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PLAQUEMINES PARISH

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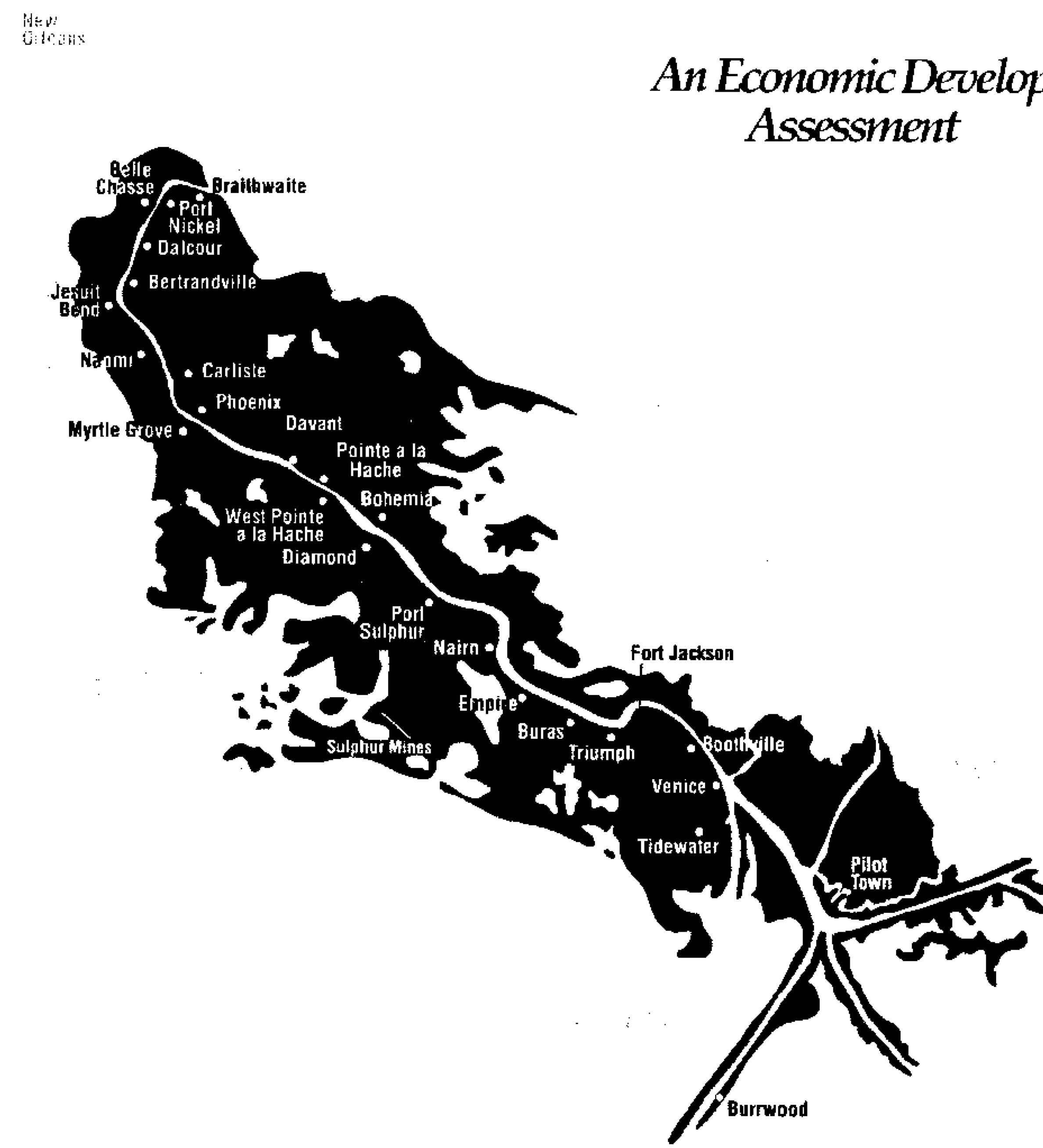
CHALLENGES AND OPPORTUNITIES

An Economic Development Assessment



PLAQUEMINES PARISH: CHALLENGES AND OPPORTUNITIES

An Economic Development Assessment

Coastal Economic Strategy Series
Louisiana Sea Grant College Program
Louisiana State University

1996

This publication was produced by the Louisiana Sea Grant College Program, a part of the National Sea Grant College Program, maintained by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce. The Louisiana program is also supported by the state of Louisiana.

The research reported herein resulted from the Coastal Economic Strategy Development Project, conducted by Louisiana Sea Grant and partially funded by the U.S. Economic Development Administration. October 1996.

To order additional copies of this publication contact:

Louisiana Sea Grant College Program
Communications Office
Wetland Resources Building
Louisiana State University
Baton Rouge, LA 70803-7507

Phone: (504) 388-6448
Fax: (504) 388-6331

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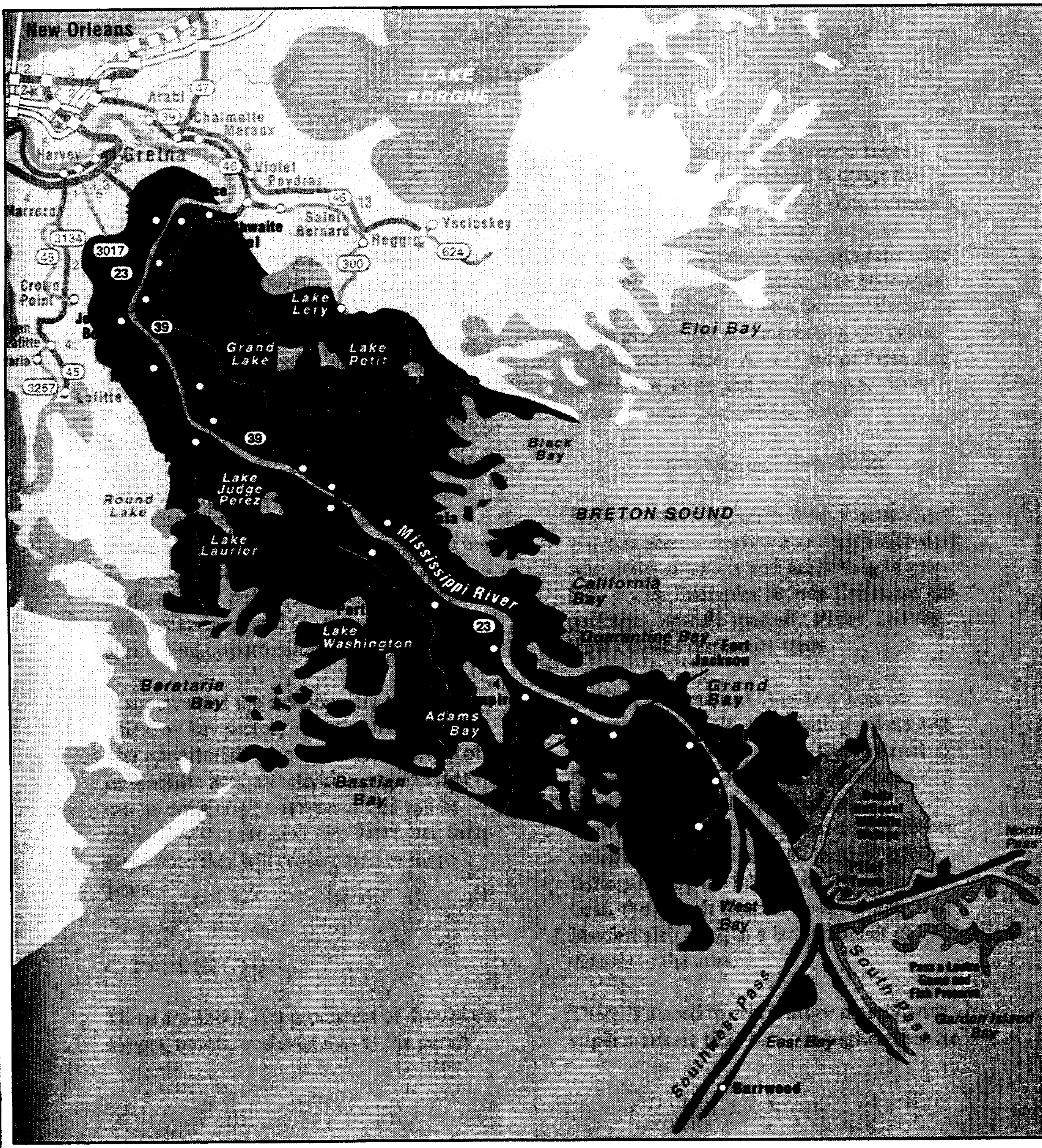

PLAQUEMINES PARISH: CHALLENGES AND OPPORTUNITIES

SUMMARY

OPPORTUNITIES FOR DEVELOPMENT

The Plaquemines Parish Study Team was assembled to interact with the Plaquemines Parish Economic Development District's (PPEDD) seven standing committees: Citrus, Seafood Industry, Tourism, Existing Commerce and Industry, New and Expanding Business Opportunities, and Executive. These committees are, by and large, charged with helping guide development of the parish's most vital economic sectors. In order to assist the PPEDD and its committees, this report contains (1) descriptions of the existing situation for the key sectors, as well as an outlook, (2) a discussion of perceived sectoral strengths and weaknesses, and (3) suggestions concerning opportunities for development.

A summary of the development opportunities, by key sector, is presented below. The opportunities are discussed in terms of **immediate** actions/activities/projects that can be done now; **near-term** that can be realized within the next two years, and **long-term** ones that will require two or more years.

CITRUS SECTOR

There are about 200 producers of Louisiana sweets, navels, and satsumas in the parish that dedicate about 1000 acres to these crops. The average orchard is about five acres, but there are a few full-time farmers with large acreage and many part-time farmers who supplement nonfarm jobs with citrus production and sales. The economic forces that influence these farmers' decisions about production and marketing are primarily related to size. As a result of these size differences, large and small growers have quite different problems to solve.

Immediate and Near-Term

From a marketing perspective, Plaquemines growers should **continue to seek customers** who demand quality and are willing to pay high prices. Examples include Christmas gift packages, upscale specialty stores, and the New Orleans restaurant trade.

The PPEDD and its Citrus and Tourism committees, should work with growers and **become active with events that attract tourists** to New Orleans and environs. There are many selling opportunities. Conventions are virtually year-round events; collegiate and professional football attract visitors during the fall and winter; Mardi Gras, the French Quarter Festival, and Jazzfest also bring in a large number of visitors to the area.

There is a need to **work more closely with supermarkets that cater to higher income**

customers. Identify the stores, develop unique packages for them and assure a premium product.

Develop relationships for moving product to other parts of the state and outside the state.

Move the excess and lower quality fruit once the premium product price markets have been served by using the existing food distribution system.

Longer-Term

The parish and growers should investigate and implement a **market order for citrus products**. A funding source is needed for market development, generic advertising, and research support, among other things.

Coordinated action is essential. Smaller growers, as the system currently is structured, have little control of marketing, except at their roadside stands and the peddling they do individually. This gives them access to only a portion of the sales possibilities of premium fruit. Working together, the volume and resources might become a force in the market. An alternative coordinated action to benefit small growers would be a **purchasing cooperative**.

Production of oranges using **reduced quantities of pesticides, perhaps even some organic production**, would appeal to some market segments.

Consider an expanded program of **getting more people** to the orchards, such as school children on field trips. This helps to develop a connection between urban people and the land, while enhancing the desire to patronize local farmers. Choose-and-cut Christmas tree farms provide a good model. A few farmers in other parts of the U.S. have set up **pick-your-own** produce operations, then sold to nonrural residents the right to purchase from the farm.

WETLANDS - ISSUES AND ACTIONS

From a wetlands perspective, predictions for the future are extremely bleak. Without restoration actions, most of the remaining vegetative marsh habitat within the parish will convert to open water in the next 50 years. In an effort to adequately address this challenge, parish officials and citizens should pursue the following actions:

Keep abreast of and take the lead in **developing and supporting effective restoration policy and restoration project proposals**.

Restoration funding enhancement must be supported at all levels of government.

Work toward the development of **a fair oyster industry compensation program** that offsets the short-term economic impacts of diversion projects.

SEAFOOD SECTOR

The problems confronting the seafood industry in Plaquemines Parish are substantial and long term. The majority of the issues represent regional concerns and are not confined to Louisiana or the parish alone. The industry will probably experience some contraction in the next one to three years. The only question that remains is its extent. Although there is no "quick fix" to the host of problematic issues confronting the industry, there are a few near and long-term opportunities for industry assistance that should warrant consideration by the parish's leadership.

Immediate and Near-Term

An increased level of unemployment within the local seafood industry should be anticipated and the parish should make every attempt to retain displaced commercial fishers within the local labor force. Toward that end, **the parish should be prepared to provide retraining opportunities** for commercial fishers willing to avail themselves of such retraining.

The seafood industry (with the exception of fish meal/oil production) has historically not been involved in much value-added processing. Most of the fishery products landed in the parish are shipped to points north with little processing. **An appropriate strategy may be to continue consistently producing high-quality, fresh or frozen seafoods for existing markets, products for which Plaquemines Parish is already well known. Some opportunities may exist in oyster shucking and breading and soft-shelled crab production.**

The market for raw consumption of oyster products has declined significantly in recent years. Continuous media attention directed toward this market has accelerated this decline. **Successful attempts toward strengthening consumer confidence may pay high dividends in terms of recovery of lost market share and renewed upward pressure on prices.**

An annual seafood festival in Plaquemines Parish would increase the visibility of the local seafood industry and generate potential marketing opportunities that otherwise may not be realized, while enhancing tourism development.

A limited amount of commercial aquaculture currently occurs in the parish. **The parish should initiate a short-term feasibility study that would identify the current aquacultural activities, candidate species, market potential, existing resources, and barriers to further development of commercial aquaculture in Plaquemines.**

Longer-Term

The economic and social value of the seafood industry needs to be recognized and constantly communicated. In particular, **the general public and other industries in the parish must understand its economic importance, as well as its importance to the parish's traditions and heritage.**

Parish leadership should **encourage industry participation in state, regional, and federal regulatory processes that affect marine resources**.

The parish should seek to provide **conflict resolution training for commercial and recreational industry representatives**. Similar training has been used in other locations within the Southeast in an attempt to mitigate conflict between competing marine resource user groups. Such conflict can produce longstanding divisions within the community.

The parish should attempt to strengthen communication channels with the seafood industry, and become active with and support existing seafood industry trade associations by (1) **developing "Industry Ambassadors"** to maintain closer ties with existing industries; (2) providing further assistance to the **local Sea Grant extension program as it continues to maintain a strong rapport and working relationship with and between the seafood and other marine-related industries within Plaquemines Parish.**

TOURISM SECTOR

Coastal tourism development is a growth opportunity for Plaquemines Parish. In the coming years, two of the parish's main attractions, sport fishing and waterfowl hunting, are projected to increase in popularity. In addition, Louisiana and the nation as a whole will be giving a great deal more attention to the concept of sustainable development as it affects rural tourism, and the parish is in an ideal position to attract visitors interested in other nature and heritage-based activities.

Immediate

There are immediate opportunities to **develop day-trip business** from downtown New Orleans. There is a terrific fascination with traveling to the mouth of the Mississippi River or the "end of the road," and Plaquemines Parish, with a negligible investment, has an excellent nearby market at the downtown hotels in New Orleans.

Fort Jackson is an outstanding attraction that needs some improvements before handling larger visitor volumes.

Nature-based and cultural tourism opportunities abound given the Mississippi River, its Delta, marshlands, and the area's rich history.

The **film industry** should be interested in the unique aspects of the parish.

A more significant, **broader-based, Tourism Committee** is needed. This can readily be done by involving volunteers from specific groups such as the restaurant industry, the accommodations interests, charter boat and fishing guide representatives, citrus growers, festival organizers, and others.

Near-Term

The **marina situation** is becoming quite competitive and it is the Study Team's opinion that the market is growing and is large enough for all to succeed. The key lies in each identifying its specific market segment and promoting to that particular group.

As sport fishing increases in popularity, there will be an opportunity for another entrepreneurial venture similar to the "Miss Mississippi," a **head boat** that operated from the Plaquemines area until its demise in the early 1980s.

More work would be required to explore another very interesting entrepreneurial opportunity, a **boat trip to and tour of Pilottown**. It would be advisable to coordinate any such plans with the river and bar pilot associations to assure maximum cooperation.

Some funding for tourism development is available. Efforts should be made to familiarize the staff and Council with the limited opportunities. They include the ISTEA Program administered through the Department of Transportation and Development; grant programs through the Governor's Office of Rural Development; rebates of state sales taxes collected on local hotel occupancy; the Louisiana Office of Tourism; and Wallop-Breaux funding for sportfishing development through the Department of Wildlife and Fisheries.

Longer-Term

Once the expanded Tourism Committee has had an opportunity to function for two years as a volunteer arm of the PPEDD, consideration should be given to formalizing the entity by creating the **Plaquemines Parish Tourism Commission.**

There are tremendous opportunities for additional heritage festivals. Examples include a **Yugoslav Heritage Festival, Creole Tomato Festival, and a Seafood Festival.**

The recreational vehicle or RV market presents another excellent opportunity that will require some nurturing before coming to fruition. More facilities are needed, including a large rally campground that could accommodate several hundred RVs at the same time. Two locations, Myrtle Grove and Cypress Cove, appear to be excellent locations for commercial operations. A small, privately managed campground may be considered for Fort Jackson.

Lake Hermitage is another nature-based tourism opportunity. Its expansion, would depend to a large extent on the interest of the marina owner, blacktopping of the road, and removal of illegal dumps.

There are additional opportunities for **bed and breakfast establishments in** Plaquemines Parish, particularly those targeting sportsmen and the ecologically-minded visitors. The remoteness of some homes along Highway 39 looks particularly appealing.

There appears to be some longer term development possibility for **River Oaks Academy.** It would depend considerably on the owners and their interest in investing in the facility.

COMMERCE AND INDUSTRY

Although Plaquemines Parish appears to have a reasonably diversified economic base, its dependence on one or two key sectors--oil and gas exploration and production and river-based industries--has traditionally made the parish extremely vulnerable to economic fluctuations. Evidence of this lies in the economic downturn and fiscal repercussions that accompanied the mid-1980s and the resurgence of the oil and gas industry in the 1990s and accompanying improved fiscal situation.

Immediate and Near-Term

It is imperative that within the next year, Plaquemines Parish, under the leadership of the PPEDD, plan and begin to implement **an economic development strategy that carefully considers several approaches for business and industrial recruitment and growth.** Any strategy must be tied to the basic economic realities that face the parish. It will want to carefully plan and target opportunities to match its strengths while seeking to overcome weaknesses. Regional cooperation will be essential.

Plaquemines is not unlike other Louisiana parishes where creating new jobs through **industrial recruitment of foreign and domestic industries** has enjoyed considerable favor as the most desirable technique for stimulating economic development. According to several consulting groups and utility companies, the parish contains approximately 70 percent of available industrial and developable deep water port sites within the New Orleans metropolitan area and are "...ideal for industrial and manufacturing facilities". Making such an approach the centerpiece of Plaquemines' future economic development efforts has to be weighed against the changing nature of the U.S. and global economy and other important trends.

If Plaquemines chooses an industrial recruitment approach as a key component of its development strategy, then leaders should devote **more attention to attracting firms that are closely linked to the existing base**. A strong and competitive sector that supplies existing industries will enhance the parish's attractiveness.

A distinct, recent national recruiting trend has been for economic development leaders to devote considerably more attention to **attracting service and wholesale and retail trade businesses**. Targeting of specific businesses and industries is an extremely important goal-setting step in the recruitment process, but ought to realistically take into account factors such as (1) the parish's existing employment, skills, and income mix, (2) its natural resource base and location, and (3) the current infrastructure condition and potential for improvements and expansion.

Decision-making when it comes to targeting and recruiting **involves more than just seizing on opportunities**. It requires a great deal of input, introspection, candor and realism, and careful analysis and objective consideration of relative strengths and weaknesses vis-a-vis the specific opportunities.

Efforts to **retain industrial and business enterprises** are essential for communities facing decline, but should not be ignored by communities such as Plaquemines that are returning to a healthier state. Experts feel that appropriate policies and support should be generated so that retention is accorded the same consideration as attraction. Retention is an attractive economic development goal because it can help maintain jobs and income for Plaquemines, while creating an opportunity for business and industrial expansions.

The community of **Plaquemines Parish needs to be prepared for economic development**. Such a process involves preparing and improving the community in order to sustain the entire process. Sustainable economic development can only happen in Plaquemines if its citizenry agree that its general environment should be attractive, clean, safe, and rich in educational and employment opportunities. The Plaquemines community must work together to identify needs and then continue to work collaboratively toward implementing solutions. Partnerships are crucial and involve businesses, government, labor, and employees all seeking to promote economic development, quality growth, and more jobs for the parish.

In order to carry out these ideas, a **more participatory approach is needed**. One that involves cooperative planning and carrying out of chosen development strategies that build on the unique advantages of the parish and ultimately create a more diversified local economy.

The PPEDD can immediately begin a **campaign to recognize existing businesses**. In addition, the Existing Business and Industry Committee could help **establish broadly-based, local working groups or subcommittees for industries**.

There is still a need to monitor and carefully assess opportunities with state and federal **incentive and grant programs.** This might well be a full-time job, and the PPEDD should consider adding an experienced grantsperson to their staff.

Longer-Term

The PPEDD should undertake a **"Plaquemines Parish Resident Industry Program"** within the next year or so. Louisiana Sea Grant has offered to assist the parish in such an endeavor. The Resident Industry Program would be an economic development project aimed at assisting its existing firms.

Since the mid-1980s, three studies have been commissioned by parish interests to investigate **port development opportunities,** and several other Lower Mississippi port and cargo traffic studies have considered Plaquemines and its likely future role in port and industrial development.

There appears to be a consensus on several points. (1) Major improvements to the surface transportation network are still needed, and (2) industrial development appears to be where the Port has the greatest competitive advantage, and should thus be the main thrust for a public port facility.

Eco-industrial park(s) present an opportunity. Environmental economic development opportunities are receiving a great deal of national and international attention. Environmental technologies promise both cleaner, traditional industries, as well as an opportunity for creating jobs for the future based on cleaner and more efficient technologies. Eco-industrial parks are an environmentally more efficient version of industrial parks.

OTHER (INCLUDING EXECUTIVE COMMITTEE)

The PPEDD should revisit its current committee structure. It simply does not appear inclusive enough to enable the PPEDD to take on many of the suggestions that are proposed in this report. Vital issues such as port, rail, air, and roadway transportation are missing, as are some of the parish's major environmental concerns–wetland loss and coastal hazards such as storms and flooding.

Also the strategy's implementation aspects ought to in light of the above **identify the PPEDD's staff and funding needs**. Consideration should also be given to exploring **training and continuing education opportunities for the PPEDD's staff**, committee members, and other economic development agencies. This is essential in this rapidly changing era.

Not enough can be said about networking with other interests in the region and state, whether its tourism development, port and transportation development, or organizations exploring means for coping with changes in the seafood sector and expansion of sportfishing. It is simply essential.

INTRODUCTION

BACKGROUND

This report contains the observations and recommendations made by the 13-member Plaquemines Parish Study Team (Study Team), following an intensive economic development assessment of the parish conducted during the week of May 13-17, 1996. (Socio-economic statistics and map of Plaquemines Parish are contained in Appendix A). The Study Team was organized and coordinated by the Louisiana Sea Grant College Program at LSU at the request of the Plaquemines Parish Economic Development District (PPEDD). The assessment had as its primary objectives to (1) help identify the parish's key economic development challenges and opportunities; (2) help develop sustainable, environmentally sensitive programs to capitalize on opportunities; (3) make leaders and the general public aware of these opportunities and challenges and their potential role in helping the area's economy; and (4) develop ideas that encourage government, business, and community to work cooperatively on approaches that link economic prosperity and environmental stewardship.

