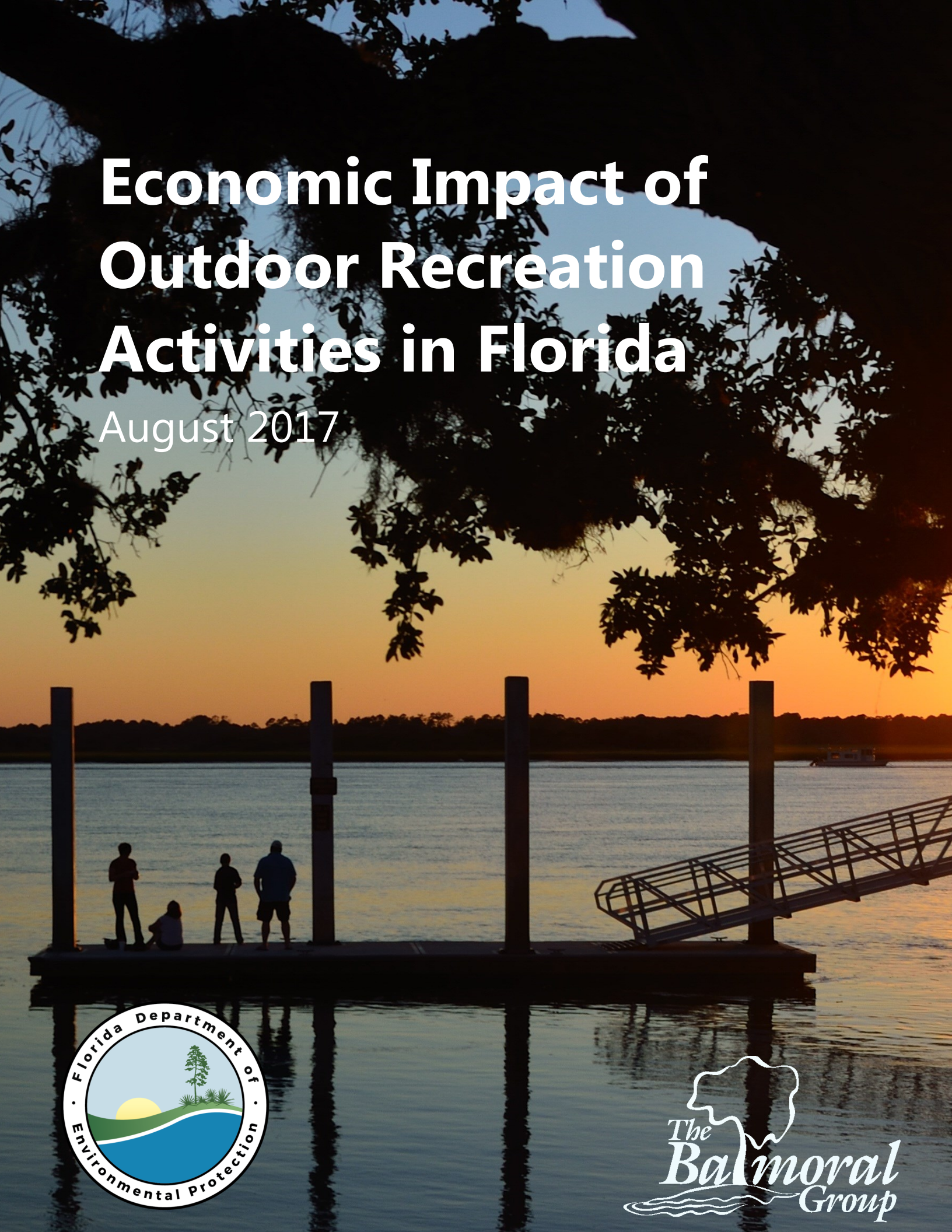

Economic Impact of Outdoor Recreation Activities in Florida

August 2017

Florida Department of Environmental Protection

The Balmoral Group

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For their invaluable suggestions and assistance.

Executive Summary

The Florida Department of Environmental Protection (DEP) Division of Recreation and Parks (DRP) operates one of the largest state park systems in the country, and has been recognized nationally for the quality of its parks. With 175 state parks and trails, and 100 miles of sandy white beaches, the park system is a significant contributor to Florida's economy and part of the broader recreation appeal and opportunities. As the Department updates its Statewide Comprehensive Outdoor Recreation Plan (SCORP), DRP desired an assessment of the economic impact that 35 outdoor recreation activities on public and private lands and waters provide to the state of Florida. Both residents and tourists take advantage of Florida's abundant local, state, federal and private parks, trails and beaches, and in doing so, generate economic effects. The direct spending of locals and visitors creates indirect and induced economic values and employment.

Highlights:

- 7,000 + surveys conducted
- $145 billion in total economic output produced by outdoor recreation in Florida during the last 12 months
- Generated by $70 billion in visitor spending
- $20 billion in output was generated by resident spending
- Supporting 1.2 million jobs
- Roughly $60 billion of the spending occurred in parks and on other public lands
- Generated tax revenue impacts of nearly $10 billion

Data were collected through surveys administered to more than 7,000 individuals across Florida and the U.S., with 45 states represented. Spending was totalled by county and activity and then disaggregated by component, such as travel-related costs, equipment/gear-related expenses and recurring fees or expenses like fishing bait. Socioeconomic statistics were also compiled and compared against other recent sources for validation.

About 15 million Floridians participated in outdoor recreation activities in 2016, or 75% of Florida's population, joined by an estimated 102 million out-of-state visitors. Given Florida's reputation for beaches and opportunities for year-round outdoor activity, 91.8% of visitors to Florida last year reported participating in outdoor recreation at some point during their visit. Visitors report spending an average of $683 individually on outdoor recreation over the course of the last 12 months, and participated in outdoor recreation an average 6 days during their Florida visits.

Residents report spending $1,351 each on outdoor recreation in the last year, and an average of 86 days engaging in the outdoor recreation activities of their choice. The two groups generated about $70 billion in direct spending. For context, Visit Florida, the State's main tourism body, reports that 112 million tourists from out-of-state visited Florida last year, generating $115 billion in direct spending (excluding spending by Floridians).

The most common outdoor activity for both visitors and residents was saltwater beach activity, followed by walking/running, picnicking and hiking, with the order slightly different for residents compared to visitors. **Tables 1** & **2** provide a summary of top activities reported by visitors and residents. Residents report that 76% of their outdoor recreation activities occurred in parks and on other public lands, while visitors reported that 66% of their outdoor recreation activities occurred in parks and on other public lands.

The survey results found that visitors heavily favor the major metropolitan areas, with Miami-Dade, Broward and Orange Counties, the Tampa Bay area, and the Pensacola area dominating recreation destinations. Some interior counties had no reported visits.

Table 1. Top 5 Visitor activities, by spending last 12 months

Visitor Statewide	($ millions)
Saltwater Beach Activities (not including fishing)	$7,912
Outdoor Fitness Walking/Jogging	$6,029
Picnicking	$5,974
Hiking	$5,460
Golfing	$4,666

Table 2. Top 5 Resident activities, by spending last 12 months

Resident Statewide	($ millions)
Outdoor Fitness Walking/Jogging	$7,188
Saltwater Beach Activities (not including fishing)	$2,990
Bicycle Riding on Paved Roads/Trails	$2,361
Hiking	$1,185
Golfing	$1,079

The total economic impacts of 35 outdoor recreation activities in Florida during 2016 are estimated at $37 billion for residents, and $126 billion for out-of-state visitors, approaching 15% of statewide economic output. The breakdown of direct spending, indirect and induced effects is shown in **Table 3** for Visitors and **Table 4** for Residents.

Table 3. Statewide Visitor Spending Effects, Outdoor Recreation

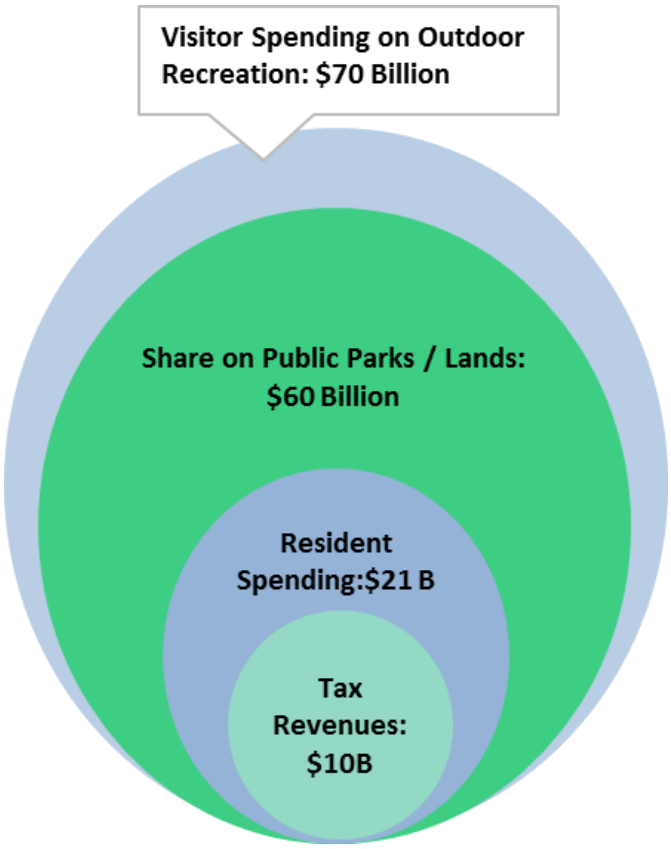
Impact Type	Employment	Labor Income ($mil.)	Value Added ($mil.)	Output ($mil.)
Direct Effect	794,279	$23,047	$43,986	$66,584
Indirect Effect	195,003	$8,520	$14,990	$26,845
Induced Effect	235,129	$10,291	$18,366	$32,518
Total Effect	**1,224,411**	**$41,858**	**$77,342**	**$125,947**

Table 4. Statewide Resident Spending Effects, Outdoor Recreation

Impact Type	Employment	Labor Income ($mil.)	Value Added ($mil.)	Output ($mil.)
Direct Effect	237,191	$6,940	$13,108	$19,802
Indirect Effect	57,716	$2,525	$4,443	$7,956
Induced Effect	70,495	$3,086	$5,506	$9,749
Total Effect	**365,402**	**$12,550**	**$23,058**	**$37,507**

Figure 1 describes the spending and tax revenues generated by outdoor recreation in Florida.

Figure 1. Spending and Tax Revenues Generated by Florida Outdoor Recreation



While spending is separate and distinct, there is likely overlap between employment effects and indirect spending between tourist and resident spending. A conservative approach, considering only direct effects from residents, results in a total impact of about $145 billion and roughly 1.2 million employees.[1] With Florida's reputation as an outdoor recreation destination, more than 100 million visitors a year, and with total Gross State Product approaching $1 trillion, 15% of total economic output appears a reasonable share for outdoor recreation spending impacts in Florida. Current Bureau of Labor Statistics data cites approximately 1.2 million jobs in Leisure & Hospitality in Florida, supporting this estimate.[2]

Concurrent with the delivery of this report, an online interface was provided to DEP. The online interface provides the relevant statistics generated from the survey, including activity by county compared to statewide averages, average recreation days by activity and county for visitors and residents, spending by activity and county, and similar breakdowns by SCORP planning region (for a map of the planning regions, see page 20).

The DRP and others may use the information gathered through the proposed study to inform its understanding of statewide and SCORP regional economic impacts, and how this may impact resource allocation and management decisions.

[1] Including $125 billion in total impacts from visitors and $20 billion ($19.802 as shown in Table 1) in direct effects output from residents.
[2] U.S. Bureau of Labor Statistics, Current Employment Statistics, June 2017.

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List of Acronyms

DEP - Florida Department of Environmental Protection
DRP - Division of Recreation and Parks
DOR – Florida Department of Revenue
SCORP - Statewide Comprehensive Outdoor Recreation Plan

Overview

The Florida Department of Environmental Protection Division of Recreation and Parks operates one of the largest state park systems in the country, and has been recognized nationally for the quality of its parks. The Department retained The Balmoral Group to undertake an assessment of the economic impact that 35 outdoor recreation activities on public and private lands and waters provide to the state of Florida. Both residents and tourists take advantage of Florida's abundant local, state, federal and private parks, trails and beaches, and in doing so, generate economic effects.

Economic impacts for purposes of this assessment were measured using input-output modeling. This approach identifies spending on an activity, say saltwater boating, and the share of the expense that generates local economic impact. The purchase of a new boat in Hillsborough County, for example, results in most of the purchase price leaving the county due to the manufacture and wholesaling of the boat occurring prior to its arrival in the county. However, the local boat dealer purchases items from other businesses who in turn make purchases, generating economic impacts. The local boat dealer also employs staff who spend their payroll locally, which in turn has economic effects. If enough additional spending is created, new jobs are created to service the added activity.

The direct spending of locals and visitors participating in outdoor recreation in Florida creates indirect and induced economic values and employment. This study estimates the economic effects generated through spending. The assessment was carried out using more than 6,000 surveys of Florida residents and out-of-state visitors. Surveys collected data regarding spending on outdoor recreational activity, including the top 5 outdoor recreational activities the respondent participated in during the last 12 months, location of the activities, the demographics and socioeconomic details of the respondents, and their location of residence.

The assessment is based on 35 outdoor recreation activities in Florida. The list of activities was provided by DEP, and is shown in **Table 5**.

