

Economic Impacts and motivations of Off-highway Vehicle Recreationists: A Case Study from Florida

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Funding for this project provided by the T. Mark Schmidt Off-Highway Vehicle Recreation and Safety Program through the Florida Department of Agriculture and Consumer Services, Division of Forestry



1. Introduction

- In the 2002 OHV Safety and Recreation Act, the Florida Legislature recognized that:
 - Effectively managed OHV recreation areas are “compatible with Florida’s overall recreation plan and the underlying goal of multiple use”
 - There is a lack of legal OHV riding area especially in South Florida
- The act aims at providing opportunities for people pursuing OHV recreation in a managed and controlled manner, thus reducing the negative environment impacts of illegal or unmanaged riding.

1. Introduction

- As of 2004, Florida had an estimated 1.781 million participants, ranking it fifth within the US and first within the southern US (Cordell et al. 2005)

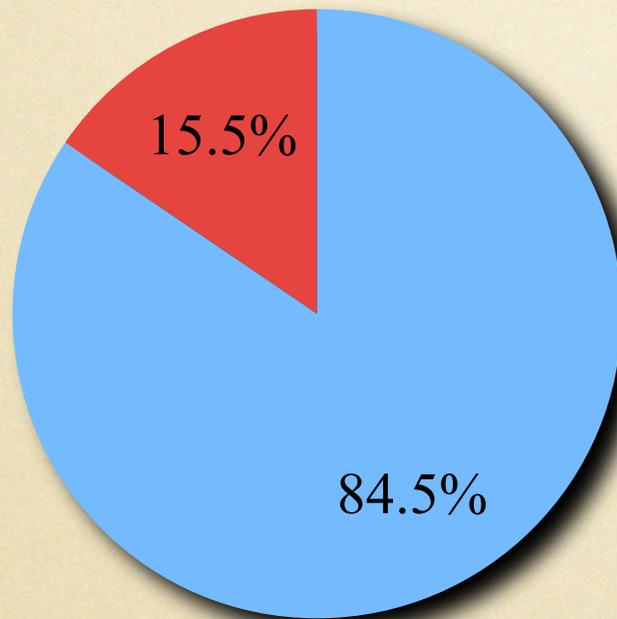


1. Introduction

- Survey methodology:
 - A brief introductory questionnaire was conducted onsite to randomly approached participants.
 - Participants were then given a comprehensive mail-back survey (321 surveys).
 - Mail-back surveys were also left on parked cars (99 surveys).
 - Those participants from which researchers did not receive the mail-back survey after two weeks, were mailed another survey.
- Surveys questions:
 - Socio-demographics
 - Motivations
 - Travel & equipment expenditure
- **150** out of **420** mail-back survey distributed were returned, a response rate of **35.71%**