The PPEDD was organized up by the Parish Council in 1995 to (1) promote the economic development of the Port and Harbor Terminal District, (2) promote tourism and its economic growth to the benefit of Plaquemines Parish, (3) promote the citrus industry and its related support facilities, (4) promote the seafood industry to enhance its continued existence, (5) promote existing commerce and industry to insure that job opportunities and taxes stay within the parish, and (6) conduct research dedicated to the discovery of business opportunities for the citizens of Plaquemines Parish. The District has 11 board members and is led by Chairman and Director Charles L. McCarty, who has set up seven standing committees: Citrus, Seafood Industry, Existing Commerce and Industry, Tourism, Business Opportunities, Budget and Finance, and Executive.

The Study Team was assembled following a reconnaissance visit and meeting in Belle Chasse on March 13. Members were selected according their expertise and the parish's economic development goals as articulated by the PPEDD and its committees. The team included:

Dr. Charles Adams, Specialist,
Florida Sea Grant Extension Service
Dr. Deborah Tootle, Asst. Professor, Department of Sociology and Rural Sociology, LSU
Mark Hilzim, former Secretary of the Department of Culture, Recreation and Tourism
Danny Young, Executive Director of Louisiana Travel Promotion Association
Pamela Davidson, Economic Development Representative for the Economic Development Administration
Dr. Roger Hinson, Assoc. Professor, Department of Agricultural Economics and Agribusiness, LSU
Clark Forrest, Business Development Representative, Department of Economic Development
Martha Collins, Economic Development Coordinator, Ascension Parish
Elizabeth Coleman, Communications Coordinator, Sea Grant, LSU
Brenda Henning, Asst. to Executive Director, Sea Grant, LSU
Robin Roberts, Research Associate, Sea Grant, LSU
Mike Liffmann, Asst. Executive Director Sea Grant, LSU

Paul Thibodeaux, Sea Grant's marine advisory agent in the parish, served as liaison between the PPEDD and the Study Team. Additional information was provided on wetlands from Dr. Paul Coreil, coastal and wetlands specialist.

Study Team Approach

The assessment was performed using a rapid rural appraisal (RRA) technique that differs considerably from the more traditional, time-consuming, and expensive methods of collecting information and reporting. Louisiana Sea Grant defines RRA as "an intensive, qualitative survey technique that uses a multidisciplinary team approach to help communities identify challenges and opportunities and formulate sustainable solutions to the same." The technique is one adapted from work done in the 1980s by Dr. Frederick Smith of Oregon Sea Grant who used a similar method to assess opportunities for coastal and marine development in Oregon, and from rapid rural appraisals conducted by British and Australian scientists "...seeking approaches to solving complex problems, particularly those in which people factors are prominent" (Dunn, 1994).

In this definition, the word "qualitative" refers to the descriptive nature of the information collected and the quality of the observations and ideas. It may well involve an assembly of insights rather than facts and figures. This in effect is a challenge to the conventional view that everything can be measured and a confirmation that the expertise gained over the years by the Study Team members is knowledge and, thus, valid for the purposes of the assessment. The term "survey" is used loosely in the sense that the information collected is gathered primarily from sources in the field and filtered through the perceptions of the Study Team and other collaborators. The intent of surveys is to deliberately go about collecting abundant detail and insight. The notion of "sampling" is also loosely applied in that information is gathered until patterns and understanding emerge, but not necessarily in a statistical or representative sense. The "method" does not require that each step be precisely followed, but rather an understanding that each Study Team member needs to apply his/her knowledge and skills to the particular project. It invites them to modify and adapt to fit the project situation. The number of "multidisciplinary" team members varies from project to project, but the team's makeup always reflects diverse disciplines and backgrounds that provide a range of perspectives through which the information can be analyzed and interpreted. Members are encouraged to keep open minds about challenges, opportunities, and sources of solutions.

Louisiana Sea Grant's rapid appraisals entail several steps. The first one involves the project coordinator's making a reconnaissance visit to the study area and meeting with selected local leaders to establish the context of the proposed project while beginning to identify major challenges and perceived opportunities. The Project Coordinator then defines specific issues and objectives that help identify the necessary disciplines and backgrounds needed for the Study Team. The Project Team is assembled by the Project Coordinator and the objectives are finalized. The Project Coordinator, in cooperation with the local liaison(s), then prepares a blueprint that provides Study Team members and local collaborators with further guidance on the study process, anticipated outcomes, and logistical details. The study is then conducted over a three- to five-day period, at the end of which local collaborators are invited to hear an oral presentation of the team's findings. A written report is issued six months after completing the field study. Louisiana Sea Grant began using this method in 1987 when it was looking for a means to interact more effectively with rural, coastal development leaders and stimulate new thinking concerning sustainable economic development, notably coastal recreation and tourism. The intent was to enable communities to think strategically and provide pointers and ideas on how to improve planning by considering strengths, weaknesses, challenges, and opportunities. Prior to this study, similar week-long tourism and recreation assessments had been conducted in Cameron, St. Mary, and St. Bernard parishes, the three Mississippi Delta parishes of East and West Carroll and Madison, and the town of Grand Isle.

Plaquemines Parish: Top Ten + One Challenges

On May 17, 1996, on the occasion of the Plaquemines Parish Study Team's presentation to the PPEDD and Parish Council of the interim findings and recommendations, the following opening remarks were made by Michael Liffmann, the Study Team's Coordinator.

Plaquemines Parish has come a long way in the last few years, but a long tough road still lies ahead. Over the course of this last week, 13 of us have literally traveled hundreds of miles and visited with parish, civic, industrial and business interests, commercial and sport fishing leaders, tourism development advocates and many others on both sides of the river and in the New Orleans area. We have seen the good and the not-so-good. This has given us a rare opportunity to think about what the future may have in store and, to the extent that you can help mold the future, we offer you some thoughts on the major challenges and opportunities confronting you in the economic development arena. Please accept these thoughts in the same constructive spirit that brought us to your parish. In our view, the following are the top ten (plus one for lagniappe!) challenges facing you. They are offered to you in no particular order.

CHALLENGE #1: Plaquemines Parish is emerging from an era that was characterized by paternalism and decision-making by only a handful of individuals. Economic development is by definition a more inclusive process and seeks broad-based community participation in planning and decision-making.

CHALLENGE #2: These are truly remarkable times. We are in an era of rapid and often confusing changes that shape our lives. In communications and other technological innovations, we're in the age of the Internet and virtual reality. We've experienced the end of the Cold War and integrated global growth. We must think about sustainable economic development and environmental stewardship. The millennium is just around the corner. Changes continue to take place at a breakneck rate. On one hand, the changes and innovations are exhilarating, but on the other, they are scary and threatening. Plaquemines Parish must step up and play, if you want future generations to flourish.

CHALLENGE #3: And speaking of sustainable economic development, your environment--your lifeline--is literally eroding. Plaquemines Parish must confront coastal erosion and habitat restoration issues and ultimately come to consensus, with the full understanding that the response might not be popular in some quarters, and that there might well be adverse political and civic repercussions from bold decision-making. But you do want future generations of parish residents to enjoy what you and your ancestors have shared and benefited from.

CHALLENGE #4: Parish residents and neighbors must co-exist and cooperate in order to sow seeds for an improved future. You are a diverse parish and should be proud of it. You are ethnically and economically diverse. This is a strength not a weakness. Fishermen, deckhands, blue water anglers, Slavs, Vietnamese, and African-Americans co-exist. Plaquemines is a true American melting pot.

CHALLENGE #5: The parish's community and economic leadership core is too small and needs to broaden its base to better plan and begin to implement the recommendations contained in this and many other economic development reports. More "doers" need to be attracted; more "movers and shakers" are needed. Think of leadership as being beyond the political arena. There is always time for elections. Be inclusive, not exclusive. You must seek to involve environmental groups, churches, schools, civic groups, business and industry, and citizens-at-large in planning for your future.

CHALLENGE #6: Your fiscal situation appears to have stabilized after some very tough times. In fiscal year 1985, $18.1 million in taxes were collected in the parish. This figure dropped steadily until you bottomed out at $15.7 million in fiscal year 1989 but in fiscal years 1993 and 1994, the figure climbed back to $19.5 million, and last year stood at $20.8 million. Your fiscal responsibilities force you to continuously look for ways of expanding your tax base. We urge you to do so, without creating animosity with your existing businesses and industries. You need them, and they need you. Perceptions of a bad business climate could well be counterproductive to your development efforts. You can't wine and dine as you recruit and offer locational incentives, and shortly thereafter get into long, acrimonious battles over taxes and other fiscal matters.

CHALLENGE #7: The parish needs to better integrate its economic development efforts. The PPEDD is a good start, but you need to broaden its base and involve others in a meaningful way. Have them involved in the planning and execution of a plan, and not just in an ad hoc capacity. The Plaquemines Parish Port Harbor and Terminal District and River Region Chamber of Commerce come to mind as examples. The Executive Director and a small staff cannot be solo performers. You need to be thinking of strategies and action programs not just isolated, opportunistic projects.

CHALLENGE #8: In our view, economic development starts at home and not on the recruiting trail. It is much more cost-effective, creates good will, and helps build a favorable climate. Work intensively on retaining existing industries and insuring that they expand and bring in complementary services and industries. We have some distinct thoughts on how best to do this, and we will elaborate on the matter in our written report.

CHALLENGE #9: Invest in your employees' continued education, as training and education are an investment in professionalism. You have been through some tough fiscal times and had to limit such activities, but you can ill afford not to try to keep up. We also realize that there have been accusations in the past of frivolous travels and "junketeering". This could well be the case, but the fact that a professional conference, seminar, or workshop takes place in a relatively glamorous location should not preclude you from being represented, so long as you present solid justifications on the educational merits and benefits to the parish that will accrue from attending.

CHALLENGE #10: Patience. Neither Rome nor Plaquemines Parish's economic development successes were built in a day. You must develop a game plan, fine-tune it, and change it, but stay the course. Do not expect breakthrough results. Take one step at a time.

CHALLENGE #11: The promised lagniappe, and one that is truly in the easier-said-than-done department. At every step on the torturous road, remember that you are making history. No one ever said that making history was easy or painless. In fact, some of the decisions you make on behalf of future generations might cost your job as a public servant. But you must accept this fact, work collegially—decide by consensus, and bury the hatchet—but not in each other's backs!

Chapter References

Dunn, Tony. "Rapid Rural Appraisal: A description and methodology and its application in teaching and research at Charles Sturt University," *Rural Society*, December 1994.

The Study Team was assembled to interact with most of the PPEDD's seven standing committees: Citrus, Seafood Industry, Tourism, Existing Commerce and Industry, New and Expanding Business Opportunities, and Executive. Each of the reports presented in this section describes the existing situation, an outlook, and the perceived strengths and weaknesses of that sector in Plaquemines Parish. Each concludes with suggested immediate, near- and long-term opportunities. Immediate projects can be done now. Near-term opportunities can be realized within the next two years, while long-term ones require five or more years.

CITRUS SECTOR

Dr. Roger Hinson, Associate Professor, LSU Department of Agricultural Economics and Agribusiness, authored this section of the report.

Existing Situation

The Louisiana Cooperative Extension Service reports that about 200 producers of Louisiana sweets, navels, and satsumas in the parish devote about 1000 acres to these crops. The average orchard is about five acres, but there are a few full-time farmers with large acreage and many part-time farmers who supplement nonfarm jobs with citrus production and sales. The economic forces that influence these farmers' decisions about production and marketing are primarily related to size. As a result of these size differences, large and small growers have quite different problems to solve.

Most large-farm growers have extensive capital investment in land, orchards, production equipment, and packing lines for cleaning and grading, and they use various marketing approaches. Farmers with less than five acres and with a full-time nonfarm job, are less heavily invested. They purchase production inputs in small quantities, usually at relatively high prices. They do orchard work as time is available, so needed maintenance activities may be delayed. Investments such as packing lines and attractive roadside stands would require a relatively larger portion of gross sales, and per-unit overhead is high because of low volume. Marketing options are fewer, since they have less time for market development and volume precludes attracting many market segments.

Plaquemines growers appeared to be aware of the importance of quality and freshness. One farmer indicated he harvests on an as-needed basis so that the product will always be fresh, and that this is a quality characteristic. He explained, however, that not all other growers observe this practice.

It is also noteworthy that the Creole tomato, a vine ripened product, is one of several vegetable crops sold from the parish. This tomato has some recognition in the market, particularly in Louisiana. Other vegetables are high quality and excellent for the local market, but are not as distinctive. Vegetables are competitive in the grocery store, which is the basic outlet. Quality, boxing, precooling, and volume of production are issues with buyers at grocery chain stores. Many local growers have adopted the local market strategy that has been typical of citrus, and they can be successful at the current level.

Production situation. Many factors determine acreage devoted to citrus in the parish. Urbanization is increasing in the northern portion, removing some potential acreage, and land is very expensive. The threat of hurricanes makes crop insurance unavailable. Risk in the form of killing freezes excludes some potential growers. Saltwater intrusion has been observed in the center of the parish, and effective remediation of salt has not yet been researched extensively. Positive factors include the almost immediate access to the large New Orleans market, the "tastes good" reputation of the parish's citrus products, and the normally warm weather. There is concern about disease and insect problems. Chemical control is the norm, but natural controls, such as parasitic wasps directed at insect problems, are being introduced. Some other problems include subsidence of organic soils and some evidence of saltwater intrusion. A research station funded by LSU and production and marketing support through Cooperative Extension Service agents is in place in the parish.

On average, many small farmers are nearing retirement and may take a financial setback as an incentive to retire. One farmer commented that he replanted after the last freeze, but did not plan to do so after the next because he wants to enjoy some recreational time while still in good health. If widespread, this attitude could have a major influence on the industry.

The most significant factor influencing the industry is the potential for loss of trees from freezing temperatures. The average length of time between killing freezes sufficiently encourages growers to replant. The 1990 freeze wiped out most orchards. Some were replanted immediately, others in successive plantings that depended on expansion intentions and on later decisions to reenter the industry. Hence, production was low in the years when there were only a few surviving trees, and has increased steadily as plantings came into production.

Marketing situation. Since the 1990 freeze, Plaquemines Parish citrus has been in short supply. Orchards replanted immediately began to produce after about three years, and now are in full production. Successive plantings have matured, adding to the supply, and there are reports of additional orchard plantings. During this period, growers generally have received high prices for their entire crops. In addition, growers in the parish have an unusual product on the basis of limited quantity.

Louisiana has no perceptible impact on the supply of generic oranges available in the U.S. Florida dominates, and even the substantial California and Texas crops have relatively little impact on the market. But a poor Florida crop benefits the other growing regions.

New competition is on the way, since U.S. Plant Protection and Quarantine recently approved regulatory language permitting the landing of fresh citrus at Gulf of Mexico ports, if specified treatment procedures have been met. In essence, this permits Central American citrus to enter via the fresh fruit and vegetable stream already in place at

Gulfport, Mississippi, by Dole Fresh Fruit, Chiquita, and others. When a short Florida crop results in high prices, this is predictable.

Roadside stands are important for both large and small farmers. Stands are said to be busy before Christmas, and during the spring and summer vegetable production seasons. Oil industry workers, tourists, and people driving out of New Orleans specifically to shop are the major groups.

Marketing - Large Farms

Marketing programs for large farms are fairly sophisticated, though not far-reaching. The typical objective is selling premium quality product to the high priced end of the market. These premium packs are difficult even for experienced growers because of weather and other variables. Regulations require new boxes; advertising stickers with price-look-up numbers are placed on about 60% of individual fruits.

There are a few attractive, extensive roadside stands open year-round. Some sell fruits and vegetables purchased through wholesalers, which is necessary if they are to be open all year. To some extent this dilutes the "farmers' market, locally produced" appeal. Year-round stands also incorporate other food products, such as jellies, jams, spices, and sauces.

High-quality gift packs are shipped to most of the continental U.S., particularly for Christmas. One grower indicated that he turned down some orders because of inadequate capability to meet the demand prior to the Christmas deadline.

Growers have identified shops and stores in New Orleans that cater to upscale shoppers willing to pay premium prices for quality produce. Contact with customers is through a limited amount of advertising and reliance on a customer base developed over the years. Growers say they benefit from the activities of past generations of family members when mailing lists are maintained and expanded. Many new selling opportunities are simply word of mouth. The Plaquemines Parish Fair and Orange Festival is used as a promotional tool.

Marketing - Small Farms

Smaller farms are more limited in market options, and these growers predominantly use roadside stands. Through these stands, they reach the highest priced market available, a combination of locals who drive to the markets solely to purchase citrus and tourists. Small-crop producers say they need this "full price" for their crop. Stands are of varying quality and appear at roadside mostly during November and December. Some additional portion of the small grower's crop is sold through the marketing network developed by large growers, which reduces the margin but moves the product.

Smaller growers also develop networks of contacts who live outside the parish, often oil field employees. These "occasional peddlers" may take orders and move the product out of the parish. There also are full-time peddlers who work with these growers.

Citrus Sector - Outlook

Is the local market saturated? Large growers suggest that it is not, that much potential remains in the kinds of outlets discussed above, and that prices need not decline when a larger quantity of product comes on the market. On the other hand, there are reports that some portion of the small growers' 1995-96 crop was not harvested. Reportedly, these growers waited for the high-price market, which did not materialize, then found that it was too late to sell to other outlets. The crop proportion involved in this situation is not known, and could be more closely related to individual grower decisions rather than market conditions.

It appears, from the situation described but undocumented above, that there is weakness in the market as currently structured. All growers want the high price. When market conditions suggest that the price is too high, it appears they should accept price reductions to move product. This, of course, does not suggest that growers like to reduce prices. An alternative action would be exploration of ways to expand the market so that prices do not have to decline. The unharvested citrus on small farms and low bids on lots sold at auction at the LSU Experiment Station (in essence a spot market) suggest price weakness. Without greater, more effective marketing efforts, or without some factor such as weather to reduce the crop, the outlook particularly for the small grower is for declining prices or not selling some portion of the crop.

Citrus Sector - Strengths

Many of Plaquemines Parish's citrus industry strengths have already been referred to above. They include:

- Location; climate; soil
- Uniqueness: not available elsewhere
- Not a competitor with citrus from Florida and California
- Reputation for good taste
- Strong roadside sales program, including year-round stands
- Production knowledge base
- Finding and using higher priced markets such as Christmas gift packs
- Large New Orleans market

Citrus Sector - Weaknesses

- Vulnerable to freezing weather and to hurricanes
- No access to crop insurance
- Limited output
- Limited promotion program, including identification of place of origin
- Limited use of external markets; not using marketing opportunities that apply
- No limited market power for small growers
- Not using the restaurant option in a city known for food
- No overall quality assurance program
- Very little money for promotional programs
- A Florida consultant says that fresh orange consumption continues a 30-year decline, because oranges are messy and time-consuming to eat, and perhaps because of quality problems.
- Intrusions: homeowners from the north, saltwater from the Gulf
- Many small orchards are nestled among homes, difficult to use protection chemicals without drift and complaints

Citrus Sector - Opportunities

The opportunities presented below assume a marketing operation with sufficient resources to implement specific activities, such as store specific boxes, brochures, and additional time for market development.

Immediate and Near-Term

The Citrus Sector should **continue to seek customers** who demand quality and are willing to pay high prices. Some good movement in this direction has occurred; the Christmas gift packages are an excellent example. Upscale specialty stores are another. Identify more of these customers, including the New Orleans restaurant trade. Premium product gift catalogs handle unique products. Community Coffee has a successful mail-order component, and there are other similar catalog businesses.

Use events that bring **tourists** to New Orleans as selling opportunities. The convention season lasts until Thanksgiving. Christmas and New Year's season activities include major football attractions. The Mardi Gras season also brings in a large number of visitors to the general area.

Some supermarkets cater to **higher income customers**. Identify these stores, develop packages unique to the store, and assure premium product. Merchandising, including point of purchase printed material, may be necessary.

Develop relationships for moving product to **other parts of the state, and outside the state**. As an example, a Mississippi farmer markets several hundred acres of purple hull peas each year. Sales are through several outlets, but one of the most successful is a network of agents in towns across the market area. These agents take and place orders, receive product from trucks that run delivery routes, and distribute to their customers. This shares the marketing responsibility, which means sharing the selling price, and adds the expense of trucking, but the product is moved to customers.

After the premium product price markets are identified and served, use the existing food distribution system to **move excess and lower quality fruit**. The price may be only competitive with generic oranges from Florida and Texas, but sales that produce more revenue than the cost of harvest probably should take place.

Longer-Term

The parish and growers should investigate and implement a **market order for citrus products**. A funding source is needed for market development, generic advertising, and research support, among other things. One way this is accomplished for horticultural crops in specified areas is the market order. These orders, authorized by the Agricultural Marketing Agreement Act of 1937, as amended, enable growers to collectively regulate certain aspects of the marketing of produce in interstate and foreign commerce. Many orders have regulations for funding promotion and research and establishing package, container, grade and size requirements. The intent is to increase revenue to growers and provide a more stable food supply for consumers.

Coordinated action is essential. Smaller growers, as the system currently is structured, have little control of marketing, except at their roadside stands and the peddling they do individually. This gives them access to only a portion of the sales possibilities of premium fruit. Working together, the volume and resources might become a force in the market. Small beef producers often "pool" calves from different farms to get the numbers needed to attract buyer attention. This and other coordinated marketing efforts among small growers have been the standard response to limited marketing options in many agricultural situations. An arrangement to use the parish's mothballed packing facility to consistently pack into accepted grades and containers at an acceptable cost is needed. Then, growers could be a force in product marketing. Running the packing line is expensive at small volumes. A production run long enough that people can be trained to do quality work is required. Incorporating vegetables from small producers during the appropriate seasons would help to retain employees.

An alternative coordinated action to benefit small growers would be a **purchasing cooperative.** Purchasing chemicals and boxes in larger units would reduce costs for the small grower.

Production of oranges using **reduced quantities of pesticides, perhaps even some organic production**, would appeal to some market segment. This attribute would be a major item of differentiation among the growers.

Consider an expanded program of **getting more people** to these orchards, such as school children on field trips. This helps to develop a connection between urban people and the land. It also enhances the desire to patronize local farmers. Choose-and-cut Christmas tree farms provide a good model. A few farmers in other parts of the U.S. have set up **pick-your-own** produce operations, then sold to nonrural residents the right to purchase from the farm.

WETLANDS - ISSUES AND ACTIONS

This section was authored by Dr. Paul Coreil, Coastal and Wetlands Specialist, Louisiana State University.

Coastal wetlands in Plaquemines Parish have been eroding at an alarming rate over the past 50 years. Levees placed along the Mississippi River for flood control cut off sediments that were critical to marsh creation and replenishment. Additionally, numerous canals and channels constructed for marine transportation have allowed for increased saltwater intrusion into interior marshes. All of these actions, along with sea-level rise, have resulted in the loss of thousands of acres of productive marshland throughout the parish. As marshes deteriorate, fisheries productivity ultimately declines (because of the lack of a sustainable habitat base) and seafood industry jobs are lost. Other impacts associated with lost vegetative marshes include: (1) decreased storm surge protection, (2) reduced fur and alligator harvests, (3) reduced sport hunting and fishing opportunities, (4) declining water quality, (5) decreased nature-based tourism opportunities, (6) increased risk to oil and gas infrastructure, and (7) loss of the rich cultural diversity so characteristic of Plaquemines Parish and south Louisiana.

Predictions for the future are extremely bleak. Without restoration actions, most of the remaining vegetative marsh habitat within the parish will convert to open water within the next 50 years.

The Mississippi River today carries 144 million tons of sediment each year though the parish into the deeper water of the Gulf of Mexico. This sediment and associated nutrients could be used as a vital resource, rebuilding and sustaining the parish's coastal wetlands as it once did. Today, however, most of this incredibly valuable resource is being swept offshore. Many coastal scientists and geologists strongly believe that significant marsh building processes will not be possible unless major Mississippi River diversions are constructed, allowing sediment-rich waters to filter into the degrading Plaquemines Parish coastal wetlands. Additionally, increased flow of freshwater into the coastal wetlands will help reduce the impacts of saltwater intrusion and slow down the rate of interior marsh deterioration.