Table 5. List of 35 SCORP Recreation Activities

Saltwater Beach Activities	Freshwater Beach Activities	Saltwater Boat Fishing
Saltwater Non-Boat Fishing - Pier, Jetty or Catwalk	Saltwater Shoreline Fishing	Freshwater Boat Fishing
Freshwater Non-Boat Fishing - Pier, Jetty or Catwalk	Freshwater Shoreline/Bank Fishing	Saltwater Boat Ramp Use
Freshwater Boat Ramp Use	RV/Trailer Camping	Tent Camping
Picnicking	Horseback Riding	Horseback Camping
Nature Study	Hiking	Bicycle Riding on Paved Roads/Trails
Bicycle Riding on Un-Paved Roads/Trails	Paddling Activities (Canoe, Kayak, Paddleboard)	Visiting Historical or Archeological Sites
Hunting	Sport Shooting	Wildlife Viewing
Outdoor Walking/Jogging	Geocaching/Geo-seeking	Off Highway Vehicle Use
Golfing	Outdoor Swimming Pool Use	Outdoor Playground Use
Outdoor Tennis	Outdoor Basketball	Outdoor Baseball or Softball
Outdoor Football	Outdoor Soccer	

The list is extensive and in some cases categories could overlap. It is likely, for example that individuals would participate in the use of saltwater boat ramps and saltwater boat fishing, or that saltwater boating

occurs without fishing. Individuals could choose as many activities as they participated in, but were asked to identify their top 3 in terms of frequency.

Detailed analysis of the survey results was used to generate direct spending estimates by county and by activity. Direct spending estimates were modeled using IMPLAN input-output software to generate indirect and induced impacts by county.

The report is organized as follows:

I. Overview of Technical Approach
II. Summary of Spending by Activity
III. Summary of Spending by County
IV. Summary of Survey Results
V. Findings of Input-Output Modeling

Overview of Technical Approach

The Economic Impact Assessment was approached as a four step process:

I. Survey Methodology
II. Survey Analysis
III. Input-Output Modeling
IV. Calibration

The State of Florida is a primary destination for both tourists and in-migration largely due to its year-round recreation climate. As such, the state hosts an extraordinary number of visitors – more than 100 million a year every year – and boasts a high rate of participation in regular outdoor recreation among residents. Surveys were conducted to gather specific information that would be needed to assess economic impacts from spending on outdoor recreation.

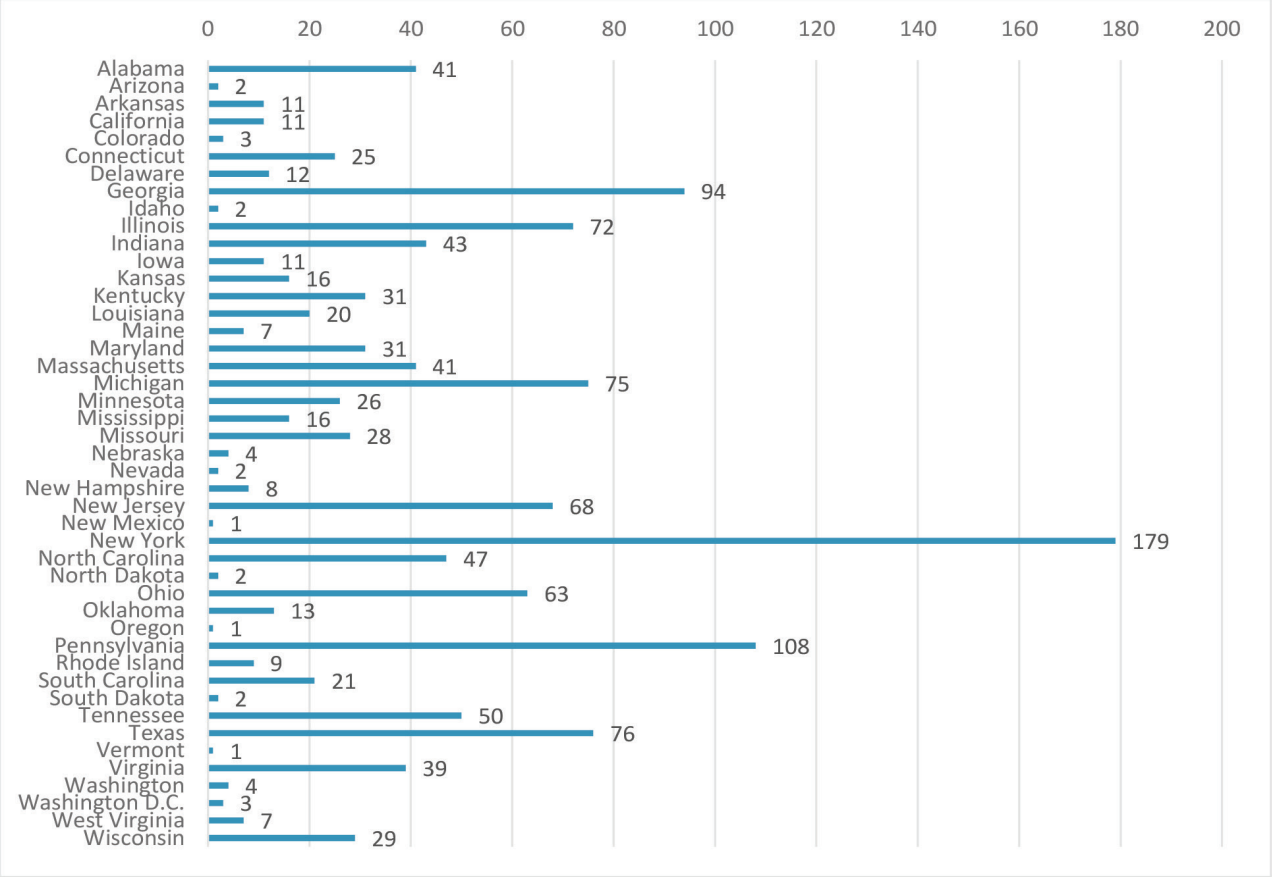
I. Survey Methodology

Survey questionnaires were prepared for out-of-state visitors and for residents. Questions were prepared using previous SCORP and national outdoor recreation spending surveys as a guide. Survey instruments were prepared in both English and Spanish, using a Puerto Rican dialect given the predominant use of this dialect in Florida. A Puerto Rican native confirmed all translations. The instruments were provided to DEP for approval prior to launching the surveys, and surveys were field tested by individuals unaware of the subject for timing and context of terms. Some minor edits were performed based on the field-testing to improve clarity and time to complete the survey.

Surveys for residents were conducted using electronic panels in February, 2017. Surveys for visitors were conducted using electronic panels in two waves: one in March, 2017 and one in May, 2017. For residents, 5,013 responses were completed, representing all 67 counties. Some outliers were rejected reducing the total dataset to 4,743. For out-of-state visitors, 1,432 usable responses were completed and found to be usable. Some outliers were rejected reducing the total usable dataset to 1,355 responses.

Visitor survey responses were received from 64 of 67 counties. Tourist survey responses were received from 43 states. The largest numbers of returns were obtained from New York, Pennsylvania, Michigan, Illinois and Georgia. **Figure 2** shows a breakdown by State of responses.

Figure 2. Visitor Respondents by State



II. Survey Analysis

Survey responses were collated and analysed for statistical modelling. Survey results were analysed for demographics, spending patterns, and activities. This section provides summary data; detailed tables are provided in **Appendix C** breaking out the data across all 35 activities and 67 counties.

Demographics

Overall, 65.3% of resident respondents were female and 34.2% male, and 0.5% selected an alternative category. The average age was 48 years. Educational attainment was broadly represented across the survey. 14% concluded high school, 35% concluded college, and 14% obtained advanced degrees, representing a more educated population than Florida as a whole. According to U.S. Census data for 2016, 29% concluded high school, 18% completed college, and 10% earned an advanced degree.

For visitor respondents, 54.2% were male, 45.6% were female, and 0.2% chose an alternative category or did not respond. The average age was 49. Educational attainment tops national averages, with 13% completing high school, 41% completing a four-year college degree, and 17% achieving an advanced degree. According to U.S. Census data for 2016, 27% of Americans completed high school or an equivalent, 18% completed a bachelor's degree, and 11% obtained advanced degrees.

Activities

All 35 SCORP activities were included in the survey, and all received varying responses. The most frequent activity was saltwater beach activities, not including fishing. This is consistent with the respondents' selection of most frequently visited counties which in order were Broward, Brevard, Miami-Dade, Palm Beach and Pinellas. **Figures 3 and 4** show the distribution of activities selected by resident and visitor survey respondents, respectively.

Figure 3. Primary Outdoor Recreational Activities cited by Resident Respondents

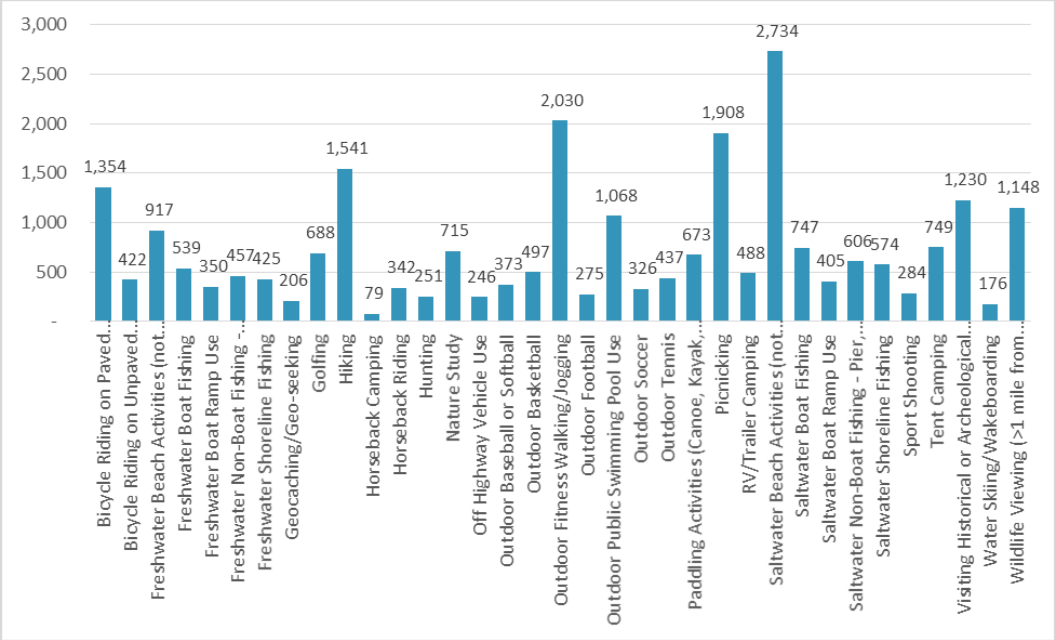
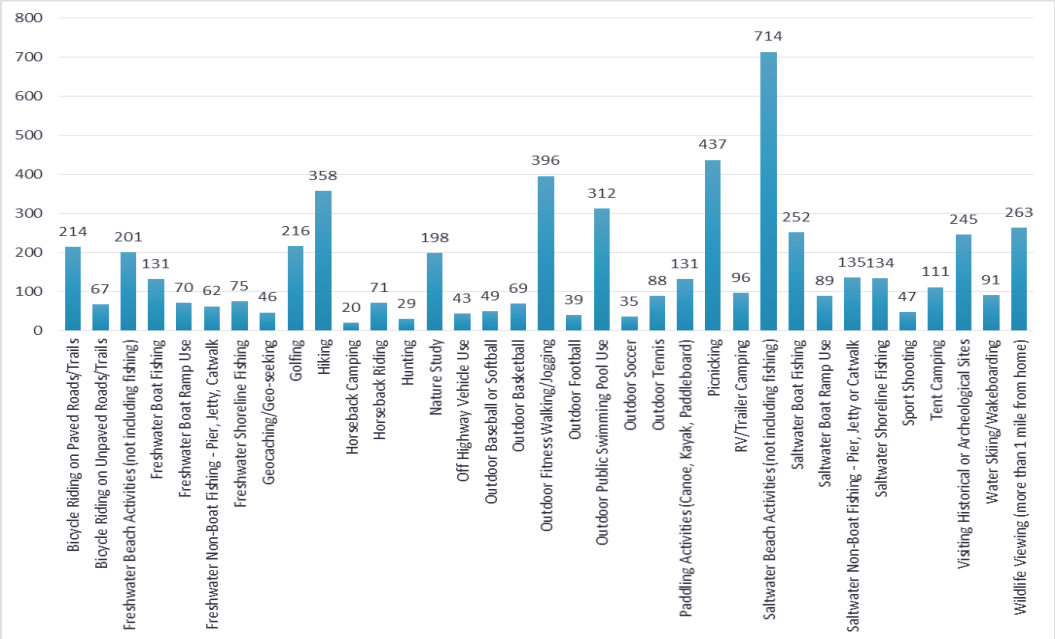


Figure 4. Primary Outdoor Recreational Activities cited by Visitor Respondents



The frequency of outdoor recreation participation was collected, and on average, visitors report spending 6 days on outdoor recreation in Florida over the prior 12 month period, with recreation days ranging from 1 to 14. A partial day counted as a whole. Residents reported 86 days on average engaging in outdoor recreation, or about 1.6 days per week, with responses ranging from 1 to 365. Residents reported that 33 recreation days included an overnight stay, on average, during the past 12 months, with responses ranging from 0 to 100. Because the list of outdoor recreation activities includes routine activities such as walking for exercise or jogging on paved or unpaved trails, which some residents undertake daily, the results appear reasonable.

Spending

County spending patterns were tested for difference in means. Based on the analysis, means were generated across spending categories for each county and activity: Coastal, non-coastal, and high-tourist counties. High-tourist counties included: Broward, Miami-Dade, Monroe, Orange, Osceola, Palm Beach, and Pinellas. Average spending was imputed for counties lacking statistically valid samples.

