3,532	4,336
Black or African American	1,712	1,853
American Indian and Alaskan Native	21	41
Asian	285	229
Native Hawaiian and other Pacific Islander	N/A	2
Some other race	7	41
Two or more races	N/A	77
Hispanic or Latino (any race)	59	115
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	12.0	6.0
Percent high school graduate or higher	75.1	85.2
Percent with a Bachelor's degree or higher	26.5	27.7
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	7.9	7.8
Percent who speak English less than very well	4.4	3.6
Household income (Median $)	23,469	40,743
Poverty Status (Percent of population with income below poverty line)	19.3	10.8
Percent female headed household	23.3	16.0
Home Ownership (Number)		
Owner occupied	1,470	1,940
Renter occupied	619	747
Value Owner-occupied Housing (Median $)	62,500	99,500
Monthly Contract Rent (Median $)	279	549
Employment Status (Population 16 yrs and over)		
Percent in the labor force	54.0	60.0
Percent of civilian labor force unemployed	10.6	6.2
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	35.0
Service occupations	N/A	17.1
Sales and office occupations	N/A	27.5
Farming, fishing, and forestry occupations	4.2	1.7
Construction, extraction, and maintenance occupations	N/A	8.2
Production, transportation, and material moving occupations	N/A	10.5
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.7	1.7
Mining (includes the offshore oil/gas industry workforce)	0.6	2.5
Manufacturing	20.2	10.5
Percent government workers	20.4	14.9
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	26.6
Percent worked outside of county of residence	25.1	25.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Pass Christian in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	1
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	1
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	3
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	1
Sea Grant Extension office	0
Seafood restaurants	Several
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	1
Charter/Head Boats	3
Commercial Boats	75+

Table 3. Primary Fishing-related Businesses Listed for Pass Christian in 2003

Type of Business	Frequency
Boat Builder/Broker	1
Fish Hatchery	1
Marina	3
Processor	1
Seafood Dealer	3
Total	9

Table 4. Pass Christian Commercial Landings and Value Summary: 2002

Dealer data may not be reported for Pass Christian under the "rule of three."

Table 5. Pass Christian State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
160	4	2,434
Total = 164		
% Households Holding Commercial Permit or License: 164/2,687 = 6.1		Average Number of Licenses per Household: 2,434/2,687 = 0.9

Please reference Table 4.2-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

USGS Aerial Photo of Pass Christian Following Passage of Katrina, 8/31/05

4.3 Hancock County Communities

This section describes the study communities in Hancock County. These are: Bay St. Louis, Kiln, Lakeshore, Pearlington, and Waveland.

Hancock County encompasses 485 square miles of land in the extreme southwest corner of Mississippi. The county is bordered by Harrison County to the east, Pearl River County to the north, St. Tammany Parish, Louisiana to the west, and the Mississippi Sound to the south. With a year 2000 population of 42,967 persons, Hancock was the 15th most populous county in the state in 2000. This area is part of the Pascagoula Metropolitan Statistical Area.

Hancock County was established in 1812. It was named in honor of John Hancock, a signer of the Declaration of Independence. Its economy has long been based partly in timber production. Today, commercial forestry utilizes 65 percent of land in the county (Mississippi Development Authority 2002). Services, construction, manufacturing, and wholesale and retail trade are the leading contemporary employment sectors (U.S. Census Bureau 2000). Shrimping and oystering are the primary commercial fishing activities here.

As of 2001, five oil and gas fields with 30 producing wells were scattered throughout the county. However, the economic significance of the oil industry continues to wane in the region. Diminishing oil production indicates this decline: Hancock County dropped from the 15th to the 31st most productive among Mississippi counties between1980 and 2000 (Mississippi Oil and Gas Board 2004).

As of the year 2000 Census, the racial composition of Hancock County was 91 percent Caucasian, seven percent African American, two percent Hispanic, and one percent Asian. This has shifted during the twentieth century. For instance, the 1920 Census indicates 74 percent of residents were Caucasian and 26 percent were African American.

Median family income in Hancock County in 2000 was $40,307; this figure is 108 percent of the state median. The figure has remained mostly constant during recent decades. The year 2000 Census enumerated 11 percent of county households in conditions poverty, and single women headed 11 percent of households.

Hancock
Mississippi
Harrison
Kiln
Hancock
Louisiana
Bay St Louis
Waveland
Lakeshore
Pearlington
Hancock
N
0
2
4
8 Miles
Legend
Study Community
Processor
Processor and Seafood Dealer
Seafood Dealer
Reef
Wreck
Platform
County Lines
Interstate

Table 4.3-1 Earnings in Hancock County: 1990-2000

Industry	Earnings (Constant 2000 $1000s)		Percent Share of 2000 Earnings	$ Change 1990-2000
	1990	2000		
Earnings by place of work	441,414	629,939	100.0	188,525
Farm earnings	175	-1,168	-0.2	-1,343
Agricultural services, forestry, fishing	1,702	(Confidential)	n/a	n/a
Fishing	1,394	1,616	0.3	222
Mining	1,105	(Confidential)	n/a	n/a
Oil and gas extraction	1,105	(Confidential)	n/a	n/a
Construction	10,278	33,134	5.3	22,856
Special trade contractors	6,611	16,521	2.6	9,910
Manufacturing	98,274	88,915	14.1	-9,359
Lumber and wood products	1,267	1,140	0.2	-127
Industrial machinery and equipment	(Confidential)	3,973	0.6	n/a
Other transportation equipment	(Confidential)	(Confidential)	n/a	n/a
Instruments and related products	(Confidential)	0	n/a	n/a
Food and kindred products	0	0	n/a	n/a
Paper and allied products	0	0	n/a	0
Chemicals and allied products	(Confidential)	18,825	3.0	n/a
Transportation and public utilities	13,211	19,501	3.1	6,290
Trucking and warehousing	1,283	5,649	0.9	4,366
Water transportation	(Confidential)	1,968	0.3	n/a
Transportation by air	(Confidential)	(Confidential)	n/a	n/a
Wholesale trade	4,133	5,781	0.9	1,648
Retail trade	24,440	47,034	7.5	22,594
Eating and drinking places	4,108	8,801	1.4	4,693
Finance, insurance, and real estate	8,391	12,393	2.0	4,002
Services	116,393	204,313	32.4	87,920
Hotels and other lodging places	1,126	1,288	0.2	162
Business services	26,244	42,772	6.8	16,528
Amusement and recreation services	(Confidential)	37,962	6.0	n/a
Health services	7,946	22,202	3.5	14,256
Legal services	1,736	5,940	0.9	4,204
Engineering and management services	65,489	76,415	12.1	10,926
Government and assoc. enterprises	163,311	215,776	34.3	52,465

Source: Bureau of Economic Analysis, Regional Economic Information System. (N) Data not available for this year.

Table 4.3-2 Year 2000 Commercial Permits and Licenses, and 2003 Gulf Shrimp Permits: Hancock County*

Permit Type	Study Community				
	Bay St.Louis	Kiln	Lakeshore	Pearlington	Waveland
Pelagic Charter	2	--	--	--	--
Reef Fish Charter	2	--	--	--	1
Swordfish	--	--	--	--	--
King Mackerel	--	--	--	--	--
Rock Shrimp	--	--	--	--	--
Red Snapper	--	--	--	--	1
Spiny Lobster	--	--	--	--	--
Spanish Mackerel	--	--	--	--	--
Gulf Reef Fish	--	--	--	--	--
Shark	--	--	--	--	--
South Atlantic Snapper Grouper	1	--	--	--	--
Total Federal Permits 2000	5	--	--	--	2
Total Federal Permit Holders 2000	2	--	--	--	1
Total State License Holders 2000	303	37	51	53	122
Gulf Shrimp Permits 2003 †	3	--	--	--	--

* Includes all permits that can be attributed to the communities by *both* street and P.O. Box addresses; these data are subsequently refined to provide counts of permit holders for whom evidence suggests actual residence in the community in 2000. † 2003 is the first year for which Gulf shrimp permit data are available.