Through the passage of the Louisiana Coastal Wetlands Conservation, Restoration and Management Act of 1989 (Act 6), the Louisiana Legislature established a Wetlands Trust Fund to address coastal land loss which receives a portion of the mineral revenues paid to the state. The Trust Fund was created through constitutional amendment and approved by more than two-thirds of the state's voters. This fund can receive as much as $25 million a year but, because of declining state mineral revenues, it is now receiving only $5 million per year.

In 1990, the U. S. Congress passed the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA or Breaux-Johnston Act). CWPPRA provides as much as $35 million a year for coastal restoration projects in Louisiana and requires a state match of 25%. This match is currently being funded by limited state Trust Fund dollars. Additional funding will be required for Louisiana to take full advantage of available CWPPRA funding. (Louisiana has not been able to come up with the 25% match without general fund appropriations.)

Challenges associated with diversions are dominated by oyster industry concerns. After the Caernarvon diversion structure became operational in 1991, many parish oyster fishermen reported oyster mortality on their leases because of reduced salinity. In 1994, these concerned oyster fishermen filed a class action suit in an attempt to recoup claimed financial losses. This case remains in litigation.

As a result of this experience, the state of Louisiana is currently developing an oyster mitigation program whereby fishermen affected by freshwater and sediment diversion will be able to be compensated for damages. Legislation creating this program is now in draft form and should be debated during the 1997 Legislative Session.

Critical issues (such as the oyster mitigation challenge) will have to be resolved before long-term, "big-picture" restoration projects (such as diversions) can successfully proceed in Plaquemines Parish. Long-term, sustainable coastal systems require actions that will result in some short-term impacts. The question is not whether changes will occur, but whether the people of Louisiana (and Plaquemines Parish) should pursue *controlled* change that leads to sustainable coastal economies, or uncontrolled change that will result in continued land loss and declining wetland functions and values.

In an effort to adequately address this challenge, parish officials and citizens should pursue the following actions:

- keep abreast of and take the lead in developing and supporting effective restoration policy and restoration project proposals;
- support restoration funding enhancement; and
- work toward the development of a fair oyster industry compensation program that offsets the short-term economic impacts of diversion projects.

SEAFOOD SECTOR

Dr. Charles Adams, Professor, Food and Resource Economics Department and Marine Economics Specialist, Florida Sea Grant College Program, University of Florida at Gainesville was principal author of the Plaquemines' seafood sector report. Dr. Deborah Tootle, Assistant Professor at LSU's Department of Sociology and Rural Sociology, provided insight concerning the oyster industry.

Existing Situation

Sector Description. The commercial fishing industry of Louisiana is a major component of the nation's seafood industry. The Louisiana commercial fishing industry is extremely diverse, in terms of species harvested (freshwater and marine), methods of harvest, and scale of harvest and processing facilities. In 1994, Louisiana harvested 1.7 billion pounds of fishery products valued at $336 million dockside (value received by the fisher, Table 1). This value represented approximately 10% of the total U.S. dockside value of commercial fishery landings. Among all states, Louisiana is ranked second only to Alaska ($1.5 billion) in terms of dockside value of commercial fishery landings. Louisiana harvested 42% of the total commercial fishery landings in the Gulf of Mexico region during 1994. The dockside value of Louisiana's landings exceed that for any other state in the region, including the landings for Florida, which were valued at $240 million (165 million pounds) for *both* coasts. Among all commercial fishing ports in the United States, the Empire-Venice port area was the second most important in terms of volume (exceeded only by Dutch Harbor-Unalaska, Alaska) and sixth in terms of value (Table 2).

Plaquemines Parish is an important contributor to the total Louisiana commercial fishing industry. Plaquemines Parish reported 336 million pounds of landings during 1994, which were valued at $62 million dockside (Table 3). This value accounts for approximately 20% of the total Louisiana dockside value. Plaquemines Parish ranks second among all other parishes in Louisiana in terms of dockside value and first in terms of landings volume (Table 4). The importance of the Plaquemines Parish commercial fishing industry to the total Gulf region can be better assessed when the parish's dockside value is compared with the value in other regions of the Gulf. For example, the dockside value generated in Plaquemines Parish is roughly equal to that for Monroe County ($65 million) in Florida, which is that state's most important county for commercial seafood production. Also, the value associated with commercial seafood landings in Plaquemines Parish exceeds that reported for both the *entire* states of Alabama ($48 million) and Mississippi ($44 million).

Many different species are of importance to the commercial fishing industry of Plaquemines Parish. The major species or species groups include oysters, shrimp, menhaden, crab, other marine finfish, and freshwater finfish. The respective dockside values associated with these species or species groups is given in Table 3. Marine finfish (other than menhaden) represent the most important group ($20 million). However, this group includes both nearshore (spotted seatrout, whiting, croaker, sheepshead, flounder, etc.) and offshore (pelagics such as tuna and swordfish, and reef fish such as grouper, snapper, amberjack, cobia, etc.) species. Various species of shrimp (predominately white and brown) comprise the second most important species group ($16 million). There are several hundred shrimp boats in Plaquemines Parish that target shrimp found in inshore and offshore waters with a variety of gear types (i.e. trawls, skimmer nets, etc.) and vessel designs.

Menhaden represent the next most important species, with a reported dockside value of $15 million. This dockside value, however, fails to account for the value-added by further processing into fish meal and oil at a large rendering facility located in the Parish. The fourth most important species is oysters, which generates a dockside value of approximately $10 million. The oyster harvest is taken primarily from private leases, which are located within adjacent shallow, estuarine waters (Barataria Bay, Adams Bay, etc.) Other species of commercial importance include crabs (stone crabs and blue crabs) and freshwater finfish (catfish, drum, carp, gar, bowfin, etc.). These two fisheries are valued at about $1 million and $170,000 dockside, respectively.

There are also a small number of commercial aquaculturists. Approximately 600 acres are dedicated to crawfish, alligator, and soft-crab culture, which has a reported collective farm-gate value of about $150,000. Finally, wild alligators are harvested in Plaquemines Parish for meat and hides. The farm-gate value of the aquatic products derived from the alligator harvest is about $300,000 for hides and $150,000 for meat.

In Louisiana, most of the serious oyster fishers work private beds as opposed to public reefs (state-owned oyster beds). The state-owned oyster beds are traditionally open between the first Wednesday after Labor Day through the end of March. Private beds can be fished year-round, unless they are closed for health reasons. Oyster fishers and growers lease bedding grounds from the state at the rate of $2.00 an acre per year. However, access to oyster beds is tightly controlled, as the best leases are handed down through family connections. Leases can also be bought and sold, with prime leases going for as much as $5,000 an acre. Because of the uncertainty associated with production in any one area, oyster fishers try to lease beds in as many locations as they can. When one area is closed or not producing, the oyster fishers have other locations in which to work.

In cultivating oysters, the fishers first prepare their private beds with empty oyster shells. These shells provide the seed oysters with a surface to which they can attach and grow until they are ready to be harvested. Oyster fishers collect seed oysters from public reefs, and "plant" them by spreading them into their private beds. The oysters are harvested with a mechanical dredge, but all culling must still be done by hand. Because culling often requires that clumps of oysters be broken apart with a hand-held mallet, it is time consuming and strenuous work. Since the introduction of motorized boats and dredges, the only new labor-saving technology that has been added to oyster cultivation and harvesting is the hydraulic pump. Spreading used to be done with shovels. Today, oyster fishers use high-pressure water hoses to spread the seed and culled oysters into beds. The industry is having a difficult time finding and keeping labor for working on the oyster boats. Many years ago, African-Americans and transient Croatians supplied much of the local labor force for the oyster industry. Today, much of the labor force is Mexican, but according to a local source, many of these workers are illegal immigrants and are frequently picked up by the Immigration and Naturalization Service. A day's labor in 1973 cost an oyster fisherman about $22; today it costs about $100.

Almost as diverse as the species they target, the commercial fishers in the parish represent a mix of ethnic backgrounds, including Yugoslavs, Indochinese, and others. Most are associated with the shrimp fishery, which has about 1,100 producers (Table 3). Approximately 700 individuals harvest oysters, 130 harvest freshwater finfish, 150 target crabs, 245 harvest marine finfish, and 12 target menhaden. These categories may not be mutually exclusive. Some of the commercial fishers have organized into local trade associations, which provide a political voice for the resource management concerns of their respective sectors of the industry. The trade associations that currently exist specifically represent those fishers that target oysters, finfish, and shrimp.

The commercial fishers in the parish produce seafood and other aquatic products to be sold to numerous first handlers and wholesalers, who in turn truck the product out of the parish. Very little value-added processing for fishery products occurs in the parish, with the exception of the fish meal/oil industry. The majority of edible seafood products are simply washed, graded, boxed, iced, and shipped to secondary handlers and wholesalers in other parishes or states. However, this rather simple process incorporates a wide variety of local businesses. For example, the local commercial seafood industry is dependent on numerous businesses that supply fuel, electronics, hardware, gear, and other products necessary to engage in the harvesting of fishery products. In addition, numerous service related businesses provide insurance, banking, repair/maintenance, docking facilities, and other services vital to the industry. Thus, the seafood industry in Plaquemines Parish is intrinsically linked to local, statewide, and regional economies via numerous market levels and industry sectors.

Economic value of the commercial fishing industry to the parish. The economic importance of the seafood (and other aquatic products) industry in Plaquemines Parish should not be underestimated. Although the $62 million dockside value only represents sales by the harvester to the first handler, most of the seafood is eventually exported from the parish. This is important in that export sales generate new dollars (i.e., true economic impact) that are realized by the local economy. Those "new" dollars are represented by the profits associated with sales of seafood products to buyers located outside the parish. Additional "new" dollars are associated with profits resulting from sales within the parish to nonresidents.

The economic worth of the commercial seafood industry to the parish is not limited to dockside sales. Commercial fishing represents a "basic" industry in the local economy in that it produces a product for sale outside the parish. Dollars generated through these out-of-parish (export) sales, when respent in the parish, produce additional parish-wide economic impacts. Export industries bring outside dollars into the local area through sales in markets located elsewhere, and then the businesses that service the local markets recirculate those dollars in the local economy. Thus, the total economic activity in a local area is a function of the size of the area's export sector. The larger the export sector, the larger the local labor force, and the larger the demand for locally originated goods and services. Growth in a local economy results from the expansion of sales outside the area. These sales generate direct, indirect, and induced impacts that "ripple" through the local economy. For example, the direct impacts include sales, jobs, and earnings resulting from the harvesting and market preparation of fishery products in Plaquemines Parish. These direct impacts produce additional indirect effects in the local economy as dollars earned through the sale of fishery products are respent locally for ice, fuel, vessel parts and repair services, gear, etc. Other induced effects result from the further respending of earned incomes in local retail sales, local bank accounts, miscellaneous consumer purchases, etc. Thus, the initial sales of fishery products outside the parish create a chain of local spending that generates income and leads to additional local spending...the multiplier effect. Although an estimate of the total economic impact of the commercial fishing industry in Plaquemines Parish is not available, the sales, incomes, and jobs associated with the above described "ripple" effect are likely substantial and provide an important source of growth revenue for the parish economy.

Obviously, as the economy and the environment are undergoing rapid changes and forcing prices of inputs up, capital is becoming more of a critical problem for the oyster industry in Plaquemines Parish. The prices of leasing prime oyster beds and labor are not the only drastic increases the oyster fishers are encountering. In 1973, oystermen were paying less than \$.14 a gallon for gas. By 1975, the price of gas had risen to \$.75 a gallon, and today the price is well over \$1.00 a gallon. The cost of maintenance for the oyster boats has also escalated steeply, largely caused by the necessity of using nonpolluting paints and chemicals. In addition, the newer, more sophisticated boats can cost between \$200,000 and \$300,000. Although they still use dredges for harvesting, the new boats are equipped with better hydraulic systems and radars for ease in navigation. And although costs have rise rapidly, the price paid for oysters has not. A sack of oysters in 1973 brought the oyster fisher about \$6.00; today the same sack brings in \$10.00.

Seafood Sector - Outlook

The commercial fishing industry in Plaquemines Parish is of particular interest for several reasons. One of the most interesting is the degree of species diversity that occurs within such a relatively small geographic region. For example, the commercial fishing industry of Florida targets many of the same species as are targeted in Plaquemines Parish, but these species are geographically distributed over the entire state, i.e., major regions of production for oysters, shrimp, nearshore finfish, reef fish, pelagics, etc., are typically located in different parts of Florida. In contrast, a large complement of these same species is landed at only a few ports within the relatively small region occupied by Plaquemines Parish. The dockside value of $62 million represents a localized fishery that is unsurpassed in value in the Gulf of Mexico. The geographic characteristics of Plaquemines Parish almost require it to be a node for off loading fishery products harvested from a wide region in the Gulf of Mexico.

The concentrated nature of the fishery, however, may also be seen as a negative attribute. For although the revenues earned are directly related to the number of species handled and accrue to the parish economy, the same is true of the problems associated with various regulatory, market, and political forces confronting these fisheries. In other words, the problems confronting all these different fisheries combine to create a large economic problem for the parish. And virtually all the individual fisheries in the parish currently face an assortment of regulatory, market-related, or political obstacles, each of which will generate some form of economic fallout with which the parish will need to be concerned.

For example, the **oyster** industry is confronted with (1) the short-term disruption of harvesting activities resulting from freshwater diversion projects, (2) a decreasing demand for raw oysters resulting from health concerns associated with consumption, and (3) increasingly stringent onboard handling and time-to-market requirements. The **shrimp** industry, still attempting to adapt to the implementation of TEDs (turtle excluder devices), is faced with (1) the potential near future mandatory use of BRDs (bycatch reduction devices), (2) the social and economic results of over-capitalization, (3) competition from imported products that places downward pressure on dockside prices, and (4) the spectre of a potential inshore closure to shrimping in Louisiana waters. The **offshore finfish** fishery is confronted with (1) restricted access to the reef fish complex via a permit moratorium, (2) the possibility of a limited entry program for red snapper, the benefits of which may be realized only in the long term, and (3) the imposition of quotas on longlined species such as tuna, shark, and swordfish. The **nearshore finfish** fishery is faced with the elimination of the use of entangling nets in state waters, with the possibility of only minor exceptions to this rule. A moratorium on the use of gill and trammel nets will eliminate one of the most important types of gear used to harvest such species as mullet, pompano, spotted seatrout, and others. Thus, given the problematic situation facing many sectors of the industry, the outlook for the commercial fishing industry in Plaquemines Parish is one of uncertainty. Each sector of the industry will likely be faced with specific problems that may result in a reduction of the number of individuals participating in that fishery. For example, the "net ban" will likely displace a number of small-scale, nearshore, netting businesses. The use of BRDs will be a forced inefficiency that will make the cost of shrimping more costly. BRDs will be an added expense and will result in the loss of a certain percentage of shrimp per tow. Further declines in the oyster market will result in reduced profitability for the average leaseholder, and a limited entry program (individual quotas) for red snapper will, by design, result in the exiting of a certain number of fishers from the industry. Therefore, a contraction of the commercial fishing industry in Plaquemines Parish can be expected. Parish leaders should be prepared to accommodate those individuals displaced from the industry in an attempt to retain them for the local labor force in an alternative form of employment. The recently implemented "net ban" in Florida resulted in a similar phenomenon. Many small-scale, nearshore net fishers became unemployed. The coastal communities in which they resided were often economically undiversified, with few employment alternatives. The Florida Department of Labor was provided funds to offer retraining programs in an attempt to assist displaced commercial fishers in finding viable alternative employment, both on and off the water. Plaquemines Parish will likely be faced with a similar situation in the next one to three years as the industry is affected by imminent and pending changes in fisheries resource regulations and policy.

Seafood Sector - Strengths

The commercial fishing industry in Plaquemines Parish is characterized by a complement of strengths and weaknesses. Knowledge of these characteristics should help local planners formulate a proactive strategy for interacting with the local fishing industry during the transitional period of the near future.

The commercial fishing industry possesses some strengths that may assist local planners in providing assistance. The commercial seafood industry is a vitally important source of new growth revenue for Plaquemines Parish. The industry also provides an important source of employment and related economic activity for the parish. The industry is also very diverse, historically providing a set of alternatives for commercial fishermen and insulating participants from fishery-specific changes (this may be less true in the near future). Participants in the commercial fishing industry are noted for their independence and innovativeness. Their persistence in staying "on the water" may indicate an increased willingness to work with local planners in the future.

Seafood Sector - Weaknesses

There are several weaknesses associated with commercial fishing industry in Plaquemines Parish. The industry, as is the case with the commercial fishing industry in general, is very fragmented. Few of the participants in the fishing industry belong to organized trade associations. Although there are currently several trade associations in the area, lack of participation by industry on a percentage basis results in reduced political visibility and effectiveness in addressing resource management issues. The diversity of the industry itself contributes to this lack of political cohesiveness.

The industry, particularly the shrimp industry, is overcapitalized. Industry profits could likely be increased if fewer vessels were participating in the fishery. This is a problem that is plaguing the shrimp industry over the entire gulf region. Since the seafood industry has become much more dependent on imported products, the local industries throughout the gulf have become more vulnerable to shifts in international markets and supply. Industry sectors that have become particularly susceptible to foreign imports include shrimp, reef fish, and freshwater crawfish. Fish meal and oil are basically sold on the commodity markets where there is little control on price, which is dictated by the world fish meal and oil markets. Also, the alligator farming industry is particularly dependent on world markets for hides. Finally, the commercial fishing industry is increasingly becoming the recipient of costs associated with resource and general environmental concerns, some of which are motivated by resource preservation (i.e., TEDs and the Endangered Species Act) and not economic efficiency. This is particularly evident in light of the mandated use of TEDs, any future BRD mandates, media attention directed toward raw shellfish consumption, and the gulfwide efforts to eliminate the use of entangling nets. The costs to the industry include the loss of access to resources, market contraction, and economic inefficiencies associated with compliance.

Seafood Sector - Opportunities

The problems confronting the seafood industry in Plaquemines Parish are substantial and long term. The majority of the issues represent regional concerns and are not confined to Louisiana or the parish alone. The industry will probably experience some contraction in the next one to three years. As access to the resource continues to decrease, jobs will be lost and capital assets of fishers will be idled. These impacts will be realized by most sectors of the seafood industry, but will be most severely felt by the nearshore finfish industry. The only question is to what degree will this contraction occur. And as discussed earlier, the economic impacts of this reduction in activity will be felt through- out the local and regional economies. Although there is no "quick fix" to the host of problematic issues confronting the seafood industry, there are a few near and long-term opportunities for industry assistance that should warrant consideration by parish leadership.

Immediate and Near-Term

Retraining opportunities. The parish should anticipate an increased level of unemployment within the local seafood industry as pending and proposed regulatory changes are eventually implemented. The parish should make every attempt to retain displaced commercial fishers within the local labor force. Toward that end, the parish should be prepared to provide retraining opportunities for commercial fishers willing to avail themselves of such retraining. Possibilities include opportunities with local vo-tech schools to retrain or refocus existing skills possessed by most commercial fishers (i.e., carpentry, welding, engine repair, marketing, and fiber glassing.). The parish could consult with the Florida Department of Labor and the University of Florida's Institute of Food and Agricultural Sciences about recent experiences in Florida regarding retraining workshops and assistance as a result of Amendment 3. Some on the water opportunities may exist in closely related fisheries, nature-base tourism, guide/charter operations, work boat piloting, etc. Some opportunities may exist off the water. The parish should provide leadership toward ensuring that displaced fishermen have the opportunity to avoid relocation and remain in the local labor market.

Value-added processing. The seafood industry in Plaquemines Parish has historically not been involved in much value-added processing. With the exception of fish meal/oil production, most of the fishery products landed in the parish are shipped to points north with little processing. Some attempts have been made in the past at processing shrimp products and oyster shucking, but these attempts have not been met with great success. In this regard, the industry in Plaquemines Parish closely resembles the industry found in Monroe County, Florida, which is the single most important county in that state in terms of fishery products. Logistical constraints associated with transportation and resource availability have precluded the development of large-scale processing facilities. Although Monroe County leads Florida in shrimp landings, most shrimp processing in Florida is located in proximity to the Tampa port and International Airport. These same constraints likely confront Plaquemines Parish. For example, unless an offloading facility is available to allow container loads of shrimp to be shipped to Plaquemines Parish, the scale economies required to compete in the processed shrimp market will probably not be achieved. An appropriate strategy may be to continue consistently producing high-quality, fresh or frozen seafoods for existing markets, products for which Plaquemines Parish is already well known. Some opportunities may exist in oyster shucking and breading and soft-shelled crab production. The parish should examine these opportunities where most appropriate and closely consider the financial feasibility of such operations.

Raw oyster market. The market for raw consumption of oyster products has declined significantly in recent years. Continuous media attention directed toward this market has accelerated this decline. Successful attempts toward strengthening consumer confidence may pay high dividends in terms of recovery of lost market share and renewed upward pressure on prices. AmeriPure, a local business venture attempting to produce a safer oyster for raw consumption, may be successful in producing a product that will regain lost consumer confidence. Although the firm is still attempting to acquire the necessary regulatory approval to market their product, the parish should provide assistance where possible (i.e., incentives for capital acquisition and facility location, marketing assistance, etc.). If the AmeriPure process is found to be feasible and subsequently approved, the oyster industry in Plaquemines Parish could eventually be viewed by shellfish purveyors and consumers as producing a higher quality and safer product. This may allow the parish's oyster industry to establish an extremely valuable niche in the raw market, thereby generating significant positive economic consequences for the local oyster industry.

Seafood Festival. Although the seafood industry in Plaquemines Parish is likely more important than that for any other parish or county in the Gulf region, the community has historically not marketed the industry. Other regions of the Gulf actively market their local seafood industries via seafood festivals. Many such regularly scheduled festivals are held throughout the Gulf region each year, often in conjunction with state-sponsored seafood marketing programs or festival associations. An annual seafood festival in Plaquemines Parish would increase the visibility of the local seafood industry and generate potential marketing opportunities that otherwise may not be realized, while enhancing tourism development.

Aquaculture. A limited amount of commercial aquaculture currently occurs in the parish. There may be an opportunity for additional aquaculture production if a comparative advantage can be shown for commercial investment within the parish. Aquaculture should not be thought as a viable alternative for displaced fishers, with the possible exception of a very few individuals. The parish should initiate a short-term feasibility study that would identify the current aquacultural activities, candidate species, market potential, existing resources, and barriers to further development of commercial aquaculture in the parish. From this initial assessment, prospective investors (i.e., current growers wishing to expand, new entrants into the local industry, displaced fishers, etc.) will be better equipped to make a wise investment decision regarding commercial aquaculture within Plaquemines Parish.

Longer-Term

The problems currently confronting the seafood industry in Plaquemines Parish cannot be solved with a "quick fix" and will require considerable effort at the local, state, and national level. Changing perceptions and essentially a way of life does not happen rapidly. Therefore the following long-term recommendations are made.

Market the industry. Do not sell the seafood industry in the parish short. Recognize the value of the industry and utilize existing descriptive information in planning and marketing activities and materials. Communicate the economic and social value of the industry whenever possible. Make sure the general public and other industries in the parish understand the important role that the commercial seafood industry plays in the local and regional economy, and its importance to the tradition and heritage of Plaquemines Parish.

Regulatory interaction. Parish leadership should encourage industry participation in state, regional, and federal regulatory processes that affect marine resources. Given the importance of the industry to the local economy and labor market, the parish leadership should stay abreast of the ongoing regulatory process and encourage the local industry to maintain political visibility. The parish should provide incentives for industry to participate in the often costly regulatory process. Short of overt advocacy, such encouragement would ensure that the interests of the parish vis-a-vis the seafood industry are interjected into the management process.

Conflict resolution. The parish leadership should understand that the economic value derived from available marine resources is likely maximized when both commercial and recreational user groups have access to them. Therefore, the parish should encourage resource allocation decisions that ensure no single group of users acquire exclusive rights to access. Toward that end, the parish should attempt to provide conflict resolution training to commercial and recreational industry representatives. Similar training has been used in other locations within the Southeast in an attempt to mitigate conflict between competing marine resource user groups. Such conflict can produce longstanding divisions within the community.