2. Socio-Demographics: Visitor Characteristics

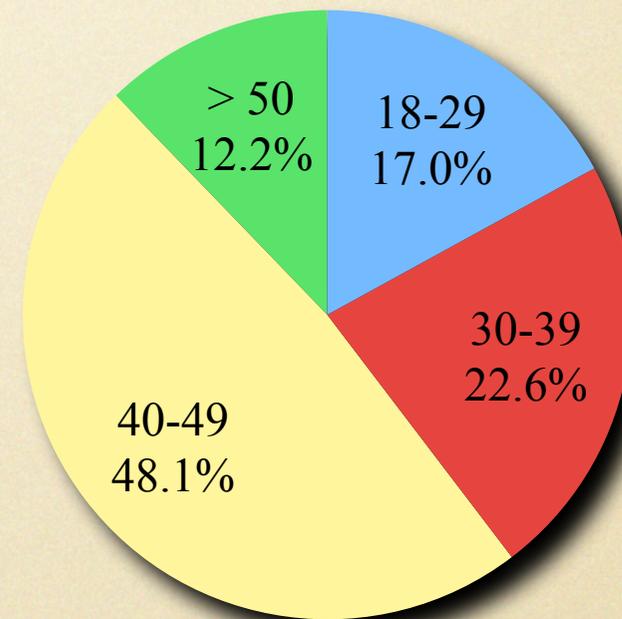
Gender



● Male ● Female

N = 148

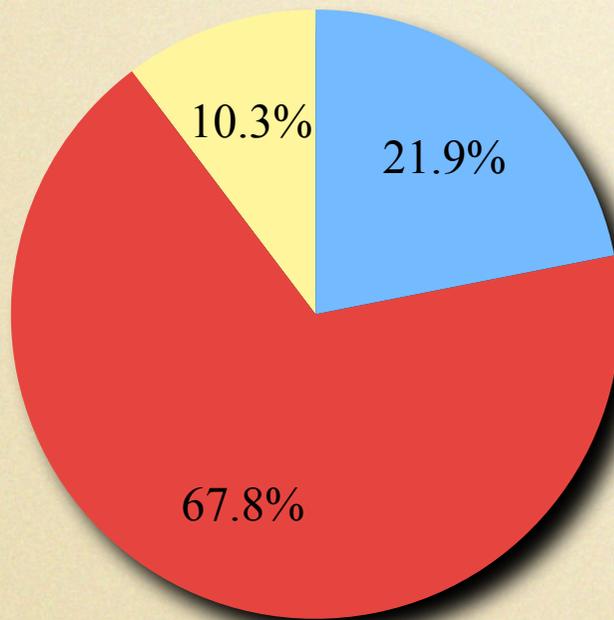
Age



N = 106

2. Socio-Demographics: Visitor Characteristics

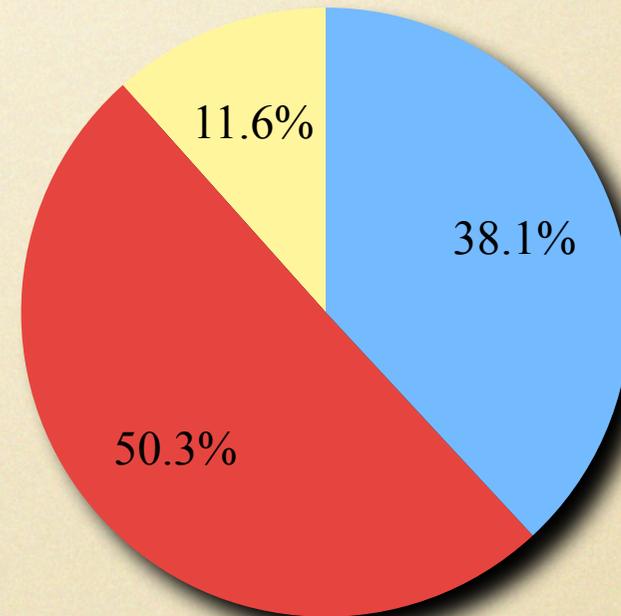
Marital Status



● Single
● Married
● Separated/Divorced/Widowed

N = 146

Children under 18 in the Household



● 0
● 1 to 2
● More than 2

N = 147

2. Socio-Demographics: Visitor Characteristics

Ethnic Origin	
	Valid Percent
Caucasian	91.0
Native American	4.2
Hispanic / Latino	3.5
African American	1.4

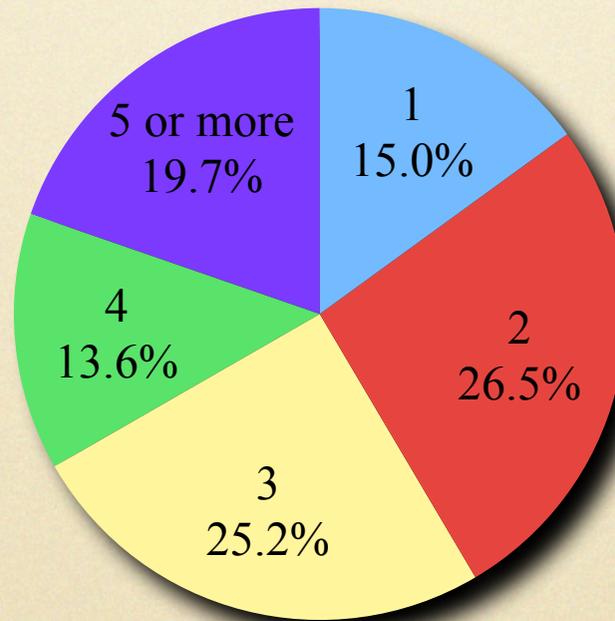
N=144

Level of Education	
	Valid Percent
College Graduate	24.7
Graduate Degree	21.2
Trade / Vocational School	17.1
High School Graduate / GED	14.4
Some College	12.3
Some High School	8.9
Some Graduate School	1.4

