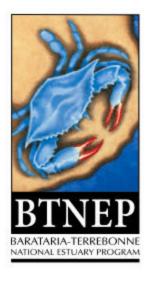


A TRAVEL-COST ANALYSIS OF A BIRDWATCHING FESTIVAL: THE GRAND ISLE MIGRATORY BIRD CELEBRATION

by

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A TRAVEL COST ANALYSIS OF A BIRD-WATCHING FESTIVAL, THE GRAND ISLE MIGRATORY BIRD CELEBRATION

Introduction

Louisiana, called the "Sportsman's Paradise", offers a rich array of natural resources for hunters, fishermen, and outdoor recreationists of all kinds. As the state continues to attract tens of thousands of resident and non-resident hunters and anglers – 333 thousand and 970 thousand, respectively, in 2001 by the U.S. Fish and Wildlife Service's estimation – it also draws thousands of wildlife watchers to its marshes, swamps, forests, and fields. In 2001, 935 thousand people, including state residents and non-residents, took part in some form of wildlife-watching in Louisiana, including an estimated 608 thousand birdwatchers.

Studies of birdwatchers in other states (Scott and Thigpen, 2003) have shown that birdwatchers tend to be well-educated, knowledgeable people of medium to high income, traits deemed attractive by many involved in tourism and economic development. These characteristics and a concern for birds have motivated numerous private and public entities to develop resources that attract and benefit birdwatchers. One recent large-scale development is the Louisiana Gulf Coast Birding Trail, a network of sites throughout South Louisiana that are suitable for quality birdwatching. The birding trail represents the effort of scores of private businesses, federal, state, and local government agencies, birdwatching clubs, and other civic organizations under the direction of the Louisiana Department of Culture, Recreation, and Tourism.

Birdwatching festivals offer additional venues for viewing, discussing, and learning about birds. Bird Louisiana, a birdwatching advocacy organization, listed eleven such events in Louisiana in 2005 (Table 1). Birdwatching festivals usually feature guided birdwatching tours, displays of products and information, and social gatherings at which participants may meet and discuss their experiences.

Observers have long noted the characteristics of the people who attend these festivals. Though these anecdotal observations have given organizers and supporters some insight regarding their visitors, a more systematic examination would generate a more accurate profile of the participants and detail the economic contribution they make in the communities that host them.

In 2005, the Louisiana Department of Wildlife and Fisheries Socioeconomic Research and Development Section (Socioeconomics Section) conducted a mail survey of participants in the Audubon Country BirdFest, a spring festival in Saint Francisville, Louisiana (West Feliciana Parish). Participants were, for the most part, well-educated, experienced birdwatchers with some degree of skill in birdwatching. Approximately 61 percent had a college or advanced degree. With an average of 14.39 years of birdwatching experience, two-thirds could identify 21 or more birds by sight or sound without a guidebook. The majority (62.1 percent) were female. Most (86.4 percent) reside outside West Feliciana Parish. A third (37.9 percent) of all attendees lived outside Louisiana. The average Louisiana resident participant spent \$132.74 in Saint Francisville while the average out-of-state resident spent \$313.24 in the area.

Table 1. Louisiana Birding Festivals, 2005

<u>Festival</u>	Location	<u>Month</u>
Audubon County BirdFest	Saint Francisville	April
Southwest Louisiana Migration Sensation	Lake Arthur	April
The Great Louisiana BirdFest	Mandeville	April
Grand Isle Migratory Bird Celebration	Grand Isle	April
Neotropical Songbird Tour	Sherburne	May
Wood Stork Week	Sherburne	July
Feliciana Hummingbird Celebration	Saint Francisville	July
Folsom Hummingbird Festival	Folsom	September
Lafayette Hummingbird Day	Lafayette	September
Wings over the Wetlands	Jean Lafitte	October
Experience Atchafalaya Days	Atchafalaya basin	October
Source: Bird Louisiana		_

Saint Francisville, of course, is distinct from other communities. Efforts to define the characteristics of other birdwatching events will require separate studies.

B.T.N.E.P. Migratory Bird Action Plan Team

The results of the Saint Francisville raised an interest in similar studies for other bird festivals. Thus, the Barataria-Terrebonne National Estuary Program (B.T.N.E.P.) Migratory Bird Action Plan Team, a committee of government agencies, birding organizations, and tourism entities, agreed to fund a survey of the Grand Isle Migratory Bird Celebration in April, 2005.

The Grand Isle Migratory Bird Celebration

Grand Isle, Louisiana, is a barrier island in south central Louisiana in the southwestern portion of Jefferson Parish (Figure 1). A drive of 110 miles from New Orleans, it is accessible from the mainland by Louisiana Highway 1 through Lafourche, Parish. Grand Isle enjoys a good reputation for quality recreational angling. It is also renowned as a prime site for birds. Situated along the fall and spring migratory routes of many species of neotropical songbirds, Grand Isle contains a large community of live oak ridges, called "cheniers," making it especially attractive to avian migrants. Like other sites along coastal Louisiana, the island features springtime "fall outs", periods in which large numbers of birds congregate on the island to rest and feed after their long, northbound flights across the Gulf of Mexico as they return to their northern breeding grounds.

The Grand Isle Migratory Bird Celebration (Grand Isle Bird Festival) is an annual three-day event that promotes birdwatching and the awareness of the island's ecologically valuable bird habitat. It relies greatly upon the volunteer efforts of local residents, business owners, and the local chamber of commerce with the cooperation of the Grand Isle city government and the financial and organizational support of B.T.N.E.P.

Figure 1. Location of Grand Isle, Louisiana

The Grand Isle Migratory Bird Celebration Economic Research Project

This research project examines the Grand Isle Bird Festival from the perspectives of three groups of stakeholders: Louisiana birdwatchers, bird festival organizers, and Grand Isle Bird Festival attendees. Data collection methods consisted of a focus group of general birdwatchers, a separate focus group of Grand Isle residents, and a survey of people who participated in the festival.

Grand Isle, Louisiana

General Birdwatchers Focus Group

On March 23, 2005, two members of the Socioeconomics Section convened a meeting of 12 birdwatchers at the Louisiana Department of Wildlife and Fisheries Headquarters Building in Baton Rouge, Louisiana. The purpose of the meeting was to conduct a focus group of Louisiana birdwatchers in order to attain their perspective on Louisiana's birdwatching resources in general and bird festivals in particular.

The 80-minute session started with a 15-minute period in which individuals were asked to complete a brief questionnaire containing six open-ended questions (Box 1) and eight brief questions seeking personal characteristics. The meeting concluded with a 60-minute oral discussion centered around six questions (Box 2).

Box 1.

General Birdwatching Focus Group's Written Questions

- In your opinion, what is the general impression of birdwatchers?
- How did you first get started in birdwatching?
- What keeps you interested in birdwatching?
- What, if anything, limits your participation in birdwatching?
- Have you ever participated in a birdwatching festival or similar event? Why or why not?
- What do you think are the major challenges facing birds in Louisiana?

Box 2.

General Birdwatching Focus Group's Oral Questions

- What types of activities would you consider to be ecotourism?
- What do you think is the potential of ecotourism or nature-based tourism in Louisiana?
- What do you generally think about birdwatchers?
- Are you familiar with any birdwatching festivals or events in Louisiana?
- Can you think of any ways to draw more people into birdwatching in Louisiana?
- What do you think are the potential problems facing birds in Louisiana?

Compiled through the indispensable help of Ms. Kay Radlauer of Bird Louisiana, the group included a mixture of intermediate and advanced birdwatchers. The average participant was 50.3 years old with 23.8 years of birdwatching experience. Two were able to identify 21 to 40 bird species and ten were able to identify more than 40 species by sight or sound without a field guide. Hummingbirds, warblers, shorebirds, raptors, and gulls were the most common birds that respondents named as their favorites.

All participants – except one whose living arrangements preclude doing so-maintain a birdfeeder at home. All had traveled at least one mile from home in the previous year with the intent of observing or photographing birds with an average of 18.5 trips. The group consisted of seven women and five men. All had completed college; four had advanced degrees.

Focus Group Results

A love of nature is the main reason that several respondents began birdwatching. Most participants were introduced to birdwatching by a relative, friend, or mentor. Four were introduced during their youth and two were encouraged in the pursuit by the gift of a guidebook. One female respondent was introduced to ornithology by her fiancé, now husband. Another was encouraged to begin birdwatching by her spouse who wanted her "to do something besides talk as we traveled."

Respondents maintain their interest in birdwatching for a variety of reasons, chief among them, a love of nature and the outdoors. Half of the participants enjoy the challenge of seeing a new species. A third appreciate observing the beauty and behavior of the birds, described by one female participant's words: "The mystery, so many unanswered questions about bird biology."

One female participant wrote that birdwatching offers "the joys of visiting a clean area, well-maintained (as long as it is) safe for females." Others who enjoy the social aspect of birdwatching deem the activity a good way to meet people and enjoy birdwatching festivals and similar events.

Most participants (10) have attended birdwatching festivals and maintain a good opinion of them. The majority enjoy the fellowship, lectures, and tours and the chance to interact with experienced birders. Two find the crowds distracting.

The respondents believe that the festivals are particularly well-suited for beginning and intermediate birdwatchers. Nevertheless, even advanced birdwatchers can benefit from exposure to experts with knowledge of the local environment.

One male respondent observed that birdwatching festivals can be very difficult to organize and schedule. Many compete for a few weekends in the spring – and to a lesser extent, the fall – during peak migration periods.

Most participants would like to participate in more birdwatching activity than they do. Though one female participant wrote "I always find a way to do it," most admitted that a lack of time and money prevented them from birdwatching more frequently. One participant confessed that he may not participate very frequently because his interest wanes from time to time. He also feels that the amount of information needed to progress in birdwatching ("songs, flight patterns, etc.") can be difficult to master.

Birdwatching is an example of a wider group of travel activities called "ecotourism." Though the term can be hard to define, participants generally agree that "ecotourism" includes a range of "low impact" non-consumptive activities, such as, wildlife watching, hiking, canoeing, and horticultural and swamp tours.

They also believe that the term can be applied indiscriminately to activities that, in their views, may sometimes be disruptive or harmful, including motor-cross, hot air ballooning, and especially jet-skiing. Many participants voiced great concern about the noise pollution associated with jet-ski operation. "Where the noise is annoying to me," one male respondent said, "noise is not harmful to me, but it is harming the birds."

Having a proper scope of activities that can be defined as ecotourism is essential to proper management. Said one female participant, "If we don't have that definition pretty well screwed down, it could get out of hand real (sic) quick."

As a venue for ecotourism, Louisiana "has huge potential, an embarrassment of riches." The state, participants feel, has a unique natural beauty and a diversity of habitats that compare favorably to other areas. "The dawn song just puts the Smoky Mountains to shame," claimed one female respondent, "so many birds calling at once. It's amazing." One male participant believed it is comparable to the renowned birding in southeast Arizona, which boasts great avian species diversity but lacks the plentitude of individual birds observed in Louisiana.