Enhance communication. The parish leadership should attempt to strengthen communication channels with the seafood industry, and become active with and support existing seafood industry trade associations. Develop "Industry Ambassadors" to maintain closer ties with existing industries (the seafood industry, in particular) in the parish and ensure their participation in the decision-making process of the parish. Provide further assistance to the local Sea Grant extension program as it continues to maintain a strong rapport and working relationship with the seafood and other marine-related industries within Plaquemines Parish.

Chapter References

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Table 1. Louisiana and Regional Commercial Fisheries Landings, 1993 and 1994.

U.S. DOMESTIC LANDINGS, BY STATES, 1993 AND 1994 (1)

States	1993		1994		Record Landings	
	Thousand pounds	Thousand dollars	Thousand pounds	Thousand dollars	Year	Thousand pounds
Alabama	22,093	34,242	23,488	48,300	1973	36,744
Alaska	5,905,638	1,429,536	5,388,923	1,449,045	1993	5,905,638
California	281,476	119,749	343,429	159,148	1936	1,760,193
Connecticut	17,398	50,885	19,797	44,376	1930	88,012
Delaware	7,191	4,628	6,988	6,118	1953	367,500
Florida	178,751	208,833	176,551	238,995	1938	241,443
Georgia	15,743	21,231	14,506	20,302	1927	47,607
Hawaii	34,582	69,082	27,090	62,451	1993	34,582
Illinois	194	275	405	566	-	(2)
Indiana	1,596	2,294	1,411	1,919	-	(2)
Louisiana	1,292,893	261,822	1,704,387	336,314	1984	1,931,027
Maine	236,406	181,136	231,035	243,360	1950	356,266
Maryland	84,938	53,399	67,512	60,503	1890	141,607
Massachusetts	219,166	232,103	183,307	205,939	1948	649,696
Michigan	16,861	9,336	13,641	9,266	1930	35,580
Minnesota	371	138	480	236	-	(2)
Mississippi	181,339	29,436	220,828	44,990	1985	439,518
New Hampshire	10,971	11,836	12,099	12,746	-	(2)
New Jersey	196,101	96,288	201,598	99,866	1956	540,060
New York	54,340	54,163	44,721	42,817	1880	335,000
North Carolina	164,883	57,890	196,853	97,892	1981	432,006
Ohio	5,332	1,731	4,348	1,392	1936	31,083
Oregon	210,246	61,332	245,560	66,305	1992	256,912
Pennsylvania	230	171	371	292	-	(2)
Rhode Island	120,756	76,320	111,808	76,807	1957	142,080
South Carolina	18,843	25,843	17,571	27,788	1965	26,611
Texas	90,573	152,755	85,209	206,686	1960	237,684
Virginia	728,345	108,117	580,930	101,245	1990	786,794
Washington	362,344	111,779	527,804	175,197	1994	527,804
Wisconsin	7,295	5,110	8,738	5,537	-	(2)
Total	10,466,895	3,471,460	10,461,388	3,846,398	-	-

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks such as clams, oysters, and scallops, which are reported in weight of meats (excluding the shell). Landings for Mississippi River Drainage Area States are not available.
(2) Data Not available.
NOTE:--Data are preliminary. Data do not include landings by U.S.-flag vessels at Puerto Rico and other ports outside the 50 States, or catches by U.S.-flag vessels transferred to internal water processing vessels (IWPs) in U.S. waters. Data do not include aquaculture products, except oysters and clams.

U.S. DOMESTIC LANDINGS, BY REGIONS, 1993 AND 1994 (1)

Region	1993		1994	
	Thousand pounds	Thousand dollars	Thousand pounds	Thousand dollars
New England	604,697	552,280	558,046	583,228
Middle Atlantic	257,537	154,989	253,237	148,741
Chesapeake	813,283	161,516	648,442	161,748
South Atlantic	250,346	161,314	286,674	214,997
Gulf	1,714,772	630,738	2,152,719	806,270
Pacific Coast and Alaska	6,759,704	1,722,396	6,505,716	1,849,695
Great Lakes	31,974	19,145	29,464	19,268
Hawaii	34,582	69,082	27,090	62,451
Total	10,466,895	3,471,460	10,461,388	3,846,398

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks such as clams, oysters, and scallops, which are reported in weight of meats (excluding the shell). Landings for Mississippi River Drainage Area States are not available.

NOTE:--Data are preliminary. Data do not include landings by U.S.-flag vessels at Puerto Rico and other ports outside the 50 States, or catches by U.S.-flag vessels transferred to internal water processing vessels (IWPs) in U.S. waters. Data do not include aquaculture products, except oysters and clams.

Source: US Department of Commerce, Fisheries of the United States, 1994.

Table 2. Landings Volume and Value at Major US Commercial Fishing Ports, 1992-94.

COMMERCIAL FISHERY LANDINGS AND VALUE AT MAJOR U.S. PORTS, 1992-1994

Port	Quantity 1992	Quantity 1993	Quantity 1994	Port	Value 1992	Value 1993	Value 1994
	- Million Pounds -				- Million Dollars -		
Dutch Harbor-Unalaska, AK	740.4	793.9	699.6	Dutch Harbor-Unalaska, AK	197.9	161.2	*224.1
Empire-Venice, LA	276.5	335.4	431.7	Kodiak, AK	107.0	81.5	107.6
Cameron, LA	246.3	323.1	401.8	New Bedford, MA	151.8	107.5	82.4
Kodiak, AK	290.6	374.2	307.7	Brownsville-Port Isabel, TX	54.9	46.6	64.1
Intercoastal City, LA	175.9	202.7	304.8	Naknek-South Naknek, AK	4.0	43.5	61.5
Morgan City-Berwick, LA	130.8	147.5	243.6	Empire-Venice, LA	58.7	52.3	60.1
Dulac-Chauvin, LA	66.0	142.4	217.0	Dulac-Chauvin, LA	52.8	48.0	55.0
Pascagoula-Moss Point, MS	177.0	169.7	200.9	Key West, FL	17.4	35.2	53.0
Petersburg, AK	85.2	110.2	126.3	Honolulu, HI	50.5	56.9	44.0
Newport, OR	24.0	89.0	122.2	Portland, ME	43.6	49.1	43.6
Naknek-South Naknek, AK	19.1	78.7	100.4	Petersburg, AK	37.3	32.8	43.4
Los Angeles, CA	94.9	99.8	98.2	Delacroix-Yacloskey, LA	12.6	31.8	37.6
Beaufort-Morehead City, NC	79.0	88.4	97.0	Bayou La Batre, AL	24.0	24.3	36.7
Ketchikan, AK	70.6	100.6	93.6	Point Judith, RI	36.6	35.2	36.5
Cape May-Wildwood, NJ	93.9	95.0	85.3	Kenai, AK	44.4	26.9	35.0
Astoria, OR	67.0	68.0	78.9	Cameron, LA	26.9	27.4	33.9
Port Hueneme-Oxnard-Ventura, CA	18.7	39.9	68.3	Cape May-Wildwood, NJ	34.9	36.2	33.8
New Bedford, MA	103.3	82.1	65.8	Cape Canaveral, FL	10.4	17.2	30.6
Portland, ME	59.2	86.1	63.9	Golden Meadow-Leeville, LA	28.6	26.2	30.1
Point Judith, RI	66.7	60.4	61.9	Aransas Pass-Rockport, TX	32.3	24.0	29.3
Cordova, AK	32.0	18.1	60.8	Ketchikan, AK	27.8	27.0	29.1
Gloucester, MA	101.7	67.6	50.1	Gloucester, MA	34.1	31.3	27.3
Kenai, AK	71.4	38.1	44.3	Port Hueneme-Oxnard-Ventura, CA	10.7	10.3	26.7
Atlantic City, NJ	43.6	41.6	42.8	Galveston, TX	22.3	18.2	26.3
Wanchese-Stumpy Point, NC	29.9	32.1	39.0	Palacios, TX	(1)	15.1	24.5
Point Pleasant, NJ	30.0	21.9	37.0	Los Angeles, CA	14.6	13.7	24.5
Rockland, ME	39.9	31.9	33.8	Sitka, Ak	22.8	14.3	24.3
Sitka, Ak	36.3	26.3	32.4	Beaufort-Morehead City, NC	16.5	15.6	24.0
Seward, AK	24.2	17.6	30.7	Cordova, AK	18.9	10.7	23.6
Crescent City, CA	39.2	24.3	28.4	Fort Myers, FL	(1)	(1)	23.5
Monterey, CA	17.6	15.3	27.6	Port Arthur, TX	21.0	18.2	23.1
Delacroix-Yacloskey, LA	14.0	12.8	25.3	Apalachicola, FL	(1)	7.9	22.4
Coos Bay-Charleston, OR	38.0	29.0	24.0	Wanchese-Stumpy Point, NC	13.0	14.2	22.0
Key West, FL	9.4	20.3	21.5	Pascagoula-Moss Point, MS	12.4	10.7	22.0
Brownsville-Port Isabel, TX	22.9	18.9	21.0	Tampa Bay-St. Petersburg, FL	(1)	19.6	20.9
Cape Canaveral, FL	10.8	13.4	19.5	Atlantic City, NJ	20.4	21.8	20.9
Homer, AK	25.9	13.8	19.2	Morgan City-Berwick, LA	14.3	13.0	20.0
Honolulu, HI	22.4	26.4	19.1	Freeport, TX	11.4	13.0	19.6
Provincetown-Chatham, MA	16.7	19.2	18.6	New Orleans, LA	(1)	(1)	19.5
Wrangell, AK	8.8	10.2	18.4	Newport, OR	22.0	17.0	19.0
Bayou La Batre, AL	16.2	16.0	18.3	Delcambre, LA	15.2	12.8	18.9
Belford, NJ	18.5	19.9	18.3	Astoria, OR	19.0	19.0	18.6
Golden Meadow-Leeville, LA	21.9	20.8	17.2	Crescent City, CA	15.9	12.4	18.4
Port St. Joe, FL	(1)	15.6	15.1	Gulfport, MS	(1)	(1)	18.2
Moss Landings, CA	11.3	6.9	14.3	Homer, AK	23.7	7.9	17.4
Engleheard-Swanquarter, NC	12.0	11.6	14.0	Seward, AK	6.4	6.6	16.6
Aransas Pass-Rockport, TX	17.0	13.5	13.0	Intercoastal City, LA	10.4	11.0	16.3
Hampton Bay-Shinnicock, NY	10.0	14.7	12.8	Point Pleasant, NJ	14.4	12.2	15.3
New Orleans, LA	(1)	(1)	12.5	Hampton Roads Area, VA	33.3	17.9	15.1
Ocean City, MD	17.9	14.1	12.5	Charleston-Mt. Pleasant, SC	10.9	10.7	14.0
Galveston, TX	12.7	12.5	12.4	Mayport, FL	(1)	6.2	13.5
Newport, RI	14.2	11.9	12.1	Montauk, NY	14.9	11.7	13.4
Tampa Bay-St. Petersburg, FL	(1)	12.4	11.3	Santa Barbara, CA	15.6	15.8	13.4
Fort Myers, FL	(1)	(1)	11.1	Coos Bay-Charleston, OR	15.0	11.0	13.4
Belhaven-Washington, NC	(1)	(1)	11.0	Lafitte-Barataria, LA	11.9	11.0	12.7
San Diego, CA	3.5	(1)	10.7	Grand Isle, LA	13.2	13.5	12.1
Montauk, NY	14.1	12.3	10.6	Newport, RI	14.5	11.2	12.1
Brookings, OR	1.0	10.0	10.6	Eureka, CA	10.1	9.1	11.2
Fort Bragg, CA	11.2	8.4	10.2	Newport News, VA	15.5	6.8	11.1
Oriental-Vandemere, NC	7.1	5.4	10.0	Engleheard-Swanquarter, NC	6.1	5.6	11.0

(1) Not available. *Record Record quantity was 848.2 million lb landed in Los Angeles, CA in 1960.

NOTE:--To avoid disclosure of private enterprise certain leading ports have not been included.

Source: US Department of Commerce, Fisheries of the United States, 1994.

Table 3. Commercial Fisheries and Aquacultural Production Volume and Value for Plaquemines Parish, Louisiana, 1994.

Industry Subsector	Number of Producers	Volume of Production	Value
Marine Fisheries			
Shrimp	1,140	8,530,000 lbs	$15,862,000
Menhaden	12	295,800,000 lbs	14,790,000
Crab	150	1,450,000 lbs	940,000
Other Finfish	245	11,500,000 lbs	20,130,000
Oysters	663	830,000 lbs	9,730,000
Freshwater Fisheries	130	230,000 lbs	170,000
Aquaculture	(Total 500 acres)		
Crawfish	.	220,000 lbs	120,000
Alligators	.		
Skins	.	162 units	10,000
Hides	.	729 units	3,000
Soft Crab	.	1,200 units	20,000
Alligators (Wild Harvest)			
Skins	N/A	1,106 units	260,000
Meat	N/A	33,528 units	150,000
TOTAL			$62,190,000

Source: Louisiana Cooperative Extension Service, *Louisiana Summary 1994 - Agriculture and Natural Resources.*

Table 4. Commercial Fishery Landings Volume by Louisiana Parish, 1995.

Parish	Landings Volume (lbs)
Assumption	6,416,000
Calcasieu	226,000
Cameron	279,501,000
Iberia	5,685,000
Jefferson	17,689,000
Lafayette	520,000
Lafourche	18,927,000
Orleans	3,950,000
Plaquemines	306,940,000
St. Bernard	12,650,000
St. Charles	2,469,000
St. John	63,000
St. Mary	127,445,000
St. Tammany	737,000
Tangipahoa	561,000
Terrebonne	127,843,000
Vermilion	187,988,000
Acadia	29,000
Avoyelles	1,027,000
Ascension	633,000
W. Baton Rouge	< 1,000
E. Baton Rouge	151,000
Caddo	81,000
Catahoula	811,000
Grant	3,000
Iberville	4,513,000
Madison	46,000
Morehouse	< 1,000
Ouachita	23,000
Point Coupee	1,000
Rapides	30,000
St. Landry	1,553,000
St. Martin	5,515,000
Desoto	2,000
Vernon	5,000
Webster	36,000
St. James	517,000
Livingston	5,000

Source: Louisiana Department of Wildlife and Fisheries, unpublished data.

TOURISM SECTOR

The tourism sector offers an excellent economic development opportunity for Plaquemines Parish given its proximity to New Orleans, one of the world's most famous destinations; its allure because of its geographic location at the terminus of the Mississippi River; and its attractions mix of outstanding natural and cultural heritage features.

Existing Situation

Table 5 below presents tourism and travel statistics for the parish for the period 1991-1995. These figures were prepared by the U.S. Travel Data Center for the state's Department of Culture, Recreation, and Tourism. The data indicate that the travel and tourism industry in Plaquemines, much like the rest of coastal Louisiana, continues to grow and add jobs and income.

Table 5. Impact of Travel on Plaquemines Parish

	1991	1992	1993	1994	1995
Expenditures ($Millions)	11.93	12.51	12.68	14.21	15.15
Payroll ($Millions)	1.77	1.91	1.91	2.23	2.13
Employ. (Thousands)	0.14	0.14	0.15	0.14	0.16
State Tax Receipts ($Millions)	0.57	0.60	0.62	0.70	0.74
Local Tax Receipts ($Millions)	1.06	1.07	1.11	1.17	1.20

Source: U.S. Travel Data Center.

The parish's main attractions revolve around its natural heritage, notably its wetlands and other coastal and marine water-based activities. Fishing and hunting activities attract thousands of visitors from elsewhere in Louisiana and out of state. In addition, many out of state visitors to the New Orleans area drive down either Highway 23 or 39 just to observe the natural environment, notably the Mississippi River as it empties into the Gulf of Mexico. Although no precise statistics are kept on the number of sport fishermen and hunters that visit the parish annually, the state's sports license sales in Plaquemines in Fiscal Year 1994-95 indicate the large extent of fishing activities that take place in a parish of some 25,000 residents.

Table 6. Fiscal Year 1994-95 Sports License Sales

	Plaquemines	Louisiana
Resident Fishing	8,876	564,606
Non-Resident Season-Fishing	450	18,191
Non-Resident Trip-Fishing	229	6,912
Resident Salt	9,269	280,360
Non-Resident Season-Salt	466	6,510
Non-Resident Trip-Salt	226	1,269

Source: La. Dept. of Wildlife and Fisheries.

Recent inventories conducted by the PPEDD noted the following as being Plaquemines' main tourism attractions, facilities, and services:

- 9 marinas and public boat launches
- 14 fishing charter and guide services
- 8 motels and lodging accommodations
- 14 restaurants
- 3 golf courses
- Lake Hermitage; Judge L.H. Perez Park
- Plaquemines Parish Fair & Orange Festival (December); Fourth of July Celebration; Empire South Pass Tarpon Rodeo (August); Annual Pirogue Races (August); New Orleans Air Show (Callender Naval Air Station, October)
- Fort Jackson, LaSalle Monument, Magnolia Plantation, Courthouse

Plaquemines Parish has begun to recognize the opportunity presented by this sector, and has focused some attention on marketing and promotion efforts. Two notable examples are its active involvement in the Westbank Association of Marketers ("Dedicated to the Promotion of Tourism on the Westbank") and the Louisiana Travel Promotion Association.

Tourism Sector - Outlook

Coastal tourism development is a growth opportunity for Plaquemines Parish. In the coming years, two of the parish's main attractions, sport fishing and waterfowl hunting, are projected to increase in popularity. In addition, Louisiana and the nation as a whole are giving a great deal of attention to the concept of sustainable development as it affects rural tourism, and the parish is in an ideal position to attract visitors interested in other nature and heritage-based activities. Louisiana has defined sustainable tourism development as "...tourism that links the preservation and conservation of Louisiana's natural and cultural resources with rural economic development in order to promote sustained growth in our communities while protecting, and where needed enhancing, our valuable resources."

Rural tourism has flourished in Louisiana in the last decade or so, primarily because of its rich natural and cultural resources. Yet some communities have done better than others and several essential elements for success have been observed. Any community, such as Plaquemines Parish, seeking to incorporate tourism into its economic development efforts or becoming more active in development, would be well served to note these components.

Leadership. Competent, motivated, strong leadership is vital if tourism, or any other key sector for that matter, are to become an economic force within Plaquemines Parish. Sufficient and attractive facilities, services, attractions, finances, and all other aspects necessary to produce a tourism program will not progress, unless adequate leadership can provide direction and planning. In the early 1980s, the travel industry, particularly tourism travel, prospered in south Louisiana. But the predominantly rural coastal parishes did not take advantage of the opportunity because the region was fairly prosperous at the time and few leaders could be motivated to think along the lines of economic diversification, and many viewed tourism as a frivolous rather than economic activity that generated jobs, income, and tax revenues. As a result, the lion's share of the growth and benefits accrued in the city, New Orleans. But in the mid 1980s, coastal leaders began to seriously explore alternative economic strategies to help overcome the severe economic downturn and, many focused on tourism as part of the solution. Tourism was one of the state's few growth sectors and required relatively minor public investments.

Those Louisiana coastal communities that are today considered tourism success stories and models for replication, achieved this status by identifying and developing effective leadership for the public as well as private sectors. It was argued at the time that leadership and organization were prerequisites for long-term success. Experience has reaffirmed this belief. Those communities that possessed a willing and motivated local leadership were able to learn, organize, and convert their new-found knowledge into success.

Typically, tourism leaders (1) stand to gain from tourism development; (2) are eager to see the community grow and develop; and (3) are very positive and proactive individuals. The country is moving toward decentralized decision-making and thus the role of communities such as Plaquemines is going to become increasingly important. It is at this level that we link up our diverse interests, agree on where we ought to head, and organize to mobilize and implement actions to achieve. Local government will play a key role in strengthening our communities-from planning and facilitating development to creating community partnerships to providing the actual leadership.

Partnership. The need to network and coordinate both within and outside parish borders is another vital element for success. Plaquemines has begun to do so by joining the aforementioned state and regional marketing entities. But in order to build on this positive first step, additional intra- and inter-community cooperation must be sought out and organized. The building of partnerships must be motivated by more than cooperative promotional activities. Certainly, there is a need to encourage visitors to spend more time in the parish and environs, but there is also an urgent need to make area-wide improvements to many of the heritage-based resources in order to eventually create a better attractions package. Some further suggestions in this regard are presented below. Partnerships can also help create more opportunities for larger attractions and events. Too, they can help clarify the parish's internal and external images.

The most successful Louisiana coastal towns and parishes have forged strong and lasting intra-community partnerships by reaching out within the parish and involving the private sector, not just government. Furthermore, they have sought out and involved both the for-profit component (re-presented by motels, restaurants, guide and charter services, etc.) as well as nonprofit interests, most often represented by civic groups, environmental and conservation organizations, etc. The key has been to be inclusive, not exclusive.

Broadly based actions are needed because local governments alone cannot accomplish long-term solutions. Cooperation is essential. State and federal governments are more than sources of funding, and those coastal parishes and towns that have realized this and involved these governments in their tourism development activities have benefited tremendously. For instance, state and national parks and wildlife refuges are tourist destinations, and regulations and forms of development are topics that need to be confronted and resolved early on. Signage issues, an often discussed priority topic for tourism development, also cannot be resolved without government actions. Furthermore, governments are excellent sources of technical assistance for an array of tourism-related topics.

Entrepreneurship. Attractions draw people into our coastal parishes, while businesses and the services they provide create a large majority of the jobs and income generated by the tourism industry. And to a large extent, small businesses have been at the heart of rural tourism development in coastal Louisiana. Business development in this sector has been characterized by commitment of both time and resources from entrepreneurs. Many started small, had close ties to the community, invested their personal resources, and grew as the industry expanded. It has also been very apparent that business development and expansion are difficult without strong support from the local business community and occasional technical assistance to solve problems. Municipalities and parish governments must also provide strong support for business development.

Sustainability. Attractions are the purpose of travel and the central focus of a tourist's interest. For this reason, the quality of the attractions is essential for the long term. Rural, coastal Louisiana is particularly fortunate in that we have a distinctive, and in some instances unique, set of attractions that have been created based on our natural endowments, history and culture. The most successful attractions have sought to be authentic and preserve the integrity of the resources while increasing their drawing power. Thus, the key is to carefully manage to assure visitor satisfaction while balancing this with outstanding stewardship of the resources.

Tourism Sector - Strengths

Geography is a major asset. On one hand, Plaquemines Parish is located next to New Orleans, while on the other it possesses the enticement associated with wanting to see the Mississippi River and its delta as it flows into the Gulf of Mexico, all within an easy trip from downtown New Orleans. In addition, the River's rich alluvium coupled with very few killing freezes have enabled farmers to grow excellent citrus products and vegetables that are sold at roadside stands and are very appealing to visitors. There are virtually year-round opportunities for attracting visitors to these fresh produce offerings.

Also, because of location, there are outstanding fresh and saltwater recreational fishing opportunities, and the promotion of such activities is something that is readily done by the hosting charterboat operators and guide services, as well as the major marinas. Natural heritage also plays a major role in other wetlands-based strengths. Birding and other passive forms of nature observation, such as marsh and cycling tours, can also be major attractions.

Plaquemines' cultural and historic features are not just strengths, they are unique from a tourism perspective. The rich historic legacy of the Perez family is something that in time can be made as fascinating to parish visitors, as Huey P. Long is to the rest of Louisiana. The rich diversity of ethnic backgrounds is a tourism strength and has made Plaquemines

Parish a fascinating cultural gumbo. Slavic ancestors mix with African Americans and recent Indochinese immigrants. Fort Jackson is an absolute historical treasure.

Tourism Sector - Weaknesses

Perhaps the greatest weakness, from the tourism development standpoint, is the regrettable mind-set of many of the Plaquemines Parish leaders and residents that resist change to a more diversified economy. The parish's improved fiscal and otherwise economic situation, largely because of the mini-resurgence of the oil and gas industry, appears to have brought out that sense of complacency at best, apathy at worst, that characterized the pre-mid 1980s era. Many leaders and citizens contacted during the course of this study simply do not want to emphasize tourism as a major part of the parish's future economy.

The reasons for these opinions vary. Many feel that the parish has little to offer, and that travelers are a nuisance. In fact, the parish has much to offer, and tourism's negative aspects can be mitigated through proper planning and resource management. Comments attributed to Council members that appeared in the parish's weekly newspapers concerning a new hotel development in Belle Chasse and its impact on the children of Plaquemines Parish (drugs, prostitution, etc.) are indicative of the kind of thinking that has to be overcome.