Regression modelling was performed on both datasets to identify coefficients across activities. Dummy variables were used to generate average spending by activity for counties with insufficient responses for that activity. Interesting results included a negative relationship between income and spending for residents; this is consistent with literature showing that higher income and more educated individuals tend to locate themselves closer to their preferred recreational activities. As a result, they may walk out their door each evening, for example to walk the beach, at no additional cost. A lower income individual is likely to have to drive to a similar activity. Regression output is included in the **Appendix**.

Overall spending by Florida residents for outdoor recreation in the last 12 months totalled $1,300 per household, ranging from $100 to more than $10,000.[3] On average, residents spent 36% on food, 36% on transportation and accommodation, 16% on recurring costs such as park entrance fees, bait, air fills, etc., and 12% on specialized or durable gear, such as dive gear, camping gear, etc.

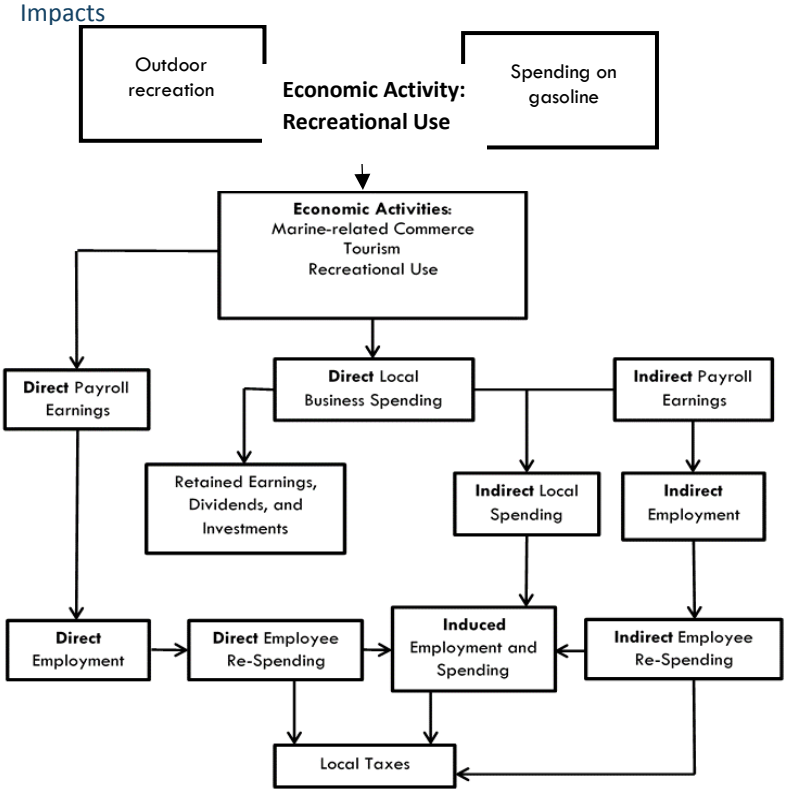
Spending varied by activity and location. Detailed tables in **Appendix B** show the variation by county on an individual basis. For counties with very few respondents, an average was calculated based on SCORP Region or statewide responses.

[3] The survey instrument allowed for selecting any value between 0 and "$10,000+", based on the majority of published studies which find the average Florida vacation at the low end of spending scales. Eight respondents selected $10,000+.

III. Input-Output Modeling

Spending data from survey results was used to estimate economic impacts from outdoor recreation. Economic impacts can be assessed in a number of ways; in the study, input-output modeling was performed using IMPLAN software (**Figure 5**).

Figure 5. Input-Output Model for Outdoor Recreation Economic Impacts



Input-output modeling calculates multipliers to estimate the "ripple effects" of spending. For example, the purchase of a new boat in Hillsborough County results in most of the purchase price leaving the county due to the manufacture and wholesaling of the boat occurring prior to its arrival in the county. However, the local boat dealer purchases items from other businesses who in turn make purchases, generating economic impacts. The local boat dealer also employs staff who spend their payroll locally, which in turn has economic effects. If enough additional spending is created, new jobs are created to service the added activity. IMPLAN software calculates the amount of money that leaves the local economy through "leakage", such as the manufacture of the boat in our example, and how much the wages and profits are subsequently spent in the local economy.

Because outdoor recreation requires in-person presence, the share of local production is high compared to other industries such as manufacturing or automobile sales. The local share varies widely by county. **Table 6** provides IMPLAN-generated local purchase percentages by county for outdoor recreation spending, for select counties and the statewide share. A detailed table including all 67 counties is provided in **Appendix B-47**.

Table 6. Local Purchase Percentage for Select Counties

County	IMPLAN Local Purchase Percentage			
	Food	Transportation/ Lodging	Fees	Gear
Okaloosa	93.75	98.89	88.32	99.99
Okeechobee	98.65	96.28	58.47	95.90
Orange	99.89	80.95	62.59	99.98
Osceola	99.17	95.28	14.11	72.52
Palm Beach	99.46	87.65	73.43	93.89
Pasco	92.74	54.18	27.46	99.37
Pinellas	99.93	89.37	85.39	97.70
Putnam	92.28	99.08	38.27	96.14
Statewide	**99.98**	**92.95**	**86.54**	**99.55**

The calculations result in multipliers or coefficients that are based on trade flows into and out of the area of interest, local production capacity, and consumer spending patterns. Visitors generate a large share of spending by importing spending into the local economy. As Floridians also participate in outdoor recreation at a high rate, their contribution is also important.

The average spending by residents and visitors was attributed to the county they identified as their primary destination for outdoor recreation in the last 12 months. Spending was further broken down into four categories for purposes of IMPLAN modeling. Input values derived from survey results for overall statewide averages are shown in **Table 7**. Note, for counties with very small sample sizes, average number of recreation days was substituted. Statistical testing found that averages fell into three groups: coastal, high-visitor counties (Broward, Orange, Osceola, Miami-Dade, Monroe, Pinellas and Palm Beach), and all others.

Table 7. Average Statewide Expenditure per Person

Spending Categories	Residents	Visitors
Total Food Expenditures	$483	$245
Total Transportation and Accommodation Expenditures	$486	$253
Total Fees and Costs Expenditures	$220	$113
Total Gear and Equipment Expenditures	$162	$72
Total Expenditures	**$1,351**	**$683**

Figure 6 shows a breakdown by county of average spending over the past 12 months by county for residents and visitors. It is notable that Sumter County shows a high average expenditure, reflecting The Villages, a senior citizen development that is home to more than 50,000 active retirees. Some rural counties have unique offerings; for example, Suwannee County has a large folk festival that draws thousands each year. In several rural counties, longer average stays drive higher total spending. Most urban counties reflected a standard one week visit.

Figure 6. Average Expenditure per Person by County

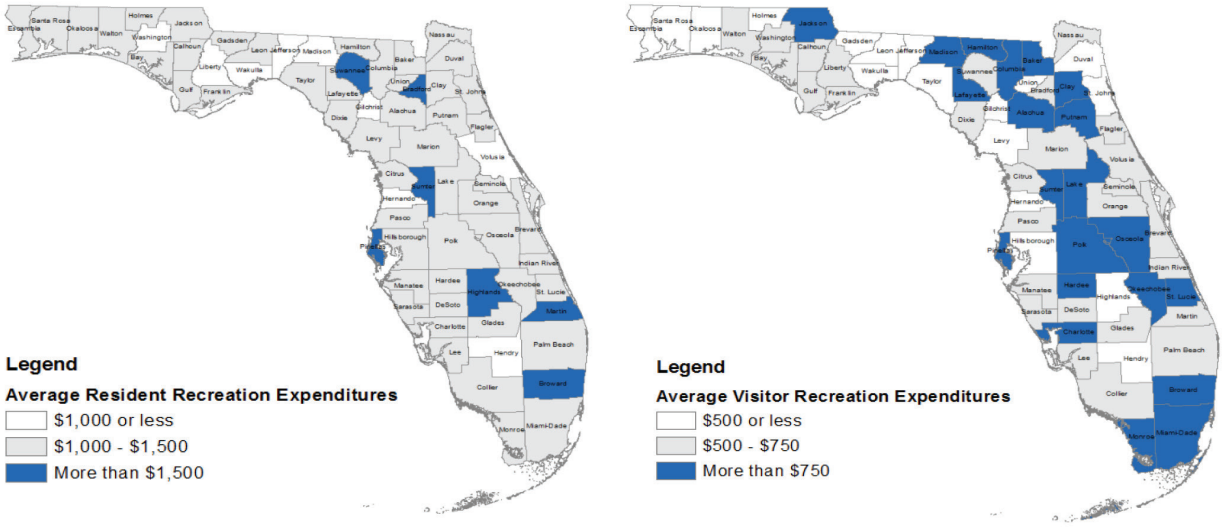
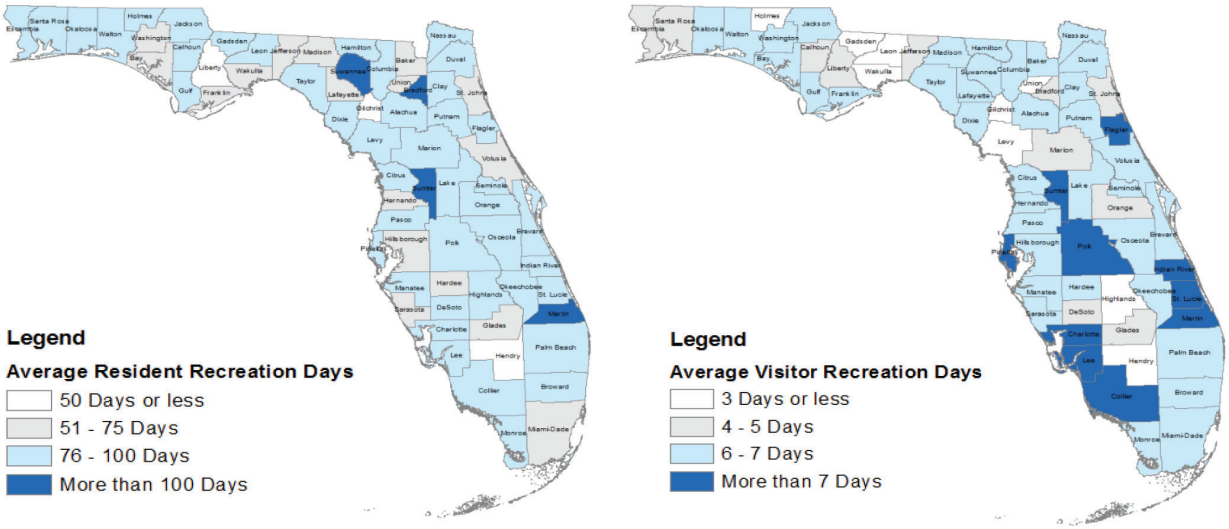


Figure 7 shows the variation in average recreation days by county, for residents and visitors. Spending per recreation day was generated for each county and the average spending was applied to generate county-specific estimates for the past 12 months for each county.[4]

Figure 7. Average Recreation Days by County



[4] In counties with insufficient survey samples, averages were used as further described in the survey section.

IV. Calibration

Once average spending per recreation day and average recreation days were calculated for each county and activity, calibration with other data sources was performed to ensure total spending was not double-counted. Multiple data sources were researched to validate assumptions for both visitors and residents.

Visitor Estimates of Participation

To estimate the total number of visitors, data from Visit Florida were obtained. The most recent data available reports that 112.4 million out-of-state residents visited Florida in 2016.[5] Based on the survey results, 91.8% reported that they participated in outdoor recreation during their visit. Using this share, about 102 million tourists participated in outdoor recreation during the last 12 months.

Total spending by this group on outdoor recreation aggregates to nearly $70 billion. For context, Visit Florida estimates total spending by tourists at roughly $115 billion.

Resident Estimates

Survey results indicate that about 75% of Floridians participated in at least one of the 35 outdoor recreational activities identified in the SCORP list during the last 12 months. Based on the most recent data available from U.S. Census, this generates an estimate of about 15 million participants. Total spending by this group on outdoor recreation in Florida is estimated at about $20 billion. For context, yacht repair sales in the South Florida area alone (Broward, Miami-Dade and Palm Beach counties) totaled nearly $4 billion last year, based on sales tax revenue data from the Florida Department of Revenue (FDOR); the numbers add up quickly.

County Estimates

Survey results were used in conjunction with FDOR revenue to apportion visitor counts to specific counties.[6] The share of tourist tax revenue generated within each county was used as a proxy for the share of total tourists attributed to a county for purposes of assigning spending dollars. The same approach was used with residents. The resulting total expenditures were used as IMPLAN inputs to generate county-level impacts.

Other data sources were tested as a check of reasonableness. Literature sources including a study of outdoor recreation across the U.S. indicate that 50% of Americans report exercising outdoors during the prior year. Of this 50%, and applying the 75% share in the survey that said they participated in the activities in the SCORP list, an estimated 37.5% of the population participated in SCORP activities. A 2008 USDA study found increasing outdoor recreation participation and days. Citing data from the National Survey on Recreation and the Environment, the study reports that between 2000 and 2007 the number of people who participated in outdoor activities (defined differently than the SCORP list) grew from an estimated 208 million to 217 million, while the number of days spent participating in outdoor activities grew at an even faster rate. Of specific relevance for Florida is the number of days spent visiting beaches, which grew by 14% over the period of study.[7]

[5] Visit Florida 2016. https://www.visitflorida.org/resources/research/
[6] A tourism industry standard, lacking total visitor counts, relies on tourist tax allocations. Given that the survey results found that only 5% of respondents reported Business as their primary trip reason, and Visit Florida finds 10-11%, it is possible that business travelers are underestimated in the sample. Per oral discussion with Dr. Lori Pennington-Gray.
[7] Cordell (2008).