Participants singled out three particular birdwatching locations in their oral discussions. The Lake Martin rookery has a great abundance of birds in an accessible location that appeals to beginning and intermediate birders. (It can be placed on a 'Top Ten Places to Go in Louisiana' list in one female participant's opinion.) Two other sites, Avery Island and Cat Island National Wildlife Refuge (N.W.R.), were praised for their rich bird habitat but recognized as remote or difficult to reach. Interestingly, the relative inaccessibility of Saint Francisville's Cat Island N.W.R. was considered something of an asset for maintaining a quiet atmosphere that appeals to some serious birdwatchers.

During the discussion of Louisiana's potential for nature-based tourism, some participants worried that poorly managed recreational activities – particularly those mislabeled as "ecotourism" – may harm the state's natural resources. "We can love it to death," feared one female respondent. "Green areas can be flattened in no time," one male respondent believed, "so we have to plan to protect these nature-rich areas so that our grandchildren can enjoy them." Another female participant said, one can "over-label, overbuild, over-control the place trying to make it accessible [to tourists]," contributing to habitat degradation and loss.

The topic of discussion again narrowed to birdwatchers whom the focus group sees as a diverse group, ranging from those who merely set up a backyard birdfeeder to those who go through great expense, traveling the globe and amassing a "life list" of the myriad birds they have encountered. The focus group believe that birdwatchers are varied and eclectic with a common appreciation for other "elements of nature." They are lifelong learners who enjoy a challenge.

The participants mentioned a number of lighthearted ways to distinguish between "birdwatchers" and "birders." "Birder' means you go find the bird," said one male participant. "'Birdwatcher' means you want the bird to come to you." "Birder' means your binoculars cost at least \$500," quipped one female respondent. "Birdwatching' means you're still in control of your life," joked another female participant.

The public perception of birdwatchers has improved lately, respondents feel. In the past, "they've taken a geeky rap," said one respondent. Popular representations of birdwatchers included title character in the National Broadcasting Company's television program, "Mr. Peepers" (actor Wally Cox) and the uptight, demure Miss Jane Hathaway (actress Nancy Culp) on the Columbia Broadcasting System's "The Beverly Hillbillies." People once considered birdwatchers, in one female respondent's words, to be "an abnormality in society."

The participants believe that the reputation of birdwatchers has undergone a recent improvement. "The whole attitude has changed ..." said one female respondent, "You're not looked on as a freak." One male participant's observation was typical, "Over the past five years, I have seen an improvement in the attitudes towards birdwatchers (especially) among the hunters and anglers in my office."

The focus group's participants have an appreciation for hunters' efforts in habitat conservation. Although the participants believe that hunters are more likely to be focused on only a few species, they do recognize a common interest in habitat protection.

Respondents believe that habitat loss is the most prominent threat to Louisiana's bird resources. This loss assumes many forms: coastal erosion, loss of urban green-space, and regional and hemispheric habitat loss. Other problems include pollution, pesticides, litter, road mortality, and collisions with power and cellular telephone poles. If habitat is preserved, one respondent believes, bird populations can withstand the losses from all of the other problems.

In the participants' views, ignorance contributes to the loss of habitat and bird populations so education has a key role to play. Some urge the Louisiana Department of Wildlife and Fisheries to take a leadership role in education of the public and in serving as an example of habitat conservation. They believe that if government agencies manage their own lands for non-game species, they may encourage more private landowners to do the same.

Encouraging more birdwatchers will also raise the awareness of birds and their needs, respondents feel. More people can be attracted to birdwatching through advertising, web sites, and interpretative materials. Education is essential. People need both general and specific information: where the birds are and when. They need to know where birdwatchers' presence is permitted and where it is considered trespassing.

Colorful, charismatic species, like hummingbirds, wood storks, and roseate spoonbills ¹, can attract new people into birdwatching. Festivals can be an influential draw. They are accessible and allow beginners to learn from more experienced practitioners.

Grand Isle Resident Focus Group

On March 21, 2005², two members of the Louisiana Department of Wildlife and Fisheries Socioeconomics Section met with eight Grand Isle residents at the Grand Isle Office of Tourism. All were organizers or supporters of the Grand Isle Migratory Bird Celebration. The purpose of the meeting was to obtain their perspective regarding the development of birdwatching and other forms of ecotourism in the area.

The session lasted 80 minutes. During the first 15 minutes, individuals completed a written questionnaire featuring six open-ended questions (Box 3) and a series of brief questions seeking personal characteristics. This was followed by a one hour discussion of eight questions posed by the Socioeconomics Section's facilitator (Box 4). Some questions from the written questionnaire were repeated as oral questions in the discussion period to obtain a fuller range of responses.

The focus group consisted of four men and four women. All had participated in the Grand Isle Migratory Bird Celebration. Participants³ were, on average, 55.14 years old and had lived in Grand Isle for an average 22.36 years. Five had completed some college and one had completed college.

¹ Many participants considered the name "roseate spoonbills" a bit imposing. The name "Cajun flamingo" was offered as an alternative.

² The focus groups are described out of sequential order.

³ One male respondent arrived after the 15-minute period provided for written responses. The descriptions of the demographic variables are based on the answers of the seven who completed the written questionnaires.

Box 3.

Grand Isle Residents' Focus Group's Written Questions

- What do you think about birdwatchers?
- Do you know the purpose of the Grand Isle Migratory Bird Celebration?
- What are the major strengths and weaknesses of the Grand Isle Migratory Bird Celebration?
- Compared to other festivals, what do you think about the Grand Isle Migratory Bird Celebration?
- What are the positive and negative outcomes of the Grand Isle Migratory Bird Celebration?
- How substantial have those outcomes been on partners and the environment?

Box 4.

Grand Isle Residents' Focus Group's Oral Questions

- What do you think about the level of economic development on Grand Isle?
- What do you think about ecotourism or nature-based tourism?
- What do you think about birdwatchers in general?
- What do your neighbors think about birdwatchers?
- Have you or anybody you know had any positive encounters with birdwatchers at the festival?
- Have you or anybody you know had any negative encounters with birdwatchers at the festival?
- Can you think of ways to improve the festival?
- Can you think of ways to draw more people to the festival?

The participants hold a positive impression of birdwatchers" "great people, really connected to nature;" "friendly and nature friendly;" "quiet and focused on birds;" and "serious, committed, and affluent." The participants believe birdwatchers make many financial, social, and environmental contributions to the area. Birdwatchers are "beneficial to the economy," wrote one male participant "and help bring an awareness of ecological and coastal issues."

The profile of birdwatchers gleaned from the oral discussion is that of an older, affluent, quiet, clean, and cordial cohort, composed of a disproportionate number of retirees. "I would rather have birders stay in my place than anybody else," wrote one male respondent, a local inn owner. "They're courteous. They clean up after themselves." Added one female participant, "They are grateful for whatever kindness you show them." "They're cleaner than your average tourist," said another female participant, "They're not leaving litter behind."

Their focus on birds often limits the scope of interaction with residents of Grand Isle, the focus group feels. "Birders are on a tight schedule," one female

participant said. Two participants added, "Birders travel in flocks." Many "land in one little place and they go do what they're going to do ... and they drive off." One male participant feels that birdwatchers tend to be "day-trippers" who do not usually stay overnight.

The focus group generally agreed that the attitude of Grand Isle residents regarding birdwatchers has improved in recent years. Many in the community have grown accustomed to birdwatchers and have come to appreciate their spending in local businesses.

Though birdwatchers generally do not spend as much as anglers, the focus group said, their visits are an additional source of revenue for local businesses since the birdwatchers do not displace anglers. One female participant believes that birdwatchers are currently spending more than they once did. They are staying longer and returning more frequently as the community and birdwatchers learn more about each other.

Participants attribute a portion of the change in local attitudes towards birdwatchers to changes in birdwatchers' behavior. According to one female participant, some birdwatchers seem to "have that 'nobody lives here' attitude. So I can stand back and look in the trees ... or I can walk in this yard without having to ask permission." Birdwatchers' trespassing, impeding traffic, and parking in inappropriate locations were once recurrent problems.

The voluntary posting of "Birders Welcome" signs in yards, lots, and other locations reduced the incidence of these problems. The signs simultaneously informed birdwatchers of where they could find good and legal birdwatching sites and reminded them to avoid trespassing on private property. The creation of the Grand Isle Birding Trail, a network of suitable sites open to birdwatchers, was also designed to address conflicts between local property owners and birdwatching interlopers. (Some business owners witnessed another benefit of "Birdwatchers Welcome" signs when posted outside their businesses. Birdwatchers attracted by the signs provided a source of additional revenue.)

One male participant credits the bird festival with improving the local attitude towards birdwatchers by allowing residents and bird enthusiasts to intermingle. This seems consistent with what participant identified on the questionnaire as the bird festival's purpose: "so people can gather, appreciate, and most importantly communicate."

Three other participants offered a similar human-centered purpose for the bird festival, the promotion of tourism. Another three presented a purpose focus on natural resources: "to bring habitat awareness to visitors and residents;" "awareness to the birds ... and focus on growing plants and trees that keep their habitat growing;" and "to recognize all the different species that stop by Grand Isle, Louisiana, during their migration."

The birding festival, participants wrote, had several strengths (Box 5), including drawing tourists, developing awareness of the resource, and generating support for habitat conservation. Weaknesses (Box 6) included its relatively small size, an inadequate pool of volunteers and local support, insufficient publicity, and the narrow focus and spending habits of the birdwatching visitors.

Box 5.

Perceived Strengths of the Grand Isle Migratory Bird Celebration Identified by the Grand Isle Residents' Focus Group

- Brings community together
- Brings people out to the island good for economy and tourism
- Cooperation from those living outside Grand Isle
- Educating the public
- Focus on the birds and habitat
- Good birding experiences
- Great outdoor outing
- Most local folks tolerate the event, just enjoy a different group of folks it brings in
- Organized
- Outlet for younger generation
- We get some of their business

Box 6.

Perceived Weaknesses of the Grand Isle Migratory Bird Celebration Identified by the Grand Isle Residents' Focus Group

- Birders seem to be a little frugal
- Little participation by local businesses who benefit most
- More advertising
- More public input
- Need to support our butterfly dome
- Not enough contact between volunteers and those who facilitate the events sometimes
- Not enough volunteers
- Not enough volunteers
- Not sure
- Small town with limited resources

The participants recognized a number of positive outcomes of the Grand Isle Migratory Bird Celebration (Box 7), mainly increased tourism and "good press." The negative outcomes (Box 8) include some organizational difficulties and a perceived low amount of economic activity by birdwatchers on Grand Isle. Participants feel that the bird festival provides a valuable service by raising awareness of and support for the island's resources. One female participant wrote that land had been protected as a consequence of the festival.

Box 7.

Positive Outcomes of the Grand Isle Migratory Bird Celebration Identified by the Grand Isle Residents' Focus Group

- A new area of growth in our tourism-based economy
- Bringing visitors and birders together for good experiences
- Brining together of all the birding groups and individuals interested in birding and mingling of the Grand Isle residents with those groups
- Creates more interest and participation
- Educating the visitors as well as locals
- Good press
- People staying a little longer
- Positive for our island. People come back other times also.
- Tourism dollars help in restoration legislation and project funding
- Visitors spending more
- Visitors staying longer

Box 8.