Even the current motel operators need to upgrade their facilities if they are to become a part of the tourism industry. Because they have traditionally catered to the oilfield industry and prospered as a result of it, there is the apparent sentiment that little has to be done to upgrade the rooms. Regrettably, even some recently upgraded properties are still not up to the lowest standards of a roadside motel. These issues need to be dealt with, and perhaps new properties will be able to compete and force the older properties to shape-up or close down. The Empire Inn and Venice Inn appeared to be the best of the available properties, and structurally they are satisfactory. Cosmetically they leave a lot to be desired from the manner in which they are run to the appearance and modernization of the operations. Restaurants are not hospitality conscious, but have a local mentality and need to be brought together to talk about customer and visitor hospitality.

Another weakness appears to be a prevailing opinion among many that tourism will not take place until a new hotel is built in the parish, whether in Venice or Belle Chasse. This is simply not correct. All of the needed ingredients to generate visitors to Plaquemines Parish are present. Day-trip potential exists for both individuals and groups, and multiple RV park opportunities have been reviewed. If the parish leadership chooses to wait until the issue of a hotel is resolved, it will cost valuable time in the development of a new industry that can have a significant economic impact in Plaquemines Parish. While the hotel developments are obviously going to maximize the financial rewards that tourism can bring, there is certainly potential existing now without new or improved hotels.

The highway signage in the parish is deplorable even to the extent of identifying communities and mileage from one place to another. An example is the West Pointe a la Hache ferry where signs were missing, and signs directing one to Venice, for example, were nowhere to be found. There appears to be a mindset that we know where things are, we know where we are going--without concern for someone who is not familiar with the parish. This needs to be addressed if Plaquemines Parish is ever to develop any kind of regular tourism business. While the parish was generally clean, there were several littered areas and unsightly dumps that need to be cleaned up, particularly on the Lake Hermitage Road, in the lower part of the Venice area and also around Fort Jackson.

Another weakness is the organizational aspect of the tourism promotion activities in Plaquemines Parish. Channeled through the Economic Development District, with one committee member on the District responsible for tourism and only one staff person, there is a tendency for frustration in that one or two people simply cannot accomplish everything that needs to be done. Advice regarding a more effective scheme is presented under "Tourism Sector - Opportunities" below.

Plaquemines tourism promotion efforts have been inconsistent, at best, and in order for the parish to truly stimulate visitor interest and access to its attractions, there needs to be an on-going funded effort to work within the infrastructure of the state's travel industry. The staff person has been involved in activities of the Louisiana Travel Promotion Association and is making contacts with tourism groups all across the state through that process. This needs to be continued and, in time, Plaquemines Parish needs to host the tourism industry leaders from throughout the state to experience what it has to offer so that there will be cross selling of Plaquemines Parish with other areas in the state. As of now, Plaquemines Parish is not on the tourism map.

The state publishes a Louisiana Tour Guide which goes to over one million prospective visitors who have written or called Louisiana for information. Plaquemines Parish needs to have a visibility in this guide through advertising as well as through editorial listings. Christi Martin, Tourism Coordinator for PPEDD, can see that this happens by working with the infrastructure to get Plaquemines Parish to participate and be represented.

A tremendous opportunity, while being an unfortunate weakness, is the outlook for the Perez Estate and the ability to establish the Perez legacy as a significant historical legacy of Plaquemines Parish. Perhaps it will take another generation to overcome negative emotions connected with the Perez family. Certainly the Judge's park, and possibly his home, can be set up as a museum and showplace of what Leander Perez was and did for Plaquemines Parish. It will take time for this, given the political and estate implications, but it is certainly as fitting to recognize the history of the Perez family in Plaquemines Parish as it is that of the Huey P. Long legacy to the state of Louisiana.

Another unfortunate weakness is the situation surrounding Woodland. This plantation home on the East Bank has some great potential, but is also tied up in an estate settlement. Pictured on the bottle of Southern Comfort, it is apparent that there is interest at Southern Comfort in helping fund the restoration of this historical facility. However, it will be a long-term process to settle the estate, save the home, and restore it for tours.

Tourism Sector - Opportunities

Tourism opportunities are discussed in terms of their immediate, near- or long term potential for development.

Immediate

There are immediate opportunities to **develop day-trip business** from downtown New Orleans. There is a terrific fascination with traveling to the mouth of the Mississippi River or the "end of the road," and Plaquemines Parish, with a negligible investment, has an excellent nearby market at the downtown hotels in New Orleans. Plaquemines Parish, in general, and the Mississippi River attractions, specifically, can be promoted in New Orleans with a basic package. It could include, for instance, driving through the parish, visiting Fort Jackson, having lunch at Cypress Cove, and an option for an air boat tour, an air tour (Southern Seaplane, Inc.), or the possibility of developing a per-head boat tour to Pilottown. The return trip might include a stop at the citrus/vegetable stands. Such basic packages are extremely competitive and would compete with other day trips being promoted out of New Orleans such as plantation and swamp tours.

For this to become a reality, the initial actions required of parish tourism interests are to secure the commitment of the attractions, make arrangements, and then bring in leaders from the New Orleans hospitality industry, as well as concierges and other travel generators who are involved in directing day trippers out of New Orleans. This would enable them to experience for themselves what Plaquemines Parish has to offer.

Another excellent opportunity is to establish a group day-trip opportunity such as a Grayline tour, which would pick up at the downtown New Orleans hotels between 8:30 a.m. and 9:30 a.m., travel through Belle Chasse and down Highway 23, with a stop at Fort Jackson, lunch at Cypress Cove, and the option of any of the three sight-seeing activities described above. The return trip would make a stop at a citrus/vegetable stand and return to New Orleans hotels between 4:00 and 5:00 p.m. This day trip can be priced competitively with the other day trips being offered, and some of the people who take it probably will plan to eventually return. Once a hotel and RV parks are built, this would simply increase the opportunities for day trippers to come and spend a night or two in the area.

Fort Jackson is an outstanding attraction but needs some improvements before handling large visitor volumes. It needs to be well publicized and incorporated into the aforementioned day trips from New Orleans.

Nature-based and cultural tourism opportunities abound. The area's proximity to the mouth of the river offers great opportunities to show off the Mississippi River Delta, both from an ecological standpoint as well as from an industrial standpoint. Great care should be taken to tell the story of how the oil, gas, and offshore industry evolved and are still such a major part of the local economy.

The film industry should be interested in the unique aspects of the parish. An itinerary for film scouts should be established immediately This should include all of the important aspects of scenery that Plaquemines Parish offers and a familiarization tour for the director of the Office of Film and Video within the state Department of Culture, Recreation, and Tourism, as well as the New Orleans film office director and some of the top location scouts known to these individuals. Certainly Lake Hermitage and Suzzy Bayou should be included in such a tour, as well as some of the delta locations (including Pilottown) and the older areas of Empire and Buras.

A more significant **broadly-based Tourism Committee** is needed. This can readily be done by involving volunteers from specific groups such as the restaurant industry, the accommodations interests, charter boat and fishing guide representatives, citrus growers, festival organizers, and others who have an interest in developing a greater visitor volume for the parish. The committee would continue to have a chairperson in charge of its policy directives, and the staff member would report directly to the chairperson. Nevertheless, it is crucial that there be an understanding that the staff person receive ample work support from the rest of the Committee. He/she cannot do this alone.

Near-Term

The marina situation is becoming quite competitive and it is the Study Team's opinion that the market is growing and is large enough for all to succeed. The key lies in each identifying its specific market segment and promoting to that particular group. The new Cypress Cove Marina and the well-established and proven Venice Marina are the best examples of this situation. It appears that Cypress Cove is promoting the higher-end market, while Venice Marina appeals to its traditional customer base in the New Orleans metropolitan area. As sport fishing increases in popularity, there will be an opportunity for another entrepreneurial venture similar to the "Miss Mississippi," a **head boat** that operated from the Plaquemines area until its demise in the early 1980s.

The aforementioned self-guided or bus group trips can be acted upon immediately. More work would be required to explore another very interesting entrepreneurial opportunity, a **boat trip to and tour of Pilottown**. It would be advisable to coordinate any such plans with the river and bar pilot associations to assure maximum cooperation. A guided trip would be the most appealing, and might involve on-board guide(s), who are very familiar with the Venice area, its offshore oil and commercial fishing industry history, and the Mississippi River and its passes. Once in Pilottown, the group could be greeted by a retired pilot who would explain the history of Pilottown, the role of ship pilots, and the manner in which the community exists and operates. The group could then be treated to refreshments at the cafeteria, and this could easily be followed by a walking tour. The entire time frame should be kept within two hours.

Some funding is available and efforts should be made to familiarize the staff and Council with the limited opportunities. The ISTEA Program administered through the Department of Transportation and Development should be looked into for scenic overlooks, beautification, and possibly even the overlaying of the road to Lake Hermitage. The Governor's Office of Rural Development has a grant application process that should be explored. In addition, the parish could also get state sales taxes on hotel occupancy rebated to the parish for tourism promotion activities. There are also programs now being undertaken by the Louisiana Office of Tourism to promote birding and recreational fishing, and Plaquemines Parish would certainly be able to plug themselves into those activities if they are actively involved in promoting themselves as a visitor destination.

Longer-Term

Once the expanded Tourism Committee has had an opportunity to function for two years as a volunteer arm of the PPEDD, consideration should be given to formalizing the entity by creating the **Plaquemines Parish Tourism Commission.** Much like other commissions around the state, the Plaquemines Commission could obtain its funding from a motel occupancy tax that is levied on visitors and dedicated to promoting additional visitations.

The Plaquemines Parish Fair and Orange Festival appears to be a successful undertaking and with added attractions, such as last year's addition of seaplane trips, it can only grow. Care must be given to insuring that growth does not compromise quality and a pleasurable experience on the part of the visitors. There are, however, tremendous opportunities for additional festivals. Examples include a **Yugoslav Heritage Festival, Creole Tomato Festival, and a Seafood Festival.** Special events such as these are very successful in our state and the potential of attracting more visitors while interpreting the parish's natural and cultural heritage. Such efforts would best be directed by the expanded Tourism Committee.

The **recreational vehicle or RV market** presents another excellent opportunity that will require some nurturing before coming to fruition. RVers, by the very nature of what they do, have an interest in visiting "the end of the road" or the mouth of the River. In order to appeal to this group, however, there needs to be more facilities, including a large rally campground that could accommodate several hundred RV vehicles at the same time. Two locations, Myrtle Grove and Cypress Cove, appear to be excellent locations for commercial operations. Those planning a Myrtle Grove RV park will need to consider how to handle boat trailer parking versus the number of campsites. The parish is also considering establishing a small campground at Fort Jackson and leasing it to a private operator. All three of these should do well, but there remains a need for a large rally campsite that would include a pavilion for group gatherings on the premises. Niche marketing through specialized publications such as "Woodall's" and "Trailer Life," should be undertaken when these facilities are completed.

Lake Hermitage is yet another nature-based opportunity. This drive off of Highway 23 is beautiful and crosses a cypress swamp, some of which has been killed by saltwater intrusion, yet the entire drive goes through some of the most picturesque wetlands in Louisiana. Lake Hermitage Marina could be the departure point for boat tours of the wetlands, which could bring in the Jean Lafitte pirate legacy because of the proximity to Barataria. Boat trips could be generated from there to Lafitte and back. This would depend a lot on the interest of the marina owner since that is the only available and accessible facility at Lake Hermitage. In order for this to happen, however, the parish would need to blacktop the road in order to accommodate traffic volumes. Illegal dumps would also have to be removed.

It is the Study Team's understanding, that there are two **bed and breakfast establishments** in Plaquemines Parish. The one in Port Sulphur appeared particularly quaint, and there are many opportunities for such business ventures, particularly as they relate to sportsmen and the ecologically-minded visitors. The remoteness of some homes along Highway 39 looked particularly appealing.

The Study Team also looked at **River Oaks Academy** as a possible site for a flea market that would feature arts and crafts, as well as citrus fruits, vegetables, etc. Consideration is also being given to having a section devoted to regional trade shows for items such as heavy equipment, etc. This appears to be a long-term development possibility and would depend considerably on the owner of the property being interested in investing in this kind of activity. Once the hotel issues are resolved and the day-trip business begins to grow, it might be easier to convince the owner that such an investment in this type of a project is sound. There is additional uncertainty stemming from (1) the reluctance among citrus growers to placing their produce in a common marketplace;
(2) artisans would be hard pressed to fill this large facility, and (3) while a restaurant and other historical type activities could be included, there need to be more attractions to draw in customers and ultimately merit this kind of investment.

COMMERCE AND INDUSTRY

Although Plaquemines Parish appears to have a reasonably diversified economic base, its dependence on one or two key sectors--oil and gas exploration and production and river-based industries--has traditionally made the parish extremely vulnerable to economic fluctuations. Evidence of this lies in the economic downturn and fiscal repercussions that accompanied the mid-1980s and the resurgence of the oil and gas industry in the 1990s and accompanying improved fiscal situation.

Existing Situation

Employment changes (1985-1993). As part of the Plaquemines Parish economic assessment study, Louisiana Sea Grant analyzed the parish's economy using a technique known as "shift-share analysis." Shift-share analysis enables parish leaders to evaluate how their parish compares to the United States and Louisiana in terms of employment shifts and growth. The results of this analysis are shown in Tables 7 - 8. For a more in-depth discussion of the economic analysis techniques used, see Appendix B.

In the column labeled "Actual Change" in Table 7, it can be observed that the parish's only growth sectors between 1985 and 1993 (in terms of employment) were retail trade and services. Growth in the services sector in Plaquemines Parish was not as fast as the rest of the state or country, where it was the fastest growing sector of those economies. Nevertheless, although Plaquemines experienced relatively strong growth, especially in business, miscellaneous repair, and health services, the parish still experienced a net decline in its share of service employment when compared to the U. S. and the state. (See Parish Share Effect, Tables 7 and 8.)

Not surprisingly, given the economic downturn of the 1980s, one of the hardest hit sectors for Plaquemines Parish was the mining sector. It is noteworthy that this sector declined at both the state and national levels, yet Plaquemines Parish employment losses in mining were at a rate greater than Louisiana or the U.S. as a whole. The "Parish Share Effect" columns in Tables 7 and 8 show the share of employment lost by the parish. All of this decline was attributed to the steady deterioration of the offshore oil and gas extraction industry.

Calculations presented in the "Potential Change" column of Table 7 indicate that, according to national economic forces alone (U.S. employment growth and the industry mix), Plaquemines Parish should have gained 179 jobs between 1985 and 1993.

Table 7: Shift-Share Explanation of Employment Changes in Plaquemines Parish Relative to U.S. (1985-1993)

Sector	National Growth Effect	Industry Mix Effect	*Potential Change*	*Actual Change*	Parish Share Effect
Mining	-679	-196	-875	-1,074	-199
Construction	15	16	31	-1	-32
Manufacturing	-174	-25	-199	-714	-515
Transportation & Public Util.	388	-337	51	-451	-502
Wholesale	124	-14	110	-186	-296
Retail	215	23	238	497	259
Fin.,Ins.,Real Estate	57	36	93	-101	-194
Services	1,039	-309	730	205	-525
Total	985	-806	179	-1,825	-2,004

Sources: Louisiana Sea Grant College Program, 1996; and County Business Patterns, U.S. Department of Commerce, Bureau of the Census, 1985 and 1993.

Table 8: Shift-Share Explanation of Employment Changes in Plaquemines Parish Relative to Louisiana (1985-1993)

Sector	State Growth Effect	Industry Mix Effect	Potential Change	Actual Change	Parish Share Effect
Mining	-864	33	-831	-1,074	-243
Construction	-62	148	86	-1	-87
Manufacturing	47	-228	-181	-714	-533
Transportation & Public Util.	-242	-345	-587	-451	136
Wholesale	-82	-11	-93	-186	-93
Retail	56	60	116	497	381
Fin.,Ins.,Real Estate	-24	28	4	-101	-105
Services	1,098	-496	602	205	-397
Total	-73	-811	-884	-1,825	-941

Sources: Louisiana Sea Grant College Program, 1996; and County Business Patterns, U.S. Department of Commerce, Bureau of the Census, 1985 and 1993.

In fact, total employment for the period declined by 1,825 jobs. That means that Plaquemines actually suffered a net loss of 2,004 jobs ("Actual Change" minus "Potential Change").

Even relative to Louisiana employment growth (Table 8), which was also in a state of decline at the time, Plaquemines Parish should have lost 884 jobs ("Total of Potential Change" column) instead of the 1,825 that were actually lost. Thus, relative to the state, Plaquemines suffered a net loss of 941 jobs between 1985 and 1993 ("Total of Parish Share Effect" column).

Economic base. In order to help define the economic base for Plaquemines Parish, Louisiana Sea Grant used an analytical tool known as location quotient analysis. A location quotient measures the parish's relative employment concentration in various industries. For more information on location quotient analysis, see Appendix B.

If LQ=1: Industry employment in the parish and the U.S. are concentrated to an equal degree.

If LQ<1: Parish employment in the industry is concentrated less than the U.S.

If LQ>1: Parish employment in the industry is concentrated more than the U.S.

Table 9: Selected Location Quotients for Plaquemines Parish Relative to U.S., 1991-1993

Title	1991	1992	1993
Natural Resource-Related Industries			
Oil & Gas extraction	2.12	2.36	2.22
Measuring, analyzing, and controlling instruments	1.77	1.74	1.78
Pipelines, except natural gas	19.66	18.88	21.33
Mississippi River-Dependent Industries			
Chemicals & allied products	6.46	4.90	6.62
Petroleum refining	30.90	27.30	29.76
Water transportation	24.73	25.22	23.73
Local Commerce			
Eating & drinking places	1.77	1.41	1.67
Real Estate	0.34	0.64	1.25
Business services	1.82	1.28	2.15

Sources: Louisiana Sea Grant College Program, 1996; and County Business Patterns, U.S. Department of Commerce, Bureau of the Census, 1991 - 1993.

The location quotients in Table 9 show some of the areas in which Plaquemines Parish employment is concentrated more than the United States. For instance, from 1991 to 1993, parish employment in oil and gas extraction was concentrated twice as much as in the U.S., and Plaquemines Parish employment is approximately 24 times as concentrated in water transportation as the U.S.

The parish's key economic sectors have been grouped into three categories that reflect the source of their economic significance. They are: (1) natural resource-related industries, (2) Mississippi River-dependent businesses and industries, and (3) local commerce.

Natural Resource-Related Industries. Natural resources play a significant role in the parish's economy. In 1993, an estimated 2,900 people were employed in natural resource-related industries. Oil and gas exploration and production are vital, not just the operations within the parish, but also those offshore that are served by Plaquemines-based businesses and use staging locations such as Venice. The river also provides a direct link to oil and gas extraction. There are numerous oil and gas related companies using river facilities in and around Venice. Many of these facilities are a jump-off point to transfer supplies and personnel to offshore rigs.

Oil and gas extraction has historically been of great importance to Plaquemines Parish, not just because of the large deposits and activities that take place within the parish's jurisdiction, but also because of its proximity to oil and gas reserves in the Gulf of Mexico. (For instance, in 1994, Plaquemines Parish produced 27,019,544 BBLS of oil and condensate and 135,723,189 MCF of natural and casinghead gas.) Many of the largest businesses and industries have forward and backward direct linkages to oil and gas extraction. Forward linkages include operations such as the pipelines run by companies such as Tennessee Gas Pipeline, Inc. and Gulf Pipeline Co. Backward linkages are those companies which provide inputs for use in oil and gas extraction and related areas. For instance, Petrotech, Inc. which makes control systems for offshore petroleum production; HBH, Inc., manufacturer of fabricated oil field and industrial products; and Stainless Fabricators, Inc., which manufacture fabricated stainless steel enclosures for offshore rigs are but a few of the manufacturing companies which produce machinery and equipment used in oil and gas extraction.

Other industries do not provide direct inputs, but are still directly linked to the oil industry. For instance, Air Logistics helicopters transport workers to the offshore oil rigs. General Marine Catering leases fabricated buildings which are stocked with food for the workers on the rigs.

Agriculture and fisheries have been of significance to Plaquemines Parish for many years, and pre-date the era of oil and gas extraction. While today the relative importance of these activities to the parish's economy is smaller than oil and gas, they are still of great importance and are valued elements of its cultural heritage. As was reported earlier in the section entitled "Citrus Sector," about 200 producers devote approximately 1,000 acres to citrus production. Citrus is the best known of Plaquemines Parish's agricultural products, and represents the largest acreage use, but the parish also produces a variety of commercial vegetables. Vegetable production in 1995 totalled \$13.3 million. Nursery crops are also an important aspect of agricultural production. In 1995, nursery crops, including fruit trees, and floraculture totalled \$2.25 million.

The gross farm value of fisheries and wildlife in Plaquemines Parish for 1995 was \$60.7 million. Table 10 provides the breakdown. As was mentioned earlier in this report's "Seafood Sector," most of the seafood products are sold to first handlers who truck the product outside the parish to be processed. There is some value-added processing at Daybrook Fisheries, Inc., which produces fish meal and oil from menhaden. Even without extensive value-added processing, the \$60.7 million brought in dockside has a tremendous economic impact on the parish.

River-Dependent Businesses and Industries. The last one hundred miles of the Mississippi River run through Plaquemines Parish. That corridor is a vital component of the parish's, and for that matter the nation's, economy. In 1993, river-dependent industries accounted for roughly 3,000 of the 11,468 jobs in Plaquemines Parish. Some 24 million tons and over 70 million barrels are received by or shipped annually from the private terminals that line the river and are within the jurisdiction of the Plaquemines Parish Port, Harbor, and Terminal District (PPPHTD). The vast majority of commodities transported via these terminals are either liquid bulk or dry bulk materials. The main liquid bulk commodities are crude oil (39.3 million barrels in 1991); gasoline (8.4 million barrels); butane (4.0 million barrels); LPG (3.0 million barrels), and sulphur (2.6 million barrels).

The eight major facilities on the river that handle petroleum products are:

B.P. Oil Company - Alliance Refinery
Maritime Oil Recovery, Inc.
Bass Enterprises Production
Phillips Petroleum Company
Chevron Pipeline Company
Shell Oil Company
Marathon Petroleum Company
Texaco Pipeline Company

Table 10: Fisheries and Wildlife Production Plaquemines Parish, 1995

Animal	No. of producers	Total Production	Gross Farm Value
Crawfish	D	224,300 lbs.	$134,580
Alligators (Wild & Farm)	D	9,252 feet	$372,003
Oysters	285	663,654 Sacks	$7,963,848
Soft-Shell Crabs	D	1,900 Dozen	$34,200
Catfish	63	140,328 lbs.	$70,164
Gar	63	127,596 lbs.	$172,254
Other Finfish	63	18,868 lbs.	$4,717
Shrimp	1,129	12,295,686 lbs.	$20,902,666
Menhaden	12	217,580,550 lbs.	$10,879,027
Crabs	150	990,393 lbs.	$643,756
Commercial Finfish	245	16,996,408 lbs.	$19,545,869
Fur Animals		5,125 pelts	$18,595

D=Disclosure

Source: Louisiana Cooperative Extension Service, *Louisiana Summary 1995 - Agriculture and Natural Resources*

Other liquid bulk handlers located along the Mississippi River are Chevron Chemical Company, which handles chemicals used in the manufacture of oronite additives, and Freeport Sulphur which manufactures liquid sulphur.

The main dry bulk commodities are coal (17.4 million tons); coke (1.9 million tons); wheat, soybeans, and corn (2.7 million tons). International Marine Terminals (IMT) on the west bank and Electro-Coal Transfer (ECT) Corp. on the east bank, transfer and store coal and other dry bulk commodities. According to a report prepared for PPPHTD by Brown & Root, Inc., in 1991, the two facilities handled a combined 20 million tons of cargo. The Mississippi River Grain Elevator, which handles grains such as corn, wheat, and soybeans, moved over 2.5 million tons that same year. Another major east bank facility that depends on the river is Amax Metals Recovery, Inc., a metals recovery plant in Braithwaite.

