# THE ECONOMIC IMPORTANCE OF OFF-HIGHWAY VEHICLE RECREATION

Economic data on off-highway vehicle recreation for the State of Arizona and for each Arizona County

Study Prepared by

Jonathan Silberman, PhD. School of Management



### ACKNOWLEDGEMENTS

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Off-highway vehicle recreation activity is an immensely powerful part of the Arizona collective economic fabric, generating nearly \$3 billion in retail sales during 2002. While this spending figure is impressive it becomes even more so through consideration of 'ripple' or multiplier effects. Each dollar spent by an individual engaged in off-highway vehicle (OHV) recreation increases another person's income, enabling that person (or business) to spend more, which in turn increases income for someone else. The process continues to circulate throughout the economy until it is dissipated through 'leakages' in the form of savings or payments for goods and services from outside the local economy. In the end, the cumulative changes in spending, incomes and employment are a multiple of the initial retail sales spending.

The impact of the nearly \$3 billion in spending by Off-highway Vehicle recreation in Arizona during 2002 was shown to have:

- Created a statewide economic impact of \$ 4.25 billion.
- Supported 36,951 jobs in Arizona.
- Created household income (salaries and wages) for Arizona residents totaling \$1.1 billion.
- > Added \$187 million to annual state tax revenues.

Each Arizona County benefits from the spending from Off-highway Vehicle recreation. Reported are the 2002-multiplier impacts of the initial retail sales in each Arizona county --- total spending, salaries and wages, full and part-time jobs and state tax revenues. The IMPLAN input-output model is designed to estimate economic impacts for Off-highway Vehicle recreation *at the county* level. It is not designed for summing county economic impacts to estimate an overall statewide impact. The individual county level multiplier impacts will be smaller than the statewide multiplier impacts. Spending that occurs outside of a county dampens the county multiplier impacts. Much of the secondary economic impacts for a county will be purchased from outside or imported due to the unavailability of additional production required to meet consumer demand. OHV recreation in a county will generate restaurant sales requiring increased supplies to restaurants. The suppliers to the restaurants might have their location in another area of the state or region and ship or export to the county experiencing the increased expenditures. This import or 'leakage' will reduce the size of the multiplier effect in the origination county.

Arizona county economic importance measures also include OHV activity days, OHV trip expenditures and equipment, and OHV(s) purchased. Activity days for OHV recreation are separated into County residents and Arizona residents traveling within state. Trip expenditures take into account that when traveling to another county for OHV recreation a portion of expenditures will take place in the county of residence.

Two types of measures are included in economic benefits: economic importance and economic values. Economic importance addresses the business and financial activity resulting from the use of a resource, and these measures for OHV recreation are reported in this study. Economic value is a non-financial measure that estimates the value people receive from an activity like OHV recreation after subtracting their costs and expenditures. Other economic values from OHV recreation are the benefits people place on natural resources used for outdoor recreation even if they never use them. A resource has 'option value' if a person values the option to use it in the future, even if he/she has no present plans to use it and in fact never does so. A resource has 'bequest value' if a person values the option to preserve it for future generations. A resource has 'existence value' if a person values the mere knowledge of its existence. Economic values are not reported in this study.

### Methodology

The data requirements to estimate the economic importance of OHV recreation for each Arizona County are:

✓ Number of OHV recreation households in each Arizona County.
<ul> <li>Number of OHV recreation days in each Arizona County by location of participant (trip expenditures will vary by residency).</li> </ul>
<ul> <li>Local residents (persons engaged in OHV recreation in their own county)</li> </ul>
<ul> <li>Arizona residents traveling within the state in pursuit of OHV recreation.</li> </ul>
$\checkmark$ Trip expenditures for each type of participant (food, lodging, fuel, etc.)
✓ Equipment expenditures (tires, rims, vehicle insurance, etc.).
✓ Purchase of OHV(s) used for recreation.
✓ The Arizona County location of trip expenditures.

The data sources used to acquire the information requirements specified above are displayed in Table 1.

#### TABLE 1: DATA REQUIREMENTS AND SOURCES

Data Requirements	Data Source
OHV Households in Each Arizona County	Random Telephone Survey of Households in Each Arizona County
OHV Activity Days in Each Arizona County by Residency	Mail Questionnaire to Households Qualifying as OHV Recreation from Telephone Survey
OHV Trip & Equipment Expenditures	Mail Questionnaire
Location of OHV Expenditures	Mail Questionnaire
County Level Input-Output Model	IMPLAN – an Input-Output Model Developed & Maintained by the Minnesota IMPLAN Group, Inc.

The random telephone survey of households in each Arizona County used affirmative responses to each of three questions to qualify a household for the self-administered mail questionnaire, and as OHV recreation households. The three questions are presented below and were asked as the initial questions in the telephone survey:

- 1. Does anyone in your household own a motorized vehicle designed to travel offhighway such as an ATV, 4-wheel drive vehicle, SUV, motorcycle, dirt bike, minibike, dune buggy or snowmobile?
- 2. Does anyone in your household drive any of these vehicles in places such as: backcountry roads, unimproved roads, trails that are roughly graded or nonmaintained, or anywhere you would not ordinarily drive a regular passenger vehicle?
- 3. We are interested in off-highway recreational driving. By recreational driving, I mean driving off-highway just for fun or as a means to do outdoor recreation activities such as hunting, fishing, and wildlife watching, camping, hiking or exploring the outdoors. Is this the kind of off-highway recreational driving that you or other household's members do?

Once respondents answered affirmatively to all three questions, they were sent the selfadministered mail questionnaire. Mail questionnaires were sent to 3,118 households. The mail questionnaire return rate was 40.7 percent. The number of OHV recreation households in each Arizona County is estimated from the percentage of respondent households in that County having answered all three qualifying questions in the affirmative. For example, in Apache County 38.78 percent of households interviewed from the telephone survey responded affirmatively to all three questions. Given the 2000 Census count of 31,621 households in Apache County, we estimate that there are 12,264 OHV recreation households in Apache County.

Using the data sources in Table 1, the full set of economic importance calculations are produced for each of 15 Arizona counties and a statewide total. These data are organized into four summary tables: 2002 Economic Importance, 2002 OHV Expenditures, 2002 OHV Activity Days, and a table highlighting the demographic characteristics of OHV recreation households residing in each Arizona County. Separate county reports, displayed after the summary tables, stand as discrete documents. More detailed information on OHV expenditures in each Arizona County and a discussion of the methodology are presented in Appendices.

Interpretation of the economic importance estimates reported should note the following.

- 1. Non-residents and commercial operators are not included in the economic importance estimates. This understates the reported estimates.
- 2. The IMPLAN input-output model has a statewide multiplier impact that is substantially lower than the Arizona multiplier used in other similar studies. The Arizona multiplier from IMPLAN is 1.40. In contrast, the RIMS II input-output model multiplier used for Arizona, reported in the *Economic Impact of Sportfishing and Hunting by state for 2000*, is 1.88 (study prepared by Southwick Associates, Inc.). The expenditures for Sportfishing and hunting are similar to that for OHV recreation. Differences in input-output models can be derived from the method used to estimate regional purchase coefficients and from the structure of the model or the sectors considered endogenous. Please note that the RIMS II input-output model is not available at the county level. The use of the IMPLAN input-output model results in conservative estimates of economic importance.
- 3. Individuals using an OHV for recreation are engaged in a wide range of outdoor activities. Some are driving an OHV to gain access to areas for hunting and fishing. Economic importance estimates reported here are not entirely unique to or derived exclusively from OHV recreation. The estimates reported involve some double counting of economic importance with respect to trip expenditures from other outdoor recreation such as fishing and hunting.
- 4. Purchase of an off-highway vehicle used for recreation was adjusted to reflect the percentage of time the vehicle was used for OHV recreation. Respondents to the mail questionnaire were asked the type of OHV purchased, the cost, whether it was new or used, and the percentage of time the OHV was used for recreation. Cost of the OHV was multiplied by the percentage of use for recreation to arrive at the associated expenditure figure used in the economic importance estimates.

- 5. Arizona households engaged in OHV recreation also travel out-of-state to use their OHV. A portion of trip expenditures associated with out-of-state OHV use by Arizona households is spent in Arizona. Due to small sample size it is not feasible to disaggregate these trip expenditures to individual Arizona Counties. This understates reported trip expenditures. The location and activity days of out-of-state OHV recreation by Arizona households is displayed in Appendix B.
- 6. The telephone script was revised due to difficulties in meeting response targets. The phone survey started shortly after September 11, 2001, and many respondents were not willing to participate. The revised telephone script asked one summary question at the end of the survey to qualify respondents as OHV recreation households. The revised question is:

"Finally, does anyone in your household own a motorized vehicle designed to travel off-highway such as an ATV, 4-wheel drive vehicle, SUV, motorcycle, dirt bike, mini-bike or snowmobile? We are interested in offhighway recreational driving. By recreational driving, I mean driving offhighway just for fun or as a means to do outdoor recreation activities such as hunting, fishing, wildlife watching, camping hiking or exploring the outdoors. Do any household members do this kind of off-highway recreational driving?

Cooperation rates improved using the second telephone script. Those answering affirmatively, especially in the urban counties of Maricopa and Pima, were substantially higher in the second telephone script compared with the first telephone script. In Maricopa County the affirmative responses using the first telephone script were 15 percent while the affirmative responses using the second telephone script were 28 percent. For Pima County the respective affirmative responses were 15 percent and 22 percent. The change in the telephone script *may* have overstated OHV recreation households in Maricopa and Pima Counties thereby overstating economic importance estimates reported here. Further, the mail questionnaire return rate from the first telephone script was 50 percent, and the return rate for the second telephone script was 39 percent. This is consistent with the hypothesis that the second telephone script may have overstated OHV recreation households resulting in a lower return rate on the mail questionnaire.