Negative Outcomes of the Grand Isle Migratory Bird Celebration Identified by the Grand Isle Residents' Focus Group

- Bus loads of folks that do not spend any money. Just come for specific time and do not use the local restaurants
- In-house issues, such as signs, workers, and organizational issue to bring information to the business operators on the Island
- Not enough people stay overnight

Five focus group participants had attended other bird festivals. Except for one who wrote that the Grand Isle Migratory Bird Celebration was "small", they compared it favorably to its counterparts: "wonderful;" "successful;" "off to a good start;" and "interesting mix of people – not too many statewide festivals like it." All of the focus group participants nevertheless hope to improve the festival. One female participant said, "We would like our festival to be the highlight of the spring migration."

The bird festival is part of a larger ecotourism sector that some would like to develop on the islands. The focus group's examples of ecotourism included birdwatching, sightseeing, entomology, kayaking, and fishing. "Grand Isle has become a destination among ecotourists, not intentionally sometimes ... but when they get in here they love it," observed one female participant. The participants felt that Grand Isle has made considerable progress in the development of nature-based tourism.

The focus group perceived obstacles to the development of ecotourism that ranged from the concrete (litter in ditches and fields) to the ephemeral (a local

attitude that one male participant called "not really tourist friendly.") Grand Isle's "limited resources" were commonly included among these obstacles. Some members of the focus group felt that Grand Isle's lack of large charter boats (head boats) reduces the island's ability to draw saltwater anglers. Some respondents pointed towards the city's limited tax base. Further, some believed, because Grand Isle is a small community in a remote corner of the parish, they do not get an adequate level of support from the Jefferson Parish government. "We are like an orphaned child that kind of would like to be attached to somebody," said one male participant.

Some respondents felt that Grand Isle lacked the manpower needed to develop the ecotourism sector. Local business owners – mainly small entrepreneurs – and residents lack the time and energy to organize ecotourism efforts. "It is easier for them to write a check for you than for you to get them to come in," said one female respondent.

Focus group participants appreciate the draw of the Grand Isle State Park but felt that it poses somewhat limited offering for local businesses. "Those people (state park visitors) don't need to come out and visit us," one female participant felt. "They've got everything they need when they come."

One male participant responded that the park has only 50 sites. When it is full, the "overflow" goes to local businesses. Furthermore, the park does provide a map of the island that directs visitors to local businesses for goods and services they might need. Some participants would like to develop a coupon book offering discounts at local restaurants and shops to accompany the current island map. These could be distributed at local inns and the state park, providing visitors with a service that promotes island businesses. Said one male participant, "Grand Isle is the only resort place with a beach that does not offer a coupon book."

Respondents were hopeful regarding the development of tourism on Grand Isle. Recent improvements in infrastructure (a new waterline) and maintenance (the clearing of trash from ditches) have already made the island more amenable to visitors. Opportunities for year-round recreation, such as the prolonged redfish season, have also brought additional tourists.

The focus group respondents preferred a manner of development that maintains the relaxed culture, the "small town atmosphere," that prevails on the island. They would like to see economic activity organized around relatively small, independent businesses. Everybody in the focus group would like to avoid the heavy commercial development that has taken place in other beach communities along the Gulf of Mexico.

Developing the island's ecotourism potential would best be accomplished by a year round effort with a first rate advertising campaign and a dedicated staff. Since volunteers are unable to dedicate a large amount of time and other resources to developing ecotourism on Grand Isle, they would like to see a more established effort. "It's got to be a constant thing where it's year round," said one male participant.

The focus group believes that they can best develop their island with the help of outside agencies. They appreciate B.T.N.E.P.'s help but would like to see

additional support from the town and parish governments. One female participant requested help from the Louisiana Department of Tourism in writing grants.

The participants supported the proposed survey of Grand Isle Bird Festival attendees. They felt that the effort would evaluate the characteristics of the attendees and demonstrate their potential economic contribution to the Grand Isle economy.

The Grand Isle Migratory Bird Celebration Festival Birdwatchers Survey

A mail survey of the people who attended the Grand Isle Migratory Bird Celebration (Bird Festival) formed the final portion of this research project. The primary purpose was to determine the characteristics of the attendees, to ascertain their birdwatching practices, and to measure their economic contribution to Grand Isle.

Questionnaire Development

Developing a questionnaire was the first stage in the process. The survey instrument was designed by consulting festival organizers and examining questionnaires used for earlier surveys of birdwatching festivals (Scott and Thigpen, 2000; Isaacs and Chi, 2004) and fishing tournaments (Ditton, *et al.*, 2000). The eight-paged questionnaire was divided into four sections (Appendix). The first section consisted of four questions intended to determine the respondents' birdwatching activities. Three questions pertained to experience and skill. One asked respondents to quantify the number of "away from home⁴" birdwatching trips taken in the previous year.

The second section of the questionnaire consisted of 18 questions related to the respondents' experiences at the 2005 Grand Isle Migratory Bird Celebration. The central component of this section was the question that asked respondents' to list their personal expenditures on 16 items in four categories: transportation, lodging, food, and miscellaneous.

The third section consisted of 10 questions related to the respondents' personal characteristics, including age, gender, household size, education, and income. The fourth section elicited the respondents' written comments and suggestions regarding the Grand Isle Migratory Bird Celebration, birdwatching in Louisiana, or the survey itself.

Contacting Bird Festival Attendees and Survey Participants

The second stage in the process was to inform attendees of the plans for the survey by traveling to Grand Isle during the festival to greet attendees and ask them to provide a name and address to which to mail a survey. The three attendees' visit to Grand Isle achieved multiple purposes beyond the acquisition of names and addresses. It gave the administrators a chance to explain the purpose of the survey to attendees and to address their questions and concerns. It also allowed the survey administrators to observe the workings of the event and to adopt necessary changes in the questionnaire. The Socioeconomics Section's experience with the Saint

13

⁴ The U.S. Fish and Wildlife Service defines an "away from home" trip as traveling one mile or more from home to feed, observe, or photograph wild birds.

Francisville BirdFest survey indicated that personally meeting the survey's subjects was instrumental in boosting participation and improving the reliability of the data.

From the Socioeconomics Section's sign-up lists and the festival tours' registration forms, a list of 196 names and addresses were collected. Three were deleted as duplications. The questionnaire and a postage-paid reply envelope were mailed approximately two weeks after the festival. A reminder postcard and a second mailing of the questionnaire were mailed during the second and third weeks after the initial questionnaire mailing.

The survey received 117 completed questionnaires. Three were deleted as invalid: one from a seven year-old, one from an event organizer, and one from a person who had registered for a tour but did not attend the festival. The 114 valid questionnaires returned from a modified list of 190 names (196 - 3 duplications - 3 invalid returns) produced a response rate of 60 percent.

Respondents' Demographics

The majority of Grand Isle Bird Migratory Bird Celebration attendees were women and college graduates. They tended to be somewhat older than the general population and have a higher than average household income.

Approximately three-fifths (61.4 percent) of the respondents were women (Figure 2). This is somewhat higher than the percentage of women in the Louisiana (51.6 percent) and U.S (50.9 percent) populations (U.S. Census Bureau) and higher than the portion of women among birdwatchers in the U.S. Fish and Wildlife Service's 2001 estimate (54 percent).

The median age (58 years old) among respondents (Table 2) is higher than the Louisiana (34.0) and the U.S. (35.3) median age.

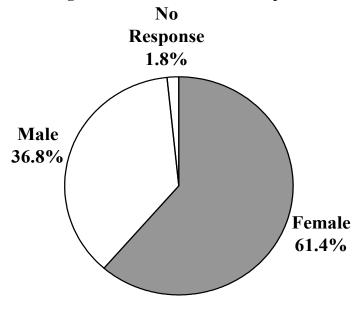


Figure 2. Gender of Festival Respondents

Table 2. Age Distribution

What is your age?					
Minimum	Maximum	Average	Median	Mode	
15	78	57.82	58	48	

The respondents' median household size (Table 3) is two, somewhat lower than the Louisiana (2.69) and U.S. (2.59) median household size (U.S. Census Bureau).

Roughly one-third (34.2 percent) of the respondents were retirees (Figure 3). Over half had full-time or part-time jobs. The average workweek among employed respondents was 39.62 hours (Table 4).

Table 3. Household Size Distribution

How many people live in your household, including yourself?					
Minimum Maximum Average Median Mode					
1 5 2.12 2 2					

Figure 3. Employment Status of Survey Respondents

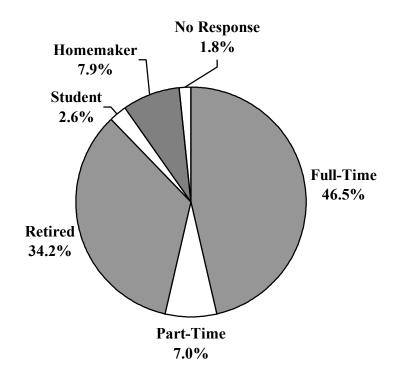


Table 4. Hours Worked per Week

How many hours do you work at your job per week?							
(Among All Respondents)							
Minimum	Minimum Maximum Average Median Mode						
0 56 21.58 25 0							
(Among Respondents with Full-Time or Part-Time Employment Only)							
Minimum	Maximum	Average	Median	Mode			
8	8 56 39.62 40 40						

The respondents are relatively well-educated. Nearly two-thirds (65.7 percent) had a bachelors or higher degree (Figure 4). In contrast only 25.6 percent of the U.S. population over 25 years old has a bachelors, masters, doctorate, or professional degree (U.S. Census Bureau).

The Grand Isle Migratory Bird Celebration drew people with relatively high household incomes (Figure 5). Nearly one-third (32.4 percent) earned a household income of \$80,000 or more. Sixty percent had a household income of \$40,000 or more. In comparison, only 50 percent of the U.S. households have an income above \$41,994 (the national median). In Louisiana, where the median household income was \$32,566, less than the half of the state's households has an income greater than \$33,000 (U.S. Census Bureau).

Some High
School
0.9%

Advanced
Degree
36.8%

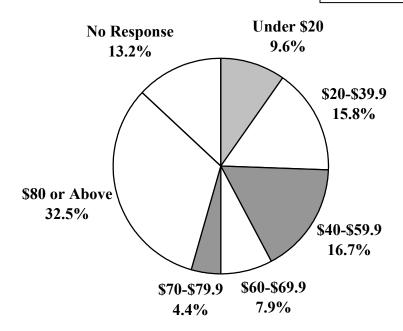
Some College/
Community
College
24%

Figure 4. Festival Respondents' Education

Completed College 28.9%

Figure 5. Festival Respondents' Household Income

Income in Thousands of Dollars



Birdwatching Activities and Experience

The typical Grand Isle Migratory Bird Celebration attendee had 5 years (the median) of birdwatching experience (Table 5). In the year prior to the Grand Isle Migratory Bird Celebration, 62.3 percent of respondents took an "away from home" birdwatching trip (of one mile or more from home) (Figure 6). The average number of "away from home" birdwatching trips among those who took such trips was 7.44; the median was 2 (Table 6).

Nearly 60 percent could identify 21 bird species or more by sight or sound without a guidebook (Figure 7). According to the U.S. Fish and Wildlife Service's 2001 survey, only 21 percent of all birdwatchers and 26 percent of all "away from home" birdwatchers could identify as many birds without consulting a guidebook.