Using Alachua county as an example, the population/literature approach would yield an estimate of 50% of population (259,964 * 0.5 = 129,982) and an estimate of SCORP activity participants of 97,486 (129,982 * 0.75). Using the DOR revenue approach, the share of tourist tax revenue generated in Alachua County represents about 0.52% of the State's total. For Alachua County this translates to 107,180 visitors. Assigning 75% of visitors as specifically SCORP outdoor recreation users, results in a total of 80,064. The variation is about 17%. As a second example, Brevard County would generate 223,000 visitors under the population/literature approach and 198,000 under the DOR approach. The variation is about 11%. In both cases, the DOR approach provides slightly more conservative estimates but relies on Florida-specific data and criteria and is considered the best available data.

The average county total economic impact by residents participating in outdoor recreation is about $416 million, and by visitors about $1.426 billion, with significant variation between coastal, noncoastal and high tourist counties as shown in **Table 8** for Visitors and **Table 9** for Residents.

Table 8. Average Visitor Contributions of Total Expenditures by County Type

Output Category	Average Economic Contribution per County ($mil.)			
	Average Coastal County	Average Non-Coastal	Average High Visitor County	Average County Overall
Direct Economic Contribution	$527	$93	$5,966	$901
Indirect Economic Contribution	$145	$24	$1,752	$259
Induced Economic Contribution	$136	$24	$1,869	$267
Total Economic Contribution	**$808**	**$141**	**$9,586**	**$1,426**

Table 9. Average Resident Contributions of Total Expenditures by County Type

Output Category	Average Economic Contribution per County ($mil.)			
	Average Coastal County	Average Non-Coastal	Average High Visitor County	Average County Overall
Direct Economic Contribution	$149	$22	$1,767	$261
Indirect Economic Contribution	$41	$6	$521	$76
Induced Economic Contribution	$40	$6	$556	$79
Total Economic Contribution	**$231**	**$34**	**$2,844**	**$416**

Detailed tables are provided in **Appendices B, D and E** which include:

- total impacts for each county
- breakout of total spending for each county
- top ten industries with economic impacts for each county

Estimates by Activity

Survey results were used to generate the share of spending activity in each county that was generated by each activity. Some adjustments were made; for example, visitors who identified an inland county as their

primary destination but saltwater beach activity as their primary outdoor activity had their spending for that activity shifted to coastal counties, using existing coastal county proportions of total spending.

Spending for each activity was used to generate impacts statewide and at the county level. Further adjustments were made to the IMPLAN model. Because most Port activity in heavy cargo would not be expected to be influenced by outdoor recreation, counties with major Ports were adjusted. Reductions of employment were made in the transportation sector by the number of employees at the major Ports; this resulted in a drop of employees from 67,000 to 16,000 in this sector, statewide.

Detailed data regarding individual activities and their associated spending is available on the web interface provided with this report.[8] Impacts by county are provided in the aggregate; impacts by activity cannot be added for a county without potential double-counting, however spending by activity is distinct and non-duplicative for each county.

At the State level, inter-county impacts offset, such that the impacts of every county cannot be added to generate a statewide impact. Rather, a statewide model was prepared. At the State level, spending by activity ranges from $268 million for Horseback Camping to $7.2 billion for Visitor Saltwater Beach Activity, and $7.6 million for Off Highway Vehicle Use to $7.2 billion for Resident Fitness Walking/Running.

Detailed tables are provided in **Appendices B, D and E** which include:

- total impacts for each county and statewide
- breakout of total spending for each county
- top ten industries with economic impacts for each county

Estimates of Tax Revenues

Based on the economic effects identified by IMPLAN, local and state tax revenues can also be estimated. At the State level, an estimated $10.5 billion in tax revenues was generated by outdoor recreation spending in Florida last year (**Table 10**). It's important to note that while public lands do not pay taxes, residents report that 76% of their outdoor recreation activities occurred in parks and on other public lands, while visitors reported that 66% of their outdoor recreation activities occurred in parks and on other public lands. A detailed table is provided in **Appendix C**.

Table 10. Estimated Tax Revenues from Outdoor Recreation

Tax Category	Resident	Visitor
Employee Compensation	$13,751,254	$45,881,426
Tax on Production and Imports	$2,249,351,864	$7,492,203,139
Households	$96,521,889	$321,926,019
Corporations	$66,810,021	$226,579,764
Total State and Local Tax	**$2,426,435,028**	**$8,086,590,348**

[8] A Qlik interface, "Economic Impact of Outdoor Recreation Activities in Florida" was developed to provide the DEP the capability to view and export all visitor and resident survey expenditure and activity data, at the county and SCORP regional levels.

Total Economic Impacts

Not surprisingly, given the enormous numbers of visitors and residents reporting participation and spending on the SCORP activities (nearly 120 million when combined), the total economic impacts generated by direct spending on outdoor recreation in Florida are large. Total economic impacts at the state level equate to nearly 15% of total gross state product in Florida and nearly 1.2 million jobs supported. As a point of comparison, the most recent annual update of Gross State Product data by UCF's Institute for Economic Competitiveness shows that about 1 in 7 nonfarm jobs in Florida are in the Leisure and Hospitality sector.

Highlights:

- 7,000 + surveys conducted
- $145 billion in total economic output produced by outdoor recreation in Florida during the last 12 months
- Generated by $70 billion in visitor spending
- $20 billion in output was generated by resident spending
- Supporting 1.2 million jobs
- Roughly $60 billion of the spending occurred in parks and on other public lands
- Generated tax revenue impacts of nearly $10 billion

Using IMPLAN modeling, the $70 billion in direct spending by out-of-state tourists on the 35 outdoor recreation activities in Florida generates about $27 billion in indirect effects, $32 billion in induced effects, and $125 billion in total economic impact. The $20 billion in direct spending by Florida residents on outdoor recreation in Florida generates about $8 billion in indirect effects, $10 billion in induced effects, and $37 billion in total economic impact. **Tables 11** and **Table 12** provide detailed breakdowns for Residents and Visitors, respectively.

Table 11. Statewide Resident Spending Effects, Outdoor Recreation

Impact Type	Employment	Labor Income ($mil.)	Value Added ($mil.)	Output ($mil.)
Direct Effect	237,191	$6,940	$13,108	$19,802
Indirect Effect	57,716	$2,525	$4,443	$7,956
Induced Effect	70,495	$3,086	$5,506	$9,749
Total Effect	**365,402**	**$12,550**	**$23,058**	**$37,507**

Table 12. Statewide Visitor Spending Effects, Outdoor Recreation

Impact Type	Employment	Labor Income ($mil.)	Value Added ($mil.)	Output ($mil.)
Direct Effect	794,279	$23,047	$43,986	$66,584
Indirect Effect	195,003	$8,520	$14,990	$26,845
Induced Effect	235,129	$10,291	$18,366	$32,518
Total Effect	**1,224,411**	**$41,858**	**$77,342**	**$125,947**

It should be noted that while spending is separate, some of the impacts may be redundant. For example, if a Florida resident rents a surfboard at Ron Jon's, the staff who serves her also serves the tourist next in line. If 100% of leisure staff followed this pattern, the indirect and induced effects from residents would already be included in the tourist impacts. It is likely that during peak tourist season, staff are added and additional impacts are generated, but a clear line between the tourist/resident impacts is not readily evident. Modeling estimates the total employment effects at 1.5 million. Excluding employment effects from resident spending reduces the

IMPLAN results to 1.2 million jobs supported (which is almost exactly the number reported by Bureau of Labor Statistics for Leisure & Hospitality as of June 30, 2017).

Using the more conservative approach of considering only direct effects from residents, the total impact of the 35 SCORP activities is estimated at $145 billion. Estimates based on the 7,000+ surveys found that $125 billion in output was generated by $70 billion in visitor spending and $20 billion in output was generated by resident spending. Roughly $60 billion of the spending occurred in parks and on other public lands, and generated tax revenue impacts of nearly $10 billion.

With Florida's reputation as an outdoor recreation destination, more than 100 million visitors a year, and with total Gross State Product approaching $1 trillion, 15% of total economic output (as estimated by this study) appears a reasonable share for outdoor recreation spending in Florida.

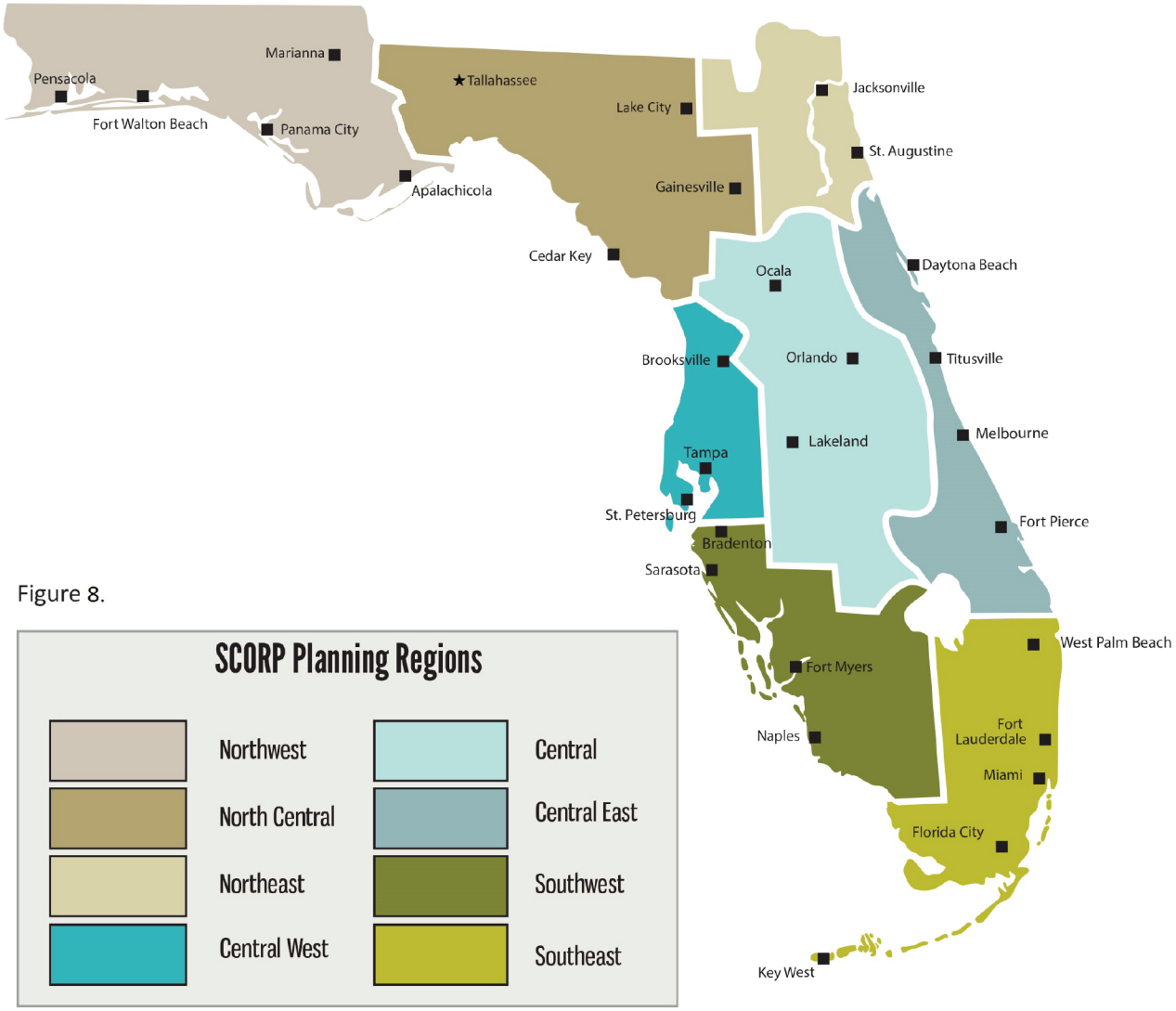


Figure 8.

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Economic Impact of Outdoor Recreation Activities in Florida

APPENDIX A

SURVEY ANALYSIS

THE BALMORAL GROUP | 165 Lincoln Avenue Winter Park, FL 32789

Appendix A

List of Figures

List of Tables

Appendix A: Survey Analysis

Two surveys were conducted: a survey of Florida residents, and a survey of visitors to Florida from out-of-state. The latter was performed in two waves. The methodology and findings are summarized in this section.

Resident Survey: Methodology

Using the approved survey questionnaires, survey panels were launched on February 27th, 2017, to collect responses across all 67 counties in Florida. A "soft launch" was employed first to test 10% of the sample and review question order and other details. Slight edits were made after analysis of the first set of responses to address identified issues, such as respondents skipping select socioeconomic questions. Quotas by county were monitored daily, and approximately 200 responses were received daily. Duplicate responses (using the same IP address) same were identified and removed. Once a county reached its quota, prompts for sampling in that county were terminated. However, because sampling occurs continuously, some counties received greater than their required sample before sampling ended.

On March 29, 2017, the required 5,000 responses were received and analysis commenced to ensure sufficient distribution. Some additional sample was distributed to address demographic shortfalls (primarily the younger age group), and the final completed survey included 5,013 responses.