### TABLE 2: 2002 ECONOMIC IMPORTANCE

		(IN MILLIONS)			
COUNTY	FULL-TIME AND PART-TIME JOBS	OHV EXPENDITURES	TOTAL MULTIPLIER EFFECT	SALARIES AND WAGES	STATE TAX REVENUES
ARIZONA	36,951	\$3,055.7	\$4,252.0	\$1,088.0	\$187.0
APACHE	842	\$94.1	\$101.9	\$12.8	\$2.9
COCHISE	1,009	\$98.5	\$116.1	\$19.6	\$4.5
COCONINO	2,580	\$215.3	\$258.3	\$51.7	\$10.5
GILA	1,322	\$120.5	\$137.6	\$22.3	\$4.2
GRAHAM	348	\$32.4	\$37.5	\$6.2	\$1.4
GREENLEE	50	\$11.7	\$12.0	\$0.8	\$O.1
LA PAZ	459	\$44.1	\$49.7	\$8.3	\$1.9
MARICOPA	13,113	\$1,358.1	\$1,787.1	\$428.9	\$78.5
MOHAVE	1,929	\$182.0	\$219.5	\$40.7	\$9.2
NAVAJO	1,099	\$115.0	\$128.5	\$20.1	\$3.3
PIMA	3,307	\$323.6	\$403.5	\$84.3	\$17.7
PINAL	1,099	\$135.3	\$152.7	\$24.2	\$5.9
SANTA CRUZ	399	\$27.3	\$32.8	\$6.9	\$1.3
ΥΑναραι	2,067	\$183.0	\$222.7	\$43.9	\$9.2
YUMA	1,094	\$114.5	\$136.5	\$25.1	\$5.5

### TABLE 3: 2002 OHV ACTIVITY DAYS

COUNTY	NUMBER OF ACTIVITY DAYS	ACTIVITY DAYS RESIDENTS	ACTIVITY DAYS TRAVELING
ARIZONA	12,224,707	5,499,797	6,724,910
APACHE	896,479	153,125	743,354
COCHISE	435,134	180,697	254,437
COCONINO	1,974,295	390,421	1,583,874
GILA	1,262,608	228,071	1,034,536
GRAHAM	209,711	66,020	143,692
GREENLEE	88,926	32,787	56,139
LAPAZ	344,550	191,319	153,231
MARICOPA	2,086,893	1,856,560	230,334
MOHAVE	780,111	604,266	175,845
NAVAJO	744,630	438,831	305,799
PIMA	836,802	535,254	301,549
PINAL	600,020	197,918	402,102
SANTA CRUZ	406,935	35,152	371,783
ΥΑναραι	1,195,742	416,824	778,918
YUMA	361,871	172,552	189,319

#### TABLE 4:2002 OHV EXPENDITURES

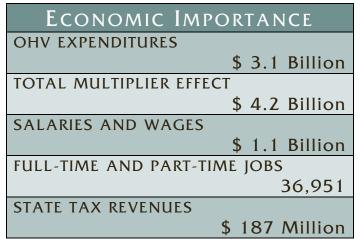
COUNTY	TRIP	EQUIPMENT	VEHICLES	TOTAL
ARIZONA	\$842,316,226	\$1,178,148,417	\$1,035,243,712	\$3,055,708,355
APACHE	\$47,568,582	\$22,553,496	\$23,905,030	\$94,027,108
COCHISE	\$27,670,716	\$32,653,623	\$38,146,809	\$98,471,148
COCONINO	\$106,369,458	\$51,096,874	\$57,823,999	\$215,290,331
GILA	\$67,102,260	\$27,144,939	\$26,292,683	\$120,539,882
GRAHAM	\$12,433,306	\$10,554,388	\$9,366,529	\$32,354,223
GREENLEE	\$5,329,317	\$4,138,089	\$2,278,249	\$11,745,655
LAPAZ	\$19,508,808	\$8,462,581	\$16,108,091	\$44,079,480
MARICOPA	\$230,296,851	\$632,889,068	\$494,959,020	\$1,358,144,939
MOHAVE	\$50,032,887	\$69,728,665	\$62,447,061	\$182,208,613
NAVAJO	\$48,743,112	\$32,941,198	\$33,362,659	\$115,046,969
PIMA	\$71,672,219	\$139,449,312	\$112,492,355	\$323,613,886
PINAL	\$40,184,147	\$37,731,030	\$57,427,689	\$135,342,866
SANTA CRUZ	\$20,795,765	\$5,567,760	\$935,409	\$27,298,934
YAVAPAI	\$70,555,628	\$57,237,440	\$55,256,261	\$183,049,329
YUMA	\$24,053,170	\$45,999,954	\$44,441,868	\$114,494,992

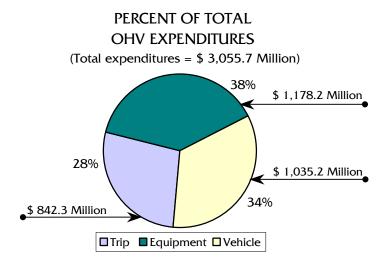
#### TABLE 5: DEMOGRAPHICS OF HOUSEHOLDS ENGAGED IN OHV RECREATION

COUNTY	MARRIED	AVERAGE YEARS IN AZ	AVERAGE AGE	HOUSEHOLD INCOME > \$ 75000	Household Income < \$ 25000	COLLEGE DEGREE
ARIZONA	74.1%	26	47	27.6%	8.7%	32.2%
APACHE	83.8%	31	49	22.7%	9.1%	24.6%
COCHISE	74.1%	26	49	26.9%	15.4%	31.5%
COCONINO	68.6%	21	45	28.4%	12.3%	53.5%
GILA	79.5%	34	51	14.1%	12.8%	32.5%
GRAHAM	75%	30	41	13.3%	14.5%	18.8%
GREENLEE	75.7%	36	45	5.6%	6.9%	17.6%
LA PAZ	77.5%	16	54	13.5%	16.2%	23.1%
MARICOPA	68.5%	25	43	45.0%	2.9%	42.5%
MOHAVE	78.1%	16	52	30.5%	6.3%	21.2%
NAVAJO	81.9%	32	49	20.9%	8.8%	33.7%
PIMA	67.3%	24	44	34.3%	9.1%	33.0%
PINAL	70%	29	49	20.7%	8.6%	30.0%
SANTA CRUZ	79.3%	30	49	35.7%	7.1%	48.3%
YAVAPAI	76.1%	25	49	29.4%	10.8%	30.3%
YUMA	71.4%	20	48	27.8%	7.4%	30.4%

State of Arizona and County Reports

### STATE OF ARIZONA





OHV ACTIVITIY DAYS
TOTAL OHV DAYS
12,224,707
County Resident
5,499,797
AZ Resident Traveling to County
6,724,907
EXPENDITURES
TOTAL OHV EXPENDITURES
\$3,055.7 Million
TOTAL TRIP RELATED
\$842.3 Million
Fuel
\$257.5 Million
Lodging
\$94.4 Million
Restaurant/ bars
\$156.8 Million
Groceries/ liquor
\$192.8 Million
Other
\$140.8 Million
TOTAL EQUIPMENT EXPENDITURES
\$1,178.2 Million
TOTAL VEHICLE EXPENDITURES
\$1,035.2 Million

## 

MAJOR OHV RECREATION TRIP ACTIVITIES			
Driving back roads	75.1%		
Sightseeing	52.1%		
Hiking/ Walking	38.9%		
Picnicking	35.7%		
Camping	31.6%		
OHV HOUSEHOLD DEMOGRAPHICS			
Married	74.1%		
Income greater than \$75000	27.6%		
Income less than \$25000	8.7%		
Average age	47		

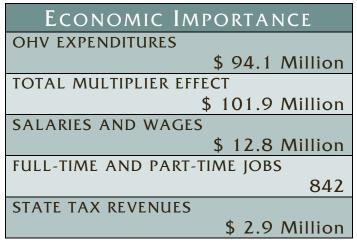
Average years lived in AZ

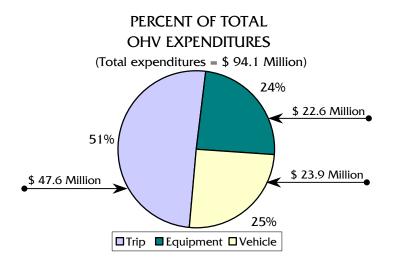
College degree

26

32.2%

## APACHE COUNTY





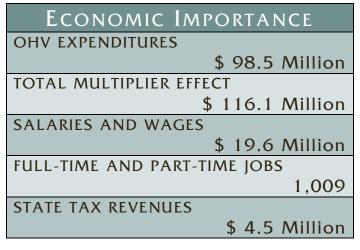
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
896,479
Apache County Resident
153,125
AZ Resident Traveling to Apache
743,353
EXPENDITURES
TOTAL OHV EXPENDITURES
\$94.1 Million
TOTAL TRIP RELATED
\$47.6 Million
Fuel
\$11.8 Million
Lodging
\$8.6 Million
Restaurant/ bars
\$8.1 Million
Groceries/ liquor
\$9.4 Million
Other
\$9.7 Million
TOTAL EQUIPMENT EXPENDITURES
\$22.6 Million
TOTAL VEHICLE EXPENDITURES
\$23.9 Million