Despite the relatively well-develop skill indicated by their ability to identify birds, three-quarters of the respondents considered themselves beginning or intermediate birdwatchers (Figure 8). Less than one in twenty considered themselves experts.

Only a minority of respondents (36.0 percent) are members of any birding or bird conservation organizations (Figure 9).

Table 5. Years of Birdwatching Experience

How many years have you been bird watching?					
Minimum Maximum Average Median Mode					
0	75	12.62	5	5	

Figure 6. Away from Home Birdwatching by Respondents

Not including this trip, did you travel more than one mile from home to go birdwatching?

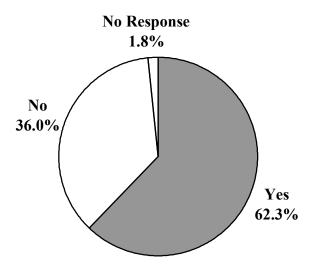


Table 6. Number of Trips among "Away from Home" Birdwatchers

If "YES", how many trips away from home did you take for the express purpose of bird watching in the past 12 months, not including your trip to the Grand Isle Migratory Bird Celebration?

\mathcal{S}		
Average	Median	Maximum
7.44	2	100

Figure 7. Number of Bird Species Respondents Can Identify

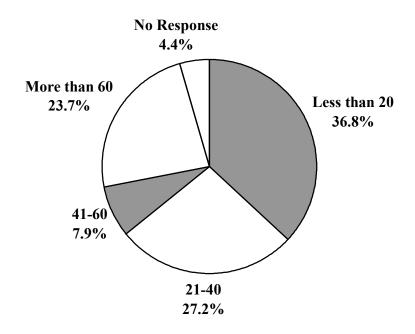


Figure 8. Respondents' Self-Designated Birdwatching Skill Level

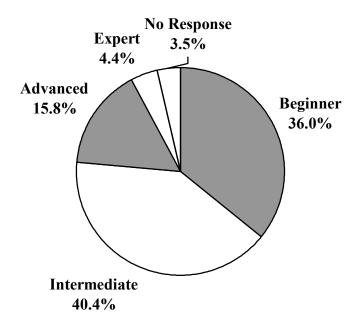
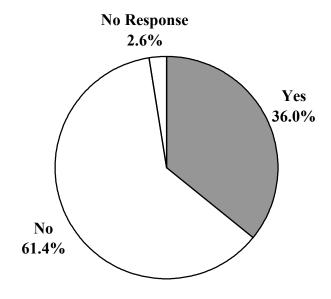


Figure 9. Bird Conservation Organization Membership

Are you a member of any bird conservation organization?



The place of residence, determined by ZIP code, for all but six respondents was Louisiana (Figure 10). The six from outside Louisiana included four from Mississippi, and one each from New York and Massachusetts. Over half of the respondent resided East Baton Rouge (16), Jefferson (14), Terrebonne (13), and Lafourche (11) Parishes. Most traveled 120 miles (the median) or more (Table 7) and drove 2.50 hours (the median) or more (Table 8) from their homes to reach Grand Isle.

A large portion of the bird festival attendees had property there. Nearly forty percent of the respondents owned a home or camp, a cabin or other permanent structure, on Grand Isle (Figure 11).

Table 7. Distance Traveled from Home

How many miles did you travel one-way to reach the Grand Isle area from your						
home?						
Minimum	Maximum	Average	Median	Mode		
2 1700 140.70 120 100						

Table 8. Time Traveled from Home

About how many hours of travel time did it take you to reach the Grand Isle area					
from your home?					
Minimum	finimum Maximum Average Median		Median	Mode	
0 8		2.62	2.50	2	

Figure 10. Festival Respondents' Place of Residence

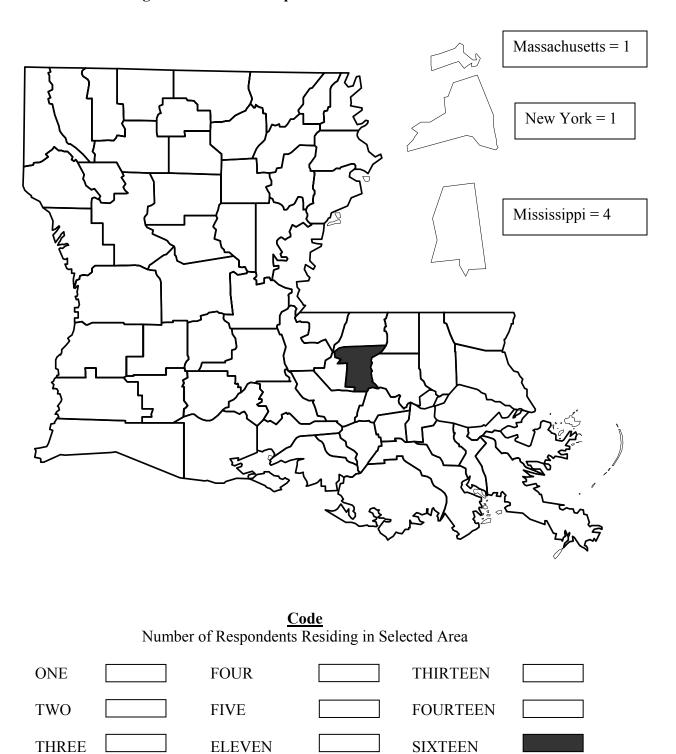
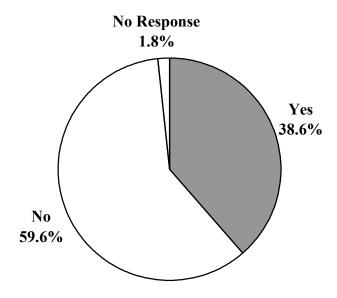


Figure 11. Camp Ownership among Festival Respondents

Do you own a camp or home on Grand Isle?



Grand Isle Migratory Bird Celebration Experience

Birdwatching was the primary purpose of traveling to Grand Isle on the weekend of the Migratory Bird Celebration for nearly three-quarters of the respondents (Figure 12). Approximately 13 percent had a joint purpose, attending the festival plus some other activity. About five percent were vendors.

Most respondents spent the weekend in Grand Isle. The median stay was three days and two nights (Table 9). The median amount of time engaged in birdwatching (Table 10) was seven hours.

The median travel party size was three people (Table 11). The median number of people within each party who actually participated in birdwatching (Table 12) was two. Seventy-six parties were made exclusively of birdwatchers; the number of birdwatchers in the party was equal to the total number of people in the party.

Figure 12. Purpose of Attending Bird Festival

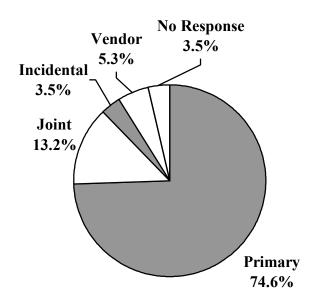


Table 9. Length of Stay in the Grand Isle Area

Tuble 34 Eength of Stay in the Grand Isle 111 ca						
<u>Days</u>						
How many total	How many total days did you spend in the Grand Isle area?					
Minimum	Minimum Maximum Average Median Mod					
0	6	2.57	3	3		
Nights						
How many total nights did you spend in the Grand Isle area?						
Minimum	Maximum	Average	Median	Mode		
0	7	1.83	2	2		

Table 10. Number of Hours Spent Birdwatching in the Grand Isle Area

About how many hours did you spend <u>birdwatching</u> in the Grand Isle area?					
Minimum Maximum		Average	Median	Mode	
0 40		8.30	7	8	

Table 11. Travel Party Size

How many people, including yourself, were in your travel party?					
Minimum Maximum Average Median Mo					
1	9	3.18	3	2	

Table 12. Number of Birdwatchers within Each Party

Within your travel party, how many people actually birded?					
Minimum Maximum Average Median Mode					
0	9	2.50	2	2	

Favorite Events during the Grand Isle Migratory Bird Celebration

The Grand Isle Migratory Bird Celebration held fourteen different events classified into four categories: birdwatching tours (Figure 13A), open house tours (Figure 13B), presentations (Figure 13C), and other events (Figure 13D). The most commonly cited event with 70 citations was a visit to the yard of Mr. Bobby Santini, a long-time private citizen of Grand Isle who maintains his property for the benefit of birds and the enjoyment of human visitors. (He charges no entry but regularly receives gifts of bird feed and seed). The Grand Isle Birding Trail, mentioned by 69 respondents, was in second place. The Grand Isle Butterfly Dome was the third most cited event with 54 citations.

Favorite Birdwatching Sites on Grand Isle

Respondents were asked to identify their favorite birdwatching sites on Grand Isle: first choice, second choice, and third choice. Some sites are observable in Figure 14.

For first choice sites, Sureway Woods and Mr. Sanitini's yard were the first and second most popular selections (Table 13). For second choice sites, Lafitte Boardwalk was the most popular. (Sureway Woods and Grand Isle State Park were tied for the second most-popular second choice sites.) For third choice sites, Grand Isle State Park was the most common selection.

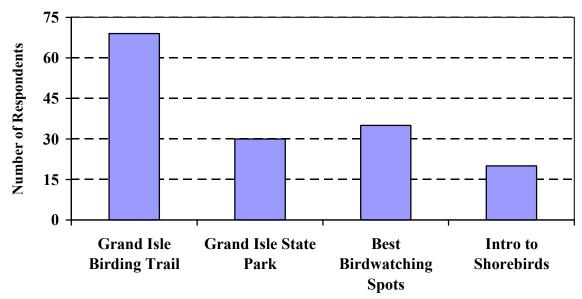
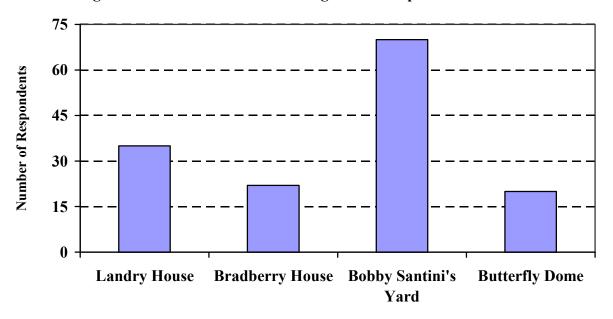
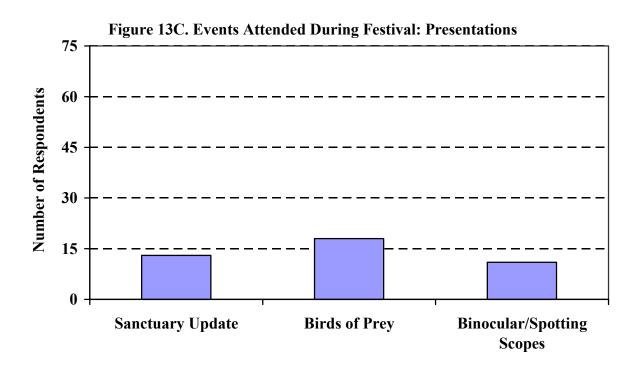


Figure 13A. Events Attended During Festival: Birding Tours

Figure 13B. Events Attended During Festival: Open House Events





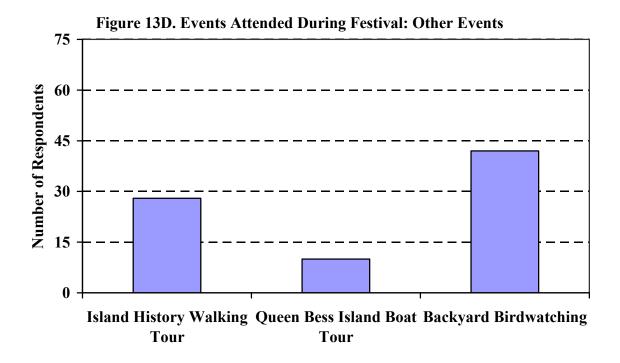


Figure 14. Map of Grand Isle Birding Trail



(Source: The Nature Conservancy)

Table 13. Bird Site Preferences During Festival

Please list the three bird sites that you were most interested in viewing birds in the Grand Isle area on your recent trip to the Grand Isle Migratory Bird Celebration. (For example: Grand Isle State Park, Port Boardwalk, Grilletta Tract, Lafitte Boardwalk, Govan Tract, Sureway Woods, L.S.U. Cemetery Woods, etc.)