N=146

2. Socio-Demographics: Trip Characteristics

Family Party Size

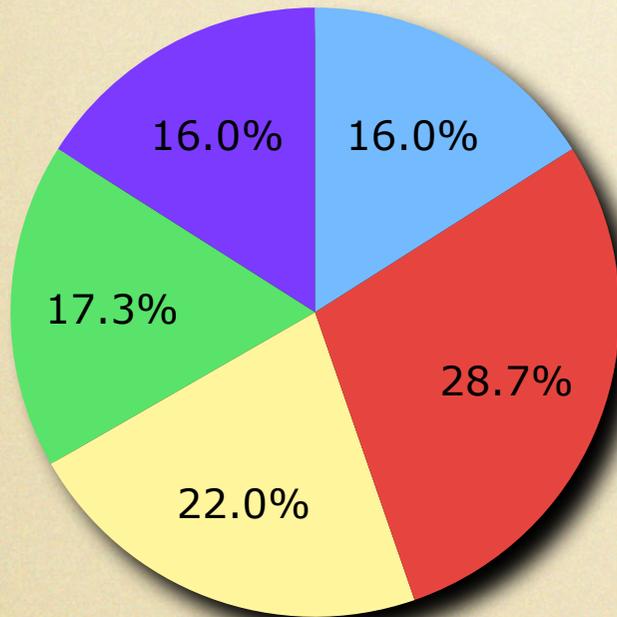


Mean = 3.20

N = 147

2. Socio-Demographics: Trip Characteristics

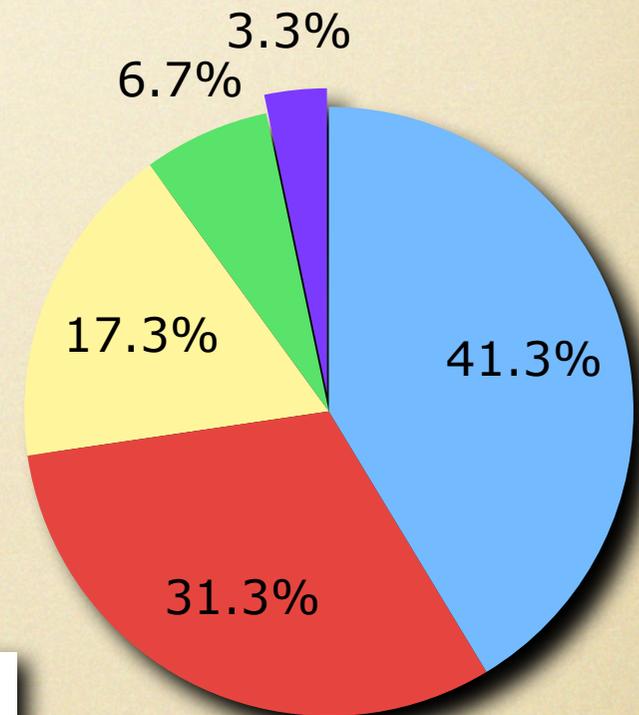
Years of Riding OHVs



Mean = 16.34

N = 149

Years of Riding at the
CMA



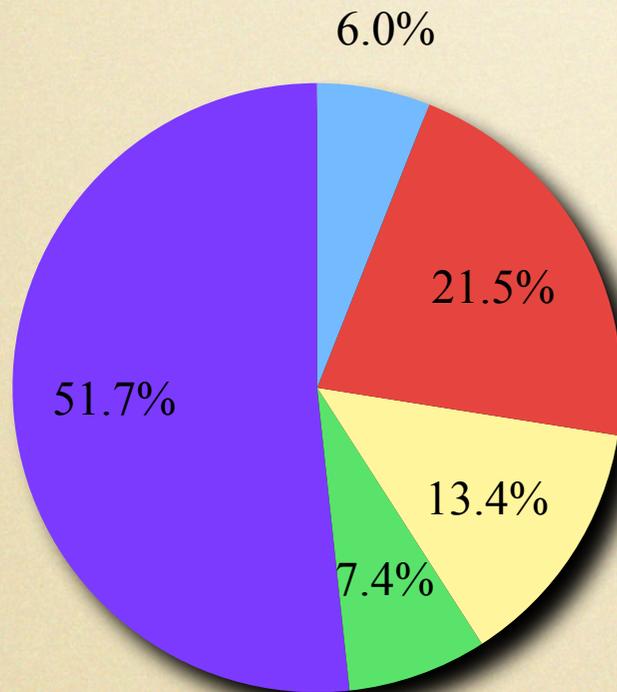
Mean = 8.08

N = 149

- Less than 3 years
- 3 to 10 years
- 11 to 20 years
- 21 to 30 years
- More than 30 years

2. Socio-Demographics: Trip Characteristics

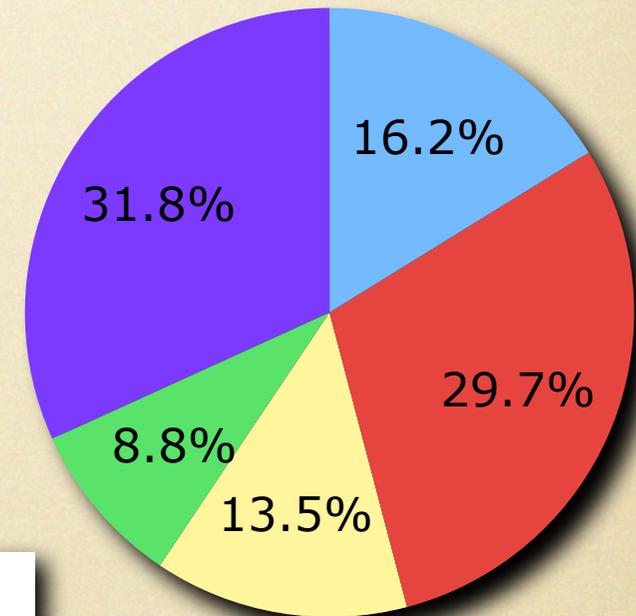
OHV Recreation Trips
within the Last Year