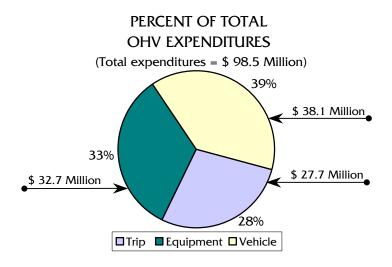
### OHV TRIP EXPENDITURES (Total trip expenditures = \$ 47.6 Million) \$ 38.4 Million \$ 9.2 Million 19% 81% Apache Resident AZ Traveling

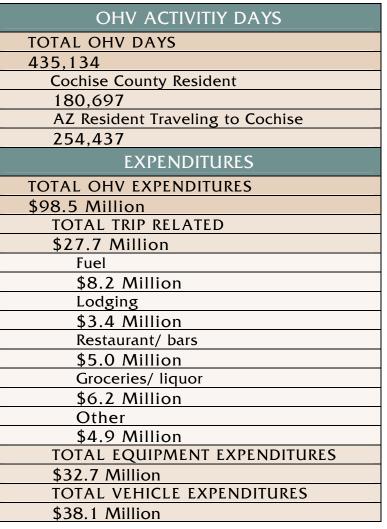
MAJOR OHV RECREATION TRIP ACT	<b>TIVITIES</b>	
Driving back roads	73.6%	
Sightseeing	54.2%	
Camping	40.3%	
Picnicking	38.9%	
Hiking/ Walking	34.7%	
OHV HOUSEHOLD DEMOGRAPHICS		
Married	83.8%	
Income greater than \$75000	22.7%	

Income greater than \$75000	22.7%
Income less than \$25000	9.1%
Average age	49
Average years lived in AZ	31
College degree	24.6%

# COCHISE COUNTY





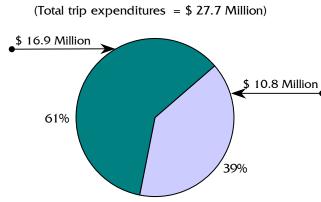


#### MAJOR OHV RECREATION TRIP ACTIVITIES

Driving back roads	82.1%
Sightseeing	50.0%
Hiking/ Walking	41.1%
Picnicking	35.7%
Hill Climbing	35.7%

#### OHV HOUSEHOLD DEMOGRAPHICS

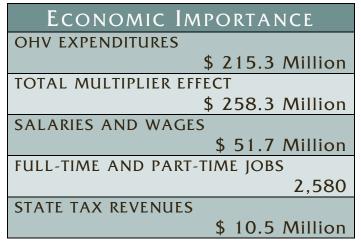
Married	74.1%
Income greater than \$75000	26.9%
Income less than \$25000	15.4%
Average age	49
Average years lived in AZ	26
College degree	31.5%

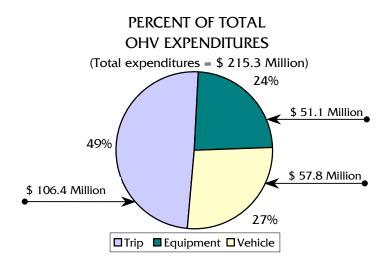


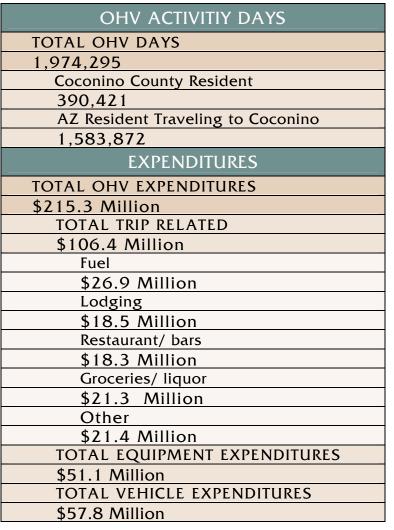
**OHV TRIP EXPENDITURES** 

Cochise Resident AZ Traveling

## COCONINO COUNTY





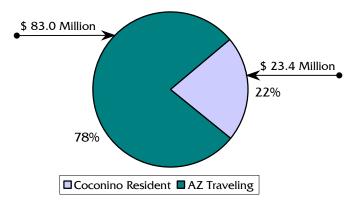




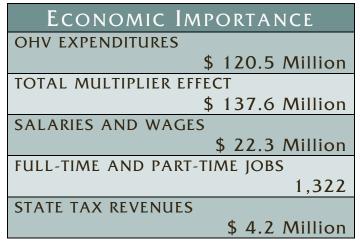
Driving back roads	79.5%
Sightseeing	55.7%
Hiking/ Walking	52.3%
Picnicking	34.1%
Wildlife/ Bird watching	34.1%
OHV HOUSEHOLD DEMOGRAPHICS	

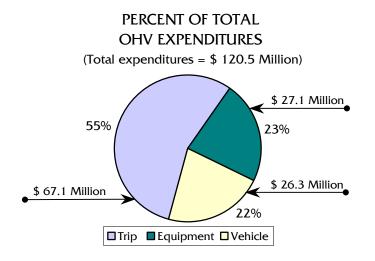
Married	68.6%
Income greater than \$75000	28.4%
Income less than \$25000	12.3%
Average age	45
Average years lived in AZ	21
College degree	53.5%





# GILA COUNTY



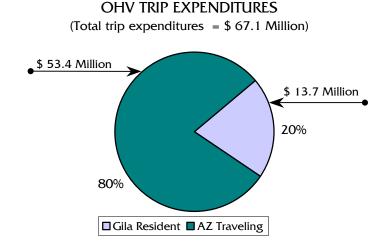


OHV ACTIVITIY DAYS
TOTAL OHV DAYS
1,262,607
Gila County Resident
228,071
AZ Resident Traveling to Gila
1,034,536
EXPENDITURES
TOTAL OHV EXPENDITURES
\$120.5 Million
TOTAL TRIP RELATED
\$67.1 Million
Fuel
\$16.7 Million
Lodging
\$12.0 Million
Restaurant/ bars
\$11.5 Million
Groceries/ liquor
\$13.3 Million
Other
\$13.6 Million
TOTAL EQUIPMENT EXPENDITURES
\$27.1 Million
TOTAL VEHICLE EXPENDITURES
\$26.3 Million

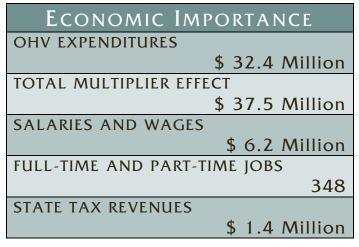
MAJOR OHV RECREATION TRIP ACTIVITIES

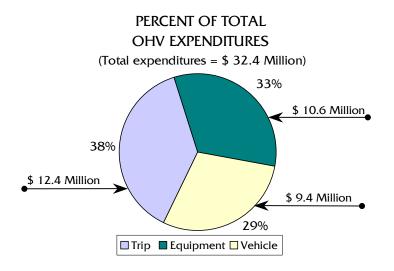
Driving back roads	73.3%
Sightseeing	61.1%
Hiking/ Walking	36.7%
Picnicking	30.0%
Camping	28.9%

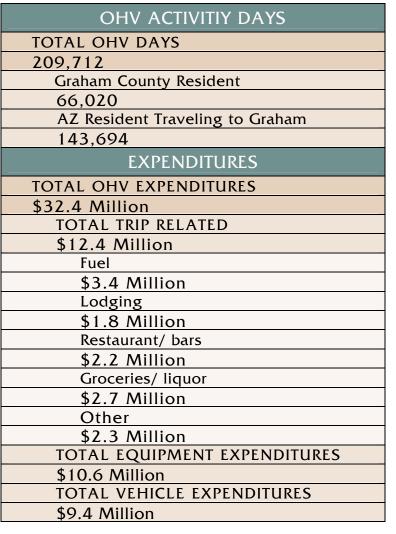
Married	79.5%
Income greater than \$75000	14.1%
Income less than \$25000	12.8%
Average age	51
Average years lived in AZ	34
College degree	32.5%

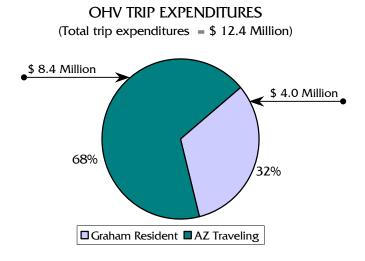


## GRAHAM COUNTY





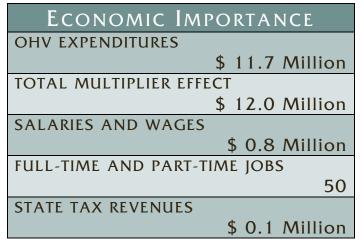


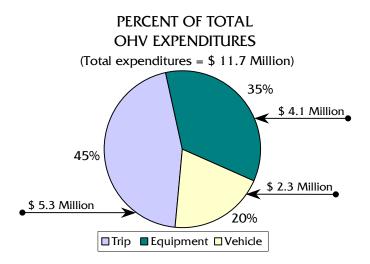


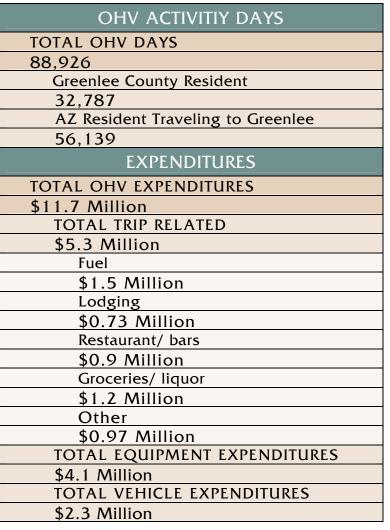
MAJOR OHV RECREATION TRIP ACTIVITIES		
Driving back roads	73.9%	
Picnicking	42.0%	
Sightseeing	40.9%	
Hill climbing	29.5%	
Camping	28.4%	
OHV HOUSEHOLD DEMOGRAPHICS		
Married	75.0%	
1 4 7 7 9 9 9	10.001	