4.3.1 Bay St. Louis (incorporated, pop. 8,209)

Location and Overview. Bay St. Louis is located in the easternmost portion of Hancock County along the western banks of St. Louis Bay. Interstate 10 parallels the area to the north, though Highway 43 and U.S. 90 are the primary transportation corridors in the immediate area. New Orleans is approximately 40 miles to the west, and Gulfport is about 17 miles east. Gulf of Mexico access is via either Bay St. Louis or Mississippi Sound.

History. The Choctaw Indians were the earliest known inhabitants of the Bay St. Louis area. In 1699, French explorer Bienville claimed the region for France as Bay St. Louis in honor of King Louis IX of France. Territorial rights to Bay St. Louis passed from the French to the British, Spanish and, eventually, back to the French. In the late 1700s, Spanish and French land grants encouraged settlement. Bay St. Louis became part of the U.S. Territories in 1811. The town was incorporated in 1882 (City of Bay St. Louis). There is a long history of fishing in the region.

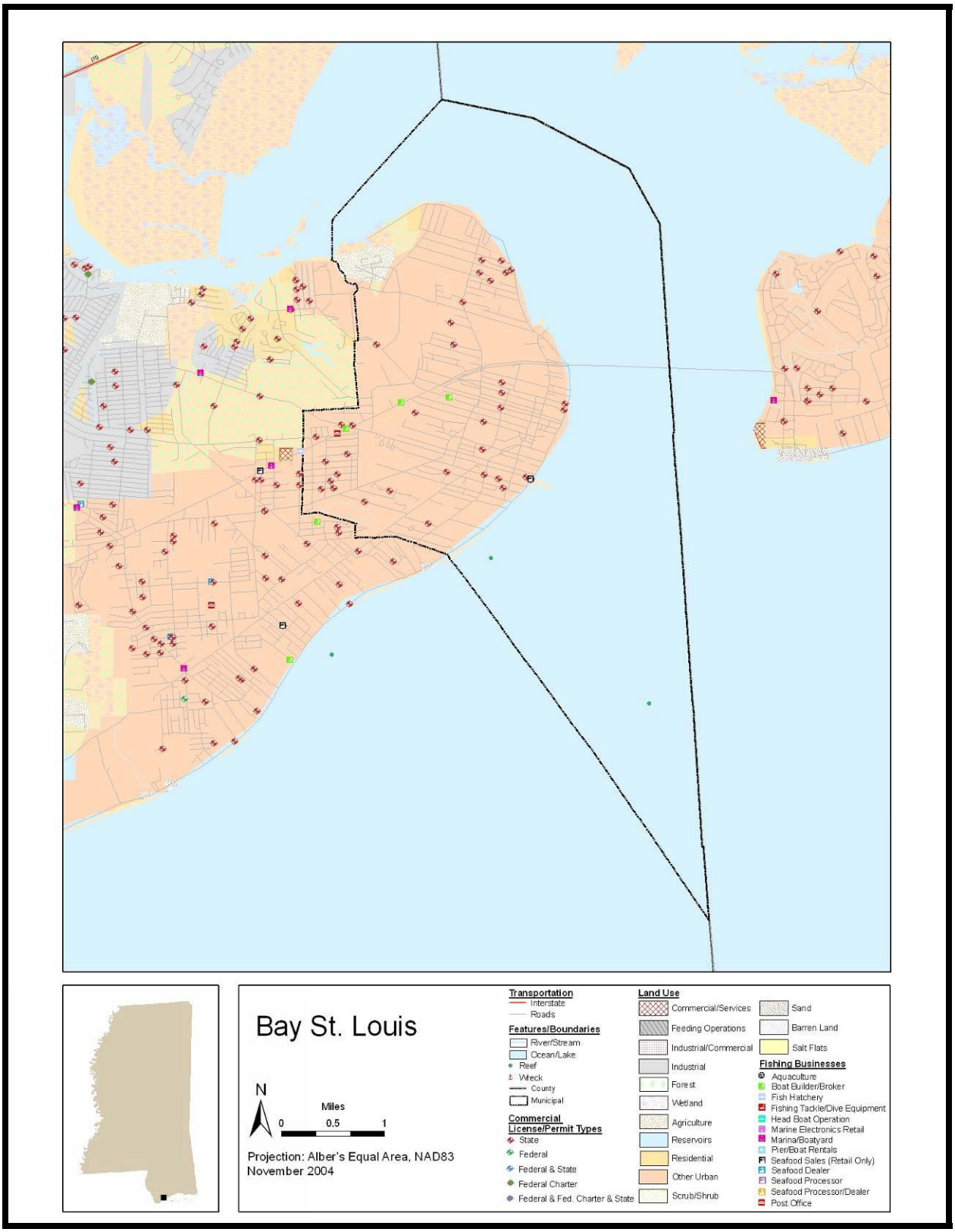
Current Conditions and Trends. The year 2000 Census enumerated 8,209 residents, an increase of 145 from 1990. A large percentage of residents are employed in tourism-related jobs, especially those associated with gaming. Many commute to jobs in Gulfport.

There are numerous waterfront homes in the Bay St. Louis area, many of which have private docks. The historic downtown district once featured several seafood houses; today, there is one retail seafood dealer located here. Fishing-related infrastructure is scattered throughout the city, including five retail and wholesale seafood dealers. A large contingent of commercial fishery participants resides here, though most vessels are moored in the Lakeshore area and many maintain ties with seafood dealers in that area. Shrimp was the primary landing for local dealers in 2002.

Recreational anglers have access to five marinas and three fishing piers, along with two public boat launches, one of which is located along the sound and the other in the bay areas. A crab festival is held in the area each July.

Bay St. Louis Waterfront

Bay St. Louis Yacht Club



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Bay St. Louis Demographics

Factor	1990	2000
Total population	8,063	8,209
Gender Ratio M/F (Number)	4,035/4,028	3,933/4,276
Age (Percent of total population)		
Under 18 years of age	29.5	24.5
18 to 64 years of age	54.8	58.9
65 years and over	15.7	16.6
Ethnicity or Race (Number)		
White	6,522	6,586
Black or African American	1,451	1,362
American Indian and Alaskan Native	17	33
Asian	48	91
Native Hawaiian and other Pacific Islander	N/A	4
Some other race	25	16
Two or more races	N/A	117
Hispanic or Latino (any race)	186	138
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	11.4	5.9
Percent high school graduate or higher	72.3	82.9
Percent with a Bachelor's degree or higher	18.2	25.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	5.1	7.1
Percent who speak English less than very well	2.3	2.8
Household income (Median $)	19,177	34,106
Poverty Status (Percent of population with income below poverty line)	23.9	13.2
Percent female headed household	23.4	14.7
Home Ownership (Number)		
Owner occupied	1,943	2,152
Renter occupied	992	1,119
Value Owner-occupied Housing (Median $)	52,400	92,400
Monthly Contract Rent (Median $)	245	520
Employment Status (Population 16 yrs and over)		
Percent in the labor force	50.4	60.7
Percent of civilian labor force unemployed	7.5	6.9
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	33.3
Service occupations	N/A	22.1
Sales and office occupations	N/A	23.0
Farming, fishing, and forestry occupations	2.1	0.3
Construction, extraction, and maintenance occupations	N/A	10.0
Production, transportation, and material moving occupations	N/A	11.2
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	1.2	0.5
Mining (includes the offshore oil/gas industry workforce)	0.8	0.5
Manufacturing	12.3	8.0
Percent government workers	24.7	20.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	26.5
Percent worked outside of county of residence	42.1	34.2