Mean = 27.81

N = 149

Trips Taken to the
CMA



Mean = 18.63

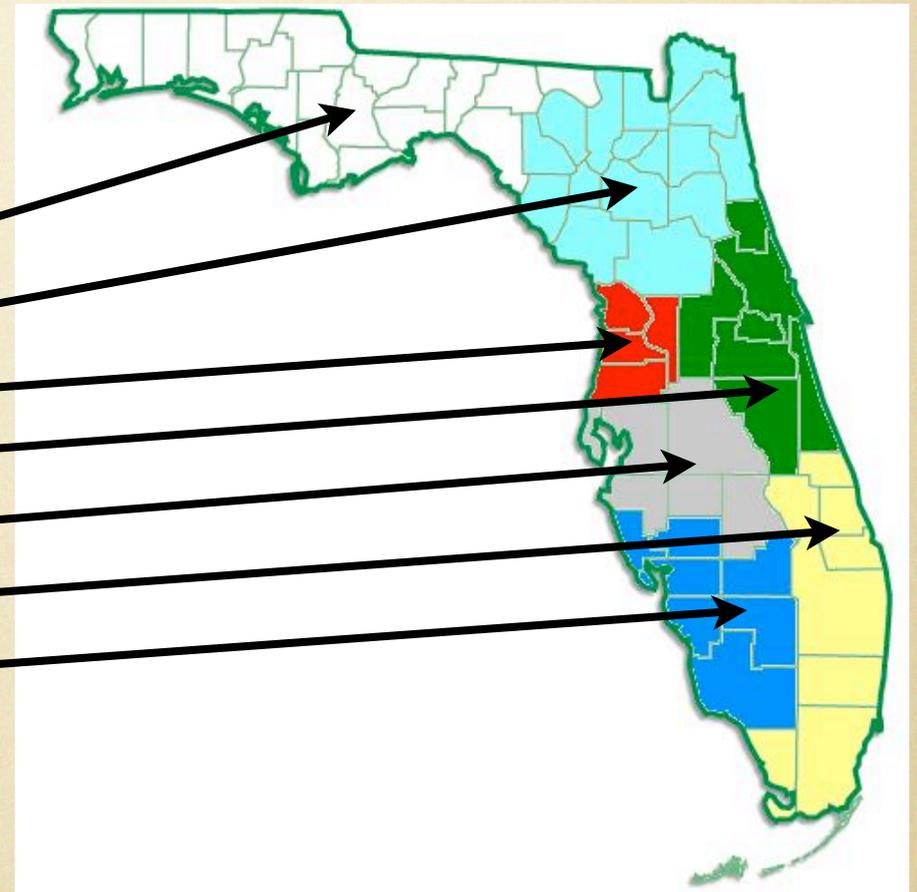
N = 147

- 1 to 3 trips
- 4 to 10 trips
- 11 to 15 trips
- 16 to 20 trips
- 21 or more trips

2. Socio-Demographics: Trip Characteristics

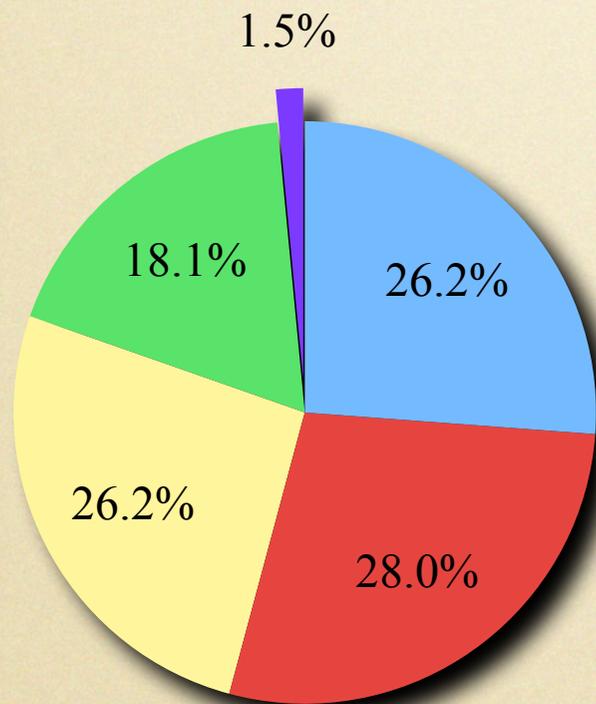
Region of Legal Residence	
	Valid Percent
North-West Florida	< 1
North Florida	2.3
CMA area counties	24.9
East-Central Florida	14.5
West-Central Florida	35.9
South-East Florida	8.4
South-West Florida	9.6
Non-Florida	4