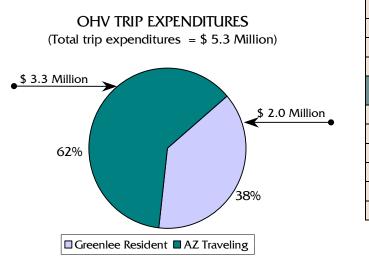
Income greater than \$75000	13.3%
Income less than \$25000	14.5%
Average age	41
Average years lived in AZ	30
College degree	18.8%

### GREENLEE COUNTY







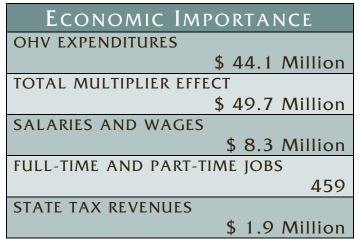


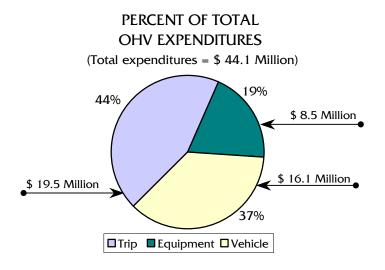
MAIOR (	OHV	RECREATIO	N TRIP	ACTIVITIES

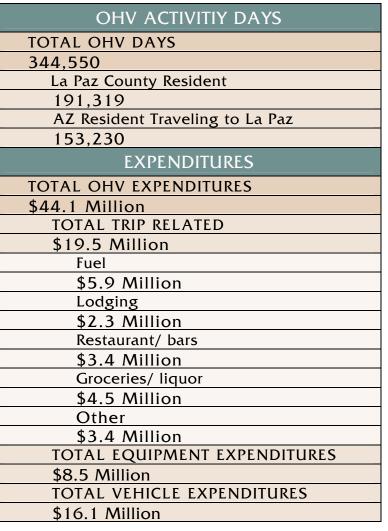
Driving back roads	72.5%
Sightseeing	47.5%
Picnicking	43.8%
Fishing	40.0%
Camping	28.8%

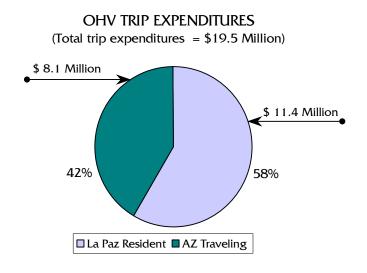
Married	75.7%
Income greater than \$75000	5.6%
Income less than \$25000	6.9%
Average age	45
Average years lived in AZ	36
College degree	17.6%

# LA PAZ COUNTY







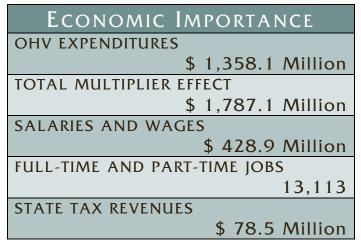


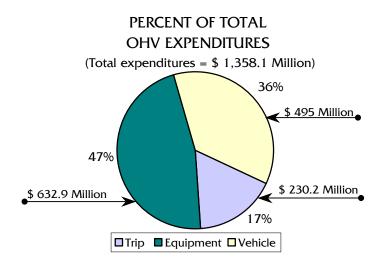
MAJOR OHV RECREATION TRIP ACTIVITIES

Driving back roads	78.0%
Picnicking	73.2%
Sightseeing	68.3%
Hiking/ Walking	48.8%
Trail riding	46.3%

Married	77.5%
Income greater than \$75000	13.5%
Income less than \$25000	16.2%
Average age	54
Average years lived in AZ	16
College degree	23.1%

### MARICOPA COUNTY



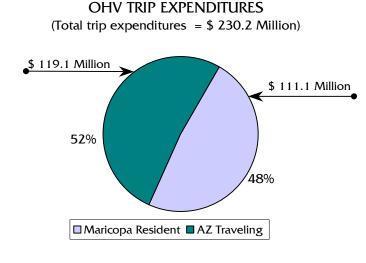


OHV ACTIVITIY DAYS
TOTAL OHV DAYS
2,086,893
Maricopa County Resident
1,856,560
AZ Resident Traveling to Maricopa
230,332
EXPENDITURES
TOTAL OHV EXPENDITURES
\$1,358.1 Million
TOTAL TRIP RELATED
\$230.2 Million
Fuel
\$83.3 Million
Lodging
\$10.8 Million
Restaurant/ bars
\$47.5 Million
Groceries/ liquor
\$59.5 Million
Other
\$29.2 Million
TOTAL EQUIPMENT EXPENDITURES
\$632.9 Million
TOTAL VEHICLE EXPENDITURES
\$495.0 Million

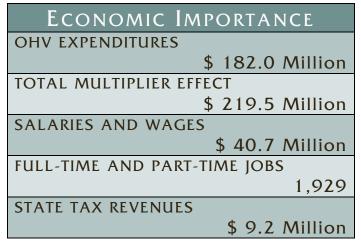
MAJOR OHV RECREATION TRIP ACTIVITIES

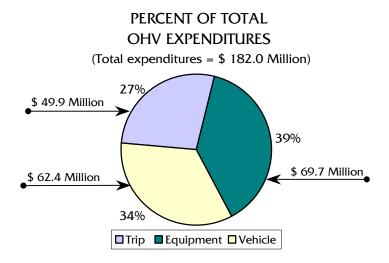
Driving back roads	75.7%
Sightseeing	47.9%
Hiking/ Walking	40.5%
Trail riding	35.5%
Camping	31.3%

Married	68.5%
Income greater than \$75000	45.0%
Income less than \$25000	2.9%
Average age	43
Average years lived in AZ	25
College degree	42.5%



## MOHAVE COUNTY





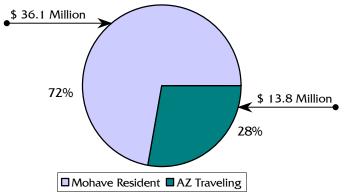
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
780,111
Mohave County Resident
604,266
AZ Resident Traveling to Mohave
175,846
EXPENDITURES
TOTAL OHV EXPENDITURES
\$182.0 Million
TOTAL TRIP RELATED
\$49.9 Million
Fuel
\$16.6 Million
Lodging
\$3.9 Million
Restaurant/ bars
\$8.9 Million
Groceries/ liquor
\$12.4 Million
Other
\$8.1 Million
TOTAL EQUIPMENT EXPENDITURES
\$69.7 Million
TOTAL VEHICLE EXPENDITURES
\$62.4 Million

#### MAJOR OHV RECREATION TRIP ACTIVITIES

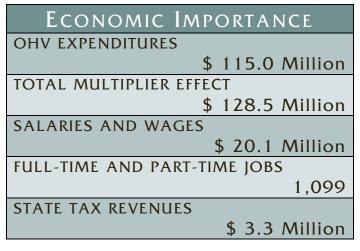
Driving back roads	77.6%
Sightseeing	58.7%
Trial riding	41.3%
Picnicking	34.3%
Camping	33.6%

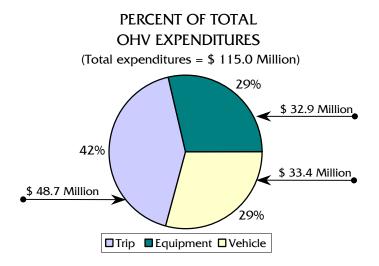
Married	78.1%
Income greater than \$75000	30.5%
Income less than \$25000	6.3 %
Average age	52
Average years lived in AZ	16
College degree	21.2%





### NAVAJO COUNTY





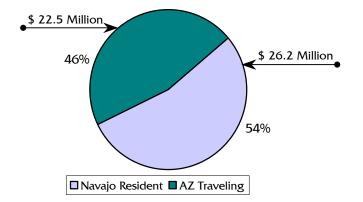
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
744,630
Navajo County Resident
438,831
AZ Resident Traveling to Navajo
305,798
EXPENDITURES
TOTAL OHV EXPENDITURES
\$115.0 Million
TOTAL TRIP RELATED
\$48.7 Million
Fuel
\$15.3 Million
Lodging
\$4.9 Million
Restaurant/ bars
\$8.9 Million
Groceries/ liquor
\$11.5 Million
Other
\$8.1 Million
TOTAL EQUIPMENT EXPENDITURES
\$32.9 Million
TOTAL VEHICLE EXPENDITURES
\$33.4 Million

#### MAJOR OHV RECREATION TRIP ACTIVITIES

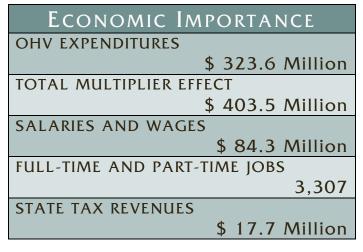
Driving back roads	72.3%
Sightseeing	50.5%
Hiking/ Walking	43.6%
Camping	38.6%
Picnicking	36.6%

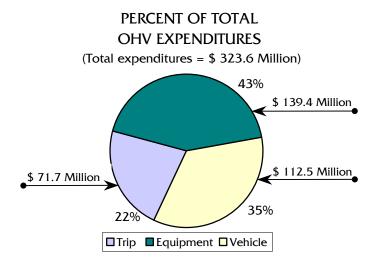
Married	81.9%
Income greater than \$75000	20.9%
Income less than \$25000	8.8%
Average age	49
Average years lived in AZ	32
College degree	33.7%