Resident Survey Results

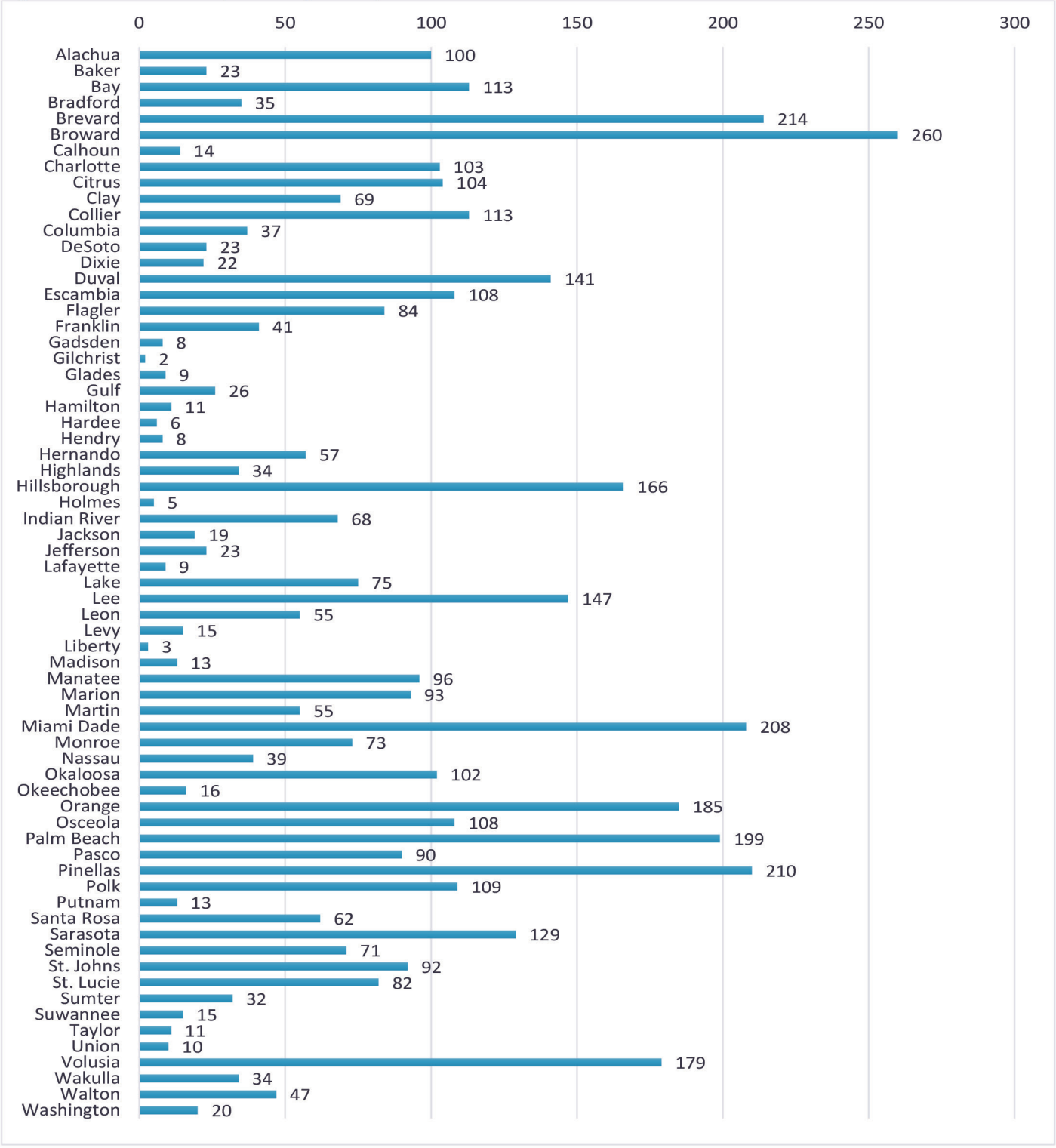
1. County distribution

While several counties were originally committed as "best efforts" only due to the low number of potential respondents, each achieved several responses. The largest numbers of returns were obtained from the most populous counties, such as Miami-Dade, Broward, Palm Beach, Orange and Hillsborough. Five sparsely-populated counties (Hardee, Hendry, Dixie, Gulf, Glades) were distributed to additional sample in an effort to raise very low response rates but additional effort was not successful in raising response rates. The survey was structured to accommodate this possibility, as it was not known in advance exactly which counties would be able to achieve a good sample.

2. Socio-economic Results

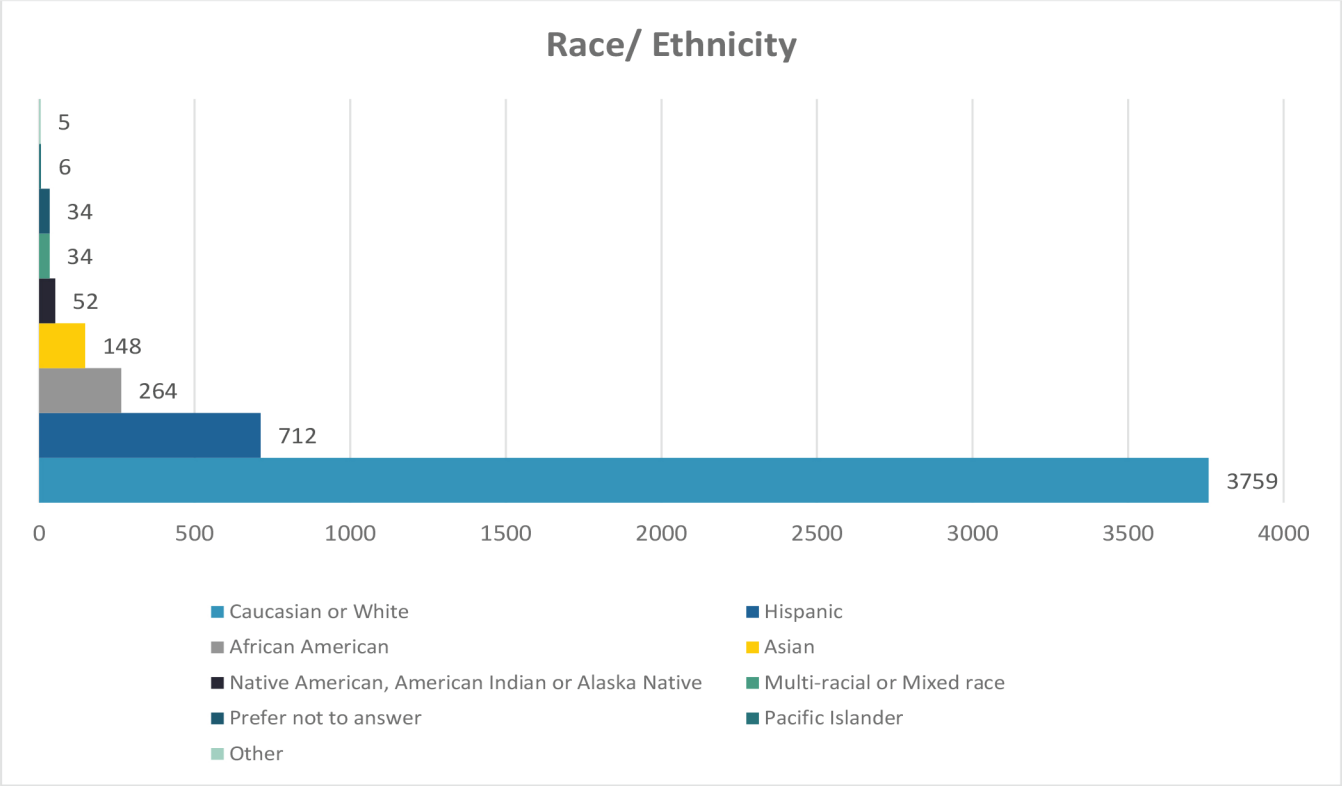
A cross-section of racial and ethnic diversity was achieved, with all categories represented. The majority of resondents self-identified as white/caucasian or hispanic. Of all respondents, 81 chose 'other' and proceeded to write-in a category; in many cases the category written-in will be collapsed into an existing category. For the most part, this will increase the hispanic category (respondents indicated "latino, latina, mexican", etc.); individual adjustments will be made prior to final analysis. Lastly, 46 respondents chose not to reveal their race/ethnic identity. Of note, 8% took the survey in Spanish, about half of the number who identified as hispanic. **Figure A-1** provides detailed data regarding responses by county. **Table H-14** in **Appendix H** provides the data in tabular format.

Figure A-1. Resident Responses by County



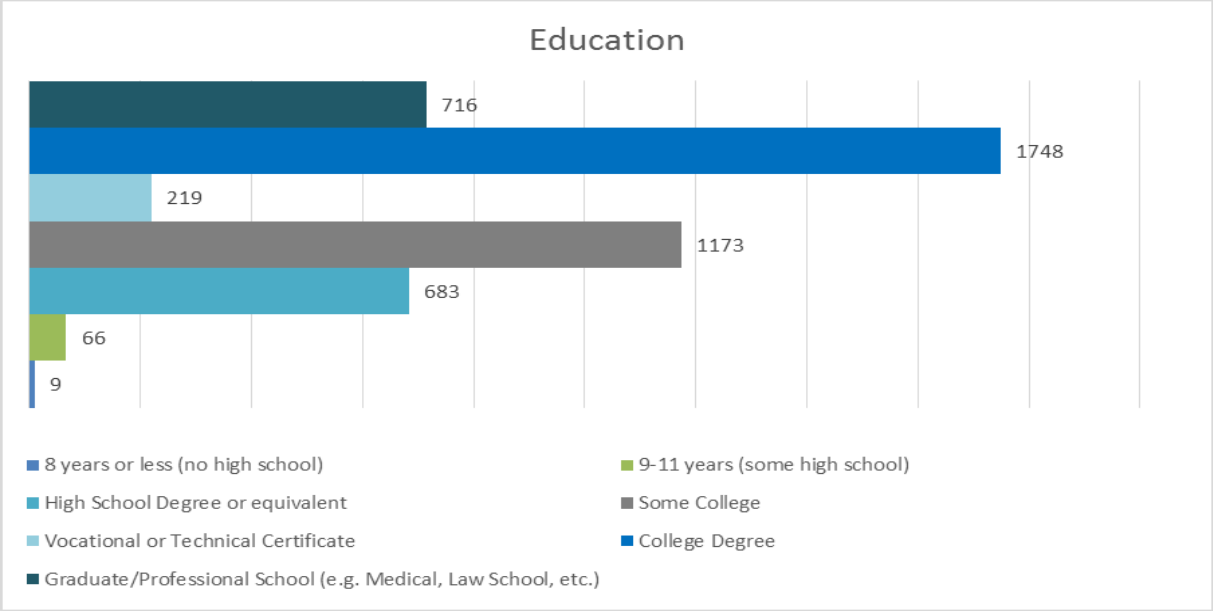
Gender breakdowns tended female, which is consistent with electronic survey panels. Analysts in the industry indicate that online surveys tend female, while online registration for contests, newsletters, etc., tends male, even in subject areas that are female-dominated (Top-40 radio for example). Because the survey requests spending information for the household, the gender imbalance is not considered a detriment to representation of spending overall. Overall, 65% of survey respondents were female, 34% male, and 1% chose an alternative category. **Figure A-2** describes the ethnicity of the resident respondents; 73% reported Caucasion/white and 13% reported Hispanic.

Figure A-2. Racial/Ethnic Identification of Resident Respondents



Educational attainment was broadly represented across the survey. Fifteen percent concluded high school, 38% concluded college, and 15% obtained advanced degrees, representing a slightly more educated population than Florida as a whole. **Figure A-3** shows the breakdown by educational level. **Table H-13** in **Appendix H** provides the data in tabular format.

Figure A-3. Educational Attainment across Resident Survey Respondents



3. Activities

All 35 SCORP activities were included in the survey, and all received varying responses. **Figures A-4** and **A-5** describe the distribution of resident responses across activities (as counts and percentages, respectively). The most frequent activity was saltwater beach activities, not including fishing. These activities are consistent with the respondents' selection of most frequently visited counties, which in order were Broward, Brevard, Miami-Dade, Palm Beach and Pinellas.