N=345



2. Socio-Demographics: Trip Characteristics

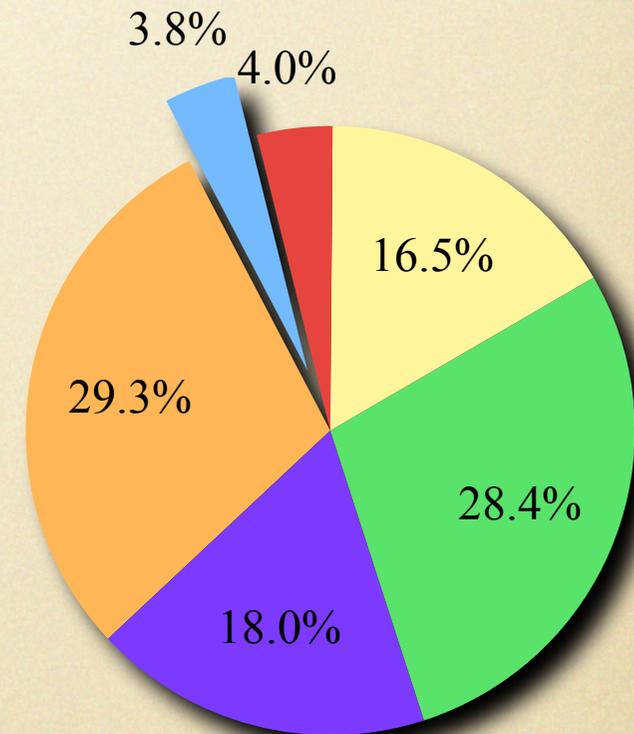
Primary OHV used
at the CMA



● Utility ATV ● Sport Quad
● Motorcross Bike ● Trail / Enduro Bike
● Trials Bike

N = 334

Overall Rating of
the CMA



● 1 to 5 ● six ● seven ● eight
● nine ● ten

Mean = 8.46

N = 355

3. Economic Impact