### PIMA COUNTY





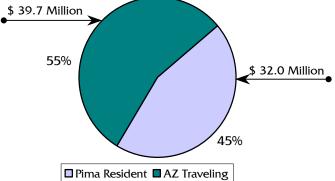
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
836,803
Pima County Resident
535,254
AZ Resident Traveling to Pima
301,550
EXPENDITURES
TOTAL OHV EXPENDITURES
\$323.6 Million
TOTAL TRIP RELATED
\$71.7 Million
Fuel
\$24.2 Million
Lodging
\$5.5 Million
Restaurant, bars
\$14.1 Million
Groceries, liquor
\$17.5 Million
Other
\$10.4 Million
TOTAL EQUIPMENT EXPENDITURES
\$139.4 Million
TOTAL VEHICLE EXPENDITURES
\$112.5 Million

#### MAJOR OHV RECREATION TRIP ACTIVITIES

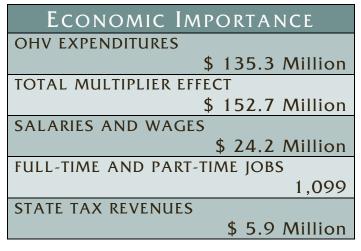
Driving back roads	70.3%
Sightseeing	44.1%
Hiking/ Walking	37.3%
Camping	33.9%
Picnicking	30.5%

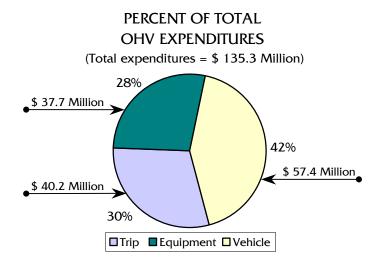
Married	67.3%
Income greater than \$75000	34.3%
Income less than \$25000	9.1%
Average age	44
Average years lived in AZ	24
College degree	33.0%





## PINAL COUNTY





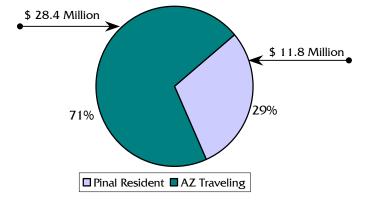
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
600,020
Pinal County Resident
197,918
AZ Resident Traveling to Pinal
402,101
EXPENDITURES
TOTAL OHV EXPENDITURES
\$135.3 Million
TOTAL TRIP RELATED
\$40.2 Million
Fuel
\$11.7 Million
Lodging
\$5.2 Million
Restaurant/ bars
\$7.4 Million
Groceries/ liquor
\$8.9 Million
Other
\$7.0 Million
TOTAL EQUIPMENT EXPENDITURES
\$37.7 Million
TOTAL VEHICLE EXPENDITURES
\$57.4 Million

#### MAJOR OHV RECREATION TRIP ACTIVITIES

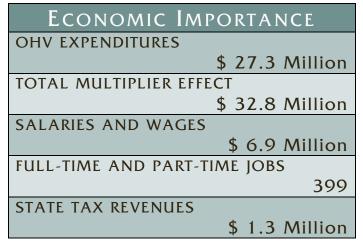
Driving back roads	79.7%
Sightseeing	65.6%
Picnicking	48.4%
Hiking/ Walking	46.9%
Camping	32.8%

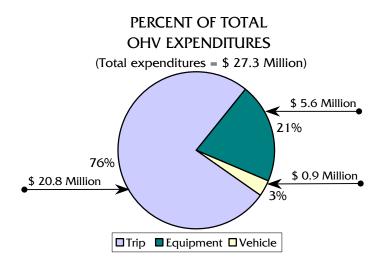
OTTA HOUSEHOLD DEMOGRATHICS	
Married	70.0%
Income greater than \$75000	20.7%
Income less than \$25000	8.6%
Average age	49
Average years lived in AZ	29
College degree	30.0%





### SANTA CRUZ COUNTY





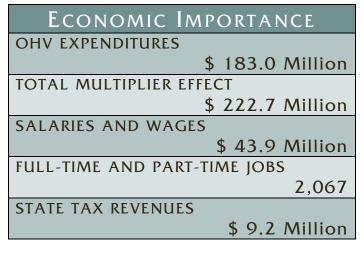
OHV ACTIVITIY DAYS
TOTAL OHV DAYS
406,935
Santa Cruz County Resident
35,152
AZ Resident Traveling to Santa Cruz
371,782
EXPENDITURES
TOTAL OHV EXPENDITURES
\$27.3 Million
TOTAL TRIP RELATED
\$20.8 Million
Fuel
\$4.9 Million
Lodging
\$4.1Million
Restaurant/ bars
\$3.5 Million
Groceries/ liquor
\$3.9 Million
Other
\$4.4 Million
TOTAL EQUIPMENT EXPENDITURES
\$5.6 Million
TOTAL VEHICLE EXPENDITURES
\$0.9 Million

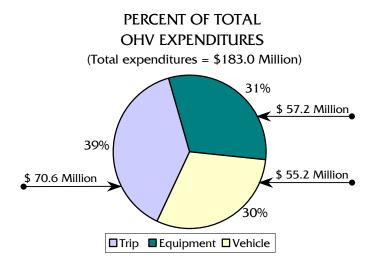


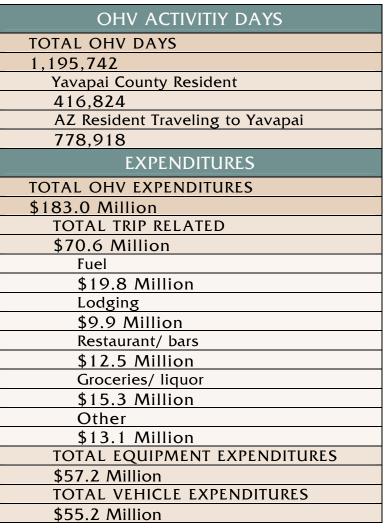
MAJOR OHV RECREATION TRIP ACTIVITIES	
Driving back roads	78.8%
Hiking/ Walking	57.6%
Sightseeing	45.5%
Picnicking	33.3%
Camping/ Trail riding	27.3%
OHV HOUSEHOLD DEMOGRAPHICS	
Married	79.3%
Income greater than \$75000	35.7%
Income less than \$25000	7.1%

income less than \$2,5000	1.170
Average age	49
Average years lived in AZ	30
College degree	48.3%

## YAVAPAI COUNTY



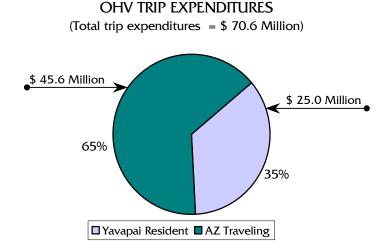




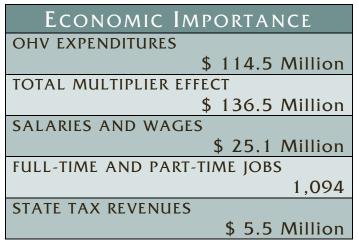
MAJOR OHV RECREATION TRIP ACTIVITIES

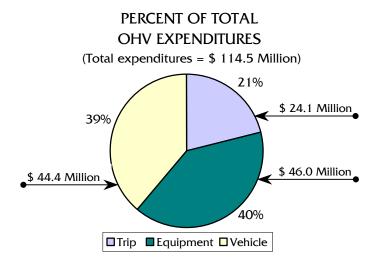
Driving back roads	72.8%
Sightseeing	53.5%
Hiking/ Walking	39.5%
Picnicking	32.5%
Camping	30.7%

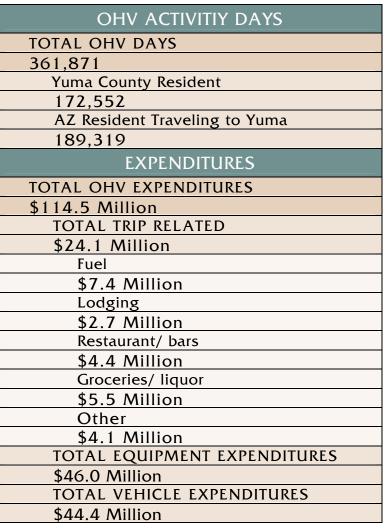
Married	76.1%
Income greater than \$75000	29.4%
Income less than \$25000	10.8%
Average age	49
Average years lived in AZ	25
College degree	30.3%



# YUMA COUNTY





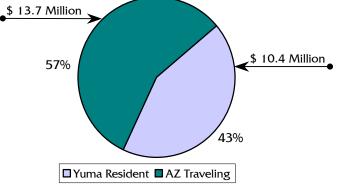


#### MAJOR OHV RECREATION TRIP ACTIVITIES

Driving back roads	75.4%
Sightseeing	52.5%
Hiking/ Walking	41.0%
Camping/ Picnicking	34.4%
Open-area driving	32.8%

Married	71.4%
Income greater than \$75000	27.8%
Income less than \$25000	7.4%
Average age	48
Average years lived in AZ	20
College degree	30.4%





### APPENDIX A

Number of OHV Recreation Households

#### NUMBER OF OHV RECREATION HOUSEHOLDS

COUNTY	NUMBER OF HOUSEHOLDS	
STATE OF AZ	499,434	
APACHE	12,264	
COCHISE	14,253	
COCONINO	24,554	
GILA	12,027	
GRAHAM	4,394	
GREENLEE	1,979	
LAPAZ	5,947	
MARICOPA	244,076	
MOHAVE	25,835	
NAVAJO	20,309	
PIMA	63,792	
PINAL	20,985	
SANTA CRUZ	2,664	
YAVAPAI	27,518	
YUMA	18,837	