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years

Table 2. Fishing Infrastructure and Services Observed in Bay St. Louis in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	2
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2
Recreational docks/marinas	5 (nearby)
Bait & Tackle/fishing supplies	3
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	3
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	3
Commercial Boats	10

Table 3. Primary Fishing-related Businesses Listed for Bay St. Louis in 2003

Type of Business	Frequency
Boat Builder/Broker	5
Fish Hatchery	1
Marina	7
Seafood Dealer	3
Total	16

Table 4. Bay St. Louis Commercial Landings and Value Summary: 2002 (based on dealer data)

Species	Pounds Reported	Ex-Vessel Value ($)
Total Combined	1,518,575	2,856,384

Table 5. Bay St. Louis State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
255	1	2,710
Total = 256		
% Households Holding Commercial Permit or License: 256/3,271 = 7.8		Average Number of Licenses per Household: 2,710/3,271 = 0.8

Please reference Table 4.3-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.3.2 Kiln (incorporated, pop. 2,040)

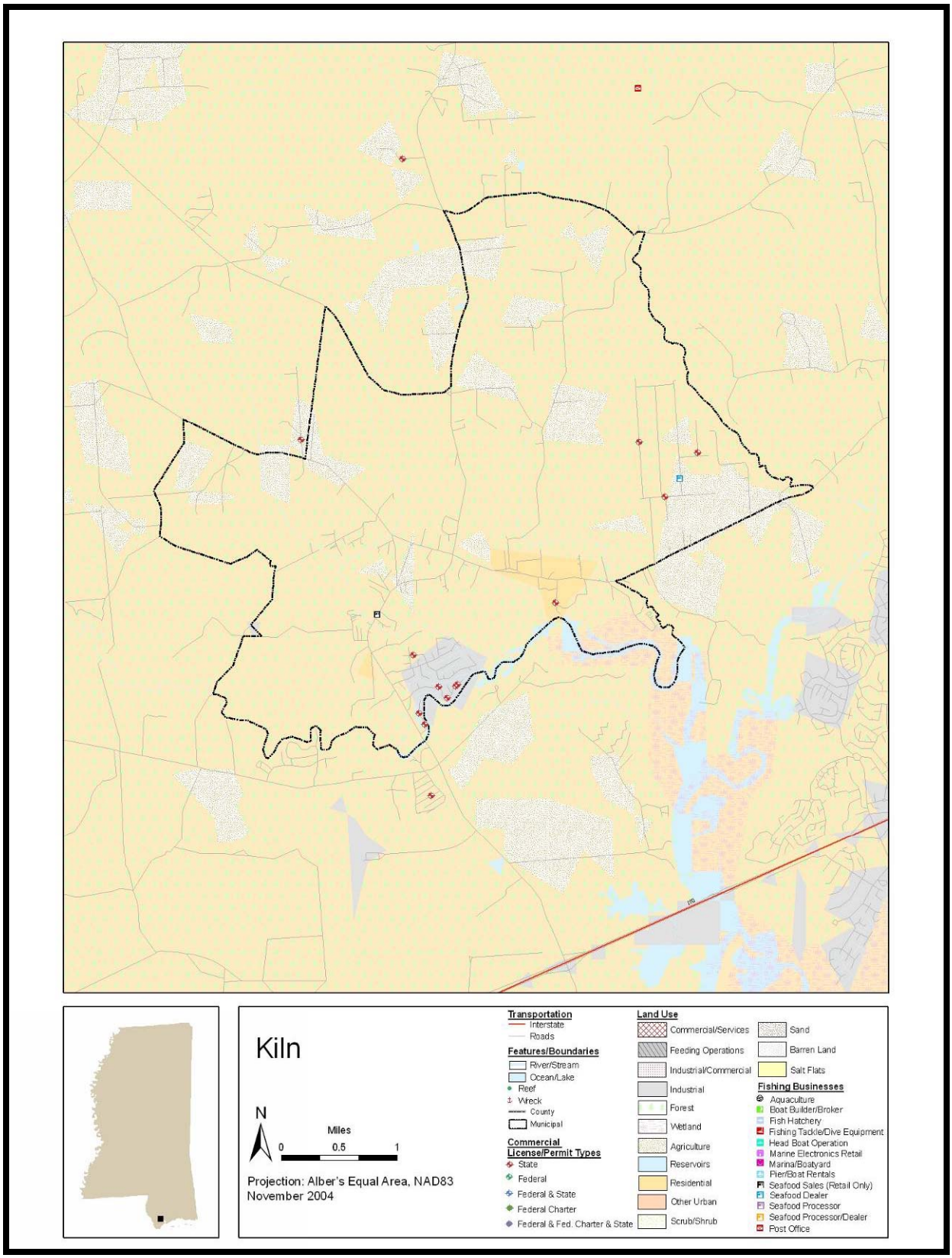
Location and Overview. Kiln is located along U.S. State Highway 603 in central Hancock County. Interstate 10 is approximately four miles south of this inland town. This rural, mostly residential town is approximately 13 miles northwest of Bay St. Louis. New Orleans is 44 miles southwest. A few gas stations, restaurants, and service establishments serve residents and motorists along the highway. The Jourdan River flows less than one mile south of town. While there is no direct Gulf access, fishery participants may navigate the river to St. Louis Bay to access the Gulf by way of the Mississippi Sound.

History. Kiln derives its names from the kilns built by 18th century French settlers to produce tar and charcoal. Timber production was important by the 1900s. Indeed, Kiln was once the site of the largest sawmill and drying kiln in the South. It remained a lumber town until the 1930s, when depletion of local timber stands forced an end to this once prosperous industry. With few employment opportunities, some residents turned to the production of illegal whiskey (Howard, n.d.). These residents reportedly profited by the activity, and their town earned the nickname of the "moonshine capital of the world" during the Prohibition (Ellis).

Current Conditions and Trends. The year 2000 population of Kiln was 2,040 persons, up from 1,262 in 1990. Construction and sales-related jobs were primary occupations in 2000. Although the nearby river has long provided residents with a source for freshwater fish, there are no significant marine fisheries services or infrastructure in the area.

A contingent of commercial fishery participants resides in the Kiln area. Most operate from the Bay St. Louis area, and interact with seafood dealers there.

Kiln Seafood Restaurant



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Kiln Demographics

Factor	1990	2000
Total population	1,262	2,040
Gender Ratio M/F (Number)	663/599	1,029/1,011
Age (Percent of total population)		
Under 18 years of age	25.7	27.3
18 to 64 years of age	61.4	62.8
65 years and over	12.9	10.0
Ethnicity or Race (Number)		
White	1,184	1,958
Black or African American	57	53
American Indian and Alaskan Native	14	6
Asian	7	6
Some other race	0	2
Two or more races	N/A	15
Hispanic or Latino (any race)	15	31
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	19.5	9.0
Percent high school graduate or higher	54.8	81.4
Percent with a Bachelor's degree or higher	9.6	13.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.2	1.9
Percent who speak English less than very well	0.9	0.0
Household income (Median $)	29,750	38,125
Poverty Status (Percent of population with income below poverty line)	25.2	21.1
Percent female headed household	12.9	11.8
Home Ownership (Number)		
Owner occupied	409	669
Renter occupied	57	113
Value Owner-occupied Housing (Median $)	55,800	94,500
Monthly Contract Rent (Median $)	198	416
Employment Status (Population 16 yrs and over)		
Percent in the labor force	53.3	59.2
Percent of civilian labor force unemployed	8.8	7.3
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	17.4
Service occupations	N/A	17.4
Sales and office occupations	N/A	29.1
Farming, fishing, and forestry occupations	1.4	2.2
Construction, extraction, and maintenance occupations	N/A	23.0
Production, transportation, and material moving occupations	N/A	11.0
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	2.0	5.2
Mining (includes the offshore oil/gas industry workforce)	1.4	3.0
Manufacturing	16.5	8.4
Percent government workers	15.7	13.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	29.4
Percent worked outside of county of residence	39.3	29.1

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Kiln in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	2 (nearby)
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	1
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	0

Table 3. Primary Fishing-related Businesses Listed for Kiln in 2003

Type of Business	Frequency
Seafood Dealer	1
Total	1

Table 4. Kiln Commercial Landings and Value Summary: 2002

Data cannot be attributed to commercial operators in Kiln. Most participants sell to dealers in the Bay St. Louis area.