Govan Tract, Bureway V	oous,	L.S.O. Centetery Wood	13, CIC.	·)	
First Choice		Second Choice		Third Choice	
Backyard	6	Backyard	3	Backyard	1
Best Bird Watching Spots	3	Beach		Beach	5
Govan Tract	1	Birding Trail	2	Birding Trail	1
Grand Isle State Park	9	Bradberry Yard	3	Bradberry Yard	2
Grilletta Tract	8	Coulon Rigaud Woods	1	Driving	1
Highway to Grand Isle	1	Exxon Field	1	Elmer's Island	1
Lafitte Boardwalk	6	Govan Tract	3	Exxon Field	4
LSU Cemetery Woods	3	Grand Isle State Park	14	Govan Tract	1
Lumcon Road	1	Grilletta Tract	4	Grand Isle State Park	13
Port Boardwalk	4	Lafitte Boardwalk	15	Grilletta Tract	3
Queen Bess Island	2	LSU Cemetery Woods	5	Gulf Stream Marina	1
Santini Yard	17	Port Boardwalk	4	Lafitte Boardwalk	5
School Area	1	Port Fourchon	3	Landry Yard	1
Sureway Woods	29	Queen Bess Island	2	LSU Cemetery Woods	8
		Santini Yard	7	NC Area/Oaks	1
		Sureway Woods	14	Marshy Ponds	1
				Offshore	1
				Port Boardwalk	5
				Port Fourchon	2
				Queen Bess Island	1
				Santini Yard	5
				Sureway Woods	7

Favorite Bird Species

Respondents were also asked to identify their favorite bird species: most preferred, second most preferred, and third most preferred. Since they were not required to limit the number of species, several respondents listed several species or types of birds in each category.

The most preferred species (Figure 15) included fifteen species or types of songbirds (like warblers, tanagers, and grosbeaks), eight species of wading birds and shorebirds (like herons, egrets, frigate birds, and pelicans), one raptor (peregrine falcon), and "woodpeckers." The painted bunting was the most commonly cited species among the respondents' first most preferred birds.

The respondents' second most preferred birds included 23 species or types of songbirds (Figure 16A) and 14 species or types of wading birds and shorebirds (Figure 16B). The scarlet tanager was the most commonly cited among the second most preferred species (Figure 16).

The respondents' list of third most preferred birds included 19 species or types of songbirds (Figure 17A), 11 species or types of wading birds and shorebirds (Figure 17B), and three birds of "other" types (Figure 17C). The indigo bunting received the most votes among the third most preferred bird species (Figure 17).

Figure 15. Most Preferred Bird Species

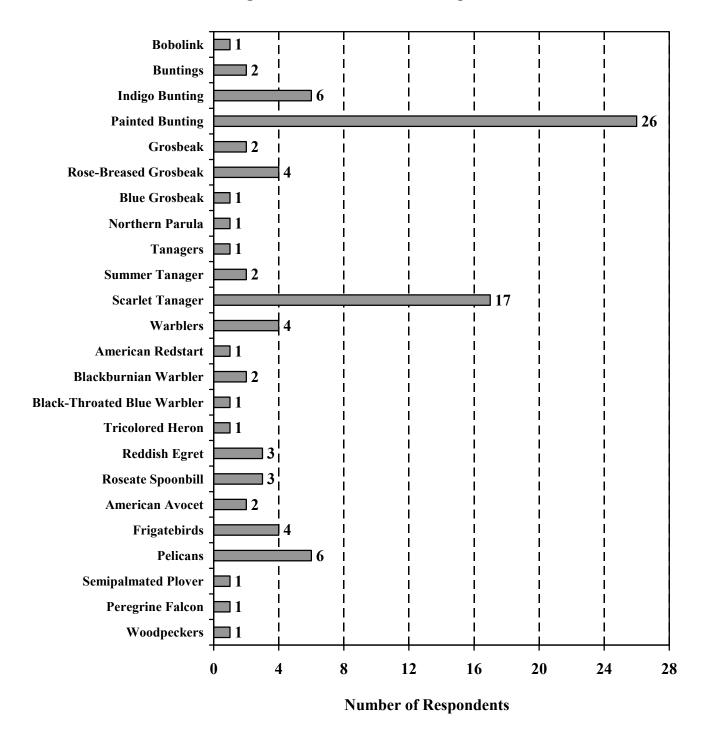
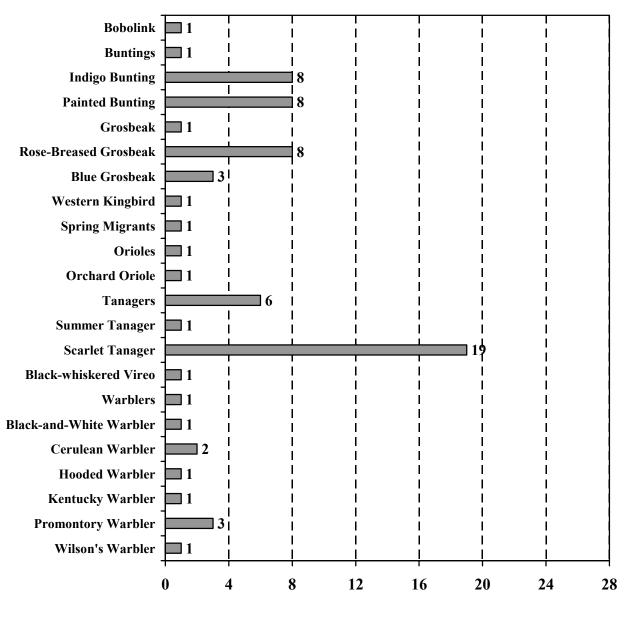
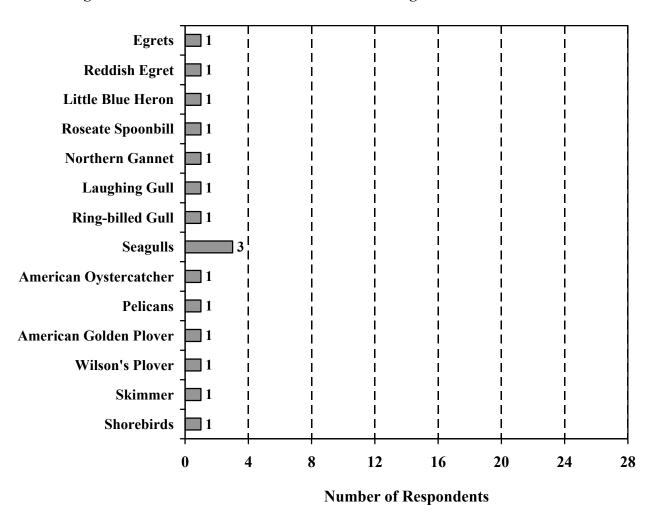


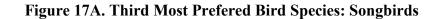
Figure 16A. Second Most Preferred Bird Species: Songbirds



Number of Respondents

Figure 16B. Second-Most Preferred Birds: Wading Birds and Shorebirds





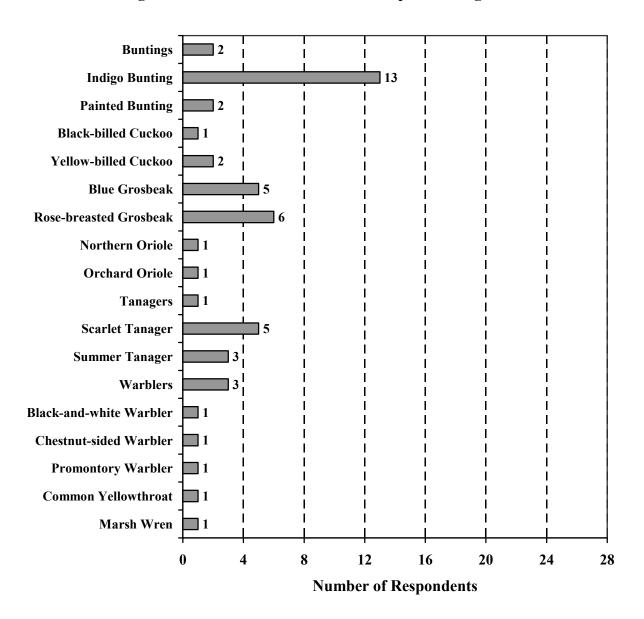


Figure 17B. Third Most Preferred Birds: Wading Birds and

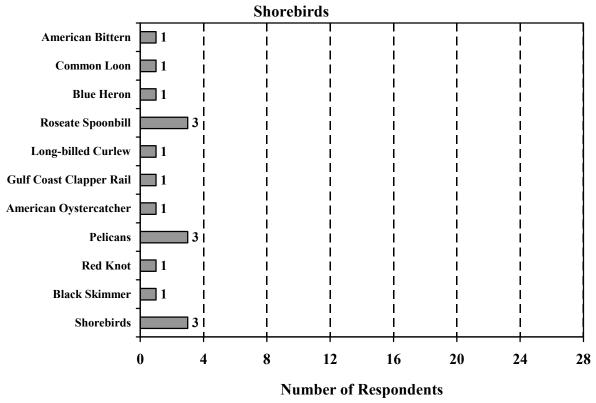
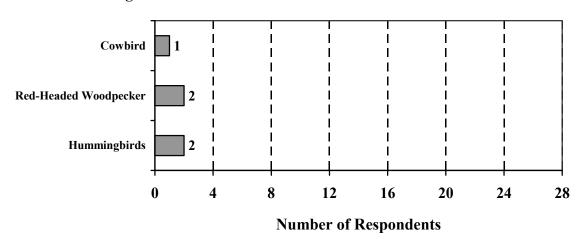


Figure 17C. Third Most Preferred Birds: Others



Sources of Information about the Grand Isle Migratory Bird Celebration

Seventy-nine respondents heard about the Grand Isle Migratory Bird Celebration through "word of mouth," the most common source of information regarding the event (Figure 18). Newspapers and newsletters were the second most common sources of information. Birding clubs were the third most common.