### APPENDIX B

Number of OHV Recreation Activity Days By Arizona Households Out-Of-State

#### NUMBER OF OHV RECREATION ACTIVITY DAYS BY ARIZONA HOUSEHOLDS OUT-OF-STATE

LOCATION	ACTIVITY DAYS	
CALIFORNIA	520,895	
NEVADA	103,372	
NEW MEXICO	356,840	
UTAH	221,833	
MEXICO	555,709	
TOTAL	1,758,649	

### APPENDIX C

OHV Expenditures by Category & by County

STATE OF ARIZONA – OHV EXPENDITURES		
<u>TRIP EXPENDITURES:</u> FUEL	\$257 507 324	
PARK, PARKING FEES	\$257,507,324 \$32,884,462	
LODGING	\$94,391,832	
RESTAURANTS, BARS	\$156,806,321	
GROCERIES, LIQUOR	\$192,838,625	
ENTERTAINMENT	\$65,545,052	
SOUVENIRS, T-SHIRTS, SHOPPING	\$42,342,611	
TOTAL TRIP EXPENDITURES	\$842,316,228	
EQUIPMENT EXPENDITURES:		
CUSTOM PARTS, INSTALLATION	\$146,817,024	
TOOLS	\$34,993,950	
TIRES, RIMS	\$134,175,322	
PARTS, REPAIRS	\$152,066,189	
VEHICLE INSURANCE	\$286,778,545	
LICENSE, PERMITS, EMISSIONS CHECKS	\$107,097,821	
HELMETS OR OTHER SAFETY GEAR	\$37,695,882	
SPECIALITY CLOTHING	\$37,439,565	
MANUALS, MAGAZINES	\$19,265,873	
EMERGENCY SUPPLIES	\$22,200,629	
EQUIPMENT RENTAL, TOWING	\$17,195,035	
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$14,605,549	
OUT-OF-POCKET MEDICAL COSTS	\$9,070,230	
EVENT ENTRY FEES	\$16,681,893	
CAMP GEAR	\$83,703,623	
PHOTO, VIDEO EQUIPMENT	\$58,361,287	
TOTAL EQUIPMENT EXPENDITURES	\$1,178,148,417	
OFF HIGHWAY VEHICLES	\$660,214,089	
TOW VEHICLES, TRAILERS	\$375,029,622	
TOTAL EXPENDITURES	\$3,055,708,356	

APACHE COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$11,791,664
PARK, PARKING FEES	\$2,411,529
LODGING	\$8,590,867
RESTAURANTS, BARS	\$8,137,335
GROCERIES, LIQUOR	\$9,356,475
ENTERTAINMENT	\$4,351,580
SOUVENIRS, T-SHIRTS, SHOPPING	\$2,929,133
TOTAL TRIP EXPENDITURES	\$47,568,582
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$1,631,112
TOOLS	\$539,616
TIRES, RIMS	\$2,428,272
PARTS, REPAIRS	\$3,127,320
VEHICLE INSURANCE	\$5,298,048
LICENSE, PERMITS, EMISSIONS CHECKS	\$1,913,184
HELMETS OR OTHER SAFETY GEAR	\$355,656
SPECIALITY CLOTHING	\$404,712
MANUALS, MAGAZINES	\$233,016
EMERGENCY SUPPLIES	\$551,880
EQUIPMENT RENTAL, TOWING	\$748,104
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$183,960
OUT-OF-POCKET MEDICAL COSTS	\$233,016
EVENT ENTRY FEES	\$404,712
CAMP GEAR	\$2,685,816
PHOTO, VIDEO EQUIPMENT	\$1,815,072
TOTAL EQUIPMENT EXPENDITURES	\$22,553,496
OFF HIGHWAY VEHICLES	\$13,295,648
TOW VEHICLES, TRAILERS	\$10,609,382
TOTAL EXPENDITURES	\$94,027,108

COCHISE COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$8,174,992
PARK, PARKING FEES	\$1,170,511
LODGING	\$3,427,709
RESTAURANTS, BARS	\$5,019,557
GROCERIES, LIQUOR	\$6,195,546
ENTERTAINMENT	\$2,235,041
SOUVENIRS, T-SHIRTS, SHOPPING	\$1,447,360
TOTAL TRIP EXPENDITURES	\$27,670,716
EQUIPMENT EXPENDITURES:	\$5,629,935
CUSTOM PARTS, INSTALLATION TOOLS	\$1,354,035
TIRES, RIMS	\$3,819,804
PARTS, REPAIRS	\$4,874,526
VEHICLE INSURANCE	\$5,587,176
LICENSE, PERMITS, EMISSIONS CHECKS	\$2,636,805
HELMETS OR OTHER SAFETY GEAR	\$1,097,481
SPECIALITY CLOTHING	\$698,397
MANUALS, MAGAZINES	\$399,084
EMERGENCY SUPPLIES	\$413,337
EQUIPMENT RENTAL, TOWING	\$997,710
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$299,313
OUT-OF-POCKET MEDICAL COSTS	\$228,048
EVENT ENTRY FEES	\$669,891
CAMP GEAR	\$2,166,456
PHOTO, VIDEO EQUIPMENT	\$1,781,625
TOTAL EQUIPMENT EXPENDITURES	\$32,653,623
OFF HIGHWAY VEHICLES	\$25,485,304
TOW VEHICLES, TRAILERS	\$12,661,505
TOTAL EXPENDITURES	\$98,471,148

COCONINO COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$26,930,799
PARK, PARKING FEES	\$5,310,852
LODGING	\$18,533,053
RESTAURANTS, BARS	\$18,287,552
GROCERIES, LIQUOR	\$21,254,854
ENTERTAINMENT	\$9,611,797
SOUVENIRS, T-SHIRTS, SHOPPING	\$6,440,550
TOTAL TRIP EXPENDITURES	\$106,369,458
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$7,538,078
TOOLS	\$1,154,038
TIRES, RIMS	\$5,917,514
PARTS, REPAIRS	\$6,752,350
VEHICLE INSURANCE	\$13,529,254
LICENSE, PERMITS, EMISSIONS CHECKS	\$4,959,908
HELMETS OR OTHER SAFETY GEAR	\$1,055,822
SPECIALITY CLOTHING	\$662,958
MANUALS, MAGAZINES	\$638,404
EMERGENCY SUPPLIES	\$761,174
EQUIPMENT RENTAL, TOWING	\$392,864
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$392,864
OUT-OF-POCKET MEDICAL COSTS	\$392,864
EVENT ENTRY FEES	\$785,728
CAMP GEAR	\$2,627,278
PHOTO, VIDEO EQUIPMENT	\$3,535,776
TOTAL EQUIPMENT EXPENDITURES	\$51,096,874
OFF HIGHWAY VEHICLES	\$46,322,594
TOW VEHICLES, TRAILERS	\$11,501,405
TOTAL EXPENDITURES	\$215,290,331

GILA COUNTY – OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$16,727,658
PARK, PARKING FEES	\$3,396,414
LODGING	\$12,003,267
RESTAURANTS, BARS	\$11,479,781
GROCERIES, LIQUOR	\$13,258,846
ENTERTAINMENT	\$6,122,365
SOUVENIRS, T-SHIRTS, SHOPPING	\$4,113,928
TOTAL TRIP EXPENDITURES	\$67,102,260
EQUIPMENT EXPENDITURES:	¢2,475,420
CUSTOM PARTS, INSTALLATION	\$3,175,128
	\$1,298,916
TIRES, RIMS	\$3,764,451
PARTS, REPAIRS	\$4,305,666
	\$5,520,393
LICENSE, PERMITS, EMISSIONS CHECKS HELMETS OR OTHER SAFETY GEAR	\$2,044,590 \$565,269
SPECIALITY CLOTHING	\$673,512
MANUALS, MAGAZINES	\$168,378
EMERGENCY SUPPLIES	\$312,702
EQUIPMENT RENTAL, TOWING	\$228,513
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$841,890
OUT-OF-POCKET MEDICAL COSTS	\$48,108
EVENT ENTRY FEES	\$264,594
CAMP GEAR	\$2,657,967
PHOTO, VIDEO EQUIPMENT	\$1,274,862
TOTAL EQUIPMENT EXPENDITURES	\$27,144,939
OFF HIGHWAY VEHICLES	\$16,908,537
TOW VEHICLES, TRAILERS	\$9,384,146
TOTAL EXPENDITURES	\$120,539,881

GRAHAM COUNTY – OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$3,456,294
PARK, PARKING FEES	\$564,124
LODGING	\$1,799,058
RESTAURANTS, BARS	\$2,208,492
GROCERIES, LIQUOR	\$2,659,620
ENTERTAINMENT	\$1,053,075
SOUVENIRS, T-SHIRTS, SHOPPING	\$692,643
TOTAL TRIP EXPENDITURES	\$12,433,306
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$1,454,414
TOOLS	\$421,824
TIRES, RIMS	\$1,300,624
PARTS, REPAIRS	\$1,414,868
VEHICLE INSURANCE	\$2,161,848
LICENSE, PERMITS, EMISSIONS CHECKS	\$768,950
HELMETS OR OTHER SAFETY GEAR	\$351,520
SPECIALITY CLOTHING	\$268,034
MANUALS, MAGAZINES	\$166,972
EMERGENCY SUPPLIES	\$175,760
EQUIPMENT RENTAL, TOWING	\$101,062
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$87,880
OUT-OF-POCKET MEDICAL COSTS	\$52,728
EVENT ENTRY FEES	\$228,488
CAMP GEAR	\$1,036,984
PHOTO, VIDEO EQUIPMENT	\$562,432
TOTAL EQUIPMENT EXPENDITURES	\$10,554,388
OFF HIGHWAY VEHICLES	\$6,740,973
TOW VEHICLES, TRAILERS	\$2,625,556
TOTAL EXPENDITURES	\$32,354,223