Table 5. Kiln State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
34	--	870
Total = 34		
% Households Holding Commercial Permit or License: 34/782 = 4.3		Average Number of Licenses per Household: 870/782 = 1.1

Please reference Table 4.3-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.3.3 Lakeshore (unincorporated, pop. 910)

Location and Overview. Lakeshore is located on the western banks of the Mississippi Sound in southeastern Hancock County. New Orleans is about 40 miles to the west and Pascagoula is approximately 50 miles east. The town is rather isolated, as it is surrounded by bayous and large stretches of marshlands. Residences are dispersed in neighborhoods with both paved and unpaved streets. County Road 101 is the primary route of access to and from town. Highway 90, the main coastal thoroughfare, is about four miles to the north. Gulf access is available less than 15 miles southeast via Mississippi Sound.

Trawlers Moored at Wholesale Dealer in Lakeshore Area, 2004

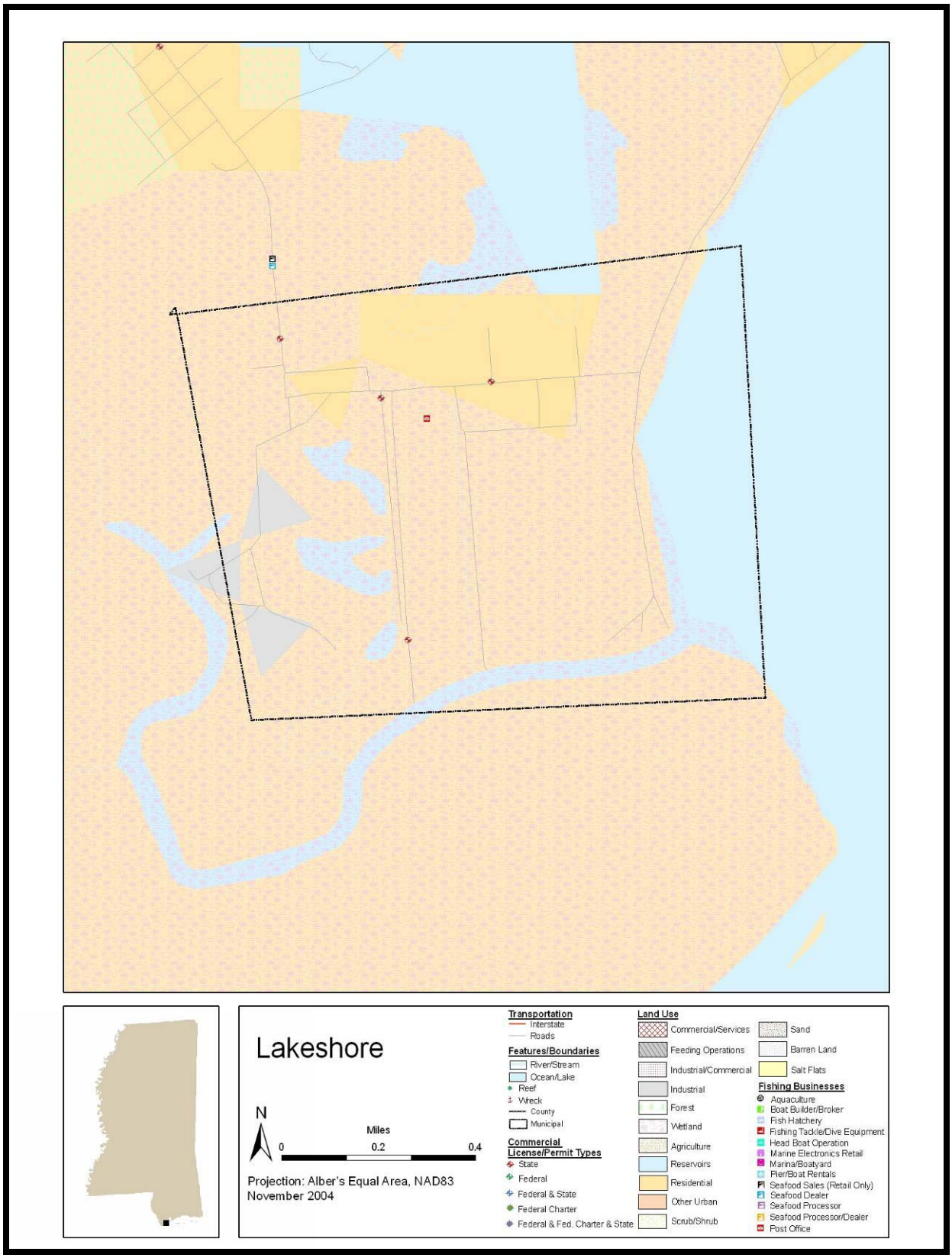
Current Conditions and Trends. As of 2000, the population of Lakeshore was 910 persons, up 338 persons from 1990. Of residents in the labor force, more than half were employed in sales and service-related jobs. Nearly 30 percent of those employed worked outside of Hancock County. Many commute to jobs in the New Orleans area.

There are two canals in Lakeshore, each lined with elevated homes and piers where numerous commercial fishing vessels are docked. Vessels range from small bay boats to large Gulf shrimp vessels. There are over 100 commercial fishing vessels moored in the area, with most fishery participants harvesting shrimp or oysters. While there is a small contingent of local commercial participants, many vessel owners actually live in adjacent communities such as Bay St. Louis. The State Division of Marine Resources has a station here for administration of oyster tags and

permits. Three seafood wholesale dealers base their operations in town, one of which primarily handles oysters. A retail seafood dealer, who also offers bait and tackle and related services, is located along Lakeshore Boulevard.

Trawlers Docked along Lakeshore Canal in 2004

Elevated Homes in the Lakeshore Canal Area in 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Lake Shore Demographics

Factor	1990	2000
Total population	572	910
Gender Ratio M/F (Number)	287/285	483/427
Age (Percent of total population)		
Under 18 years of age	23.2	21.9
18 to 64 years of age	59.5	65.0
65 years and over	17.3	13.1
Ethnicity or Race (Number)		
White	562	840
Black or African American	0	3
American Indian and Alaskan Native	2	21
Asian	8	41
Native Hawaiian and other Pacific Islander	N/A	0
Two or more races	N/A	5
Hispanic or Latino (any race)	1	3
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	13.3	10.4
Percent high school graduate or higher	41.9	74.7
Percent with a Bachelor's degree or higher	1.5	7.6
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	4.3	2.2
Percent who speak English less than very well	0.0	0.0
Household income (Median $)	13,450	31,071
Poverty Status (Percent of population with income below poverty line)	20.3	15.8
Percent female headed household	13.8	8.7
Home Ownership (Number)		
Owner occupied	195	282
Renter occupied	40	96
Value Owner-occupied Housing (Median $)	41,300	58,800
Monthly Contract Rent (Median $)	232	465
Employment Status (Population 16 yrs and over)		
Percent in the labor force	51.4	57.2
Percent of civilian labor force unemployed	18.6	2.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	17.4
Service occupations	N/A	28.3
Sales and office occupations	N/A	28.6
Farming, fishing, and forestry occupations	3.4	5.0
Construction, extraction, and maintenance occupations	N/A	9.9
Production, transportation, and material moving occupations	N/A	8.4
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	3.4	7.9
Mining (includes the offshore oil/gas industry workforce)	0.0	0.0
Manufacturing	18.6	13.2
Percent government workers	21.5	13.2
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	N/A
Percent worked outside of county of residence	75.7	30.4

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Lakeshore in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	4+
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	3
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	0
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	1
Public boat ramps	0
Recreational docks/marinas	1
Bait & Tackle/fishing supplies	1
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	1
Charter/Head Boats	0
Commercial Boats	100+

Table 3. Primary Fishing-related Businesses Listed for Lakeshore in 2003

None listed

Table 4. Lakeshore Commercial Landings and Value Summary: 2002

Dealer data may not be reported for Lakeshore under the "rule of three."