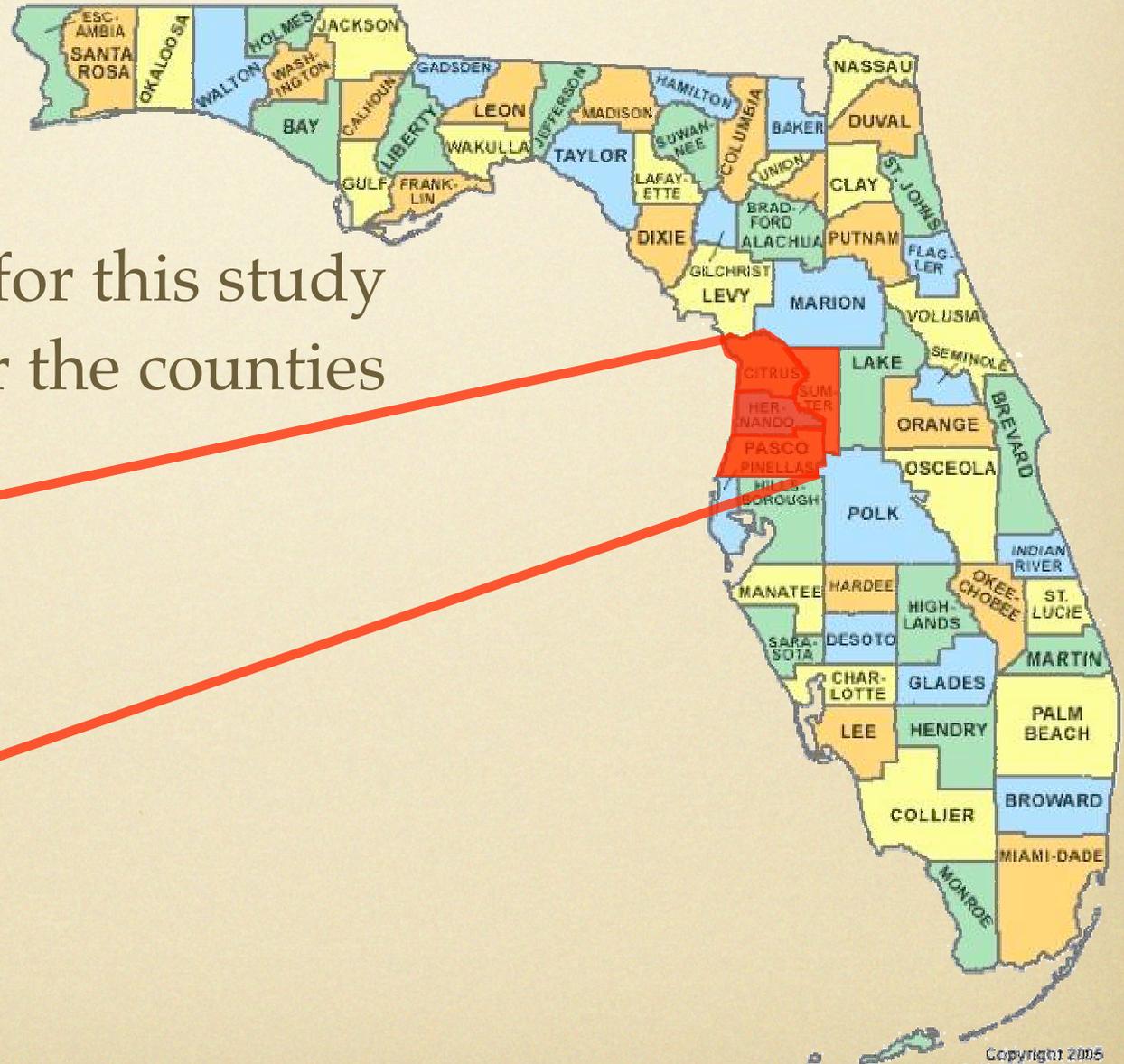
Basics of I-O

- Total Economic Impact was established through input-output (I-O) analysis
- I-O considers inter-industry relations and that of final demanded sectors to evaluate the total impact on an economy in response to a change in one or multiple sectors (Miller & Blair, 1985)