GREENLEE COUNTY - OHV EXPENDITURES	1
TRIP EXPENDITURES:	
FUEL	\$1,518,231
PARK, PARKING FEES	\$239,212
LODGING	\$726,095
RESTAURANTS, BARS	\$947,823
GROCERIES, LIQUOR	\$1,163,300
ENTERTAINMENT	\$444,841
SOUVENIRS, T-SHIRTS, SHOPPING	\$289,816
TOTAL TRIP EXPENDITURES	\$5,329,317
EQUIPMENT EXPENDITURES:	¢222 472
CUSTOM PARTS, INSTALLATION TOOLS	\$332,472
TIRES, RIMS	\$83,118 \$508,603
PARTS, REPAIRS	\$540,267
VEHICLE INSURANCE	\$1,292,287
LICENSE, PERMITS, EMISSIONS CHECKS	\$427,464
HELMETS OR OTHER SAFETY GEAR	\$53,433
SPECIALITY CLOTHING	\$45,517
MANUALS, MAGAZINES	\$33,643
EMERGENCY SUPPLIES	\$75,202
EQUIPMENT RENTAL, TOWING	\$15,832
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$23,748
OUT-OF-POCKET MEDICAL COSTS	\$128,635
EVENT ENTRY FEES	\$41,559
CAMP GEAR	\$381,947
PHOTO, VIDEO EQUIPMENT	\$154,362
TOTAL EQUIPMENT EXPENDITURES	\$4,138,089
OFF HIGHWAY VEHICLES	\$2,171,708
TOW VEHICLES, TRAILERS	\$106,541
TOTAL EXPENDITURES	\$11,745,655

LA PAZ COUNTY – OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$5,850,435
PARK, PARKING FEES	\$926,839
LODGING	\$2,277,209
RESTAURANTS, BARS	\$3,353,923
GROCERIES, LIQUOR	\$4,485,869
ENTERTAINMENT	\$1,608,258
SOUVENIRS, T-SHIRTS, SHOPPING	\$1,006,274
TOTAL TRIP EXPENDITURES	\$19,508,808
EQUIPMENT EXPENDITURES:	
CUSTOM PARTS, INSTALLATION	\$1,165,612
TOOLS	\$297,350
TIRES, RIMS	\$1,207,241
PARTS, REPAIRS	\$790,951
VEHICLE INSURANCE	\$1,593,796
LICENSE, PERMITS, EMISSIONS CHECKS	\$874,209
HELMETS OR OTHER SAFETY GEAR	\$350,873
SPECIALITY CLOTHING	\$434,131
MANUALS, MAGAZINES	\$112,993
EMERGENCY SUPPLIES	\$327,085
EQUIPMENT RENTAL, TOWING	\$23,788
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$101,099
OUT-OF-POCKET MEDICAL COSTS	\$35,682
EVENT ENTRY FEES	\$297,350
CAMP GEAR	\$362,767
PHOTO, VIDEO EQUIPMENT	\$487,654
TOTAL EQUIPMENT EXPENDITURES	\$8,462,581
OFF HIGHWAY VEHICLES	\$13,672,948
TOW VEHICLES, TRAILERS	\$2,435,143
TOTAL EXPENDITURES	\$44,079,481

TOTAL EXPENDITURES	\$1,358,144,939
TOW VEHICLES, TRAILERS	\$200,566,025
OFF HIGHWAY VEHICLES	\$294,392,995
TOTAL EQUIPMENT EXPENDITURES	\$632,889,068
PHOTO, VIDEO EQUIPMENT	\$30,509,500
CAMP GEAR	\$45,642,212
EVENT ENTRY FEES	\$9,763,040
OUT-OF-POCKET MEDICAL COSTS	\$2,440,760
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$5,613,748
EQUIPMENT RENTAL, TOWING	\$8,786,736
EMERGENCY SUPPLIES	\$10,007,116
MANUALS, MAGAZINES	\$12,447,876
SPECIALITY CLOTHING	\$25,139,828
HELMETS OR OTHER SAFETY GEAR	\$20,990,536
LICENSE, PERMITS, EMISSIONS CHECKS	\$58,822,316
VEHICLE INSURANCE	\$159,869,780
PARTS, REPAIRS	\$80,789,156
TIRES, RIMS	\$70,537,964
TOOLS	\$17,817,548
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$73,710,952
TOTAL TRIP EXPENDITURES	\$230,296,851
SOUVENIRS, T-SHIRTS, SHOPPING	\$9,037,070
ENTERTAINMENT	\$14,527,307
GROCERIES, LIQUOR	\$59,460,110
RESTAURANTS, BARS	\$47,595,645
LODGING	\$10,764,025
PARK, PARKING FEES	\$5,613,743
FUEL	\$83,298,952
TRIP EXPENDITURES:	

MOHAVE COUNTY - OHV EXPENDITURES	T
TRIP EXPENDITURES:	
FUEL	\$16,605,658
PARK, PARKING FEES	\$2,098,499
LODGING	\$3,928,489
RESTAURANTS, BARS	\$8,942,394
GROCERIES, LIQUOR	\$12,423,393
ENTERTAINMENT	\$3,765,852
SOUVENIRS, T-SHIRTS, SHOPPING	\$2,268,603
TOTAL TRIP EXPENDITURES	\$50,032,887
EQUIPMENT EXPENDITURES:	¢ ( 2, 205, 025
CUSTOM PARTS, INSTALLATION	\$13,305,025
TOOLS	\$2,635,170
TIRES, RIMS	\$10,773,195
PARTS, REPAIRS	\$8,990,580
	\$12,090,780
LICENSE, PERMITS, EMISSIONS CHECKS	\$5,192,835
HELMETS OR OTHER SAFETY GEAR SPECIALITY CLOTHING	\$1,808,450 \$1,291,750
MANUALS, MAGAZINES	\$1,033,400
EMERGENCY SUPPLIES	\$1,524,265
EQUIPMENT RENTAL, TOWING	\$258,350
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$1,240,080
OUT-OF-POCKET MEDICAL COSTS	\$413,360
EVENT ENTRY FEES	\$955,895
CAMP GEAR	\$4,469,455
PHOTO, VIDEO EQUIPMENT	\$3,746,075
TOTAL EQUIPMENT EXPENDITURES	\$69,728,665
OFF HIGHWAY VEHICLES	\$45,770,162
TOW VEHICLES, TRAILERS	\$16,676,899
TOTAL EXPENDITURES	\$182,208,613

NAVAJO COUNTY – OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$15,353,638
PARK, PARKING FEES	\$2,003,054
LODGING	\$4,867,521
RESTAURANTS, BARS	\$8,858,553
GROCERIES, LIQUOR	\$11,522,801
ENTERTAINMENT	\$3,771,189
SOUVENIRS, T-SHIRTS, SHOPPING	\$2,366,356
TOTAL TRIP EXPENDITURES	\$48,743,112
EQUIPMENT EXPENDITURES:	¢2 559 024
CUSTOM PARTS, INSTALLATION TOOLS	\$2,558,934 \$852,978
TIRES, RIMS	\$3,716,547
PARTS, REPAIRS	\$4,549,216
VEHICLE INSURANCE	\$8,793,797
LICENSE, PERMITS, EMISSIONS CHECKS	\$3,168,204
HELMETS OR OTHER SAFETY GEAR	\$1,299,776
SPECIALITY CLOTHING	\$629,579
MANUALS, MAGAZINES	\$324,944
EMERGENCY SUPPLIES	\$426,489
EQUIPMENT RENTAL, TOWING	\$81,236
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$832,669
OUT-OF-POCKET MEDICAL COSTS	\$304,635
EVENT ENTRY FEES	\$345,253
CAMP GEAR	\$3,472,839
PHOTO, VIDEO EQUIPMENT	\$1,584,102
TOTAL EQUIPMENT EXPENDITURES	\$32,941,198
OFF HIGHWAY VEHICLES	\$25,944,687
TOW VEHICLES, TRAILERS	\$7,417,972
TOTAL EXPENDITURES	\$115,046,969

PIMA COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$24,064,484
PARK, PARKING FEES	\$2,250,998
LODGING	\$5,514,282
RESTAURANTS, BARS	\$14,101,953
GROCERIES, LIQUOR	\$17,543,328
ENTERTAINMENT	\$5,018,013
SOUVENIRS, T-SHIRTS, SHOPPING	\$3,179,161
TOTAL TRIP EXPENDITURES	\$71,672,219
EQUIPMENT EXPENDITURES:	
CUSTOM PARTS, INSTALLATION	\$17,096,256
TOOLS	\$4,784,400
TIRES, RIMS	\$13,970,448
PARTS, REPAIRS	\$16,841,088
	\$33,363,216
LICENSE, PERMITS, EMISSIONS CHECKS	\$11,865,312
HELMETS OR OTHER SAFETY GEAR	\$5,294,736
SPECIALITY CLOTHING	\$3,955,104
MANUALS, MAGAZINES	\$2,105,136
EMERGENCY SUPPLIES EQUIPMENT RENTAL, TOWING	\$4,848,192 \$3,508,560
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$3,827,520
OUT-OF-POCKET MEDICAL COSTS	\$3,636,144
EVENT ENTRY FEES	\$1,339,632
CAMP GEAR	\$8,037,792
PHOTO, VIDEO EQUIPMENT	\$4,975,776
TOTAL EQUIPMENT EXPENDITURES	\$139,449,312
OFF HIGHWAY VEHICLES	\$74,381,307
TOW VEHICLES, TRAILERS	\$38,111,048
TOTAL EXPENDITURES	\$323,613,887