Table 5. Lakeshore State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
34	--	162
Total = 34		
% Households Holding Commercial Permit or License: 34/378 = 8.9		Average Number of Licenses per Household: 162/378 = 0.4

Please reference Table 4.3-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.3.5 **Pearlington** (incorporated, pop. 1,684)

Location and Overview. Pearlington is located along State Route 604 on the Mississippi-Louisiana border in western Hancock County. The Pearl River forms the town's western border and U.S. Highway 90 parallels its southern boundary. New Orleans is roughly 30 miles southwest. Modest residences typify this rural town. There is no central business district.

Direct Gulf access is not available from the area. Most of the local contingent of commercial operators harvests oysters locally, but shrimp trawlers may navigate the Pearl River to either Little Lake in St. Tammany Parish, Louisiana or continue southeast to the Heron Bay area. The Gulf is then 15 miles south.

History. Pearlington is one of the oldest towns in Southern Mississippi. Its name is derived from pearls found in oysters harvested from the nearby river. In 1820, the Pearlington Company incorporated for the purposes of laying out the town. It was incorporated in 1822.

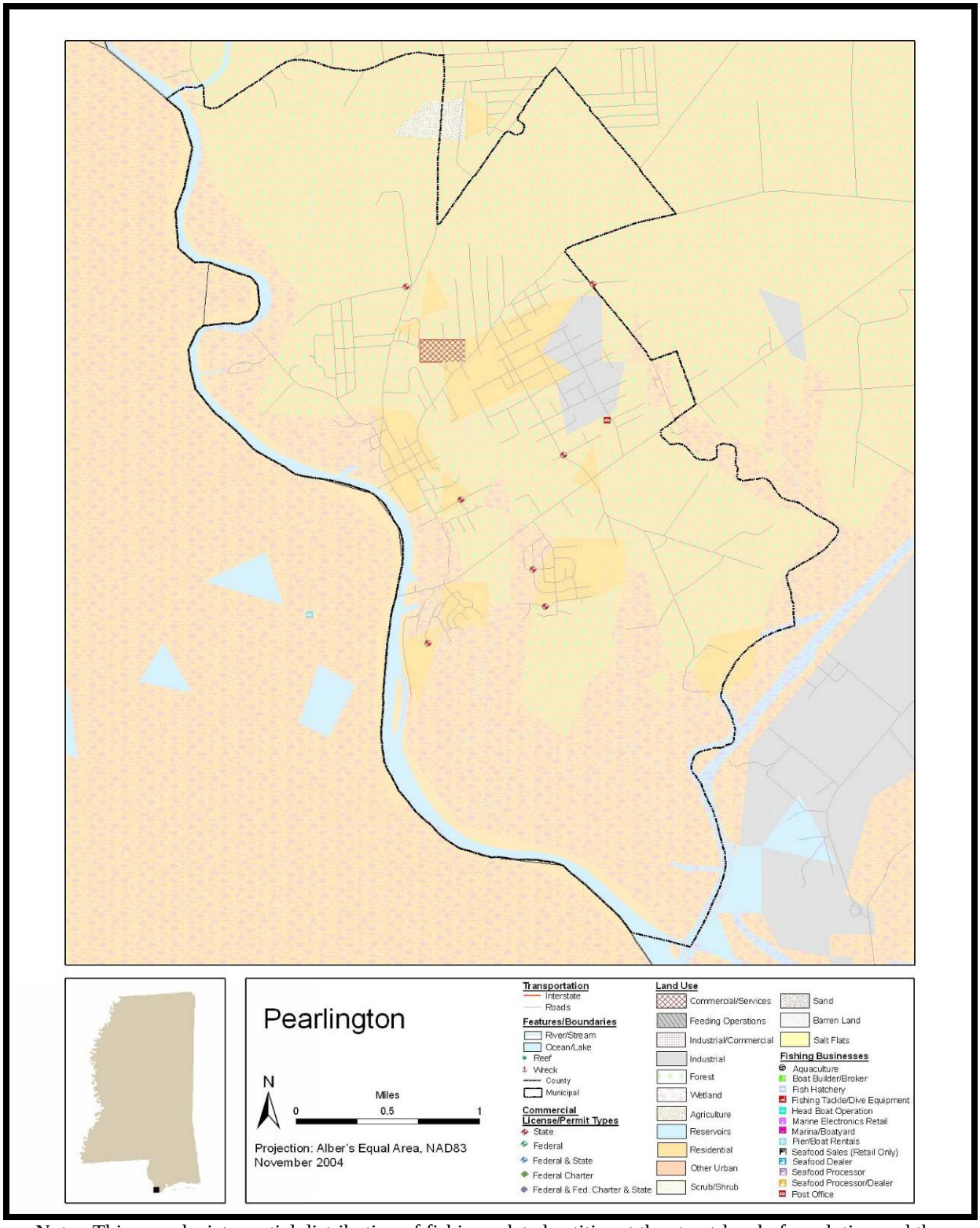
Establishment of the John C. Stennis Space Center- which was built north of town in the early 1960s- affected the population of Pearlington, in that residents of some of the nearby dispersed, rural communities were bought out and forced to move. Many of these people then settled in Pearlington.

Current Conditions and Trends. The year 2000 census enumerated 1,684 persons in Pearlington, up from 1,603 in 1990. At least half of employed residents travel outside the county to work, with many commuting to jobs in New Orleans. Other employed residents commute to nearby Bay St. Louis or to the beachfront communities to the east.

Local anglers must travel for any variety in fishing equipment. Fishing infrastructure is limited to one boat launch and a small fishing pier.

Pier at Boat Ramp in Pearlington, 2004

Waterfront Homes in Pearlington in 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Pearlington Demographics

Factor	1990	2000
Total population	1,603	1,684
Gender Ratio M/F (Number)	786/817	839/845
Age (Percent of total population)		
Under 18 years of age	30.2	25.8
18 to 64 years of age	58.3	61.2
65 years and over	11.5	12.9
Ethnicity or Race (Number)		
White	1,181	1,306
Black or African American	404	344
American Indian and Alaskan Native	13	6
Asian	4	2
Native Hawaiian and other Pacific Islander	N/A	0
Some other race	1	2
Two or more races	N/A	24
Hispanic or Latino (any race)	18	23
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	17.5	9.1
Percent high school graduate or higher	67.0	71.4
Percent with a Bachelor's degree or higher	5.0	10.4
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	3.9	2.4
Percent who speak English less than very well	1.2	0.1
Household income (Median $)	15,380	31,224
Poverty Status (Percent of population with income below poverty line)	33.2	17.6
Percent female headed household	18.1	11.9
Home Ownership (Number)		
Owner occupied	461	546
Renter occupied	99	102
Value Owner-occupied Housing (Median $)	48,900	60,700
Monthly Contract Rent (Median $)	211	406
Employment Status (Population 16 yrs and over)		
Percent in the labor force	58.0	55.3
Percent of civilian labor force unemployed	18.0	7.8
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	28.8
Service occupations	N/A	20.2
Sales and office occupations	N/A	18.0
Farming, fishing, and forestry occupations	4.2	0.0
Construction, extraction, and maintenance occupations	N/A	15.7
Production, transportation, and material moving occupations	N/A	17.3
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	4.0	0.0
Mining (includes the offshore oil/gas industry workforce)	2.8	0.4
Manufacturing	12.5	7.9
Percent government workers	13.3	16.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	37.5
Percent worked outside of county of residence	62.0	50.3

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Pearlington in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	1
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	0
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	several

Table 3. Primary Fishing-related Businesses Listed for Pearlington in 2002

None listed

Table 4. Pearlington Commercial Landings and Value Summary: 2002 (based on dealer data)

Data from regional seafood dealers cannot be confidently attributed to commercial operators in Pearlington.