Figure A-4. Recreational Activities Resident Respondents Participated in during the Last 12 Months (by number of respondents)

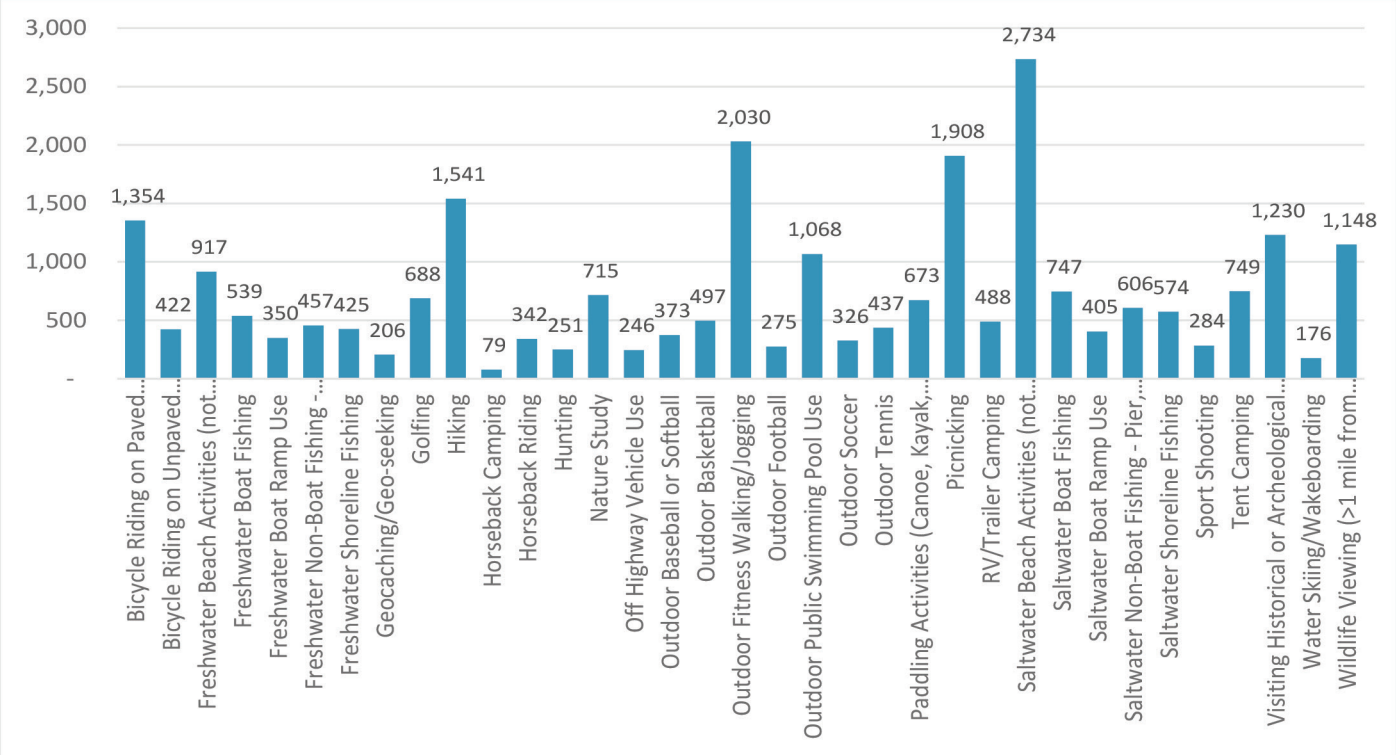
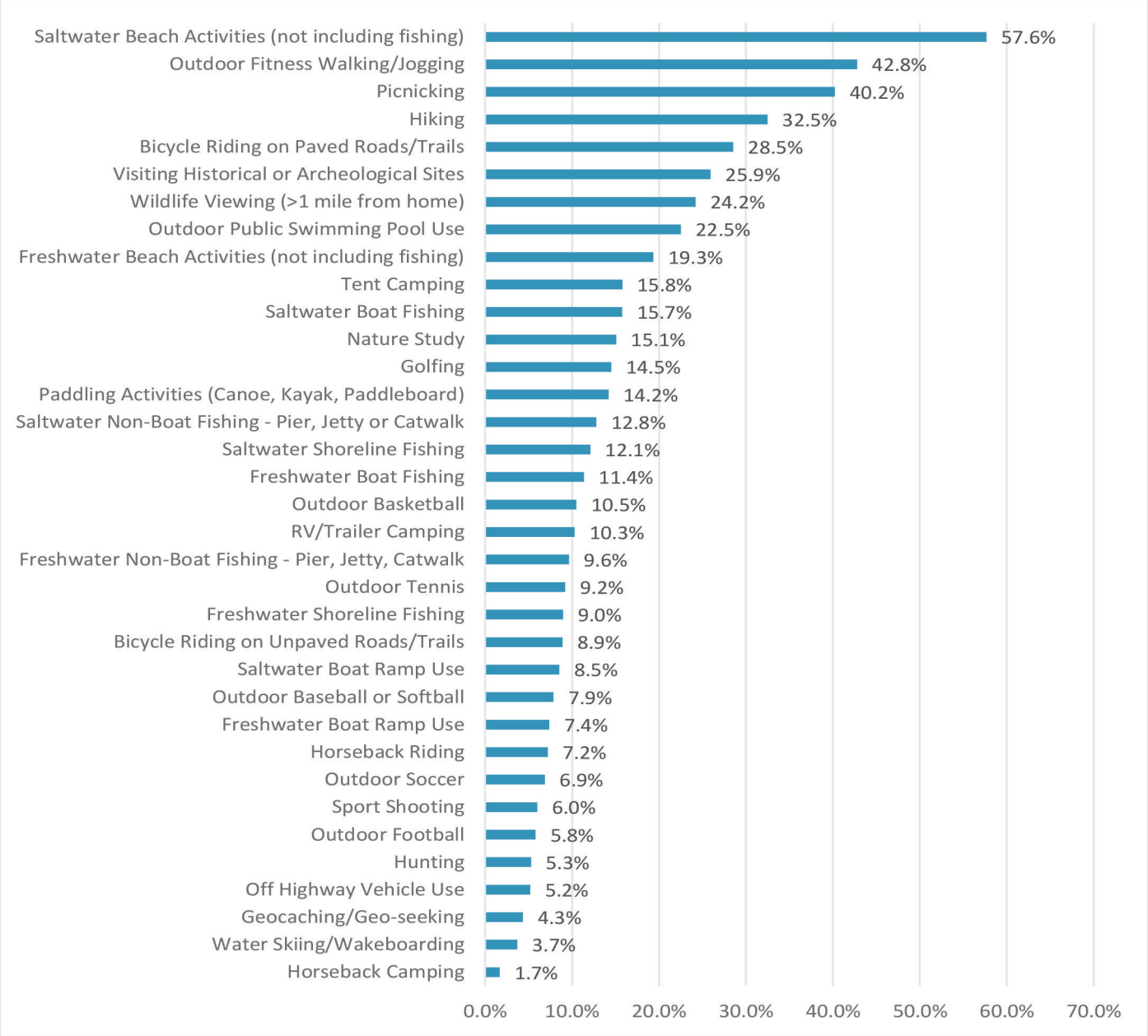


Figure A-5. Recreational Activities Resident Respondents Participated in during the Last 12 Months (sorted by percent of respondents)



The survey asked respondents to identify their most frequent outdoor activities in Florida during the last 12 months. By share of respondents, the most frequently identified activities were saltwater beach activities, walking or jogging for fitness, picnicking, hiking, and bicycling on paved roads or trails. The second and third most popular activities were the same, albeit by different proportions. The remaining activities were fairly evenly distributed. **Figure A-6** describes what the respondents indicated as their first, second and third most frequent activities during the last 12 months. **Table H-4** in **Appendix H** also provides the data in tabular format.

Figure A-6. Top Three Activities Cited by Resident Survey Respondents

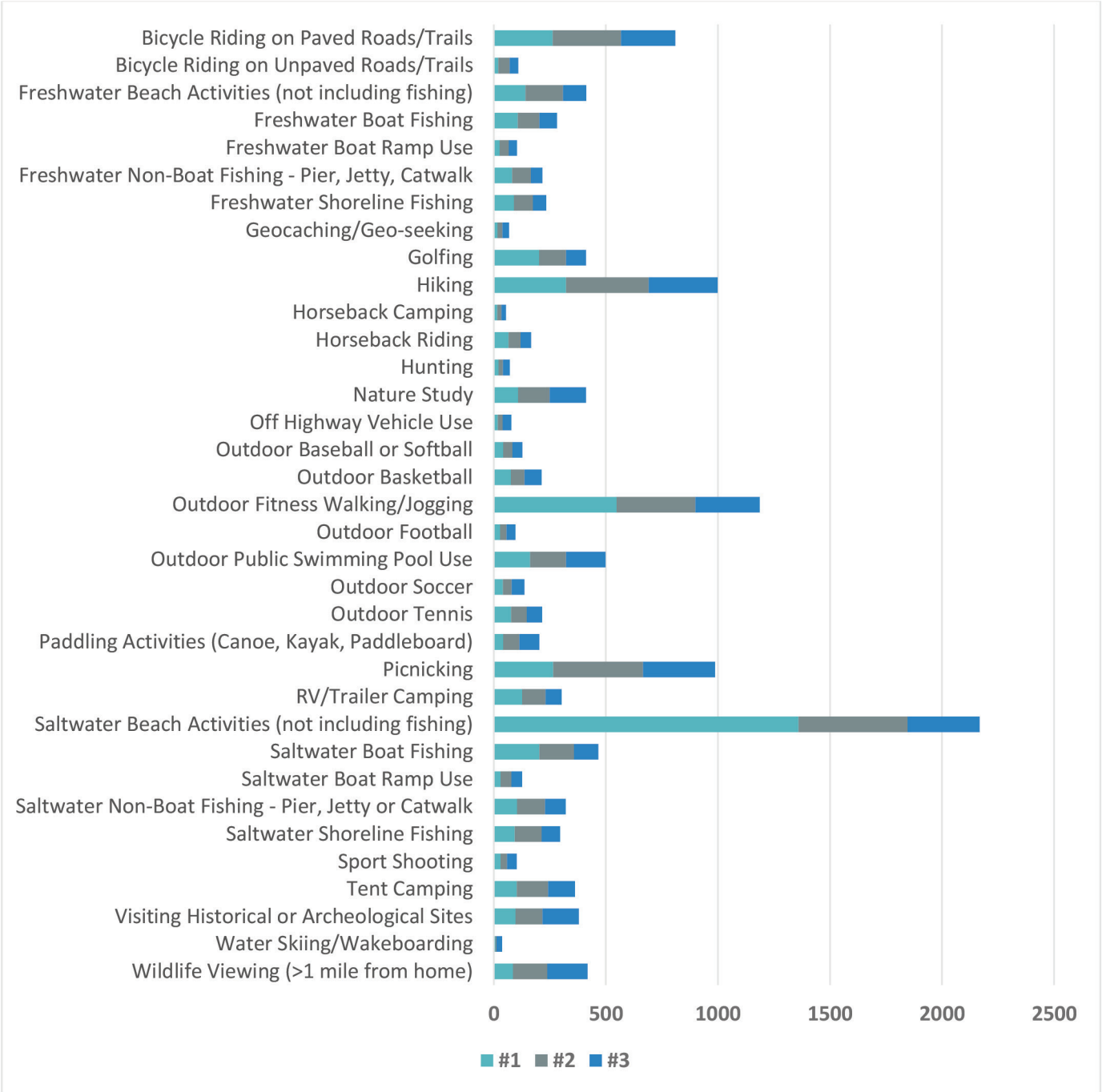


Table A-1. Top Three Activities Cited by Resident Survey Respondents-Data

	#1	#2	#3
Bicycle Riding on Paved Roads/Trails	263	304	243
Bicycle Riding on Unpaved Roads/Trails	20	50	39
Freshwater Beach Activities (not including fishing)	141	168	104
Freshwater Boat Fishing	107	96	79
Freshwater Boat Ramp Use	26	41	36
Freshwater Non-Boat Fishing - Pier, Jetty, Catwalk	82	83	52
Freshwater Shoreline Fishing	90	84	60
Geocaching/Geo-seeking	16	22	30
Golfing	202	120	90
Hiking	322	369	308
Horseback Camping	15	19	20
Horseback Riding	66	53	48
Hunting	21	19	32
Nature Study	108	141	162
Off Highway Vehicle Use	18	21	39
Outdoor Baseball or Softball	42	41	44
Outdoor Basketball	76	61	76
Outdoor Fitness Walking/Jogging	548	351	288
Outdoor Football	28	29	40
Outdoor Public Swimming Pool Use	162	160	176
Outdoor Soccer	41	38	58
Outdoor Tennis	77	70	69
Paddling Activities (Canoe, Kayak, Paddleboard)	42	72	89
Picnicking	265	401	321
RV/Trailer Camping	126	105	72
Saltwater Beach Activities (not including fishing)	1360	486	322
Saltwater Boat Fishing	203	155	108
Saltwater Boat Ramp Use	30	48	48
Saltwater Non-Boat Fishing - Pier, Jetty or Catwalk	103	125	93
Saltwater Shoreline Fishing	93	120	83
Sport Shooting	30	29	43
Tent Camping	102	140	120
Visiting Historical or Archeological Sites	97	120	162
Water Skiing/Wakeboarding	7	5	25
Wildlife Viewing (>1 mile from home)	85	154	179

The frequency of outdoor recreation participation was collected, and on average, residents report 86 days in outdoor recreation, with days ranging from 1 to 365. Residents reported spending an average of 33 overnights on outdoor recreation, ranging from 0 to 100.