3. Economic Impact

- First step is to estimate Y , the direct impact
 - Establish population
 - Utilize survey data to ascertain mean expenditure levels for both travel and equipment expenditures
 - Apply mean expenditure values to the population estimate to get the total expenditure values
 - I-O analysis for this study was done using Impact Analysis for Planning (IMPLAN) software

3. Economic Impact



● Impact analysis for this study was achieved for the counties of:

- Citrus
- Sumter
- Hernando
- Pasco

3. Economic Impact

- Total economic impact is composed of:
 - **Direct impacts-** initial expenditure
 - **Indirect impacts-** inter-industry change within the economy as the industries adjust their output levels to meet the demands of directly affected industries
 - **Induced impacts-** industry sectors that are both directly and indirectly affected will undergo income changes, further affecting other sectors as employees adjust their expenditures based on income level.

3. Economic Impact

Visiter Population Estimate		
	Resident	Non-Resident
Estimated Total User-Days, 2006	71,500	
% of Population	24.9	75.1
Total User-days	17,804	53,697
Household Members per Trip	2.9	3.3
Household Total User-days	6,088	16,283
# of Trips per Household	19.5	12.1
Total Household Rec. at the CMA	313	1,347
% of Exp. Within Region	93.9	57.4

3. Economic Impact

Travel Expenditure

Expenditure Category	Mean Household expenditure per trip		Total estimated household expenditure within region of analysis	
	Resident	Non-Resident	Resident	Non-Resident
OHV related purchases (gas, equipment, etc.)	\$88	\$72	\$502,000	\$669,000
Purchases related to transportation to the CMA (gas, tolls, rental fees, etc.)	\$36	\$126	\$209,000	\$1,174,000
Food & beverage purchases	\$44	\$79	\$249,023	\$740,000
Lodging (hotel, motel, campsite, etc.)	\$12	\$41	\$71,000	\$384,000
Entertainment, gift and souvenir purchases	\$3	\$12	\$17,000	\$114,000
Miscellaneous / other purchases	\$8	\$23	\$45,000	\$215,000
	Total		Total	
	\$191	\$352	\$1,092,000	\$3,295,000

3. Economic Impact

Equipment Expenditure

Expenditure Category	Mean Household yearly expenditure		Total estimated household expenditure within region of analysis	
	Resident	Non-Resident	Resident	Non-Resident
Repairs / routine maintenance to OHVs	\$661	\$746	\$194,000	\$577,000
OHV equipment modifications and upgrades	\$538	\$869	\$158,000	\$672,000
OHV Riding apparel	\$333	\$597	\$98,000	\$462,000
Equipment or purchase of rentals related to the transport of OHVs	\$721	\$1,139	\$212,000	\$881,000
OHV expenditure related to permits, fees	\$158	\$336	\$46,000	\$260,000
New OHV Purchases	\$4,774	\$5,178	\$1,402,000	\$4,004,000
Miscellaneous/other purchases related to OHV riding	\$196	\$237	\$58,000	\$184,000
	Total		Total	
	\$7,381	\$9,105	\$2,168,000	\$7,039,000

3. Economic Impact

Resident Travel Expenditure	\$1,092,000
Non-Resident Travel Expenditure	\$3,295,000
Resident Equipment Expenditure	\$2,168,000
Non-Resident Equipment Expenditure	\$7,039,000
Total Expenditure	\$13,594,000

3. Economic Impact

Direct, Indirect, & Induced Regional Economic Impact (millions of \$)

	Output	Value Added	Labor Income	Indirect Business Taxes	Employment (Jobs)
Direct	\$13.594	\$9.552	\$6.131	\$1.749	215
Indirect	\$1.499	\$0.821	\$0.499	\$0.064	16
Induced	\$6.567	\$4.317	\$2.747	\$0.326	87
Total	\$21.661	\$14.689	\$9.376	\$2.139	318