Table 5. Pearlington State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
41	--	251
Total = 41		
% Households Holding Commercial Permit or License: 41/648 = 6.3		Average Number of Licenses per Household: 251/648 = 0.4

Please reference Table 4.3-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

4.3.6 **Waveland** (incorporated, pop. 6,674)

Location and Overview. Waveland is located on the west coast of the Mississippi Sound in eastern Hancock County. Approximately five miles of beachfront are available to residents and visitors. The community is 45 miles east of New Orleans and 25 miles west of Biloxi and Gulfport. Waveland is a suburb of Bay St. Louis. There is relatively little industry here, although there are large retail stores located along State Road 603, an emerging business corridor. Highway 90 transects the area, enabling transportation to points east and west. Interstate 10 parallels the town to the north and can be accessed via State Route 43.

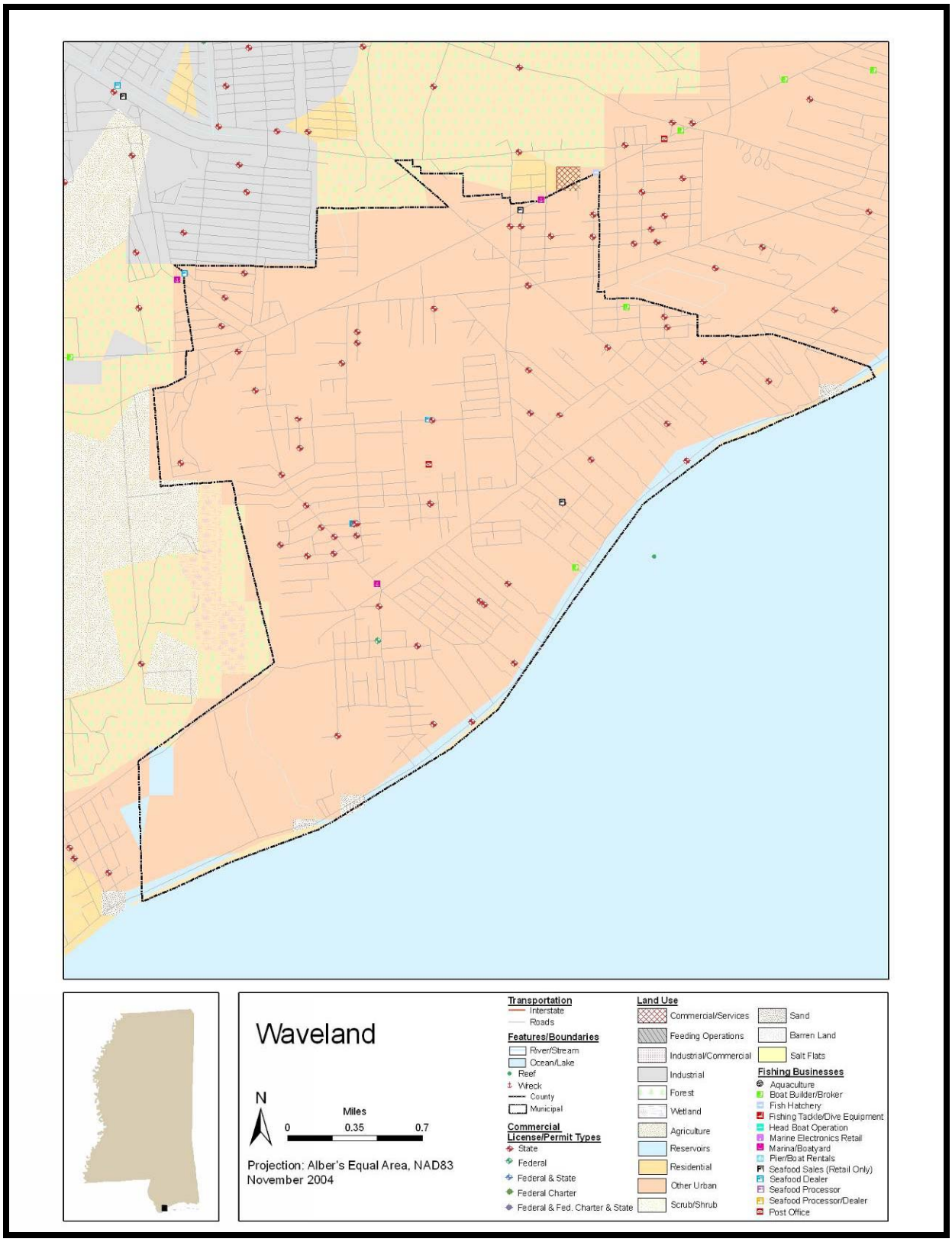
History. The Indian name for Waveland was "Chukapullo," meaning "bad point" in reference to the plethora of sand spurs in the area. Early settlers engaged in agriculture and/or harvested crabs and oysters in the sound areas (Scharff 1999).

Waveland historically has been a popular beach retreat for residents of New Orleans. At the turn of the century, vacation homes and piers were built along the waterfront. Hurricanes have repeatedly damaged many of these homes.

Current Conditions and Trends. The year 2000 census enumerated 6,674 persons in Waveland, up from 5,369 in 1990. Residents were employed in a wide variety of occupations, with nearly 32 percent traveling outside the county for work, primarily to jobs in towns and cities in adjacent Harrison County.

Several restaurants located in the downtown business district serve fresh seafood. The municipal fishing pier, built in 1945 along Beach Boulevard extends well into Mississippi Sound. This continues to be a popular spot for recreational anglers. A boat dealer is located along Highway 90, but there are no docking facilities or marinas in town. A relatively large group of state commercial license holders resides in the area, but most trailer their vessels to public assess maps in the area, or moor them in the Lakeshore area. Most have developed relationships with seafood dealers there or in the Bay St. Louis area.

Business Area in Waveland, 2004



Note: This map depicts spatial distribution of fishing-related entities at the street-level of resolution and thus derives from physical address data only.