The parish's industrial development efforts have focused on opportunities based on river-based locations. Consultants have noted that there is an abundance of large, affordable tracts (over 16,000 acres) of mostly waterfront land available for commercial and industrial development purposes.

Local commerce activities which have increased refer to those businesses within the parish that offer final goods and services to individuals and households. Traditionally, these businesses are found in the retail and service sectors of the economy. They can also be found under the finance, insurance, and real estate sector. In 1993, there were an estimated 3,700 people involved in local commerce activities in Plaquemines Parish. The strongest growth area within the retail sector has been with eating and drinking establishments. Whereas a great deal of this type of growth has been taking place in the Belle Chasse vicinity, it is worth noting that data for these types of establishments also include catering and contract feeding for offshore operations.

Belle Chasse and northern parts of the parish are experiencing population growth associated with being a suburb of New Orleans. This growth offers business opportunities in commercial retail and services. If these goods and services are not available locally, they will be purchased outside the area with the loss of both business and tax revenues. General merchandise and apparel stores are scarce, and there has been a drop in the number of persons employed by food stores. This situation has caused a drain on the parish economy as parish residents have taken their money elsewhere in the metro area to purchase many of the items that they consume.

Tourism has been a growing business in the New Orleans metropolitan area, notably in the city. The largest impact of tourism in Plaquemines Parish has been on local commerce, since tourists consume final goods and services such as those that are provided by restaurants and lodging establishments. In the case of Plaquemines, the goods and services are purchased in association with extensive sportfishing and hunting activities. Tourism helped the parish when it experienced its economic downturn. For instance, motels such as the Empire Inn and Venice Inn had been, and continue to be, used mainly by the oilfield industry. But with the advent of sportfishing and hunting, the motels were able to weather the bad conditions of the 1980s and early 1990s.

Utilities. Louisiana Power and Light supplies electrical service for Plaquemines Parish. LP&L is part of the Entergy system, which is a vast holding company of electric companies throughout the south. LP&L's transmission grid consists of a backbone 500kv system with an underlying network of 230kv and 115kv lines across South Louisiana. The company is extensively interconnected with 35 high voltage interconnections (115kv and higher) to eight adjacent utilities. By virtue of these interconnections and others, approximately 5,000 Mw of emergency power can be imported into South Louisiana. Including additional lines of lower kv capacity, Entergy maintains 64 interconnections with nonsystem utilities.

Louisiana Gas Service Company provides natural gas service. Access to gas pipelines is unrestricted throughout the parish.

The Parish of Plaquemines supplies water to its residents from the Mississippi River. There are two water plants on the eastbank, Dalcour and East Pointe-a-la-Hache, which are tied together in a continuous supply system. These two plants have a capacity of 1.5 million gallons per day (M.G.D.). There are four water plants on the westbank; Belle Chasse, West Pointe-a-la-Hache, Boothville, and Empire Booster Pump.The Belle Chasse plant stands alone, but the rest of the westbank plants are interconnected. Together, the entire westbank system, including Belle Chasse, can supply 11.5 M.G.D.

Plaquemines Parish provides sewerage service on the westbank. The four sewerage treatment plants located in Belle Chasse, Port Sulphur, Buras, and Boothville have a combined capacity of 6.5 M.G.D. There is one oxidation pond collection system at Ironton. The eastbank offers no sewerage treatment facilities. Residents on the eastbank use individual septic tanks. There are small package treatment plants at the Courthouse Jail, Phoenix School, Woodland Office Building, Braithwaite Subdivision, and an oxidation pond in the Phoenix area. If Plaquemines Parish is going to expand its economic base, the issues of expanded water and sewerage facilities must be addressed.

Bell South furnishes telephone service in the parish. Local rates apply between Belle Chasse and New Orleans. Long distance rates apply to calls outside the parish from points south of Belle Chasse.

Transportation system. Most of the information presented below concerning the parish's transportation system was obtained from a 1994 study conducted by Brown and Root, Inc., entitled "Plaquemines Port, Harbor, and Terminal District-Interim Master Port Plan". The parish's **vehicular transportation network** revolves around State Highway 23 on the Westbank and 39 on the eastbank. Highway 23 is, by and large, a four-lane roadway that extends from the vicinity of Belle Chasse to Venice. Certain two-lane sections remain but are either under construction or will be improved in the next few years to four lanes. Access to Interstate 10 is via the Westbank Expressway and other alternative highways.

Parish consultants have deemed motor freight movement within the parish to be "relatively efficient". The planned improvements for the Interstate 10 connecting roadways should make it "very efficient". The single biggest area of concern is traffic congestion between the Belle Chasse vicinity and the Westbank Expressway. Motor freight access is essential for port development purposes.

Highway 39 is an asphalted, two-lane road that leads along a very rural area from the vicinity of Braithwaite to just south of Point-a-la-Hache. Access to Interstate 10 is via the recently completed I-510 which connects to State Highway 47 and eventually Highway 39.

Rail transportation is provided by two companies, the New Orleans Lower Coast Railroad (NOLR) and the Norfolk Southern (NS). NOLR services the west bank from Algiers to Myrtle Grove (23 miles) where it ends at the Mississippi River Grain Elevator. It has four main customers. The east bank is served by the NS Railroad whose southern terminus is at the Amax Metal Recovery plant near Braithwaite. Several operations along the west bank have expressed an interest in having rail services extended to their property which, in their opinion, would result in economic growth for the parish. Certainly, discussions concerning industrial development sites within the parish must include the opportunities for providing adequate rail services.

Outstanding **water transportation** access and services are available in Plaquemines. The parish's strategic location makes it particularly attractive for bulk shippers and support operations for the offshore oil and gas industry. Although there are no major public facilities at this time, the **Plaquemines Port, Harbor and Terminal District** (PPHTD) has the power to regulate all marine and riverine traffic and commerce within the parish. Port facility development within the District's jurisdiction has followed a pattern of single-user docks and terminals. All major facilities are privately owned and activities primarily involve large bulk transfers of liquid and dry bulk commodities: grain, coal, sulphur, and liquid petroleum products. The PPHTD does not own or operate public wharves, docks, or other cargo transfer facilities, although it does own and lease property to the Marine Spill Response Corporation. The facility is used for staging operations to respond to oil spills in the region. Numerous studies have been conducted for the purpose of identifying sites for future public port development and master planning, but progress to date has been limited to discussions of possible sites and the nature of the operations.

Air transportation is limited to the helicopter operations in support of offshore activities and a few general aviation operators that quite literally operate from their backyards. The development of a general aviation airport in the southern portion of the parish is urgently needed.

Commerce and Industrial - Outlook

Commercial and industrial development are very dynamic, and thus subject to constant changes. It is absolutely essential that parish economic development leaders and their staff be extremely well-informed about national and international issues and trends as they may affect the parish, metro region, and state. The competition from other communities and states is such that Plaquemines' leaders can ill afford to rely on near-term opportunities that emerge though "leads". Preparedness is vital, and it begins with access to information and continuing education.

To help illustrate this point, the Study Team has consulted several hard-copy publications as well as on-line sources for information relative to the near-term outlook for the parish's main economic sectors. This information is readily available through libraries, trade group publications, and the Internet and is summarized below. These and other published sources and attendance at educational professional meetings ought to help Plaquemines leaders and staff to remain competitive, at the very least, and at the very best to be at the regional forefront.

Outlook for Plaquemines' river-dependent sectors. In the 1985 publication entitled, "Plaquemines Parish Master Port Plan-Phase 1", by the LSU Ports and Waterways Institute, bulk cargo forecasts were prepared through the year 2005. They observed that 90-95 percent of the inland and maritime shipments along the Lower Mississippi River in a typical year were bulk commodities, notably grains, coal, crude oil, and petroleum products. Coal and grain are highlighted below.

Coal volumes are projected to increase in the next few years. The "U.S. Industrial Outlook-1994", published by the U.S. Department of Commerce, projected that U.S. coal production would increase about two percent per year through 1998, and exports of the commodity are expected to reach 139 million tons by that year. These estimates are compared to 1994 when some 100 million tons were exported, after a low of 91 million tons in 1993, following the midwestern flooding conditions and industry labor strikes. Statistics appearing in the U.S. Army Corps of Engineers' "Waterborne Commerce of the United States-1993" showed that during that crisis year only 10.8 million tons of coal traffic moved through facilities located between New Orleans and Mouth of Passes.

The LSU Ports and Waterways master plan predicted that coal flows through Lower Mississippi River facilities would double in 20 years from 13.5 million tons in 1985 (6.1 million of exports and 7.4 million of U.S. coastal shipments) to 27 million by 2005 (18.0 million of exports and 9.0 of coastal). Note the shift during this period from domestic movements (55 percent of total in 1985 and projected at 33 percent for 2005) to international trade.

Grain commodities are shipped via Plaquemines Parish's grain terminal, and it is thus extremely important that economic development leaders remain abreast of national and international trends within this sector, particularly grain production, international markets, trends and competition, and in particular, exports via the Mississippi River. Figures appearing in the Brown and Root report, indicate that grain (corn, soybeans, soybean meal, and wheat) export loadings at elevators within the port's jurisdiction exceeded 2.6 million tons in 1991. According to Dr. Lynn Kennedy, an international trade specialist with LSU's Department of Agricultural Economics and Agribusiness, the outlook for export grain shipments via Lower Mississippi River terminals is quite favorable for the foreseeable future.

The U.S. Department of Agriculture (USDA) reports extensively on outlooks and trends. It reports in the 1996 "Outlook for U.S. Agriculture" that agricultural exports in 1995 totaled over $54.5 billion. The USDA projects that the figure will rise by more than 10 percent to $60 billion this year. The Bank of America's "Agricultural Outlook Report", released in May 1996, notes that the U.S.'s favorable position is largely attributable to good world prices for U.S. agricultural commodities due to continued world population growth, rising incomes in developing nations, and the inability of other countries to meet the rising demand. For this reason, the Bank of America foresees the export of agricultural products to become even more important in the future. The biggest boost for exports sales will come from rapid economic expansion in Asian and Latin American countries.

Keith Collins, the chief economist for the U.S. Department of Agriculture, anticipates that this year's wheat and corn exports will be the highest in the decade. In fact, he foresees positive trends worldwide that will support export expansion. In 1995, the USDA had projected that U.S. agricultural exports to reach $68 billion by 2005. That projection was revised this year and is now projected to rise to $80 million by 2005. Much of this is attributed to trends in China which was projected to be a net grain exporter by 2000, but is now projected to remain a net importer of 7-8 million tons of grain.

Natural resource-dependent. The **oil and gas extraction sector** is according to Dr. Loren C. Scott, an economics professor at LSU, "one of the truly bright spots in the (state's) economy...". In May 1993 there were only 86 rigs active in the state. By May 1996 that figure had virtually doubled to 162. Bob Baumann with the LSU Energy Center attributes this mini-boom to technological advances that have reduced risk and increased drilling payoffs. Success rates, according to Baumann, have been "phenomenal". In one instance, a major firm drilled 18 wells and 16 proved successful. In another instance, a Louisiana-based firm succeeded with 12 of the 13 wells it drilled. This results in lower finding costs and helps offset higher operating costs. The technological advances include 3-D and 4-D seismic, tension leg platforms, and horizontal drilling. In addition, Congressional legislation has led to record lease sales in the Gulf of Mexico. Scott cautions that the increase in activity will not be accompanied by a symmetrical increase in employment due to the technological advances.

The outlook is one of optimism and high expectations for deepwater Gulf exploration and production in the next two decades. The deepwater gas reserves in the Gulf have been compared to those of Prudhoe Bay, Alaska, and technology is evolving at a pace where depth will not be a major factor in years to come. Shell Oil Company described its Mars project ("...the largest Gulf of Mexico discovery in 25 years...") in a news release that can be accessed through the Internet at the following address: <http://www.shellus.com/news/press080896.html>.

The fabrication sector has felt the full impact of the extraction mini-boom that is taking place. Several thousand jobs have been added in response to offshore developments. The most affected south Louisiana sectors have been metal fabrication, barge-building, and work boat activities. As a result there is a major labor shortage, particularly welders, and efforts are being directed at identifying and training individuals for these skills.

Citrus and vegetable crops are the parish's agricultural mainstays. A discussion of the vulnerability of these commodities to freezing weather conditions and more recently to saltwater intrusion are presented in the "Citrus Sector", beginning on page 14 of this assessment. It appears that marketing and promotion of these crops is vital. The urbanization trend is likely to affect the parish's agricultural lands, as New Orleans suburbs continue to expand on relatively low-priced land. One distinct possibility is that eastern parts of the parish will become more developed for agricultural purposes. The burden of managing this situation will fall on the farmers and increasingly on parish government as they seek to accommodate the expectations of the new residents.

As was pointed out in the "Seafood Sector", the problems confronting the **seafood industry** in Plaquemines Parish are substantial and long term. The majority of the issues represent regional concerns and are not confined to Louisiana or the parish alone. The industry will probably experience some contraction in the next 1-3 years. As access to the resource continues to decrease, jobs will be lost and capital assets of fishers will be idled. These impacts will be realized by most sectors of the seafood industry, but will be most severely felt by the nearshore finfish industry. The only question is to what degree will this contraction occur. The economic impacts of this reduction in activity will ripple through the local and regional economies. There is no "quick fix" to the host of problematic issues confronting this industry.

Local commerce - Suburban growth and tourism offer the greatest opportunities for other local commercial growth. Belle Chasse and other northern parts of the parish are likely to continue to grow in commercial retail and selected services. Dr. Loren Scott also provides an annual outlook for the state's metropolitan areas, and he feels that in the near-term, the New Orleans area will experience about the same employment growth as the rest of the U.S., but will lag somewhat from other cities in Louisiana. New Orleans growth, according to Scott, is being fueled by the petrochemicals sector. Retail trade, real estate, and general construction are also expected to do quite well in the coming year.

As was noted in the "Tourism Sector", coastal tourism development is a growth opportunity for the parish. Nature-based enterprises, such as those involved in sport fishing, waterfowl hunting, and natural and cultural tours, are expected to benefit the most from rapidly growing national and international trends involving sustainable tourism development.

Commerce and Industry - Strengths

Plaquemines Parish possesses many strengths from the commerce and industry standpoint, and many have already been cited in earlier sections of this report. Others are certainly present and should be elicited from the community at large as well as the leadership as part of any future economic development planning. They are presented below in no particular order.

- Fairly diversified economic base, including a solid and long-established manufacturing sector
- Quality of life attributes--natural beauty, low crime, recreation, improving public schools
- Abundant natural resources--Mississippi River, fisheries, soils, climate, waterfowl
- Economic development leadership--PEDD, The New Orleans and River Region Chamber of Commerce, PPPHTD, utility companies, industries
- Proximity to New Orleans
- Strong entrepreneurial spirit among many
- parish has a revitalized outlook as it is emerging from a bygone era
- Stabilized parish revenue picture

Commerce and Industry - Weaknesses

It is important that Plaquemines understand its shortcomings and seek ways to overcome or mitigate them. Planning requires frankness and constructive criticism. The Study Team observed the following weaknesses, again, in no particular order.

- Deteriorating wetlands and land loss affecting agriculture, fisheries, other businesses, and landowners
- Insurance--expensive and often difficult to obtain; vulnerability to floods, hurricanes, and eroding wetlands
- Poor business climate--"...at first they wined and dined us, and now they (the parish) want to stick it to us..."
- Roadway and rail transport
- Oil and gas exploration at increasing distance offshore--Plaquemines not in the best position to capitalize
- Dependence on few economic sectors for jobs and income, declining business and tax base
- Image--"...paternalistic, non-progressive, not friendly to business and industry, decision-making based on "I think" versus "I know," anti-development..."
- No overall vision for the future of the parish
- Cannot get organized and have difficult time cooperating...turf-consciousness
- Citizenry does not seem to appreciate what it has nor its significance

Commerce and Industry - Opportunities

Immediate and Near-Term

It is imperative that within the next year, Plaquemines Parish, under the leadership of the PPEDD, plan and implement **an economic development strategy that carefully considers several approaches for business and industrial recruitment and growth.** There are many to choose from, but the three approaches discussed below were the ones that were the subject of most discussions during the Team's visit to the parish. Under any circumstance, it is important to remember that a successful economic development strategy for Plaquemines Parish is one that matches the parish's existing and potential resources and tools with the recruitment approaches that are identified. Any strategy must be tied to the basic economic realities that the parish faces.

The parish will want to carefully plan and target opportunities to match its strengths while seeking to overcome weaknesses. Regional cooperation will be essential. Links with regional development interests such as the Westbank Association of Marketing, the Metro-Vision Project, Greater New Orleans Chamber of Commerce, Regional Planning

Commission, Plaquemines Council of Chamber, and the port commissions in the area must be strengthened.

Recruitment Approach. Plaquemines is not unlike other Louisiana parishes where creating new jobs through industrial recruitment of foreign and domestic industries has enjoyed considerable favor as the most desirable technique for stimulating economic development. After all, according to several consulting groups and utility companies, the parish contains approximately 70 percent of available industrial and developable deep water port sites within the New Orleans metropolitan area and are "...ideal for industrial and manufacturing facilities".

Making such an approach the centerpiece of Plaquemines' future economic development efforts has to be weighed against the changing nature of the U.S. and global economy and other important trends. For example, in the last two decades there have been considerably fewer industrial relocations, making industrial attraction one of the least effective approaches for coastal Louisiana's economic development. Although given Plaquemines' excellent location in the metro area and available industrial sites, the situation might be different for the parish. Plaquemines' industrial development specialists must also consider the fierce nature of the competition for new facilities. Estimates are that somewhere between 12,000 and 15,000 economic development organizations annually pursue 1,000 to 1,200 new facility locations.

If Plaquemines chooses an industrial recruitment approach as a key component of its development strategy, the leaders should devote more attention to attracting firms that are closely linked to the existing manufacturing and service base. A strong and competitive sector that supplies existing industries will enhance the parish's attractiveness.

A distinct, recent national recruiting trend has been for economic development leaders to devote considerably more attention to attracting service and wholesale and retail trade businesses. The PPEDD has made business attraction efforts a priority, while continuing to seek manufacturers to locate in the parish. In a memorandum dated May 6, 1996, the PPEDD proposed several economic development goals and objectives through the year 2000, and identified "...businesses that are good for the community... and should be targeted for recruitment/development efforts in the next few years." The PPEDD proposed to recruit the following types of businesses and manufacturers: "...hotels-motels; RV parks; tourism; retail outlets-flea markets; raceway; shipyard/fabrication plants; and mini farms (maximum five acres)."

Such targeting of specific businesses and industries is an extremely important goal-setting step in the recruitment process, although the PPEDD will want to consider further refinement of the targeting criteria set forth in the May 6 memorandum. Such fine-tuning ought to realistically take into account factors such as (1) the parish's existing employment, skills, and income mix, (2) its natural resource base and location, and (3) the current infrastructure condition and potential for improvements and expansion. The vital employment information that appears in the shift-share analysis that accompanies this assessment should help isolate the potential job growth associated with how local employers are faring competitively within their national markets.

Plaquemines, for instance, has a high concentration of river- and natural resource-based industries and could choose to capitalize on such concentration and add to its existing industrial and support services base. Or it may decide to emphasize diversification of its industrial base so that its economy will not risk collapse should those industrial sectors experience a decline similar to the one experienced in the mid to late 1980s. The logical answer is a strategy that does both. A strategy that on one hand capitalizes on and seeks to support the presence of the existing operations, while pursuing new and different businesses and industries that are compatible with the community and can be sustained over the long haul.

Decision-making when it comes to targeting and recruiting involves more than just seizing on opportunities. It requires a great deal of input, introspection, candor and realism, and careful analysis and objective consideration of relative strengths and weaknesses vis-a-vis the specific opportunities. There needs to be a clear understanding of trends and outlooks for the "prospects" and the internal and external factors that are affecting such expansion. A market analysis would be quite helpful in this regard. External factors might include: What types of industries are growing nationally? Are they capturing a larger share of employment? Is this trend true for the state and region? Which industries are growing more rapidly in the state and region than nationally? What is the potential that this growth trend will continue? What role do international accords such as NAFTA play in the U.S. outlook for the industry?

Internal factors need to be looked at as well. How skilled is the labor force? Is the condition of the infrastructure adequate to handle particular types of industries and businesses? Is land developed and available and under whose control? Industries targeted with this level of detail can clearly direct industrial and business recruitment efforts.

Retention and Expansion Approach. Efforts to retain industrial and business enterprises are essential for communities facing decline, but should not be ignored by communities such as Plaquemines that are returning to a healthier state. Experts feel that appropriate policies and support should be generated so that retention is accorded the same consideration as attraction. The difficulty being that although such programs are very inexpensive and community-oriented, they are hard to implement because unless they are accompanied with a great deal of publicity, the successes have a relatively low level of visibility. Attraction strategies have more public support and visibility. Yet retaining and aspiring to ultimately expand a 200-employee firm within Plaquemines is likely to have as much, if not more, ultimate impact on the parish's economic well-being than recruiting a 200-employee firm.

Retention is an attractive economic development goal because it can help maintain jobs and income for Plaquemines, while creating an opportunity for business and industrial expansions. Research indicates that existing businesses account for

40 to 70 percent of the net change in total employment. Although the bulk of new jobs are created by new and expanding businesses, the impact of closing or downsizing a company such as Freeport-McMoran in a community such as Port Sulphur can have serious, and in some instances, devastating implications. A retention or resident industry program for the parish is proposed in the longer-term section below.

Community Preparedness and Involvement. The community of Plaquemines Parish needs to be prepared for economic development. Such a process involves preparing and improving the community in order to sustain the entire process. Sustainable economic development can only happen in Plaquemines if its citizenry agree that its general environment should be attractive, clean, safe, and rich in educational and employment opportunities. Plaquemines must strive to be viewed by prospects and citizens alike, as a community in which it is conducive to operate businesses and industries. In the coming years, new jobs and additional sources of income are likely to be generated in communities where attention is given to qualitative aspects that deal with a satisfactory place to live and work.

The Plaquemines community must work together to identify needs and then continue to work collaboratively toward implementing solutions. Partnerships are crucial and involve businesses, government, labor, and employees all seeking to promote economic development, quality growth, and more jobs for the parish. A participatory approach is needed. One that involves cooperative planning and carrying out of chosen development strategies that build on the unique advantages of the parish and ultimately create a more diversified local economy.

Community preparedness can only have positive results. It will result in strengthening the economy, while buffering it from trends beyond local control that may result in job losses.

The PPEDD can immediately begin a **campaign to recognize existing businesses**. For instance, it might host business and/or industry appreciation days in conjunction with other activities in the parish or as part of the work being done by PPEDD's committees on seafood and citrus. This would have the added benefit of recognizing, and encouraging, parish-based entrepreneurs and business leaders within the community.

It is always easier to undertake activities by working through groups rather than one on one. Perhaps, the PPEDD's Existing Business and Industry Committee could help **establish broadly-based, local working groups or subcommittees for industries**. Several west bank, river-based operations, for instance, expressed a need for a more coordinated effort to address the urgent need for improved rail services. Working as a unit might help resolve the impasses that have emerged to date. Brown and Root's Interim Port Master Plan endorses a similar idea and gives another example. "On an annual or biannual basis, the Port District should conduct business forums in which all industries involved in the Port District operations could voice concerns and suggestions to improve operations."

Once upon a time, economic development directors were able to readily identify

incentive and grant programs, and how they could be put to use in their communities. While there are fewer grant programs these days, the array of funding agencies and opportunities has changed dramatically and requires ongoing monitoring, a careful assessment of possibilities for applications, and then the actual request and subsequent follow-through. This might well be a full-time job, and the PPEDD should consider adding an experienced grantsperson to their staff.

Longer-Term

Plaquemines Parish Resident Industry Program. The PPEDD should undertake a "Plaquemines Parish Resident Industry Program" within the next year or so. Louisiana Sea Grant has offered to assist the parish in such an endeavor. The Resident Industry Program would be an economic development project aimed at assisting its existing firms. But before embarking on an assistance program, a mechanism is needed for pinpointing firms' problems, concerns, and opinions. A visitation program would be such a mechanism. Trained volunteers would act as parish "ambassadors," and in this capacity would gather information on development difficulties, economic concerns, and opinions of Plaquemines as a place to do business. Once aware of these issues, local leaders can go about assisting the firms by whatever means possible.