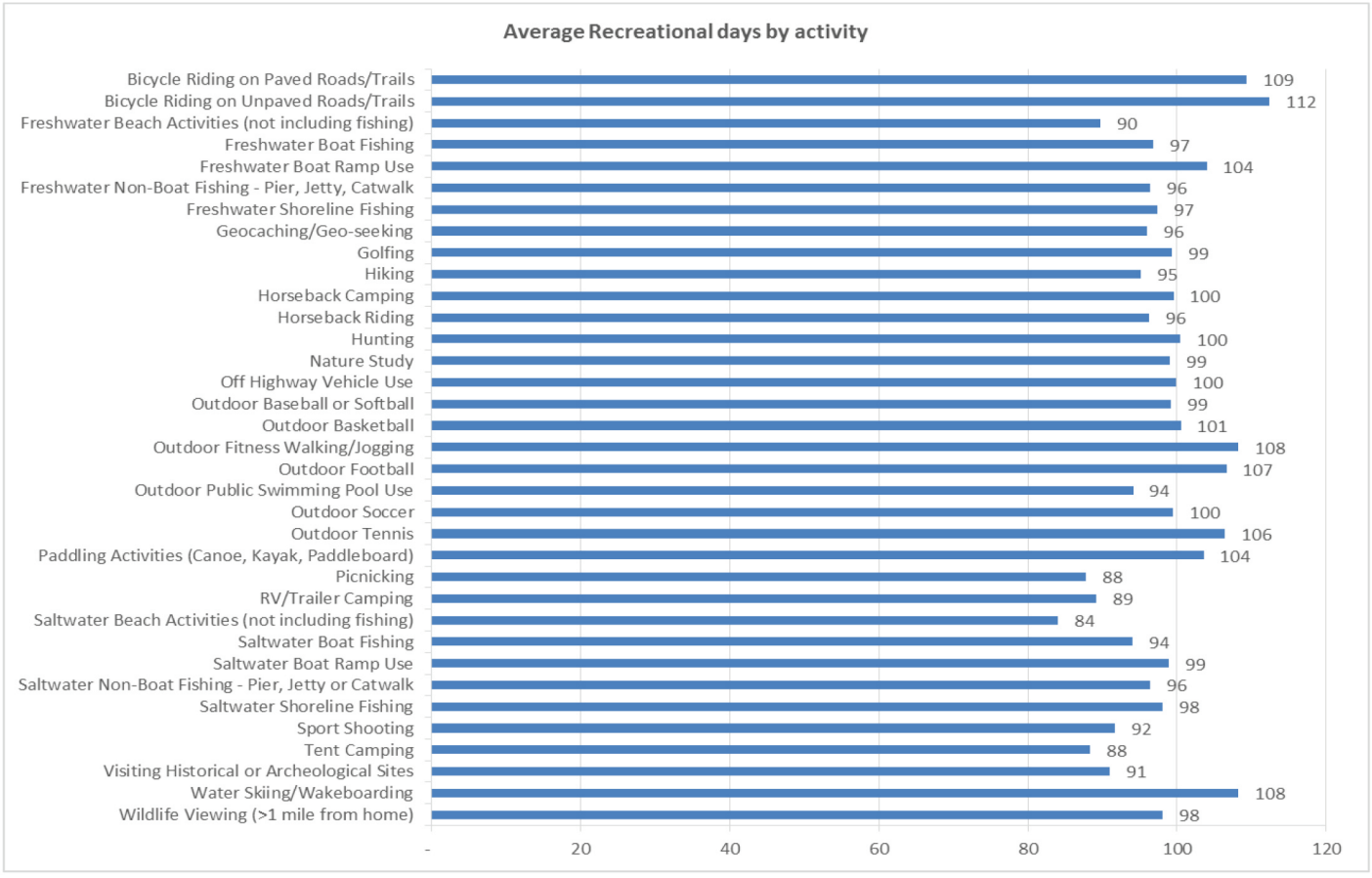
4. Spending Activity

Spending activity was collected across a number of categories. Overall spending by residents for outdoor recreation in the last 12 months totaled $1,300 per household, ranging from $100 to $5,500. On average, residents spent 36% on food, 36% on transportation and accommodation, 16% on recurring costs such as park entrance fees, bait, air fills, etc., and 12% on specialized or durable equipment, such as dive gear, camping equipment, etc.

5. Recreation Days

Recreation days were compiled by county. Florida residents report a high number of days spent on outdoor recreation, with the highest average days reported for biking on trails at 112 followed by biking on roads at 109. Across all 5,000 respondents, the lowest average days was actually for saltwater beach activities, which although ranked as the top activity by the most people, comprises fewer days per year at about 84 on average with a median of 50. **Figure A-7** provides a breakdown of days by activity. **Table H-1** in **Appendix H** provides the data in tabular format.

Figure A-7. Average Recreational Days by Activity



Visitor Survey: Methodology

Survey questionnaires were prepared using previous SCORP and national outdoor recreation spending surveys as a guide. Survey instruments were prepared in both English and Spanish, using a Puerto Rican dialect given the predominant use of this dialect in Florida. A native Puerto Rican confirmed all translations. The instruments were provided to DEP for approval prior to launching the surveys, and surveys were field tested by individuals unaware of the subject for timing and context of terms. Some minor edits were performed based on the field-testing to improve clarity and time to complete the survey.

Using the approved survey questionnaires, survey panels were launched on February 27th, 2017, to collect responses nationally. A "soft launch" was employed first to test 10% of the sample and review question order and other details. Slight edits were made after analysis of the first set of responses to address identified issues, such as respondents skipping select socioeconomic questions. Quotas were monitored daily, and approximately 200 responses were received daily. Duplicate responses (using the same IP address) were identified and removed. Once a county reached its quota, prompts for sampling in that county were terminated. However, because sampling occurs continuously, some counties received greater than their required sample before sampling ended. On March 14th, 2017, the required 600 responses were received for the first wave visitor survey, and the visitor survey was closed. The second wave of the visitor survey resumed on May 11th, 2017 and was closed on May 18th, 2017. In total, 1,433 completed surveys were received.

Visitor Survey Results

The Visitor Survey achieved responses from 64 counties, with only Hendry, Holmes and Wakulla counties unrepresented (**Figure A-8**). While several counties were originally committed as "best efforts" only due to the low number of potential respondents, most achieved several responses. The largest numbers of returns were obtained from the most populous counties, such as Miami-Dade, Broward, Palm Beach, Orange and Hillsborough. An effort to gain additional responses for the sparsely-populated counties was unattainable for Hendry, Holmes, and Wakulla counties. The survey was structured to accommodate this possibility, as it was not known in advance exactly which counties would be able to achieve a good sample.

1. Socio-economic Results

A cross-section of racial and ethnic diversity was achieved, with all categories represented. The majority of respondents self-identified as White/Caucasian, Hispanic, or African American or Black. Of all respondents, zero chose 'other' and only one respondent chose not to reveal their race/ethnic identity. **Figure A-9** provides detailed data regarding responses by ethnicity. **Table H-18** in **Appendix H** provides the data in tabular format. Of note, 7% of respondents identified as Hispanic, but only 1.2% took the survey in Spanish.

Gender breakdowns tended male, which is somewhat surprising only in that it is inconsistent with electronic survey panels. Analysts in the industry indicate that online surveys tend female, while online registration for contests, newsletters, etc., tends male, even in subject areas that are female-dominated (Top-40 radio for example). Overall, 54.2% of survey respondents were male, 45.6% female, and 0.2% chose an alternative category.

Figure A-8. Visitor Respondents by County most frequently visited in last 12 months

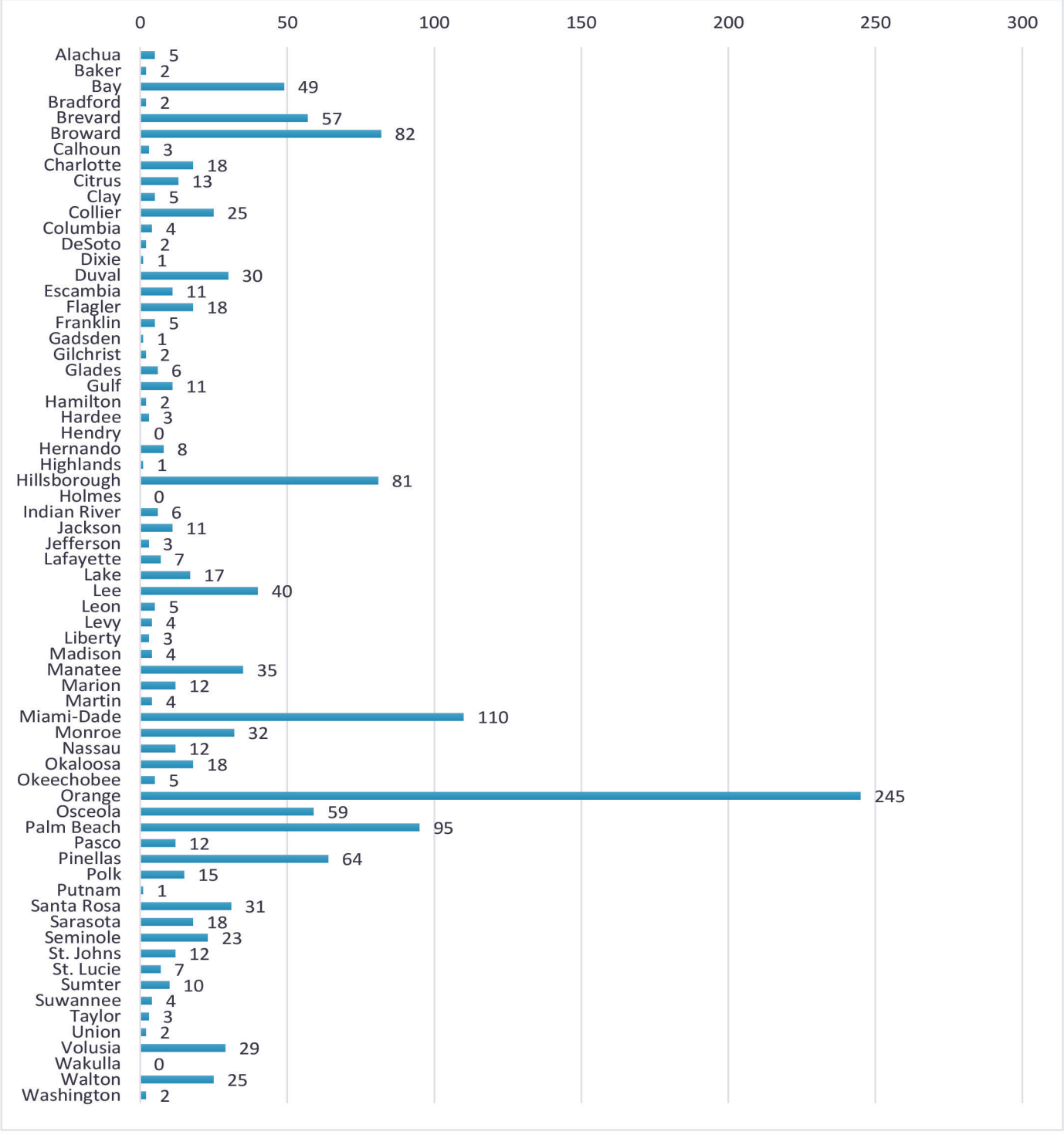
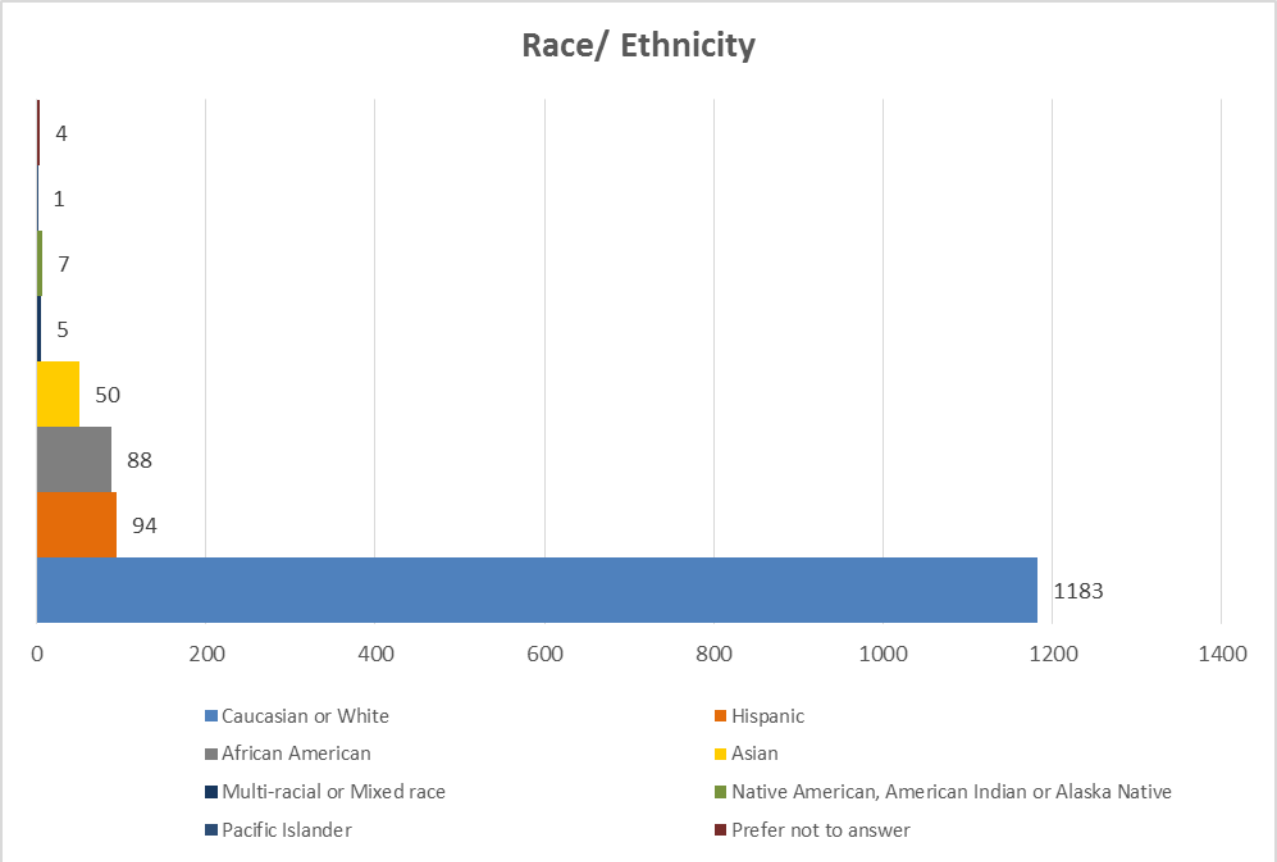
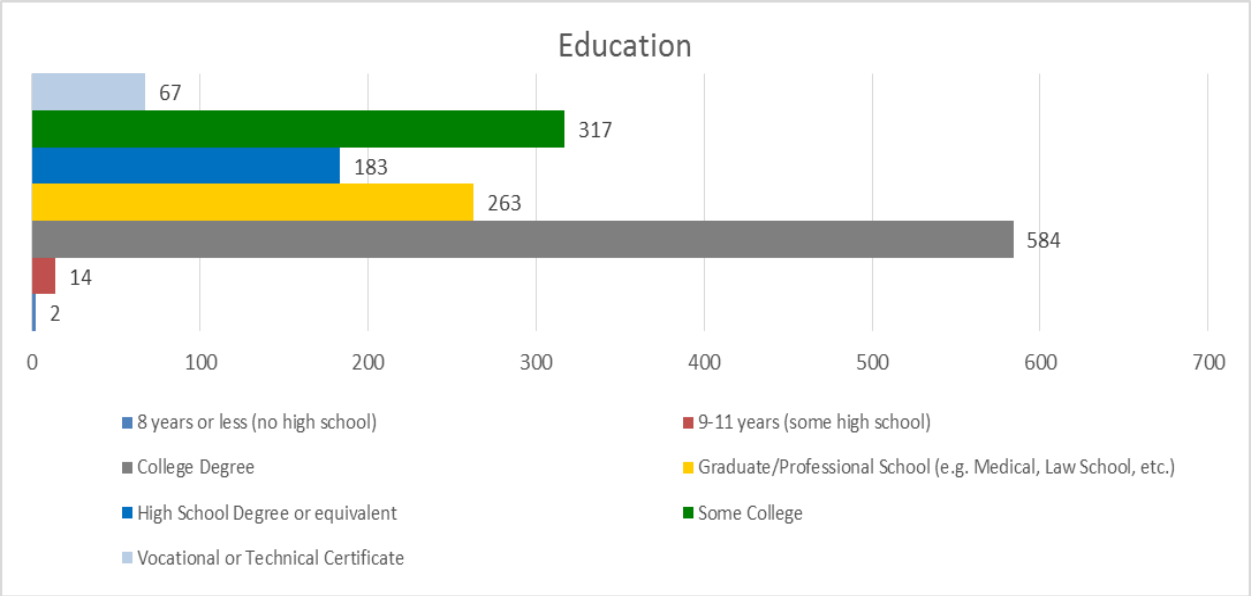