Table 1. Waveland Demographics

Factor	1990	2000
Total population	5,369	6,674
Gender Ratio M/F (Number)	2,520/2,849	3,160/3,514
Age (Percent of total population)		
Under 18 years of age	28.1	26.0
18 to 64 years of age	55.2	59.8
65 years and over	16.7	14.2
Ethnicity or Race (Number)		
White	4,675	5,698
Black or African American	612	748
American Indian and Alaskan Native	10	33
Asian	56	100
Native Hawaiian and other Pacific Islander	N/A	2
Some other race	16	33
Two or more races	N/A	60
Hispanic or Latino (any race)	80	135
Educational Attainment (Population 25 and over)		
Percent with less than 9th grade	11.9	7.2
Percent high school graduate or higher	69.5	77.7
Percent with a Bachelor's degree or higher	14.9	19.1
Language Spoken at Home (Population 5 years and over)		
Percent who speak a language other than English at home	6.0	6.0
Percent who speak English less than very well	3.2	1.3
Household income (Median $)	18,750	33,304
Poverty Status (Percent of population with income below poverty line)	23.2	13.7
Percent female headed household	20.5	14.8
Home Ownership (Number)		
Owner occupied	1,507	1,961
Renter occupied	623	770
Value Owner-occupied Housing (Median $)	50,500	90,100
Monthly Contract Rent (Median $)	265	542
Employment Status (Population 16 yrs and over)		
Percent in the labor force	56.1	58.7
Percent of civilian labor force unemployed	9.3	5.1
Occupation (Percent in workforce)**		
Management, professional, and related occupations	N/A	25.7
Service occupations	N/A	22.7
Sales and office occupations	N/A	26.6
Farming, fishing, and forestry occupations	2.6	0.5
Construction, extraction, and maintenance occupations	N/A	12.6
Production, transportation, and material moving occupations	N/A	11.9
Industry (Percent in workforce)**		
Agriculture, forestry, fishing and hunting	3.3	0.7
Mining (includes the offshore oil/gas industry workforce)	2.4	0.8
Manufacturing	14.4	9.0
Percent government workers	26.8	15.8
Commuting to Work (Workers 16 yrs and over)		
Mean travel time to work (minutes)	N/A	24.4
Percent worked outside of county of residence	45.3	31.9

**Differences in the types of data the U.S. Census Bureau used to generate Occupation and Industry percentages in 1990 and 2000 preclude valid comparisons between those census years.

Table 2. Fishing Infrastructure and Services Observed in Waveland in 2003

Infrastructure or Service	Quantity
Air fill stations (diving)	0
Boat yards/ Boat builders (recreational/commercial)	0
Churches with maritime theme	0
Docking facilities (commercial)	0
Fishing Gear, Electronics, Welding, and other repair	0
Fishing associations (recreational/commercial)	0
Fish processors, Wholesale Fish House	0
Fisheries research laboratories	0
Fishing monuments/ festivals	0
Fishing pier	1
Hotels/Inns (dockside)	0
Marine railways/haul out facilities	0
Museums—fishing/marine-related	0
Net makers	0
NMFS or state fisheries office (port agent, etc.)	0
Public boat ramps	0
Recreational docks/marinas	0
Bait & Tackle/fishing supplies	0
Recreational Fishing Tournaments	0
Sea Grant Extension office	0
Seafood restaurants	2
Seafood retail markets	0
Trucking operations	0
Site-seeing/pleasure tours	0
Charter/Head Boats	0
Commercial Boats	several

Table 3. Primary Fishing-related Businesses Listed for Waveland in 2003

Type of Business	Frequency
Boat Builder/Broker	2
Marina	2
Seafood Dealer	2
Total	6

Table 4. Waveland Commercial Landings and Value Summary: 2002 (based on dealer data)

Data for regional seafood dealers cannot be confidently attributed to commercial operators in Waveland.

Table 5. Waveland State License and Federal Permit Summary: 2000

Commercial (based on physical address data only)		**Recreational**
State License Holders	Federal Permit Holders	State Saltwater License Holders
97	1	1,057
Total = 98		
% Households Holding Commercial Permit or License: 98/2,731 = 3.6		Average Number of Licenses per Household: 1,057/2,731 = 0.4

Please reference Table 4.3-2 above for the total number of commercial permit and license holders attributable to this community as based on both street *and* post office box address data.

Bayfront Street in Waveland, 2004

4.4 Mississippi Summary

As for Alabama, this report reveals considerable variability in the nature of the Mississippi study communities, and the relationship of their residents to fishing and its related industries. Some of the study communities are small towns or cities, where residents are deeply involved in fishing, while others are larger towns and small cities whose residents participate in many forms of urban and suburban enterprise. Of present and future significance to fishing interests in the region, the increasing presence of the gaming industry along the Mississippi coast is reportedly tending to change the nature of the waterfront and the availability of space for vessels and fishing-related infrastructure. We note that the effects of Hurricane Katrina are rending such issues superfluous in that much of the waterfront in the region is now severely damaged (the nature and outcome of the rebuilding process remains highly uncertain at this juncture in 2005).

Most land along the Mississippi coast is classified by the Census Bureau as *Urban*, yet many areas retain vestiges of a more rural past. Some of the small towns and suburbs visited during the course of the study are undergoing rapid population growth, particularly given the arrival of casinos and a growing number of seasonal residents. Some of the more rural and interior communities are stable and growing much slower. Old transportation routes and associated businesses are being replaced by new arteries to interstates with franchised businesses along the way. Many of those coastal communities that have not undergone growth resulting directly from the presence of the gaming industry have grown, but at a much slower pace.

As with those in other areas of the Gulf, many residents in towns along the Mississippi coast were quick to point out ills affecting the fishing industry. Mississippi's shrimp fleet has, for instance, reportedly suffered from the same market forces affecting fleets elsewhere in the Gulf, a situation compounded by rising fuel prices (NMFS 2004). As in other states, these impacts are described not only by participants in the harvest sector, but also by fish house operators and some in associated businesses. These problems appear to be compounded by the aforementioned problems related to fishing infrastructure and limited space on the waterfront.

Informants report that hurricanes occurring in 2004, which damaged much of the coastline to the east of Mississippi, led numerous charter boat operators from the Florida Panhandle and Alabama barrier island areas to move their operations to Biloxi and Gulfport. These temporary changes are said to have increased local competition between operators while at the same time helping to enhance charter fishing opportunities in the area.

The following pages summarize select research findings for the Mississippi study communities. We provide in sequence three summary tables, prefaced with discussion of their basic content and rationale. Finally, we provide an empirically-based typology of fishing-oriented towns and cities in the state.

A Scaled Inventory of Involvement in Marine Fisheries. We include in our summary of Mississippi communities Table 4.4-1, which inventories the presence or absence of fishing-related attributes for each study town and city. We also use, *with condition,* the Guttman Scale[1] to indicate the degree to which each place approximates a hypothetical "model" fishing community exhibiting all listed attributes.

Caution must be taken in interpreting the scale since many attributes derive from address fields in fisheries data files. Thus, some communities achieve spuriously low scores. Moreover, the process does not take into account the strength of any given attribute. Thus, for example, the presence of a single license holder in a community generates a positive score for that variable in the same manner as would a community with hundreds of resident license holders. Finally, given a relative abundance of commercial fishing data, recreational attributes are under-represented. Given these qualifications, we present the table and scale not as a definitive statement on which communities might be considered fishing communities based on the presence of the various attributes, but rather as a systematically organized and scaled inventory of summary indicators.

Summary Matrix. We also develop a matrix summarizing relevant community characteristics. In constructing the matrix, we reviewed all types of fisheries data for all of the Mississippi study towns and cities, assessed each against a hypothetical "model" community solely involved in fishing-related industry, and arrived at a tripartite scale for categorizing each place. Summary level of engagement in fishing-related industry is therefore based on a qualitative and comparative assessment of degree of involvement, rather than on a quantitative-based absolute determination. We note that use of the same scale for assigning relative extent of fishing infrastructure is based on rough quantitative assessment of the many relevant factors observed and reviewed during the course of the study. Description of fishing-related physical and service infrastructure was one of the primary goals of this study, and results indicate extensive variation across the communities. In most cases, residents are involved in multiple forms of industry and enterprise. There are few places in which fishing and associated industry can be considered primary forms of economic activity and the main venues through which social interaction occurs. Though such places do exist, it is more common that emphasis on fishing occurs within a sub-population or sub-component of a larger, mixed economy and set of social relations. In other study areas, fishing is clearly tangential to social and economic life. Table 4.4-2 depicts this range of situations.

Rankings. Table 4.4-3 depicts the top study towns and cities ranked in terms of total landings and total commercial permits and licenses held by residents and business owners. The figures are provided as rudimentary indicators and preliminary means for conceptualizing and defining degree of community involvement in fishing-related industry in Mississippi.