Newspaper 31 Magazine Radio 2 Internet 21 Newsletter **Birding Club 23 Word of Mouth** I ı 1 1 16 Other I 1 I 1 40 0 10 20 **30 50** 60 70 80

Number of Respondents

Figure 18. Source of Information about the Grand Isle Migratory Bird Celebration Festival

Box 9.

Write-In Responses for "Other" Sources of Information

- Chamber of Commerce
- Port Commission
- Tourist Center on Grand Isle
- Invitation (Art Exhibit)
- LABIRD e-mails
- School
- Flyer
- Signs
- Fishing trips to Grand Isle
- Have a camp on Grand Isle
- Resident of Grand Isle

Respondents' Satisfaction with the Grand Isle Migratory Bird Celebration

The Grand Isle Migratory Bird Celebration was a very enjoyable experience for the vast majority of the attendees in 2005. Nearly three-quarters were "extremely" or "very satisfied" with the event (Figure 19).

Previous Attendance at the Grand Isle Migratory Bird Celebration

Approximately sixty percent (61.4 percent) of the respondents who attended the 2005 Grand Isle Migratory Bird Celebration had attended the festival in earlier years (Figure 20). Among "previous visitors", the median number of visits to the Grand Isle Bird Festival was two (Table 14). The average number of previous visits was three.

Respondents' Natural Resource Enjoyment on Grand Isle

The Grand Isle Migratory Bird Celebration is not the only occasion on which many of the respondents travel to the island. Many came to the area for a variety of nature-based activities (Figure 21). The most popular form of natural resource enjoyment among respondents was birdwatching (94 responses), followed by fishing (61 responses).

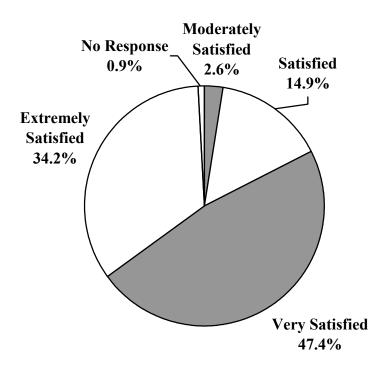


Figure 19. Satisfaction with the Festival

Figure 20. Previous Attendance at Grand Isle Bird Festival

Was this year's trip the first time you ever attended the Grand Isle Migratory Bird Celebration?

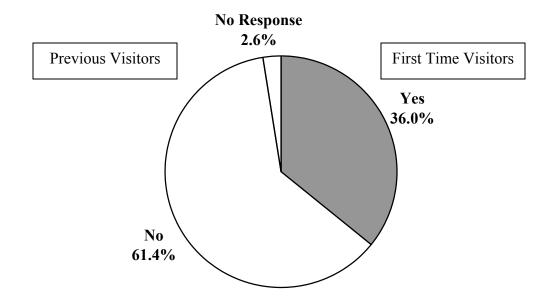


Table 14. Number of Previous Visits to the Grand Isle Migratory Bird Celebration among Previous Visitors

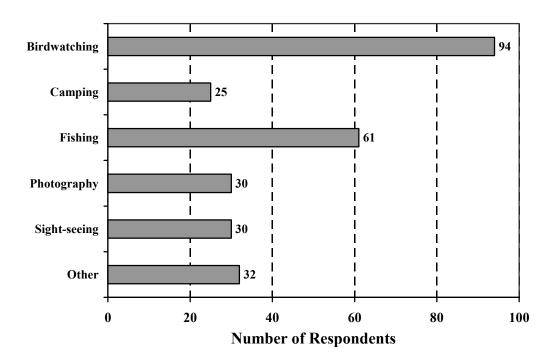
If "NO", how many times have you attended the Grand Isle Migratory Bird Celebration Festival before this year's festival?				ry Bird
Minimum	Maximum	Average	Median	Mode
0	7	3.0	2	2

Most of the respondents (94) had participated in some form of nature based activities in the year (12 months) prior to the festival (Figure 22). Eighty had participated in birdwatching on Grand Isle at some point in the year before the 2005 Grand Isle Migratory Bird Celebration. Among these 80, the average number was 4.03 trips. The median was one trip (Table 15). Fishing was another common activity on Grand Isle among the survey respondents. The 44 bird festival participants who went fishing on Grand Isle in the previous 12 months were fairly active in angling activities with an average of 11.48 and a median of five fishing trips.

Most of the Grand Isle Migratory Bird Celebration attendees plan to return to the island in the next 12 months. Ninety percent of the respondents would like to come back to Grand Isle for some form of nature-based recreation in the upcoming year (Figure 23).

Figure 21. Nature-Based Activities within Grand Isle

"What is your most preferred activity for natural resource enjoyment within the Grand Isle area?"



Box 10.

Write-In Responses for "Other" Activities

- Beach and Beach walking
- Swimming
- Vacation
- Relaxing
- Kayaking
- Cycling
- Visiting
- Socializing
- Exhibition
- Botanizing
- Learning about history of Grand Isle
- Shopping and Library

Figure 22. Nature-Based Activities within Grand Isle in the Past Twleve Months

"In the past twleve months, how often did you travel to or within the Grand Isle area to participate in these activities?"

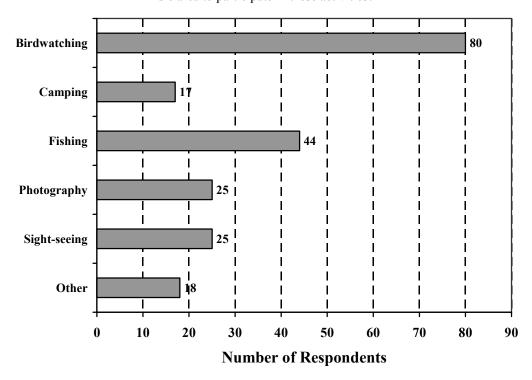
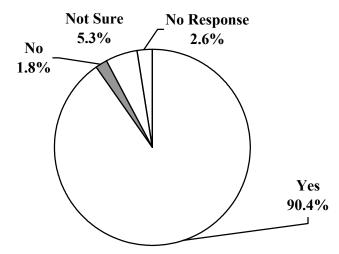


Table 15. Average and Median Number of Trips for Selected Nature-Based Recreational Activities among Respondents who Participated in Such Activities

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	20021120200		
	Number who	Among Those who Participated	
<u>Activity</u>	<u>Participated</u>	<u>Average</u>	<u>Median</u>
Birdwatching	80	4.03	1
Camping	17	8.71	3
Fishing	44	11.48	5
Photography	25	6.52	2
Sightseeing	25	2.72	2
Other	18	6.44	4

Figure 23. Plans to Return to Grand Isle

Do you plan to come back for natural resource-based recreational activities in the Grand Isle area in the upcoming year?



Non-Resident Participants' Expenditures

The Grand Isle Migratory Bird Celebration's birdwatching activities are also largely economic activities. The attendees bring, in addition to their enthusiasm for birds, their needs for fuel, food, lodging, and other goods and service related to the event. These needs produce a source of revenue for local businesses and their employees and act as a measure of value for both birdwatching in Grand Isle and the habitat that supports it.

This report analyzes the expenditures of respondents who did not live on Grand Isle (non-residents). Respondents were asked to report their expenditures on thirteen specific items arranged in four categories, plus blanks for any encountered expenditures that were not listed on the questionnaire (Table 16). The questionnaire elicited each non-resident participant's actual personal spending in the Grand Isle area, and inside or outside Louisiana, as part of their trip to Grand Isle.

Spending in Grand Isle

Among non-resident respondents, spending in restaurants (\$3,338) and on groceries (\$3,145) were the largest expenditure items in Grand Isle (Figure 24). Spending on hotel and motels (\$1,759) was the third largest expenditure item on the island. Groceries and restaurant meals were also the most commonly purchased items, that is, those with the highest number of non-resident purchasers (Table 17).

Table 16. Expenditure Categories and Items

<u>Transportation</u>	Lodging	<u>Food</u>	<u>Miscellaneous</u>
Bus, Air, and	Hotel-Motel	Restaurants	Gifts and
Other Fares	Camp Rental	Groceries	Souvenirs
Rental Vehicle Fuel	Trailer Home/ R.V.	Festival	Equipment
Personal Vehicle Fuel	Camping	Concessions	

Figure 24. Respondents' Expenditures in Grand Isle and Elsewhere in Louisiana, by Item

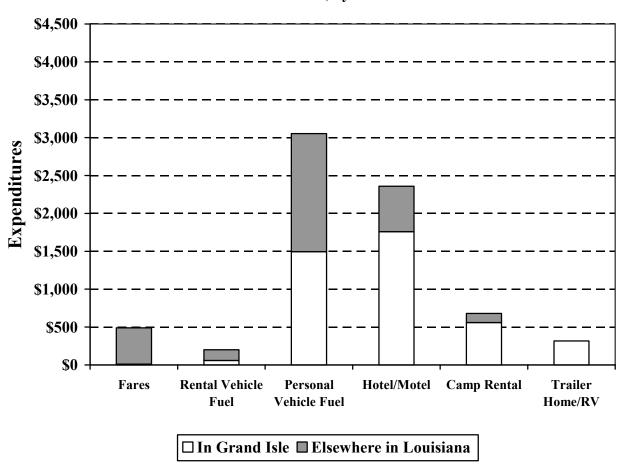


Table 17. Average Expenditures per Spender and per Respondent in Grand Isle and Elsewhere in Louisiana, by Item

In Grand Isle						
	Fares	Rental Vehicle Fuel	Personal Vehicle Fuel	Hotel- Motel	Camp Rental	Trailer- RV
Number of Spenders	1	1	51	23	5	2
Average per Spender	\$10.00	\$60.00	\$29.33	\$76.48	\$112.00	\$158.50
Average per Respondent	\$ 0.09	\$ 0.53	\$13.12	\$15.43	\$ 4.91	\$ 2.78
	Elsewhere in Louisiana					
Number of Spenders	1	1	52	1	1	0
Average per Spender	\$480.00	\$140	\$29.96	\$600.00	\$120.00	\$0
Average per Respondent	\$ 4.21	\$1.23	\$13.67	\$ 5.26	\$ 1.05	\$0

Figure 24. Respondents' Expenditures in Grand Isle and Elsewhere in Louisiana, by Item (Continued)

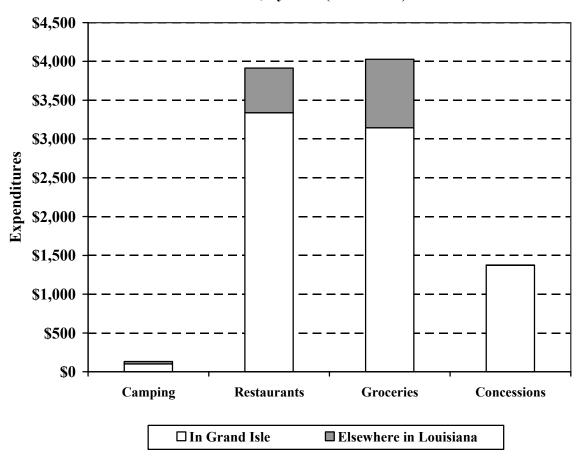


Table 17. Average Expenditures per Spender and per Respondent in Grand Isle and Elsewhere in Louisiana, by Item