Total Output Multiplier,
1.59

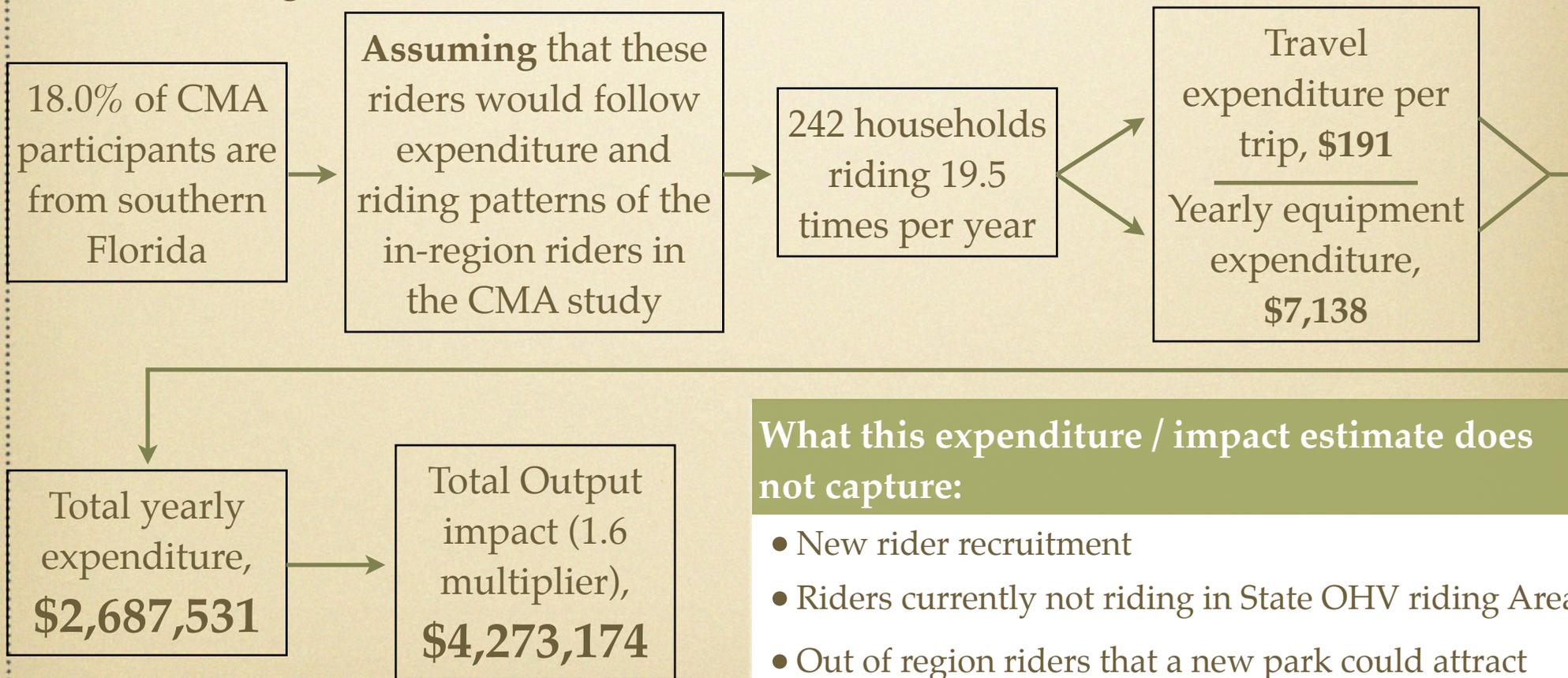
Total Job Multiplier,
1.48

3. Economic Impact

- Comparison to other studies:
 - **Iowa:** Total Statewide OHV Recreation Impact, **\$126 million** | Employment impact **1,200 jobs** | Total output multiplier of **1.6**, Job multiplier of **1.4** (Otto, 2008).
 - **Tennessee:** Total Impact, **\$3.43 billion** | Employment impact **52,300 jobs** | output multiplier of **1.95**, Job multiplier of **1.76** (English et al, n.d.).

3. Economic Impact

- What South Florida is foregoing:
 - Very ruff estimate based on CMA data. No doubt the actual economic impact from a possible site would be magnitudes higher.



What this expenditure / impact estimate does not capture:

- New rider recruitment
- Riders currently not riding in State OHV riding Areas
- Out of region riders that a new park could attract
- A great multiplier due to the greater industry base in souther Florida

Thank You

Questions?