[1] The Guttman Scale tests how well index data approximate a model scale, where the model has a reproducibility index value of one, derived from the formula: 1 – (number of deviations or errors / number of variable entries).

Table 4.4-1 Fishing Attributes Inventory and Guttman Scale for Mississippi Study Communities

Community	Federal Commercial Permits	State Commercial Licenses	Federal Charter Permits	Recreational Permits	Seafood Landings	Seafood retail markets	Fish processors, Wholesale fish house	Docking facilities (commercial)	Fishing monuments / Festivals	Recreational docks / marinas	Bait & Tackle / fishing supplies	Fishing pier	Public boat ramps	Recreational Fishing Tournaments	Boat yards/ Boat builders	Score
Biloxi	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	1.00
Ocean Springs	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	0.93
Gulfport	+	+	+	+	+	+	+	+	-	+	+	+	+	+	+	0.93
Pascagoula	+	+	+	+	+	+	+	+	-	+	+	+	+	-	+	0.87
Moss Point	+	+	+	+	+	+	+	+	-	+	+	+	+	-	-	0.80
Long Beach	+	+	+	+	+	+	+	+	-	+	+	+	+	-	-	0.80
Pass Christian	+	-	+	+	+	+	+	+	+	+	+	-	+	+	-	0.80
Bay St. Louis	+	+	+	+	+	+	+	-	-	+	+	+	+	-	-	0.73
Gautier	+	+	+	+	+	-	+	-	-	+	+	+	+	-	-	0.67
D'Iberville	+	+	+	+	+	-	+	-	-	+	+	-	+	-	-	0.60
Lakeshore	-	+	-	+	+	+	+	+	-	+	+	-	-	-	-	0.53
Waveland	+	+	-	+	-	+	-	-	-	-	-	+	-	-	-	0.33
Pearlington	-	+	-	+	-	-	-	-	-	-	-	+	+	-	-	0.27
Kiln	-	-	-	+	-	-	-	-	-	-	-	-	+	-	-	0.13

Table 4.4-2 Study Community Summary Matrix for Mississippi

Community by County	Licenses & Permits			Geographic Type	Primary Local Economy					Level of Engagement in Fishing Industry			Extent of Fishing Infrastructure and Services		
	Federal Permits	State Com. Lic. *	St. Rec. Lic.		Fishing	Service/Sales	Farming	Management/Prof	Other/Mixed	Extensive	Moderate	Minimal	Extensive	Moderate	Minimal
Jackson															
Gautier	5	70/107	2028	Suburban Incorporated		•		•			•				•
Moss Point	4	53/70	3155	Suburban Incorporated		•		•				•			•
Ocean Springs	44	198/267	5545	Suburban Incorporated		•		•				•		•	
Pascagoula	14	254/330	3180	Suburban Incorporated		•		•	•			•		•	
Harrison															
Biloxi	92	402/592	8312	Urban	•	•		•		•			•		
D'Iberville	12	67/91	604	Suburban Incorporated		•		•	•			•			•
Gulfport	25	152/213	8951	Urban		•		•	•		•			•	
Long Beach	11	106/145	2753	Suburban Incorporated		•		•				•	•		•
Pass Christian	7	160/221	2434	Suburban Incorporated		•		•				•		•	
Hancock															
Bay St. Louis	--	255/303	2710	Suburban Incorporated		•		•				•			•
Kiln	--	34/37	870	Rural incorporated		•			•			•			•
Lakeshore	--	34/51	162	Rural Unincorporated	•	•		•		•			•		
Pearlington	--	41/53	251	Rural Incorporated		•			•			•			•
Waveland	--	97/122	1057	Suburban Incorporated		•		•				•			•

* The state figures are presented with number of license-holders with physical addresses presented first, followed by the total based on all address types

Table 4.4-3 Community Rankings for Total Landings, Licenses, and Permits

Rank	Total Landings and Value				State Licenses **		Federal Permits		Dealer Permits		Recreational Licenses	
	Community	Total Pounds	Community	Total Value	Community	# Licenses	Community	# Permits	Community	# Permits	Community	# Licenses
1	*	*	Biloxi	28,542,889	Biloxi	402/592	Biloxi	92	Biloxi	34	Gulfport	8,591
2	Biloxi	10,484,019	*	*	Bay St Louis	255/302	Ocean Springs	44	Pascagoula	11	Biloxi	8,312
3	Pascagoula	9,357,587	Pascagoula	4,021,747	Pascagoula	254/329	Gulfport	25	Bay St Louis	6	Ocean Springs	5,545
4	Bay St Louis	1,518,575	Bay St Louis	2,856,384	Ocean Springs	198/266	Pascagoula	14	D'Iberville	6	Pascagoula	3,180
5	Gulfport	755,415	Gulfport	1,787,658	Pass Christian	160/221	D'Iberville	12	Moss Point	6	Moss Point	3,155
6	*	*	*	*	Gulfport	152/213	Long Beach	11	Pass Christian	5	Long Beach	2,753
7	*	*	*	*	Long Beach	106/145	Pass Christian	7	Gautier	3	Bay Saint Louis	2,710
8	Pass Christian	224,695	Pass Christian	487,363	Waveland	97/122	Gautier	5	Gulfport	3	Pass Christian	2,434
9	*	*	*	*	Gautier	70/106	Moss Point	4	Waveland	3	Gautier	2,028
10	*	*	*	*	D'Iberville	67/91	--	--	Ocean Springs	2	Waveland	1,057
11	*	*	*	*	Moss Point	53/70	--	--	Bay Saint Louis	1	Kiln	870
12	--	--	--	--	Pearlington	41/53	--	--	Kiln	1	D'Iberville	604
13	--	--	--	--	Lakeshore	34/51	--	--	Lakeshore	1	Pearlington	251
14	--	--	--	--	Kiln	34/37	--	--	--	--	Lakeshore	162

* Dealer-derived data may not be reported for these communities under the "rule of three."

** Physical address data only/all address data types; although we provide data for both physical address data and all address data types, the rankings are based on physical address data only.

Toward a Typology of Fishing-Oriented Communities in Mississippi. Finally, we arrive at a preliminary typology of fishing-involved communities in Mississippi. This is provided in Table 4.4-4 below. Based on what is now known about the attributes of these communities, there are but a few in which residents clearly exhibit primary involvement in fishing and related industry. These communities are typed here as *Primarily-Involved*. While the economies and primary foci of social interaction in such places may be mixed to greater and lesser degrees, there remains an observable collective focus on fishing and its associated industries.

A few towns and cities are typed as *Secondarily-Involved*. Residents of these Mississippi places are quite often primarily involved in sales and service, agriculture, tourism, and/or manufacturing enterprises. The significance of commercial fishing and associated industry is important, but, demonstrably, secondary to these pursuits. Included in this type are places in which sub-groups of residents are very active in fishing and related industry, but hidden in economic scale and focus of collective social interaction by those activities of the surrounding population that are not related to fishing.

Finally, we suggest a type called *Tangentially-Involved* communities. These are places in which fishing clearly plays an ancillary role to other forms of economic and social activity. While there may be small sub-groups of residents who are active in fishing and related industry, the scope of those activities are minor relative to the local social and economic mainstream.

Table 4.4-4 Preliminary Characterization of Fishing-Oriented Towns and Cities in Mississippi

Primarily-Involved	Secondarily-Involved	Tangentially-Involved
Biloxi	Long Beach	D'Iberville
Ocean Springs	Gautier	Waveland
Gulfport	Moss Point	Pearlington
Pascagoula	--	Kiln
Pass Christian	--	--
Bay St. Louis	--	--
Lakeshore	--	--

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