Louisiana needs a statewide program of this type. A Plaquemines Parish Resident Industry Program could well serve as a model for the rest of the state. This type of work is not as glamorous as a ribbon-cutting ceremony at a new plant, but this type of work helps undergird the existing base and shows the resolve of local leaders regarding sustaining and growing what already exists.

Plaquemines Parish Port and Industrial Development. Since the mid-1980s, three studies have been commissioned by parish interests to investigate port development opportunities, and several other Lower Mississippi port and cargo traffic studies have considered the Plaquemines and its likely future role in port and industrial development.

There appears to be a consensus on several points. (1) Major improvements to the surface transportation network are still needed, and quality access will remain a major difficulty until funding sources (approximately $50-60 million) are secured and socio-environmental issues are resolved. (2) Industrial development appears to be where the Port has the greatest competitive advantage, and should thus be the main thrust for a public port facility.

For these reasons, more modest port development should be pursued based on the consultants' reports and under any circumstances, should include an adjacent industrial park that also has deep water access. Several sites are under consideration and a tentative location for a public port has been identified. Funding is a priority. The Economic Development Administration public works and development facilities program should be seriously investigated as it provides grant funds for construction of public facilities to support the expansion of businesses in distressed areas and new private sector jobs. Also, the Louisiana Department of Transportation and Development administers T.I.M.E., a port priorities program, which awards grant funds to construct port facilities that will generate a return on the state's investment. Grants under both programs are competitively awarded and require cash matches from the applicant to complete the financing of the project costs.

Eco-Industrial Park. Environmental economic development opportunities are receiving a great deal of national and international attention. Environmental technologies promise both cleaner, traditional industries, as well as an opportunity for creating jobs for the future based on cleaner and more efficient technologies. Eco-industrial parks present such an opportunity. They are an environmentally more efficient version of industrial parks, where one facility's waste becomes another facility's feedstocks, and waste residues are either recycled or disposed of in a safe and efficient manner. Perhaps such a concept could be explored in connection with the aforementioned port industrial park.

Other Opportunities. A great deal was said earlier in this report concerning the need for an economic development strategy and possible approaches for carrying out these activities. Part of the process ought to include **revisiting the PPEDD's current committee structure.** It simply does not appear inclusive enough to enable the PPEDD to take on many of the suggestions proposed in this report. Vital issues such as port, rail, air, and roadway transportation are missing, as are some of the parish's major environmental concerns--wetland loss and coastal hazards such as storms and flooding.

Also the strategy's implementation aspects ought to identify the PPEDD's staff and funding needs in light of the above. Consideration should also be given to exploring training and continuing education opportunities for the PPEDD's staff, committee members, and other economic development agencies. This is essential in this rapidly changing era.

Not enough can be said about **networking** with other interests in the region and state, whether it's tourism development, port and transportation development, or organizations exploring means for coping with changes in the seafood sector and expansion of sportfishing. It is simply essential. In particular, there is an urgent need for a collaborative approach with other parts of the metropolitan area, Jefferson and St. Bernard parishes in particular, but New Orleans certainly for port development matters. There are some emerging urbanization problems, for instance, beginning to affect the northern part of the parish in particular (sewage services, water supplies, traffic congestion, etc.). Regional approaches are needed to solve many of these crucial problems; otherwise little long-term progress can be made.

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APPENDIX A

Plaquemines Parish is located in the southeastern part of the state and forms a corridor that brackets the Mississippi River from approximately 82 miles above Head of Passes to the Gulf of Mexico. The majority of the parish is in wetlands or covered by water, leaving approximately 1.5 percent suitable for development.

Table A1: Population Statistics for Plaquemines Parish, Coastal Study Parishes, and Louisiana

	1980	1990	% Change (1980-1990)	2000*
Plaquemines	26,049	25,575	-1.8%	27,990
Coastal Study Parishes‡	N/A	667,855	N/A	N/A
Louisiana	4,205,900	4,219,973	+0.3%	4,518,300
Louisiana Average per Parish	65,717	65,937	+0.3%	70,598
Plaquemines as a Percent of Coast	N/A	3.83%	N/A	N/A
Plaquemines as a Percent of LA	0.619%	0.606%	N/A	0.619%
Coastal Parishes as a Percent of LA	N/A	15.83%	N/A	N/A

Source: Louisiana Population Data Center.

*Projected by Louisiana Population Data Center
‡The study area includes the nine coastal parishes; Cameron, Vermilion, Iberia, St. Mary, Lafourche, Terrebonne, Jefferson (only Westbank is included in Jefferson Parish), Plaquemines, and St. Bernard.

Table A2: Population Estimates for Coastal Study Area, 1990-1994

	1990	1991	1992	1993	1994	*% Change 90-94*
Cameron	9,260	9,208	9,084	8,993	8,912	-3.7581%
Iberia	68,297	68,935	69,554	70,317	70,782	3.6385%
Jefferson*	207,109	209,032	210,640	210,689	210,936	1.8478%
Lafourche	85,860	86,196	86,318	86,669	86,912	1.2253%
Plaquemines	***25,575***	***25,509***	***25,750***	***25,397***	***25,454***	***-0.4731%***
St. Bernard	66,631	66,510	66,568	66,783	66,984	0.5298%
St. Mary	58,086	58,133	57,862	57,311	57,184	-1.5529%
Terrebonne	96,982	98,323	99,379	99,688	100,359	3.4821%
Vermilion	50,055	50,062	50,323	50,602	50,794	1.4764%
Total	**667,855**	**671,908**	**675,478**	**676,449**	**678,317**	**1.5665%**
Louisiana	4,220,164	4,241,394	4,273,122	4,290,371	4,314,974	2.2466%

Source: Population Estimates, & Population Distribution Branches US Bureau of the Census

*Estimate of Westbank of Jefferson Parish only.

Table A3: Population per Square Mile, Median Age, and Education Levels for Plaquemines Parish and Louisiana

	1970	1980	1990
Plaquemines Population / square mile	24.5	25.2	30.3
Louisiana Population per square mile	81	94.5	96.9
Plaquemines Median Age	N/A	25.4	29.5
Louisiana Median Age	N/A	27.4	31
Plaquemines High School Graduates*	35.7%	50.4%	N/A
Plaquemines College Graduates*	4.7%	5.7%	N/A
Louisiana High School Graduates*	42.2%	57.7%	N/A
Louisiana College Graduates*	9%	13.9%	N/A

Source: Statistical Abstract of Louisiana 1990 and 1994.

* As a percentage of population 25 years and over.

Table A4: Personal Income and Income per Capita for Plaquemines Parish and Louisiana

	1990	1991	1992	1993
T.P.I.‡ - Plaquemines*	$363,879	$378,507	$384,798	$402,426
T.P.I.‡ -Louisiana*	$60,228,038	$63,956,324	$67,837,306	$71,271,127
Per capita - Plaquemines	$14,268	$14,838	$14,944	$15,845
Per capita - Louisiana	$14,281	$15,079	$15,876	$16,612
Plaquemines T.P.I. as a % of Louisiana	0.604%	0.592%	0.567%	0.565%
Plaquemines per capita as a % of Louisiana	99.909%	98.402%	94.130%	95.383%

Source: Statistical Abstract of Louisiana 1990 and 1994.

‡Total Personal Income

*Personal income in thousands of dollars

Table A5: Public Assistance Statistics for Plaquemines Parish and Louisiana

	1990	1991	1992	1993	% Change (90-93)
Total Transfer Payments† - Plaquemines	$84,111	$88,238	$94,662	N/A	12.54%
Total Transfer Payments† - Louisiana Average*	$170,331	$194,048	$220,474	N/A	29.44%
AFDC‡ - Plaquemines	$1,046,000	$1,184,000	$1,277,000	N/A	22.08%
AFDC‡ - Louisiana Average*	$3,066,000	$3,113,563	$3,037,453	N/A	-0.93%
Number of children helped by AFDC‡ - Plaquemines	1,060	1,103	1,314	1,251	18.02%
Number of children helped by AFDC‡ - Louisiana Average*	3,105	3,065	3,020	2,906	-6.41%
Number of households in Food Stamp Program - Plaquemines	1,241	1,242	1,484	1,600	28.93%
Number of households in Food Stamp Program - LA Average*	3,966	4,109	4,350	4,412	11.25%

Source: Statistical Abstract of Louisiana 1990 and 1994.

†Transfer Payments in thousands of dollars.

‡Aid to Families with Dependent Children

*Louisiana Average is the average per parish.

Table A6: Employment and Earnings Statistics by Major Division for Plaquemines Parish

	1991		1992		1993		1994		% Change 1990-1993	
	Employment	Earnings*	Employment	Earnings*	Employment	Earnings*	Employment	Earnings*	Employment	Earnings
Agriculture	645	$5,366	548	$4,327	657	$4,520	675	$4,778	4.65%	-10.96%
Mining	3,970	$159,520	2,759	$124,856	2,581	$118,690	2,425	$112,730	-38.92%	-29.33%
Construction	1,539	$40,671	1,953	$57,601	1,840	$56,566	2,454	$84,007	59.45%	106.55%
Manufacturing	2,113	$84,837	2,324	$98,671	2,235	$96,533	2,169	$101,971	2.65%	20.20%
Transportation & Public Utilities	3,012	$97,896	3,017	$100,615	2,911	$98,259	2,874	$102,926	-4.58%	5.14%
Wholesale	869	$24,983	758	$22,677	776	$23,678	788	$25,046	-9.32%	0.25%
Retail	1,392	$18,840	1,394	$21,305	1,345	$20,509	1,327	$22,988	-4.67%	22.02%
Finance, Insurance, & Real Estate	376	$4,922	402	$5,812	427	$6,097	439	$6,637	16.76%	34.84%
Services	2,677	$59,456	2,361	$51,123	2,419	$58,114	2,407	$61,874	-10.09%	4.07%
Government	4,243	$91,655	4,025	$91,732	3,861	$90,781	3,814	$93,302	-10.11%	1.80%
Totals	20,836	$588,146	19,541	$578,719	19,052	$573,747	19,372	$616,259	-7.03%	4.78%

Source: Regional Economic Information System, U.S. Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis, Regional Economic Measurement Division.

*Earnings in thousands of dollars.

Table A7: Employment Data and Subsequent Change from 1985-1993 for U.S., Louisiana, and Plaquemines Parish

	US Emp.		Change		Louisiana Emp.		Change		Plaquemines Emp.		Change	
Sector	**1985**	**1993**	**#**	**%**	**1985**	**1993**	**#**	**%**	**1985**	**1993**	**#**	**%**
Mining	943,372	608,277	-335,095	-35.52%	81,489	44,629	-36,860	-45.23%	1,911	837	-1,074	-56.20%
Construction	4,479,533	4,524,110	44,577	1.00%	98,535	94,557	-3,978	-4.04%	1,543	1,542	-1	-0.06%
Manufacturing	19,433,606	18,183,381	-1,250,225	-6.43%	177,735	180,903	3,168	1.78%	2,709	1,995	-714	-26.36%
Transportation &Public Util.	4,815,535	5,621,550	806,015	16.74%	108,124	96,798	-11,326	-10.48%	2,315	1,864	-451	-19.48%
Wholesale	5,625,007	6,258,154	633,147	11.26%	90,708	84,013	-6,695	-7.38%	1,109	923	-186	-16.77%
Retail	16,851,827	19,776,732	2,924,905	17.36%	291,237	304,570	13,333	4.58%	1,232	1,729	497	40.34%
Fin.,Ins.,Real Estate	6,004,136	6,905,493	901,357	15.01%	85,087	79,918	-5,169	-6.07%	385	284	-101	-26.23%
Services	21,543,425	32,258,944	10,715,519	49.74%	316,592	483,097	166,505	52.59%	2,089	2,294	205	9.81%
Totals	79,696,441	94,136,641	14,440,200	18.12%	1,249,507	1,368,485	118,978	9.52%	13,293	11,468	-1,825	-13.73%

Source: County Business Patterns, U.S. Department of Commerce, Bureau of the Census, 1985 and 1993.

APPENDIX B

The analysis techniques used are strictly tools which help us define the larger picture of the Plaquemines Parish economy, and as such it is important not to get bogged down in the details of the data. For example, there are times when businesses change their processes. It then becomes difficult to interpret which category to place them in. For that reason, there may be instances where certain businesses appear to have been left out, when in reality, they are listed under a different category.

The source for this data was "County Business Patterns" which provides employment data by place of work. "County Business Patterns" is published annually by the U.S. Census Bureau. There are certain limitations to this data. "The data generally represent the types of employment covered by the Federal Insurance Contributions Act (FICA). Data for employees of establishments totally exempt from FICA are excluded, as are self-employed persons, domestic service workers, railroad employees, agricultural production workers, most government employees, and employees on ocean borne vessels or in foreign countries." [CBP Documentation]. Because of the nature of the data, employment is underreported.

SHIFT-SHARE ANALYSIS

What is Shift-Share Analysis?

Shift-Share Analysis is a tool used to analyze employment in a parish economy. It helps us compare with how others are doing.

Why do we use Shift-Share Analysis?

Our goal in using shift-share analysis is to explain the shifts in parish employment over a given time period and to help parish leaders make plans for economic development.

How do we use Shift-Share Analysis?

We isolate the factors that affect employment and observe the effect each factor would have if nothing else changed.

What are the factors?

- Growth Effect
- Industry Mix Effect
- Share Effect

What do these factors tell us?

♦ The **Growth Effect** shows the degree of change in employment attributable to the total change in employment in that sector of the larger economy as a whole. (Here, we will look at Plaquemines Parish as it relates to the United States and as it relates to Louisiana.) For example, if water transportation in Plaquemines Parish had grown at the same rate as the national growth rate in the Transportation and Public Utilities sector, Plaquemines Parish would have added 265 jobs in this industry. (See National Growth Column Table B2.)

♦ The **Industry Mix** effect shows the change in employment attributable to changes in individual industries. It explains the effects of the distribution of employment among faster and slower growing industries compared with the national distribution. For example, the water transportation industry declined at the national level. Because of this national decline, Plaquemines Parish water transportation employment would have been expected to decline by 430 jobs. When we add the growth effect and the industry mix effect, we see the potential change in employment attributable to economic forces outside the area. We would expect parish employment in water transportation to decline by 165 jobs.

♦ The **Share Effect** is what is left over. It shows the amount that employment in each industry changed relative to its own industry at the national level. It is a measure of whether the parish is gaining or losing national share in the industry. If the parish economy follows the same course as the economy as a whole, this number will be zero. The variation from zero tells us how much employment the parish gained or lost compared with what it should have gained or lost in relation to the larger economy (U.S. or state). In the water transportation industry, Plaquemines Parish lost 130 more jobs than it should have lost.

What are the implications to Plaquemines Parish?

The bottom line in using Shift-Share Analysis is to show how the industries within Plaquemines Parish fared compared with the U.S. and the state of Louisiana. Between 1985 and 1993, employment in the U.S. grew by 18.12 %, and employment in Louisiana grew by 9.52%. During the same period, employment in Plaquemines Parish declined by 13.73%. Just looking at these numbers, we can tell that Plaquemines Parish fared worse than the U.S. and the state of Louisiana as a whole. With Shift-Share Analysis, we can point to the numbers in the Parish Share column to see how many jobs the parish gained or lost due to the performance of local employers relative to the nation or the state.

LOCATION QUOTIENT

What is the Location Quotient?

The location quotient is an analytical ruler used to measure relative employment concentration. If all numbers are close to one, the parish economy is roughly diversified to the same extent as the U.S. economy.

Why do we use the Location Quotient?

We want to know in which industries Plaquemines Parish's employment is concentrated. The location quotient contributes to the overall picture of the strengths and weaknesses of the Parish. Leaders can then target industries which are compatible with existing industries, or they can target areas of need within the Parish.

What does the Location Quotient tell us?

♦ If LQ=1: industry employment in the Parish and the U.S. are concentrated to an equal degree. (In 1993 Plaquemines Parish and U.S. employment were concentrated equally in the manufacture of transportation equipment.)

♦ If LQ<1: Parish employment in the industry is concentrated less than in the U.S. (In 1993 Plaquemines Parish employment in personal services was half as concentrated as in the U.S.)

♦ If LQ>1: Parish employment in the industry is concentrated more than in the U.S. (From 1985 to 1993, Plaquemines employment in oil and gas extraction was approximately twice as concentrated as in the U.S.)

What are the implications to Plaquemines Parish?

Location quotients do not have right or wrong answers. They can tell us where the strengths and weaknesses of the parish lie and possibly where economic development efforts should be concentrated.

Businesses often locate near other similar businesses in order to benefit from external economies of scale. A location quotient greater than one relative to the U.S. can suggest possible areas of strength for the parish to target new businesses or expand existing business opportunities within that industry. In Table B5, we see several areas in which Plaquemines Parish employment is more concentrated than the U.S. These areas include the manufacture of chemicals and allied products, fabricated metal, petroleum refining, water transportation, and business services.

A location quotient less than one relative to the U.S. can suggest areas of weakness in the parish. Some weakness is unavoidable. For instance, motor freight transportation has a very low location quotient, while water transportation is very high. This stands to reason since the Parish has no major interstate access, but it is very accessible by the Mississippi River. Capitalizing on parish needs as potential business opportunities for investors inside and outside the parish can turn other weaknesses into strengths. Some striking examples include the need for hotels, general merchandise stores, and apparel and accessory stores.

Table B1: Employent Data and Subsequent change: U.S., 1985-1993

SICCODE	TITLE	1985	1993	change	%change
	Mining	**943,372**	**608,277**	**-335,095**	**-35.52%**
1000	Metal mining	45,217	49,491	4,274	9.45%
1200	Coal Mining	179,731	113,948	-65,783	-36.60%
1300	Oil & Gas extraction	475,263	257,694	-217,569	-45.78%
1400	Mining - nonmetallic minerals	100,562	95,952	-4,610	-4.58%
	Construction	**4,479,533**	**4,524,110**	**44,577**	**1.00%**
1500	Building construction	1,163,113	1,096,289	-66,824	-5.75%
1600	Heavy construction other than buildings	691,223	679,578	-11,645	-1.68%
1700	Special trade contractors	2,604,779	2,731,774	126,995	4.88%
	Manufacturing	**19,433,606**	**18,183,381**	**-1,250,225**	**-6.43%**
2000	Food & Kindred products	1,420,440	1,498,078	77,638	5.47%
2100	Tobacco products	52,701	37,189	-15,512	-29.43%
2200	Textile mill products	678,977	615,683	-63,294	-9.32%
2300	Apparel	1,124,962	972,060	-152,902	-13.59%
2400	Lumber & wood products not furniture	656,713	675,081	18,368	2.80%
2500	Furniture & fixtures	495,682	476,488	-19,194	-3.87%
2600	Paper & allied products	618,088	627,746	9,658	1.56%
2700	Printing, publishing	1,416,096	1,500,580	84,484	5.97%
2800	Chemicals & allied products	859,121	851,720	-7,401	-.86%
2900	Petroleum refining & related	130,320	112,984	-17,336	-13.30%
3000	Rubber & misc. plastics	766,096	915,166	149,070	19.46%
3100	Leather & Leather products	154,028	104,747	-49,281	-31.99%
3200	Stone, clay, glass, and concrete	546,132	471,639	-74,493	-13.64%
3300	Primary metal industries	777,543	655,556	-121,987	-15.69%
3400	Fabricated metal (not machinery & transp.equip)	1,499,318	1,371,072	-128,246	-8.55%
3500	Industrial & commercial machinery	2,104,486	1,749,735	-354,751	-16.86%
3600	Electronic not computer	2,082,766	1,424,351	-658,415	-31.61%
3700	Transportation equipment	1,770,477	1,601,554	-168,923	-9.54%
3800	Measuring, analyzing, & controlling instruments	615,253	878,379	263,126	42.77%
3900	Misc. mfg. industries	378,070	375,501	-2,569	-.68%
	Transportation & Public Utilities	**4,815,535**	**5,621,580**	**806,015**	**16.74%**
4100	Local & suburban transit	267,259	366,657	99,398	37.19%
4200	Motor freight transp.	1,286,227	1,633,543	347,316	27.00%
4400	Water Transportation	181,495	162,478	-19,017	-10.48%
4500	Transportation by air	485,810	689,644	203,834	41.96%
4600	Pipelines, except natural gas	17,165	17,143	-22	-.13%
4700	Transportation services	277,336	363,103	85,767	30.93%
4800	Communications	1,282,616	1,299,658	17,042	1.33%
4900	Electric, gas, & sanitary services	824,394	924,373	99,979	12.13%
	Wholesale	**5,625,007**	**6,258,154**	**633,147**	**11.26%**
5000	Wholesale-durable	3,165,867	3,414,441	248,574	7.85%
5100	Wholesale-nondurable	2,170,192	2,504,260	334,068	15.39%
	Retail	16,851,827	19,776,732	2,924,905	17.36%
5200	Bldg materials, hardware, garden supply, mobile homes	585,380	696,228	110,848	18.94%
5300	General merchandise stores	1,941,599	2,141,964	200,365	10.32%
5400	Food Stores	2,595,091	3,027,826	432,737	16.68%
5500	Automotive dealers & gasoline service stations	1,854,647	1,992,774	138,127	7.45%
5600	Apparel & accessory stores	1,033,574	1,194,121	160,547	15.53%
5700	Home furniture, furnishings, & equipment	630,753	754,024	123,271	19.54%
5800	Eating & Drinking places	5,302,103	6,727,618	1,425,515	26.89%
5900	Misc. Retail	2,133,447	2,422,923	289,476	13.57%
	Finance, Insurance, & Real Estate	**6,004,136**	**6,905,493**	**901,357**	**15.01%**
6000	Depository institutions	1,587,852	2,095,049	507,197	31.94%
6100	Nondepository credit institutions	743,092	483,133	-259,959	-34.98%
6200	Security & commodity brokers	337,550	449,826	112,276	33.26%
6300	Insurance carriers	1,252,773	1,570,356	317,583	25.35%
6400	Insurance agents, brokers, and service	553,418	656,007	102,589	18.54%
6500	Real Estate	1,144,636	1,335,048	190,412	16.64%
6700	Holding & other investment offices	193,316	254,172	60,856	31.48%
	Services	**21,543,425**	**32,258,944**	**10,715,519**	**49.74%**
7000	Hotels, rooming houses, camps, & other lodging places	1,264,269	1,527,126	262,857	20.79%
7200	Personal services	1,069,180	1,252,777	183,597	17.17%
7300	Business services	4,272,201	5,832,261	1,560,060	36.52%
7500	Automotive repair, services, and parking	675,822	903,806	227,984	33.73%
7600	Misc. repair services	326,509	439,495	112,986	34.60%
7800	Motion pictures	228,535	500,889	272,354	119.17%
7900	Amusement & recreation services	768,045	1,201,248	433,203	56.40%
8000	Health services	6,336,550	10,403,118	4,066,568	64.18%
8100	Legal services	685,456	962,374	276,918	40.40%
8200	Educational services	1,517,158	1,967,024	449,866	29.65%
8300	Social services	1,290,845	2,028,694	737,849	57.16%
8400	Museums, art galleries, botanical &zoological gardens	35,449	73,874	38,425	108.40%
8600	Membership organizations	1,551,969	2,062,501	510,532	32.90%
8700	Engineering, acctg, rsrch, mgt, & related services		2,589,839		
8900	Misc services	1,279,237	84,960	-1,194,277	-93.36%