Figure A-9. Racial/Ethnic Identification of Visitor Respondents



Educational attainment was broadly represented across the survey. 13% concluded high school, 41% concluded college, and 18% obtained advanced degrees, representing a slightly more educated population than Florida as a whole. **Figure A-10** shows the breakdown by educational level.

Figure A-10. Educational Attainment Across Visitor Survey Respondents



2. Activities

All 35 SCORP activities were included in the survey, and all received varying responses. **Figures A-11** and **A-12** show the distribution of responses across activities. The most frequent activity was saltwater beach activities, not including fishing. This is consistent with the respondents' selection of most frequently visited counties which in order were Broward, Brevard, Miami-Dade, Palm Beach and Pinellas. **Table H-26** in **Appendix H** provides the data in tabular format.

Figure A-11. Recreational Activities Visitor Respondents Participated in during the Last 12 Months (by number of respondents)

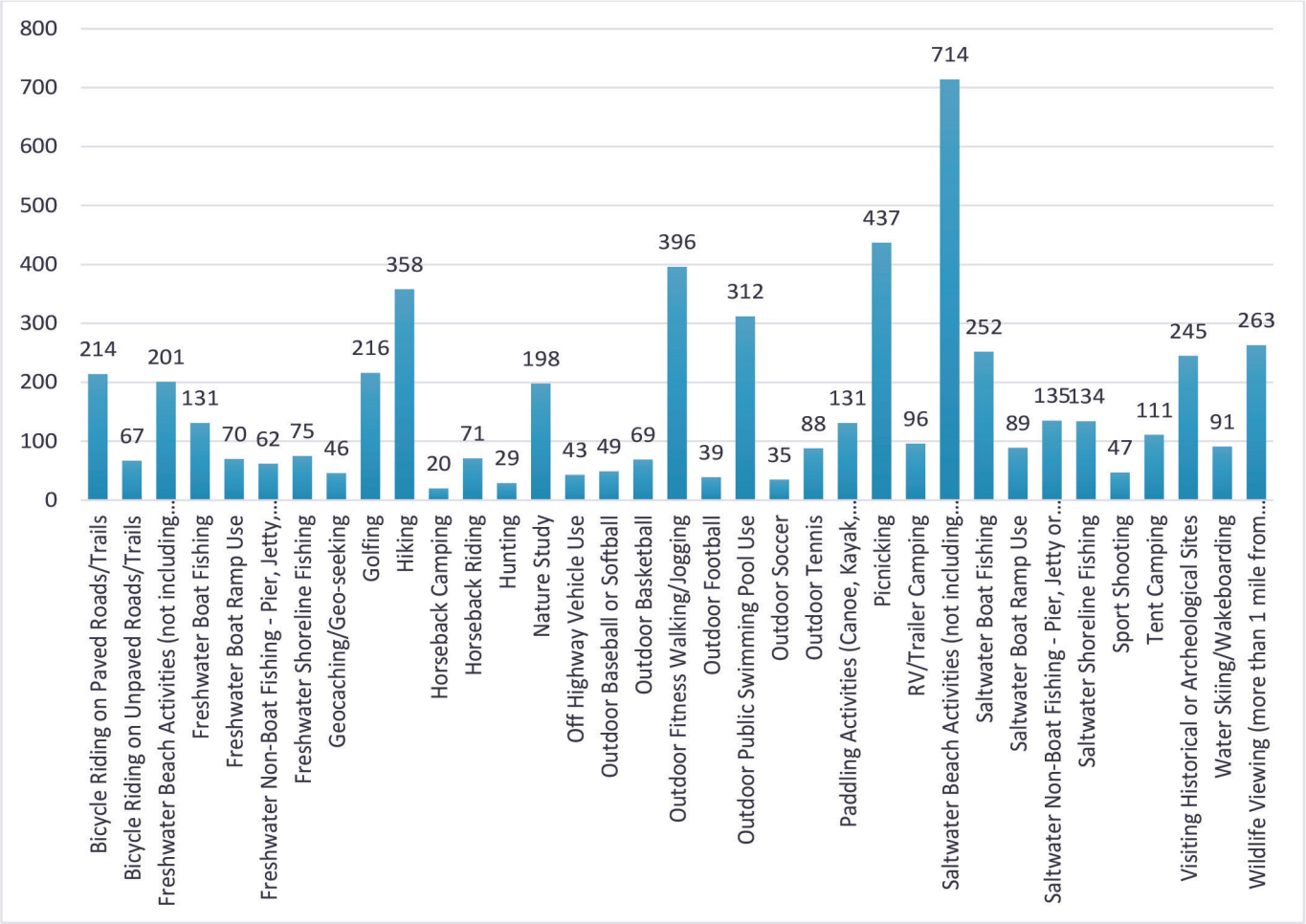


Figure A-12. Recreational Activities Visitor Respondents Participated in during the Last 12 Months (sorted by percent of respondents)

The survey asked respondents to identify their most frequent outdoor activities in Florida during the last 12 months. By share of respondents, the most frequently identified activities were saltwater beach activities, picnicking, outdoor walking or jogging for fitness, and hiking. The second and third most popular activities were the same, albeit by different proportions. The remaining activities were fairly evenly distributed. **Figure A-13** and the following data table show the activities indicated by respondents as their first, second and third most frequent during the last 12 months.

The frequency of outdoor recreation participation was collected, and on average, visitors report spending 18 days in Florida and 6 days participating in outdoor recreation, with days ranging from 1 to 365. A partial day counted as a whole.

Figure A-13. Top Three Activities Cited by Visitor Survey Respondents

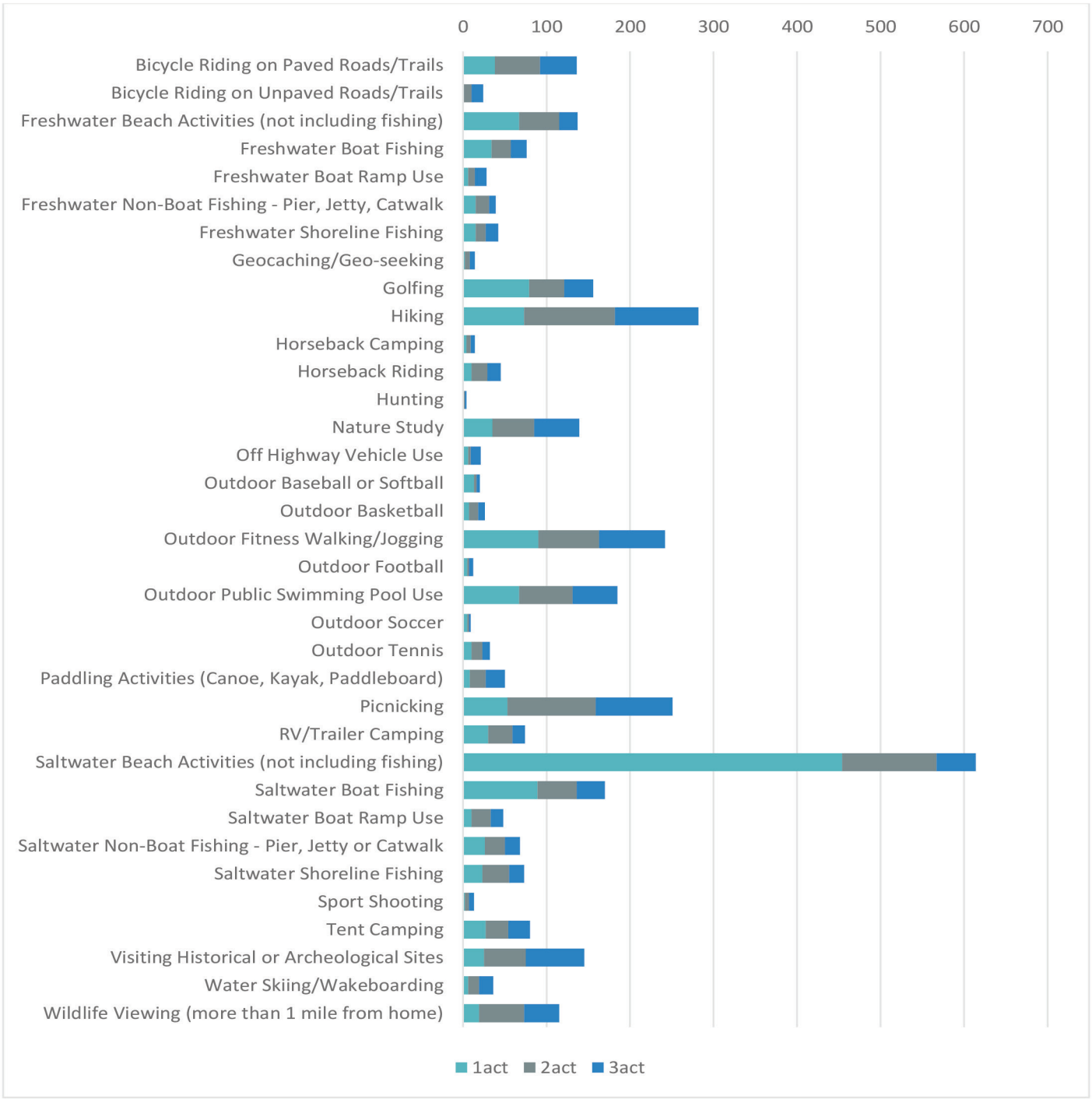


Table A-2. Top Three Activities Cited by Visitor Survey Respondents

	1act	2act	3act
Bicycle Riding on Paved Roads/Trails	38	54	44
Bicycle Riding on Unpaved Roads/Trails	1	9	14
Freshwater Beach Activities (not including fishing)	67	48	22
Freshwater Boat Fishing	34	23	19
Freshwater Boat Ramp Use	6	8	14
Freshwater Non-Boat Fishing - Pier, Jetty, Catwalk	15	16	8
Freshwater Shoreline Fishing	15	12	15
Geocaching/Geo-seeking	2	6	6
Golfing	79	42	35
Hiking	73	109	100
Horseback Camping	4	5	5
Horseback Riding	10	19	16
Hunting	1	1	2
Nature Study	35	50	54
Off Highway Vehicle Use	6	3	12
Outdoor Baseball or Softball	13	3	4
Outdoor Basketball	7	11	8
Outdoor Fitness Walking/Jogging	90	73	79
Outdoor Football	5	2	5
Outdoor Public Swimming Pool Use	67	64	54
Outdoor Soccer	5	2	2
Outdoor Tennis	10	13	9
Paddling Activities (Canoe, Kayak, Paddleboard)	8	19	23
Picnicking	53	106	92
RV/Trailer Camping	30	29	15
Saltwater Beach Activities (not including fishing)	454	113	47
Saltwater Boat Fishing	89	47	34
Saltwater Boat Ramp Use	10	23	15
Saltwater Non-Boat Fishing - Pier, Jetty or Catwalk	26	24	18
Saltwater Shoreline Fishing	23	32	18
Sport Shooting	2	5	6
Tent Camping	27	27	26
Visiting Historical or Archeological Sites	25	50	70
Water Skiing/Wakeboarding	6	13	17
Wildlife Viewing (more than 1 mile from home)	19	54	42

3. Spending activity

Spending activity was collected across a number of categories. Overall spending by visitors for outdoor recreation in the last 12 months totalled $1,474 per household, ranging from $100 to more than $10,000. On average, visitors spent 37% on food, 37% on transportation and accommodation, 17% on recurring costs such as park entrance fees, bait, air fills, etc., and 14% on specialized or durable gear, such as dive gear, camping gear, etc.

Spending varied by activity and location. Detailed tables in **Appendix C** show the variation by county on an individual basis. For counties with very few respondents, an average was calculated based on SCORP Region or statewide responses.