In Grand Isle				
	Camping	Restaurants	Groceries	Concessions
Number of Spenders	5	67	78	53
Average per Spender	\$51.00	\$49.82	\$40.32	\$28.57
Average per Respondent	\$ 0.89	\$29.28	\$27.59	\$12.03
	Elsewhere	e in Louisiana		
Number of Spenders	1	15	16	1
Average per Spender	\$30.00	\$38.47	\$55.13	\$ 5.00
Average per Respondent	\$ 0.26	\$ 5.06	\$ 7.74	\$ 0.04

Figure 24. Respondents' Expenditures in Grand Isle and Elsewhere in Louisiana, by Item (Continued)

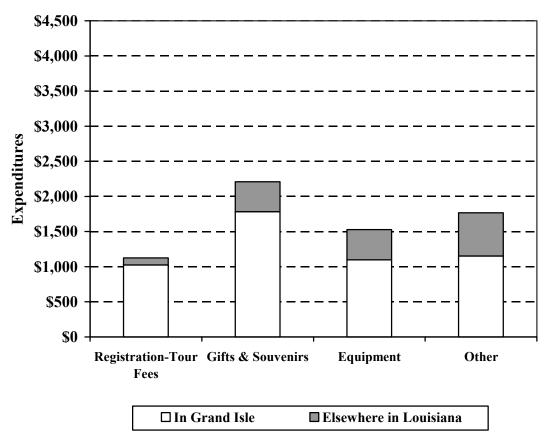


Table 17. Average Expenditures per Spender and per Respondent in Grand Isle and Elsewhere in Louisiana, by Item

ISTO WITH EIST (1)	isie und Disewhere in Douisiana, by reem				
	In Grand Isle				
	Registration- Tour Fees	Gifts & Souvenirs	Equipment	Other	
Number of Spenders	49	58	12	14	
Average per Spender	\$ 20.92	\$30.76	\$91.42	\$82.29	
Average per Respondent	\$ 8.99	\$15.65	\$ 9.62	\$10.10	
	Elsewhere in Louisiana				
Number of Spenders	2	3	3	3	
Average per Spender	\$50.00	\$141.67	\$143.33	\$205.00	
Average per Respondent	\$ 3.85	\$ 3.73	\$ 3.77	\$ 5.39	

Table 17 presents the average expenditures per non-resident respondent for each item and the average expenditures per spender who actually purchased the specified good or service. For example, average expenditures for restaurants were \$29.28 per non-resident respondent but \$49.82 for each of the 67 people who spent money in a restaurant.

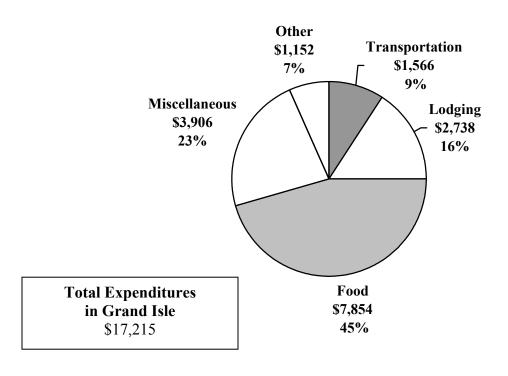
Total expenditures in Grand Isle by the 109 non-resident respondents were \$17,215 (Figure 25) or \$157.94 per respondent. The category "food" accounted for 45 percent of all spending on the island. Spending on "miscellaneous" items, gifts, souvenirs, and equipment, amounted to 23 percent of all expenditures. The category "other", seven percent of all Grand Isle expenditures, consisted of charitable donations and spending on bait and a benefit dinner.

Total Economic Impact in Grand Isle

The festival attendees' initial or "direct" expenditures have a "multiplier" or "ripple" effect as the money is distributed, spent and re-spent throughout the local economy. These secondary effects may be classified as "indirect" or "induced" impacts. The total economic impact is the sum of direct impacts, indirect impacts, and induced impacts (Southwick Associates, 2005).

"Indirect" impacts include increases in spending that local businesses make in response to the increase in their customers' expenditures. For example, when attendees purchase hamburgers at a local restaurant (a direct impact), the restaurant

Figure 25. Festival-Related Expenditures in Grand Isle, by Category



owner has to buy more ground meat and hamburger buns from his local supplier (an indirect impact).

"Induced" impacts include the changes in wages and salaries that follow changes in direct and indirect impacts. An induced impact of festival attendees purchasing more hamburgers may be seen when the restaurant waitress earns extra wages and tips and later spends them at local businesses.

The Socioeconomics Section estimated the economic impact of the Grand Isle Migratory Bird Celebration using the economic model, software, and databases developed by IMPLAN (IMpact analysis of PLANing). These models are well-respected and widely-used by government agencies and other organizations when conducting economic impact analysis at the local, regional, state and national levels.

The \$17,215 in direct expenditures made by non-resident participants for local goods and services generated an additional \$577 in economic output, resulting in a total output of \$17,792 (Table 18). The money spent by festival attendees helped support the equivalent of 0.2 full- and part-time local jobs, and generated \$4,992 in personal income for local residents (Table 18). The average output multiplier was 1.52 (i.e., every dollar spent in the economy generated another \$0.52).

Table 18. Estimated Economic Impact in the Grand Isle Area

	Direct	Indirect	Induced	Total Effect
Output	\$17,215	\$309	\$268	\$17,792
Labor Income	\$4,992	\$107	\$61	\$5,160
Employment	0.2	0.0	0.0	0.2

Spending in Louisiana Outside Grand Isle

The largest expenditure item for goods services acquired in places in Louisiana other than Grand Isle by non-resident respondents (Figure 26) was personal vehicle fuel (\$1,558). Groceries (\$882) and "other" items (\$615) were the second and third largest expenditure items, respectively.

Total non-resident expenditures made in Louisiana locations other than Grand Isle were \$5,962 (Figure 26) or \$54.70 per non-resident respondent. Spending on transportation, mainly personal vehicle fuel, was the largest expenditure category, with 36 percent of all expenditures. The category "food" with 25 percent of all expenditures was the second largest category.

Total Economic Impact in Louisiana Outside Grand Isle

The \$5,962 in direct expenditures in Louisiana outside Grand Isle generated a total economic impact of \$17,384 (Table 19). Total employment supported by these expenditures amounted to 0.1 jobs and contributed a total of \$1,182 in salaries and wages (Table 19).

Figure 26. Festival-Related Expenditures in Louisiana Outside Grand Isle, by Category

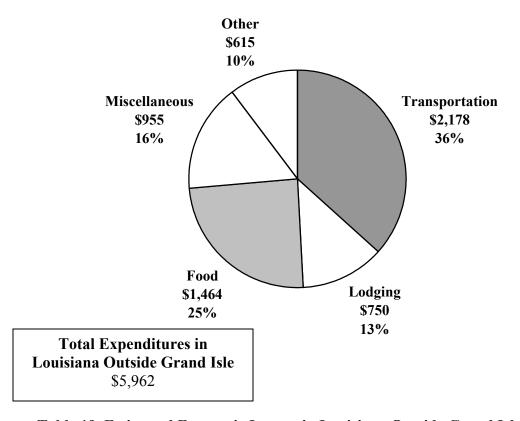


Table 19. Estimated Economic Impact in Louisiana Outside Grand Isle

	Direct	Indirect	Induced	Total Effect
Output	\$5,962	\$5,797	\$5,625	\$17,384
Labor Income	\$1,182	\$1,890	\$1,840	\$4,912
Employment	0.1	0.1	0.1	0.3

The \$23,000 of festival-related spending in Louisiana incurred by non-Grand Isle residents during their trip to the migratory bird festival generated a total economic impact of \$17,792 in Grand Isle (\$163.23 per non-resident respondent) and an additional \$17,384 in Louisiana outside Grand Isle (\$159.49 per non-resident respondent). This represents only a portion of the total economic impact of the bird festival as it does not include those who attended the festival but did not answer the survey.

An exact number of attendees is difficult to attain because the Grand Isle Bird Festival is an open event that does not require an entry fee or registration, except for a few optional tours and other events. A low estimate of the number of non-resident festival attendees is 180, the number of people who provided names and addresses for the survey effort (190) omitting 10 who were residents of Grand Isle. Multiplying this estimate for the number of attendees by the economic impact per non-resident respondent, the estimated total economic impact would be \$29,381

in Grand Isle and \$28,708 elsewhere in Louisiana. The sum of these totals, \$58,089, represents the estimated total economic impact of the Grand Isle Migratory Bird Celebration within Louisiana. The total economic impact may actually be larger because some attendees may not have provided a name and address.

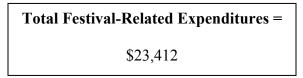
Spending Outside Louisiana

Non-resident respondents reported expenditures of \$235 in states other than Louisiana. This represents one percent of all expenditures related to the Grand Isle Migratory Bird Celebration (Figure 27). (Total economic impacts were not estimated for expenditures made outside Louisiana.)

Outside
Louisiana
1.0%
Louisiana
25.5%

In Grand Isle
73.5%

Figure 27. Total Festival-Related Expenditures, by Location



Travel Cost Analysis of the Grand Isle Migratory Bird Celebration

The travel cost method (TCM) is frequently used to estimate the economic value (or consumer surplus) of recreational areas, such as Grand Isle, and other natural resources based on the distance traveled to reach the site and related expenses. The estimated economic value, consumer surplus, is the area under the demand curve, between current travel cost and the choke price that reduces the number of trips to zero. This analytical technique can also be used to examine the relationship between the respondents' personal characteristics and the value they place on the selected asset.

The travel cost model in this research examines the econometric or statistical relationship between the number of trips each respondent had made to the

Grand Isle Migratory Bird Celebration (the "dependent variable") and travel (or trip-related) costs plus other "explanatory variables" (Table 20). It estimates the value of the festival to participants as a recreational venue since its beginnings in 1998 to the year of the survey, 2005.

The relationship between the explanatory variable "travel cost" and dependent variable is expected to be negative. That is, as the cost of traveling to the bird festival increases, other things equal, there will be a decline in the number of trips made to Grand Isle. Thus, the travel cost method effectively generates a demand curve for trips to the Grand Isle Migratory Bird Celebration, demonstrating a decrease in the number of trips as travel costs increase.

The remaining explanatory variables explain the relationship between the number of trips to the Grand Isle Migratory Bird Celebration and other relevant factors. The "High Income" explanatory variable examines whether people with relatively high household incomes (\$60,000 or more) are more likely to attend the festival more frequently than people with household incomes below \$60,000. Similarly, the variables "retired", "member", and "identification skills" are used to determine whether the number of trips respondents make is related to their retirement status, bird conservation organization membership, or the ability to identify more than 40 bird species.

Travel cost models are often calculated using a count data specification, such as the Poisson and negative binomial distribution, because they feature nonnegative integers as the dependent variable (e.g., the number of trips to the Grand Isle Migratory Bird Celebration), (Creel and Loomis, 1990). These count data models are equivalent to a semi-log of the dependent variable functional form.