Source: Bureau of the Census; County Business Patterns, 1985-1993

Table B2: Plaquemines Parish Shift-Share Analysis relative to U.S., 1985-1993

SICCODE	TITLE	1985 Employment	1993 Employment	#change	%change	National Growth	Industry Mix	Potential Change	Parish Share
10--	*Mining*	1911	837	-1074	-56.2				
1300	Oil & Gas extraction	1911	837	-1074	-56.2	-679	-196	-875	-199
		1911	837	-1074	Totals	-679	-196	-875	-199
15--	*Construction*	1543	1542	-1	-0.06				
1500	Building construction	48	98	50	104.17	0	-3	-3	53
1600	Heavy construction other than buildings	593	1049	456	76.9	6	-16	-10	466
1700	Special trade contractors	902	395	-507	-56.21	9	35	44	-551
		1543	1542	-1	Totals	15	16	31	-32
19--	*Manufacturing*	2709	1995	-714	-26.36				
2000	Food & Kindred products	105	17	-88	-83.81	-7	12	5	-94
2500	Furniture & fixtures	21	76	55	261.9	-1	1	0	56
2700	Printing, publishing	3	14	11	366.67	0	0	0	11
2800	Chemicals & allied products	473	623	150	31.71	-30	26	-4	154
2900	Petroleum refining & related	371	371	0	0	-24	-25	-49	49
3000	Rubber & misc. plastics	3		-3	-100	0	1	1	-4
3200	Stone, clay, glass, and concrete	83	28	-55	-66.27	-5	-6	-11	-44
3300	Primary metal industries	371		-371	-100	-24	-34	-58	-313
3400	Fabricated metal (not mach. & transp.equip)	237	251	14	5.91	-15	-5	-20	34
3500	Industrial & commercial machinery	10	77	67	670	-1	-1	-2	69
3600	Electronic not computer	407	188	-219	-53.81	-26	-102	-128	-90
3700	Transportation equipment	382	177	-205	-53.66	-25	-12	-37	-169
3800	Measuring, analyzing, & controlling inst	243	173	-70	-28.81	-16	120	104	-174
		2709	1995	-714	Totals	-174	-25	-199	-515
40--	*Transportation & Public Utilities*	2315	1864	-451	-19.48				
4200	Motor freight transp.	280	157	-123	-43.93	47	29	76	-199
4400	Water Transportation	1581	1285	-296	-18.72	265	-430	-165	-130
4500	Transportation by air	187	142	-45	-24.06	31	47	78	-123
4600	Pipelines, except natural gas	20	120	100	500	3	-3	0	100
4700	Transportation services	185	14	-171	-92.43	31	26	57	-228
4800	Communications	33	45	12	36.36	6	-5	1	12
4900	Electric, gas, & sanitary services	29	101	72	248.28	5	-1	4	68
		2315	1864	-451	Totals	388	-337	51	-500
50--	*Wholesale*	1109	923	-186	-16.77				
5000	Wholesale-durable	794	411	-383	-48.24	89	-27	62	-445
5100	Wholesale-nondurable	315	512	197	62.54	35	13	48	149
		1109	923	-186	Totals	124	-14	110	-296
52--	*Retail*	1232	1729	497	40.34				
5200	Bldg mat, hrdwre, grdn supply, mobile home	39	50	11	28.21	7	1	8	4
5300	General merchandise stores	53	29	-24	-45.28	9	-4	5	-29
5400	Food Stores	406	362	-44	-10.84	70	-3	67	-112
5500	Auto dealers & gasoline service stations	136	212	76	55.88	24	-13	11	66
5600	Apparel & accessory stores	27	7	-20	-74.07	5	0	5	-24
5700	Home furniture, furnishings, & equip	27	25	-2	-7.41	5	1	6	-7
5800	Eating & Drinking places	460	974	514	111.74	80	44	124	390
5900	Misc. Retail	84	70	-14	-16.67	15	-3	12	-25
		1232	1729	497	Totals	215	23	238	263
60--	*Finance, Insurance, & Real Estate*	385	284	-101	-26.23				
6000	Depository institutions	206	128	-78	-37.86	31	35	66	-144
6100	Nondepository credit institutions	15	25	10	66.67	2	-7	-5	15
6300	Insurance carriers	47	24	-23	-48.94	7	5	12	-35
6400	Insurance agents, brokers, and service	95	45	-50	-52.63	14	3	17	-68
6500	Real Estate	19	62	43	226.32	3	0	3	40
6700	Holding & other investment offices	3		-3	-100	0	0	0	-4
		385	284	-101	Totals	57	36	93	-196
70--	*Services*	2089	2294	205	9.81				
7000	Hotels, camps, & other lodging	76	10	-66	-86.84	38	-22	16	-82
7200	Personal services	51	52	1	1.96	25	-17	8	-8
7300	Business services	705	940	235	33.33	351	-93	258	-22
7500	Auto repair, services, and parking	88	22	-66	-75	44	-14	30	-96
7600	Misc. repair services	517	673	156	30.17	257	-78	179	-23
7900	Amusement & recreation services	109	76	-33	-30.28	54	7	61	-94
8000	Health services	70	253	183	261.43	35	10	45	138
8100	Legal services	31	46	15	48.39	15	-3	12	2
8200	Educational services	203	82	-121	-59.61	101	-41	60	-181
8300	Social services	132	70	-62	-46.97	66	10	76	-137
8600	Membership organizations	67	67	0	0	33	-11	22	-22
8900	Misc services	40	3	-37	-92.5	20	-57	-37	0
		2089	2294	205	Totals	1039	-309	730	-525
		13293	11468	-1825		985	-806	179	-2000

Source: Bureau of the Census; County Business Patterns, 1985-1993

Table B3: Employment Data and Subsequent change: Louisiana, 1985-1993

SICCODE	TITLE	1985	1993	change	%change
	Mining	**81,489**	**44,629**	**-36,860**	**-45.23%**
1000	Metal mining	17	9	-8	-47.06%
1200	Coal Mining	42	23	-19	-45.24%
1300	Oil & Gas extraction	68,326	38,602	-29,724	-43.50%
1400	Mining - nonmetallic minerals	2,194	1,813	-381	-17.37%
	Construction	**98,535**	**94,557**	**-3,978**	**-4.04%**
1500	Building construction	21,525	13,884	-7,641	-35.50%
1600	Heavy construction other then buildings	26,321	35,826	9,505	36.11%
1700	Special trade contractors	50,457	44,245	-6,212	-12.31%
	Manufacturing	**177,735**	**180,903**	**3,168**	**1.78%**
2000	Food & Kindred products	18,943	18,759	-184	-.97%
2100	Tobacco products	3	10	7	233.33%
2200	Textile mill products	1,301	5,045	3,744	287.78%
2300	Apparel	8,622	10,839	2,217	25.71%
2400	Lumber & wood products not furniture	11,172	12,728	1,556	13.93%
2500	Furniture & fixtures	927	772	-155	-16.72%
2600	Paper & allied products	10,339	12,269	1,930	18.67%
2700	Printing, publishing	10,476	9,307	-1,169	-11.16%
2800	Chemicals & allied products	28,185	28,993	808	2.87%
2900	Petroleum refining & related	11,393	10,752	-641	-5.63%
3000	Rubber & misc. plastics	2,127	4,052	1,925	90.50%
3100	Leather & Leather products	219	360	141	64.38%
3200	Stone, clay, glass, and concrete	7,154	5,343	-1,811	-25.31%
3300	Primary metal industries	3,313	2,639	-674	-20.34%
3400	Fabricated metal (not machinery & transp.equip)	12,799	14,161	1,362	10.64%
3500	Industrial & commercial machinery	9,090	9,586	496	5.46%
3600	Electronic not computer	11,296	5,568	-5,728	-50.71%
3700	Transportation equipment	22,926	20,542	-2,384	-10.40%
3800	Measuring, analyzing, & controlling instruments	1,098	1,760	662	60.29%
3900	Misc. mfg. industries	2,079	1,530	-549	-26.41%
	Transportation & Public Utilities	**108,124**	**96,798**	**-11,326**	**-10.48%**
4100	Local & suburban transit	3,741	4,737	996	26.62%
4200	Motor freight transp.	20,851	21,791	940	4.51%
4400	Water Transportation	31,665	20,179	-11,486	-36.27%
4500	Transportation by air	7,194	5,828	-1,366	-18.99%
4600	Pipelines, except natural gas	799	819	20	2.50%
4700	Transportation services	4,046	4,223	177	4.37%
4800	Communications	17,356	16,546	-810	-4.67%
4900	Electric, gas, & sanitary services	19,476	21,084	1,608	8.26%
	Wholesale	**90,708**	**84,013**	**-6,695**	**-7.38%**
5000	Wholesale-durable	52,675	46,353	-6,322	-12.00%
5100	Wholesale-nondurable	36,032	36,323	291	.81%
	Retail	291,237	304,570	13,333	4.58%
5200	Bldg materials, hardware, garden supply, mobile homes	11,457	10,482	-975	-8.51%
5300	General merchandise stores	37,097	38,035	938	2.53%
5400	Food Stores	49,600	56,112	6,512	13.13%
5500	Automotive dealers & gasoline service stations	32,998	33,797	799	2.42%
5600	Apparel & accessory stores	19,730	16,856	-2,874	-14.57%
5700	Home furniture, furnishings, & equipment	10,335	10,704	369	3.57%
5800	Eating & Drinking places	88,631	101,386	12,755	14.39%
5900	Misc. Retail	32,101	31,101	-1,000	-3.12%
	Finance, Insurance, & Real Estate	**85,087**	**79,918**	**-5,169**	**-6.07%**
6000	Depository institutions	27,465	28,917	1,452	5.29%
6100	Nondepository credit institutions	12,906	5,823	-7,083	-54.88%
6200	Security & commodity brokers	1,867	2,019	152	8.14%
6300	Insurance carriers	15,218	14,594	-624	-4.10%
6400	Insurance agents, brokers, and service	10,720	10,934	214	2.00%
6500	Real Estate	12,550	14,065	1,515	12.07%
6700	Holding & other investment offices	2,887	2,737	-150	-5.20%
	Services	**316,592**	**483,097**	**166,505**	**52.59%**
7000	Hotels, rooming houses, camps, & other lodging places	19,991	20,541	550	2.75%
7200	Personal services	15,434	16,579	1,145	7.42%
7300	Business services	62,037	81,285	19,248	31.03%
7500	Automotive repair, services, and parking	9,761	12,470	2,709	27.75%
7600	Misc. repair services	9,387	11,244	1,857	19.78%
7800	Motion pictures	1,640	3,202	1,562	95.24%
7900	Amusement & recreation services	9,069	13,275	4,206	46.38%
8000	Health services	92,506	187,109	94,603	102.27%
8100	Legal services	13,968	17,383	3,415	24.45%
8200	Educational services	19,006	26,294	7,288	38.35%
8300	Social services	18,500	27,572	9,072	49.04%
8400	Museums, art galleries, botanical &zoological gardens	343	1,336	993	289.50%
8600	Membership organizations	23,880	30,359	6,479	27.13%
8700	Engineering, acctg, rsrch, mgt, & related services		31,832		
8900	Misc services	19,984	1,099	-18,885	-94.50%

Source: Bureau of the Census; County Business Patterns, 1985-1993

Table B4: Plaquemines Parish Shift-Share Analysis relative to Louisiana, 1985-1993

SICCODE	TITLE	85	93	#change	%change	State Growth	Industry Mix	Potential Change	Parish Share
10--	*Mining*	1911	837	-1074	-56.2				
1300	Oil & Gas extraction	1911	837	-1074	-56.2	-864	33	-831	-243
		1911	837	-1074	Totals	-864	33	-831	-243
15--	*Construction*	1543	1542	-1	-0.06				
1500	Building construction	48	98	50	104.17	-2	-15	-17	67
1600	Heavy construction other than buildings	593	1049	456	76.9	-24	238	214	242
1700	Special trade contractors	902	395	-507	-56.21	-36	-75	-111	-396
		1543	1542	-1	Totals	-42	148	86	-87
19--	*Manufacturing*	2709	1995	-714	-26.36				
2000	Food & Kindred products	105	17	-88	-83.81	2	-3	-1	-87
2500	Furniture & fixtures	21	76	55	261.9	0	-4	-4	59
2700	Printing, publishing	3	14	11	366.67	0	0	0	11
2800	Chemicals & allied products	473	623	150	31.71	8	5	13	136
2900	Petroleum refining & related	371	371	0	0	7	-27	-20	21
3000	Rubber & misc. plastics	3		-3	-100	0	3	3	-6
3200	Stone, clay, glass, and concrete	83	28	-55	-66.27	1	-22	-21	-34
3300	Primary metal industries	371		-371	-100	7	-82	-75	-296
3400	Fabricated metal (not mach. & transp.equip)	237	251	14	5.91	4	21	25	-11
3500	Industrial & commercial machinery	10	77	67	670	0	0	0	66
3600	Electronic not computer	407	188	-219	-53.81	7	-214	-207	-13
3700	Transportation equipment	382	177	-205	-53.66	7	-47	-40	-165
3800	Measuring, analyzing, & controlling inst	243	173	-70	-28.81	4	142	146	-217
		2709	1995	-714	Totals	47	-228	-181	-536
40--	*Transportation & Public Utilities*	2315	1864	-451	-19.48				
4200	Motor freight transp.	280	157	-123	-43.93	-29	42	13	-136
4400	Water Transportation	1581	1285	-296	-18.72	-166	-408	-574	277
4500	Transportation by air	187	142	-45	-24.06	-20	-16	-36	-9
4600	Pipelines, except natural gas	20	120	100	500	-2	3	1	100
4700	Transportation services	185	14	-171	-92.43	-19	27	8	-179
4800	Communications	33	45	12	36.36	-3	2	-1	14
4900	Electric, gas, & sanitary services	29	101	72	248.28	-3	5	2	70
		2315	1864	-451	Totals	-242	-345	-587	137
50--	*Wholesale*	1109	923	-186	-16.77				
5000	Wholesale-durable	794	411	-383	-48.24	-59	-37	-96	-288
5100	Wholesale-nondurable	315	512	197	62.54	-23	26	3	194
		1109	923	-186	Totals	-82	-11	-93	-94
52--	*Retail*	1232	1729	497	40.34				
5200	Bldg mat, hrdwre, grdn supply, mobile home	39	50	11	28.21	2	-5	-3	14
5300	General merchandise stores	53	29	-24	-45.28	2	-1	1	-25
5400	Food Stores	406	362	-44	-10.84	19	35	54	-97
5500	Auto dealers & gasoline service stations	136	212	76	55.88	6	-3	3	73
5600	Apparel & accessory stores	27	7	-20	-74.07	1	-5	-4	-16
5700	Home furniture, furnishings, & equip	27	25	-2	-7.41	1	0	1	-3
5800	Eating & Drinking places	460	974	514	111.74	21	45	66	448
5900	Misc. Retail	84	70	-14	-16.67	4	-6	-2	-11
		1232	1729	497	Totals	56	60	116	383
60--	*Finance, Insurance, & Real Estate*	385	284	-101	-26.23				
6000	Depository institutions	208	128	-78	-37.50	-13	23	10	-89
6100	Nondepository credit institutions	15	25	10	66.67	-1	-7	-8	18
6300	Insurance carriers	47	24	-23	-48.94	-3	1	-2	-21
6400	Insurance agents, brokers, and service	95	45	-50	-52.63	-6	8	2	-52
6500	Real Estate	19	62	43	226.32	-1	3	2	41
6700	Holding & other investment offices	3		-3	-100	0	0	0	-3
		385	284	-101	Totals	-24	28	4	-106
70--	*Services*	2089	2294	205	9.81				
7000	Hotels, camps, & other lodging	76	10	-66	-86.84	40	-38	2	-68
7200	Personal services	51	52	1	1.96	27	-23	4	-3
7300	Business services	705	940	235	33.33	371	-152	219	16
7500	Auto repair, services, and parking	88	22	-66	-75	46	-22	24	-90
7600	Misc. repair services	517	673	156	30.17	272	-170	102	54
7900	Amusement & recreation services	109	76	-33	-30.28	57	-7	50	-84
8000	Health services	70	253	183	261.43	37	35	72	111
8100	Legal services	31	46	15	48.39	16	-9	7	7
8200	Educational services	203	82	-121	-59.61	107	-29	78	-199
8300	Social services	132	70	-62	-46.97	69	-5	64	-127
8600	Membership organizations	67	67	0	0	35	-17	18	-18
8900	Misc services	40	3	-37	-92.5	21	-59	-38	1
		2089	2294	205	Totals	1098	-496	602	-490
		13293	11468	-1825		-73	-811	-884	-946

Source: Bureau of the Census; County Business Patterns, 1985-1993

Table B5: Plaquemines Parish Location Quotients, 1985-1993

SICCODE	TITLE	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Mining									
1000	Metal mining	0	0	0	0	0	0	0	0	0
1100	Anthracite Mining	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A
1200	Coal Mining	0	0	0	0	0	0	0	0	0
1300	Oil & Gas extraction	2.07	2.11	2.2	2.22	2.43	2.68	2.12	2.36	2.22
1400	Mining - nonmetallic minerals	0	0	0	0	0	0	0	0	0
	Construction									
1500	Building construction	0.12	0.07	0.27	0.03	0.06	0.07	0.14	0.21	0.26
1600	Heavy construction other than buildings	2.49	3.04	4.04	4.89	4.25	3.7	3.9	3.24	4.53
1700	Special trade contractors	1.01	0.91	0.78	0.5	0.67	0.78	0.73	0.8	0.42
	Manufacturing									
2000	Food & Kindred products	0.58	0.52	0.5	0.6	0.89	0.33	0.56	1.11	0.1
2100	Tobacco products	0	0	0	0	0	0	0	0	0
2200	Textile mill products	0	0	0	0	0	0	0	0	0
2300	Apparel	0	0.03	0.02	0.03	0.07	0.06	0.07	0	0
2400	Lumber & wood products not furniture	0	0	0.04	0	0	0	0	0	0
2500	Furniture & fixtures	0.33	0.68	0.65	0.73	0.74	1.22	1.49	1.4	1.44
2600	Paper & allied products	0	0	0	0	0	0	0	0	0
2700	Printing, publishing	0.02	0.02	0.04	0.05	0.05	0.04	0.09	0.13	0.08
2800	Chemicals & allied products	4.31	5.43	5.64	7.45	7.39	5.94	6.46	4.9	6.62
2900	Petroleum refining & related	22.31	27.36	27.91	33.41	35.07	28.27	30.9	27.3	29.76
3000	Rubber & misc. plastics	0.03	0.04	0.03	0.04	0.03	0.03	0	0	0
3100	Leather & Leather products	0	0	0	0	0	0	0	0	0
3200	Stone, clay, glass, and concrete	1.19	0.8	0.79	0.98	0.81	0.34	0.56	0.53	0.54
3300	Primary metal industries	3.74	2.19	2.31	0.04	2.48	2.06	2.39	2.33	0
3400	Fabricated metal (not machinery & transp.equip)	1.24	1.43	0.97	1.24	0.36	0.34	0.55	0.63	1.66
3500	Industrial & commercial machinery	0.04	0.04	0.1	0.14	0.13	0.16	0.27	0.6	0.4
3600	Electronic not computer	1.53	1.88	1.29	1.84	0.7	0.81	1.6	0.91	1.19
3700	Transportation equipment	1.69	1.99	2.28	2.22	2.2	1.83	1.22	0.82	1
3800	Measuring, analyzing, & controlling instruments	3.09	3.67	3.69	2.57	3.71	4.64	1.77	1.74	1.78
3900	Misc. mfg. industries	0	0	0	0	0	0	0	0	0
	Transportation & Public Utilities									
4100	Local & suburban transit	0	0	0	0	0	0	0	0	0.14
4200	Motor freight transp.	0.47	0.56	0.24	0.32	0.29	0.36	0.31	0.31	0.29
4400	Water Transportation	18.64	20.71	23.36	25.24	24.98	25.2	24.73	25.22	23.73
4500	Transportation by air	0.82	1.06	1.11	1.14	1.08	1.03	0.93	0.52	0.62
4600	Pipelines, except natural gas	2.47	10.64	14.13	10.47	15.21	15.67	19.66	18.88	21.33
4700	Transportation services	1.43	0.1	0.21	0.1	0.08	0.08	0.05	0.08	0.12
4800	Communications	0.06	0.07	0.05	0.07	0.07	0.09	0.04	0.11	0.1

Source: Bureau of the Census; County Business Patterns,1985-1993

Table B5: Plaquemines Parish Location Quotients, 1985-1993

4900	Electric, gas, & sanitary services	0.08	0.08	0.08	0.15	0.35	0.29	0.06	0.06	0.33
SICCODE	**TITLE**	**1985**	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**
	Wholesale									
5000	Wholesale-durable	1.24	1.19	1.1	1	1.05	0.91	1.02	1.07	0.91
5100	Wholesale-nondurable	0.71	0.88	1.02	1.16	1.13	1.35	1.33	1.15	1.54
	Retail									
5200	Bldg materials, hardware, garden supply, mobile hom	0.92	0.73	0.73	0.71	0.74	0.7	0.61	0.86	0.83
5300	General merchandise stores	0.38	0.35	0.35	1.34	1.4	1.23	1	1.38	0.16
5400	Food Stores	2.15	2.1	2.05	1.59	1.62	1.36	1.1	1.4	1.38
5500	Automotive dealers & gasoline service stations	1.01	0.96	0.78	0.58	0.64	0.48	0.49	0.55	1.22
5600	Apparel & accessory stores	0.36	0.32	0.29	0.12	0.2	0.14	0.15	0.11	0.07
5700	Home furniture, furnishings, & equipment	0.59	0.52	0.41	0.32	0.32	0.15	0.28	0.32	0.38
5800	Eating & Drinking places	1.19	1.27	1.35	1.33	1.31	1.53	1.77	1.41	1.67
5900	Misc. Retail	0.54	0.49	0.52	0.52	0.44	0.56	0.37	0.47	0.33
	Finance, Insurance, & Real Estate									
6000	Depository institutions	2.5	2.45	2.62	2.43	1.78	1.98	1.2	0.99	1.64
6100	Nondepository credit institutions	0.39	0.38	0.35	0.5	0.46	1.1	1.17	1.13	1.39
6200	Security & commodity brokers	0	0	0	0	0	0	0	0	0
6300	Insurance carriers	0.72	0.7	0.94	0.86	2.6	1.37	0.89	0.96	0.41
6400	Insurance agents, brokers, and service	3.31	3.13	2.66	2.83	1.89	2.16	2.81	2.97	1.84
6500	Real Estate	0.32	0.18	0.45	0.18	0.18	0.21	0.34	0.64	1.25
6600		0	0	0	N/A	N/A	N/A	N/A	N/A	N/A
6700	Holding & other investment offices	0.3	0.28	0	0	0	0	0	0	0
	Services									
7000	Hotels, rooming houses, camps, & other lodging plac	0.62	0.69	0.84	0.85	0.81	0.76	0.75	0.81	0.09
7200	Personal services	0.49	0.52	0.57	0.56	0.61	0.6	0.47	0.8	0.55
7300	Business services	1.7	1.94	1.87	1.87	1.57	1.54	1.82	1.28	2.15
7500	Automotive repair, services, and parking	1.34	1.43	1.48	0.87	0.96	0.88	1.18	1.08	0.33
7600	Misc. repair services	16.32	12.22	13.13	10.33	11.6	13.71	13.76	23.72	20.43
7800	Motion pictures	0	0	0	0.94	0.43	0.57	0.65	0.1	0.16
7900	Amusement & recreation services	1.46	1.77	1.23	2.57	2.12	1.25	0.75	0.65	0.84
8000	Health services	0.11	0.09	0.17	0.41	0.18	0.2	0.23	0.45	0.32
8100	Legal services	0.47	0.42	0.4	0.53	0.61	0.56	0.56	0.7	0.64
8200	Educational services	1.38	1.54	1.18	0.81	0.52	0.52	0.47	0.68	0.55
8300	Social services	1.06	1.01	1.21	0.59	1.24	1.07	0.87	1.02	0.46
8400	Museums, art galleries, botanical &zoological garden	0	0	0	0	0	0	0	0	0
8600	Membership organizations	0.45	0.43	0.47	0.49	0.52	0.46	0.44	0.48	0.43
8700	Engineering, acctg, rsrch, mgt, & related services	N/A	N/A	N/A	0.74	1.64	1.81	1.88	0.58	0.69
8900	Misc services	0.32	0.32	0.35	1.53	6.94	3.81	0.78	0.6	0.46

Source: Bureau of the Census; County Business Patterns, 1985-1993