The results of a truncated Poisson regression are shown in Table 21. The sign on "travel costs" is negative, as expected, but not statistically significant, perhaps because the distances and times traveled by most respondents was relatively modest.

Table 20. Definition of Variables Used in the Grand Isle Migratory Bird Celebration Travel Cost Method Analysis

	Dependent Variable		
Variable	Definition		
Festivals	Number of times the respondent has attended the Grand Isle		
Attended	Migratory Bird Celebration		
	Explanatory Variables		
Travel Cost	Trip-related costs to the Grand Isle Migratory Bird Celebration		
High Income	1 if respondent's annual individual income is greater than		
	\$60,000; 0 otherwise		
Retired	1 if respondent is retired; 0 otherwise		
Member	1 if respondent is a member of any birding or bird conservation		
	organizations; 0 otherwise		
Identification	1 if respondent can identify more than 40 different bird species by		
Skill	sight or sound without a guidebook; 0 otherwise		

Table 21. Empirical Results of the Grand Isle Migratory Bird Celebration Travel Cost Method Analysis

<u>Variable</u>	Coefficient	Standard Error	<u>Z</u>	P > z	
Constant	0.499*	0.199	2.508	0.012	
Travel Cost	-0.000724	0.000546	-1.326	0.185	
High Income	0.338**	0.185	1.821	0.068	
Retired	0.362**	0.202	1.793	0.073	
Member	0.331*	0.168	1.974	0.048	
Identification	0.379**	0.201	1.885	0.059	
Skills					
* Significant at the $\alpha = 0.05$ significance level					
** Significant at the $\alpha = 0.10$ significance level					

The positive sign on the variable "high income" suggests that respondents with household incomes above \$60,000 are likely to attend the festival more frequently than those with lower household incomes. Retirees are more likely than non-retirees to pay more visits to the Grand Isle Migratory Bird Celebration.

Members of bird conservation organizations are more likely to make more trips than non-members. Birdwatchers who can identify more than 40 bird species are expected to attend the festival more often than birdwatchers who can identify a smaller number of birds.

The area under the estimated demand curve forms consumer surplus, the value above the respondents' collected expenditures on the Grand Isle Migratory Bird Celebration as a repeatable annual experience over the span of its existence. In count data models such as this Poisson model, the consumer surplus per respondent is calculated as:

Consumer Surplus per

Respondent =
$$\frac{-1}{\text{(Parameter Estimate for the "Travel Cost" Variable)}}$$

$$= \frac{-1}{(-0.000724)}$$

$$= \$1,381,22$$

Total consumer surplus to all respondents above their collected expenditures is \$157,459. Though this value does not enrich local businesses or fill the coffers of the town government, this estimate demonstrates that the people who attend the festival place a sizeable value on traveling to the event and recreating in Grand Isle.

Conclusion

The Grand Isle Migratory Bird Celebration attracted birdwatchers from across Louisiana and other states to view beautiful, wild birds in a pleasant coastal environment. The majority of survey respondents were very or extremely satisfied with the event and plan to return to Grand Isle to participate in birdwatching, fishing, or some other nature-based recreational activity.

The Grand Isle Migratory Bird Celebration may maintain some measure of value beyond the sums of money brought into the local economy. Two focus groups of birdwatchers and other bird conservationists believe that bird festivals raise the awareness of the condition and function of birds and their habitats. They are valuable as educational tools and as means to motivate local and state residents to protect their environmental assets. Though they have not been estimated by this report, they must be acknowledged as potential values held by the communities that host bird festivals and the people who attend them.

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Appendix.
Grand Isle Migratory Bird Celebration Festival
Birdwatchers Survey



Grand Isle Migratory Bird Celebration Festival

Birdwatchers Survey

Conducted by the Louisiana Department of Wildlife and Fisheries Socioeconomic Research and Development Section

Grand Isle Migratory Bird Celebration Festival Birdwatchers Survey

Section 1. Birdwatching Activities and Experience

In the following questions, please tell us about your general birding activities and experience. Please circle the appropriate answer.

1.	In the past 12 months - not including your trip to the Grand Isle Migratory Bir Celebration Festival - did you travel more than one mile away from your home for the primary purpose of observing, feeding, or photographing wild birds (birding).
	A YES B NO
	If "YES", how many trips away from home did you take for the express purpos of bird watching in the past 12 months, not including your trip to the Grand Isl Migratory Bird Celebration Festival?
	TRIPS
2.	How many years have you been bird watching?
	YEARS
3.	How would you rate yourself in terms of your ability to observe and identified birds? (Please circle only one)
	A Beginner B Intermedia te C Advanced D Expert
4.	Approximately how many different bird species can you identify by sight o sound without a guidebook? (Please circle only one)
	A 1-20 B 21-40 C 41-60 D 61 or more

Section 2. The Grand Isle Migratory Bird Celebration Festival

In the following section, you will be asked about your experience and expenditures during your recent trip to the Grand Isle Migratory Bird Celebration Festival.

5.	Celebration Festival?
	A YES B NO
	If "NO", how many times have you attended the Grand Isle Migratory Bird Celebration Festival before this year's festival?
	TIMES
6.	Which of the following statements best describes the reason for your trip to the Grand Isle Migratory Bird Celebration Festival? (Please circle only one)
	 A Primary – The main purpose of this trip was to participate in the festival B Joint – I was going to other places in addition to this festival C Incidental – Visiting this festival was not the main purpose of my trip D Vendor – I came to the festival to sell goods or crafts or to present an exhibit
7.	How many miles did you travel one-way to reach the Grand Isle area from your home?
	MILES
8.	About how many hours of travel time did it take you to reach the Grand Isle area from your home?
	HOURS
9.	How many total days and nights did you spend in the Grand Isle area?
	DAYS NIGHTS
10.	About how many hours did you spend bird watching in the Grand Isle area?
	HOURS

11.	How many people, including yourself, were in your travel party?			
	PEOPLE (including you	urself)		
12.	Within your travel party, how many people actually birded?			
	PEOPLE (including you	urself)		
13.	How did you hear about the Grand Isle Migratory Bird Celebration Festival? (Please circle all that apply)			
	A Newspaper B Magazine C Radio D Internet E Newsletter F Birding Club G Word of Mouth H Other (Please Specify:)		
14.	Which of the following events or activities did you participate in during your trip to the Grand Isle Migratory Bird Celebration Festival? (Please check all that you participated in)			
	Birdwatching Tours	Open House Events		
	Grand Isle Birding Trail Grand Isle State Park Best Birdwatching Spots Introduction to Shorebirds	Hospitality Landry House Hospitality Bradberry House Bobby Santini's Yard Grand Isle Butterfly Dome		
	Presentations	Other Tours		
	Sanctuary Update Birds of Prey Binocular/Spotting Scopes	Island History Walking Tour Queen Bess Island Boat Tour Backyard Birdwatching		
15.	Please list the three birds that you were most interested in seeing in the Grand Isle area on your recent trip to the Grand Isle Migratory Bird Celebration Festival.			
	Secon	Choice d Choice Choice		

16.	Please list the three bird sites that you were most interested in viewing birds in the Grand Isle area on your recent trip to the Grand Isle Migratory Bird Celebration				
	Festival. (For example: Grand kle Sta Lafitte Boardwalk, Govan Tract, Surewa				
	First Cl	hoice I Choice			
	Third C	Choice			
17.	On your recent trip to the Grand Isle Much did you spend personally on each area and outside of the Grand Isle area the appropriate blank)	of the following items	s in the Grand Isle		
	(By personal spending, we mean your were in a group of three people and you your personal spending for gas would be for meals, but you personally paid for would be \$0.)	spent \$30 in gas trave \$30. If someone in yo none, your personal s	eling to the festival, our group spent \$30 spending for meals		
		(<u>In Grand Isle</u>)	(Other Parts of Louisiana)		
Trans	sportation		<u> </u>		
	Bus, Air, or Other Fares	\$	\$		
	Rental Vehicle - Fuel	\$	\$		
	Personal Vehicle - Fuel	\$	\$		
Lodgi	ing				
	Hotel/Motel	\$	\$		
	Camp Rental	\$	\$		
	Trailer Home/RV	\$	\$		
	Camping	\$	\$		
Food					
	Restaurants	\$	\$		
	Groceries (Snacks, Drinks, and Ice)	\$	\$		
	Festival Concessions	\$	\$		
Misce	llaneous				
	Registration/Tour Fees	\$	\$		
	Gifts and Souvenirs	\$	\$		
	Equipment	\$	\$		
Other	rtrip expenditures not specified above (Please specify below)			
		\$	\$		
		\$	\$		
		\$	S		

18.	In addition to the Louisiana expenditures reported in the previous question, much did you spend <u>outside</u> of Louisiana to make your recent trip to Grand (If you did not spend any money outside Louisiana, please enter "0")		
		\$	
19.		II, how satisfied were you with the Grand Is al in Grand Isle? (Please circle only one)	sle Migratory Bird Celebration
	A B C E F	Not at all Satisfied Moderately Satisfied Satisfied Very Satisfied Extremely Satisfied	
20.	What is your most preferred activity for natural resource enjoyment within the Grand Isle area? (Please circle all that apply)		
		Activity	
	A B C D E F	Bird Watching Sight-seeing Fishing Camping Photography Other (Please Specify:)	
21.		past 12 months, how often did you travel to epate in these activities? (Please indicate the	
		Activity	Number of Trips
	A B C D E F	Bird Watching Sight-seeing Fishing Camping Photography Other (Please Specify:)	
22.		u plan to come back for natural resource-bas Isle area in the upcoming year?	ed recreational activities in the
	A B C	YES NO NOT SURE	

Section 3. Personal Characteristics

The following questions will help us in learning more about our respondents. The information you provide will remain *strictly confidential* and you will not be identified with your answers.

23.	What	is your home Zip Code?	
24.	Do you own a camp or home on Grand Isle?		
	A B	YES NO	
25.	What is your age?		
		YEARS	
26.	What is your gender?		
	A B	MALE FEMALE	
27.	How many people live in your household, including yourself?		
		PEOPLE (Including yourself)	
28.	What is your employment status? (Please circle all that apply)		
	A B C D E F	FULL-TIME PART-TIME RETIRED STUDENT HOMEMAKER UNEMPLOYED	
29.	How many hours do you work at your job per week?		
		HOURS PER WEEK	
30.	Are you a member of any birding or bird conservation organizations?		
	A B	YES NO	

- 31. What is the highest level of education you have completed? (Please circle only one)
 - A Some Grade School
 - B Some High School
 - C Completed High School
 - D Some College / Community College
 - E Bachelor's Degree (College Graduate)
 - F Advanced Degree
- 32. What is your approximate <u>annual individual income</u>, from all sources, before taxes? (Please circle only one)
 - A UNDER \$20,000
 - B \$20,000 to \$39,999
 - C \$40,000 to \$59,999
 - D \$60,000 to \$69,999
 - E \$70,000 to \$79,999
 - F \$80,000 or Above

Section 4. Comments and Suggestions

If you have any comments about the Grand Isle Migratory Bird Celebration Festival, bird watching in general, or this survey, please write them below.

Thank you for taking the time to answer these questions.

Louisiana Department of Wildlife and Fisheries Socioeconomic Research and Development Section