PINAL COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$11,731,714
PARK, PARKING FEES	\$1,614,053
LODGING	\$5,179,052
RESTAURANTS, BARS	\$7,451,860
GROCERIES, LIQUOR	\$8,852,668
ENTERTAINMENT	\$3,228,172
SOUVENIRS, T-SHIRTS, SHOPPING	\$2,126,628
TOTAL TRIP EXPENDITURES	\$40,184,147
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$5,015,415
TOOLS	\$797,430
TIRES, RIMS	\$3,378,585
PARTS, REPAIRS	\$3,693,360
VEHICLE INSURANCE	\$10,072,800
LICENSE, PERMITS, EMISSIONS CHECKS	\$3,609,420
HELMETS OR OTHER SAFETY GEAR	\$986,295
SPECIALITY CLOTHING	\$692,505
MANUALS, MAGAZINES	\$545,610
EMERGENCY SUPPLIES	\$713,490
EQUIPMENT RENTAL, TOWING	\$1,007,280
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$188,865
OUT-OF-POCKET MEDICAL COSTS	\$440,685
EVENT ENTRY FEES	\$188,865
CAMP GEAR	\$3,861,240
PHOTO, VIDEO EQUIPMENT	\$2,539,185
TOTAL EQUIPMENT EXPENDITURES	\$37,731,030
OFF HIGHWAY VEHICLES	\$31,777,367
TOW VEHICLES, TRAILERS	\$25,650,322
TOTAL EXPENDITURES	\$135,342,866

SANTA CRUZ COUNTY - OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$4,825,216
PARK, PARKING FEES	\$1,094,655
LODGING	\$4,154,608
RESTAURANTS, BARS	\$3,516,823
GROCERIES, LIQUOR	\$3,891,314
ENTERTAINMENT	\$1,968,731
SOUVENIRS, T-SHIRTS, SHOPPING	\$1,344,419
TOTAL TRIP EXPENDITURES	\$20,795,765
EQUIPMENT EXPENDITURES:	
CUSTOM PARTS, INSTALLATION	\$556,776
TOOLS	\$170,496
TIRES, RIMS	\$732,600
PARTS, REPAIRS VEHICLE INSURANCE	\$1,004,328
LICENSE, PERMITS, EMISSIONS CHECKS	\$1,316,016 \$727,272
HELMETS OR OTHER SAFETY GEAR	\$175,824
SPECIALITY CLOTHING	\$85,248
MANUALS, MAGAZINES	\$45,288
EMERGENCY SUPPLIES	\$135,864
EQUIPMENT RENTAL, TOWING	\$58,608
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$66,600
OUT-OF-POCKET MEDICAL COSTS	\$15,984
EVENT ENTRY FEES	\$61,272
CAMP GEAR	\$173,160
PHOTO, VIDEO EQUIPMENT	\$242,424
TOTAL EQUIPMENT EXPENDITURES	\$5,567,760
OFF HIGHWAY VEHICLES	\$605,532
TOW VEHICLES, TRAILERS	\$329,877
TOTAL EXPENDITURES	\$27,298,934

YAVAPAI COUNTY – OHV EXPENDITURES	
TRIP EXPENDITURES:	
FUEL	\$19,833,913
PARK, PARKING FEES	\$3,216,545
LODGING	\$9,929,612
RESTAURANTS, BARS	\$12,485,965
GROCERIES, LIQUOR	\$15,250,312
ENTERTAINMENT	\$5,950,407
SOUVENIRS, T-SHIRTS, SHOPPING	\$3,888,873
TOTAL TRIP EXPENDITURES	\$70,555,628
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	¢E 641 100
TOOLS	\$5,641,190 \$1,788,670
TIRES, RIMS	\$6,053,960
PARTS, REPAIRS	\$6,989,572
VEHICLE INSURANCE	\$15,024,828
LICENSE, PERMITS, EMISSIONS CHECKS	\$7,374,824
HELMETS OR OTHER SAFETY GEAR	\$1,596,044
SPECIALITY CLOTHING	\$1,403,418
MANUALS, MAGAZINES	\$577,878
EMERGENCY SUPPLIES	\$1,155,756
EQUIPMENT RENTAL, TOWING	\$798,022
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$660,432
OUT-OF-POCKET MEDICAL COSTS	\$605,396
EVENT ENTRY FEES	\$770,504
CAMP GEAR	\$3,302,160
PHOTO, VIDEO EQUIPMENT	\$3,494,786
TOTAL EQUIPMENT EXPENDITURES	\$57,237,440
OFF HIGHWAY VEHICLES	\$34,070,722
TOW VEHICLES, TRAILERS	\$21,185,539
TOTAL EXPENDITURES	\$183,049,329

YUMA COUNTY – OHV EXPENDITURES		
TRIP EXPENDITURES:		
FUEL	\$7,343,676	
PARK, PARKING FEES	\$973,434	
LODGING	\$2,696,985	
RESTAURANTS, BARS	\$4,418,664	
GROCERIES, LIQUOR	\$5,520,190	
ENTERTAINMENT	\$1,888,426	
SOUVENIRS, T-SHIRTS, SHOPPING	\$1,211,796	
TOTAL TRIP EXPENDITURES	\$24,053,170	
EQUIPMENT EXPENDITURES: CUSTOM PARTS, INSTALLATION	\$8,005,725	
TOOLS	\$998,361	
TIRES, RIMS	\$6,065,514	
PARTS, REPAIRS	\$7,402,941	
VEHICLE INSURANCE	\$11,264,526	
LICENSE, PERMITS, EMISSIONS CHECKS	\$2,712,528	
HELMETS OR OTHER SAFETY GEAR	\$1,714,167	
SPECIALITY CLOTHING	\$1,054,872	
MANUALS, MAGAZINES	\$433,251	
EMERGENCY SUPPLIES	\$772,317	
EQUIPMENT RENTAL, TOWING	\$188,370	
CLUB/ASSOCIATION DUES, DONATIONS, RAFFLES	\$244,881	
OUT-OF-POCKET MEDICAL COSTS	\$94,185	
EVENT ENTRY FEES	\$565,110	
CAMP GEAR	\$2,825,550	
PHOTO, VIDEO EQUIPMENT	\$1,657,656	
TOTAL EQUIPMENT EXPENDITURES	\$45,999,954	
OFF HIGHWAY VEHICLES	\$28,673,605	
TOW VEHICLES, TRAILERS	\$15,768,263	
TOTAL EXPENDITURES	\$114,494,993	

# APPENDIX D

Location of OHV Activity Days by County

## LOCATION OF OHV ACTIVITY DAYS TRAVELING TO APACHE COUNTY

APACHE COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
COCHISE	18,637
COCONINO	10,604
GILA	22,807
GRAHAM	12,683
GREENLEE	7,540
LA PAZ	N/A*
MARICOPA	378,308
MOHAVE	3,105
NAVAJO	96,965
PIMA	135,811
PINAL	22,366
SANTA CRUZ	1,978
YAVAPAI	8,277
YUMA	24,272
TOTAL	743,353

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO COCHISE COUNTY

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COCHISE COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	2,466
COCONINO	26,349
GILA	1,276
GRAHAM	6,197
GREENLEE	733
LA PAZ	2,459
MARICOPA	97,168
MOHAVE	518
NAVAJO	3,978
PIMA	100,950
PINAL	3,798
SANTA CRUZ	2,787
YAVAPAI	4,434
YUMA	1,324
TOTAL	254,437

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO COCONINO COUNTY

COCONINO COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	12,743
COCHISE	27,820
GILA	34,928
GRAHAM	5,096
GREENLEE	6,289
LA PAZ	5,082
MARICOPA	1,111,604
MOHAVE	53,310
NAVAJO	61,909
PIMA	42,123
PINAL	35,448
SANTA CRUZ	2,607
YAVAPAI	154,904
YUMA	30,009
TOTAL	1,583,872

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO GILA COUNTY

GILA COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	5,138
COCHISE	8,373
COCONINO	5,463
GRAHAM	7,529
GREENLEE	1,007
LA PAZ	N/A*
MARICOPA	669,813
MOHAVE	1,294
NAVAJO	54,201
PIMA	175,755
PINAL	91,152
SANTA CRUZ	360
YAVAPAI	7,390
YUMA	7,061
TOTAL	1,034,536

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO GRAHAM COUNTY

GRAHAM COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	4,522
COCHISE	38,084
COCONINO	N/A*
GILA	7,018
GREENLEE	6,045
LA PAZ	1,312
MARICOPA	44,050
MOHAVE	N/A*
NAVAJO	14,172
PIMA	24,693
PINAL	3,798
SANTA CRUZ	N/A*
YAVAPAI	N/A*
YUMA	N/A*
TOTAL	143,694

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO GREENLEE COUNTY

GREENLEE COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	7,194
COCHISE	8,103
COCONINO	N/A*
GILA	N/A*
GRAHAM	8,281
LA PAZ	N/A*
MARICOPA	N/A*
MOHAVE	N/A*
NAVAJO	7,210
PIMA	10,168
PINAL	11,816
SANTA CRUZ	719
YAVAPAI	N/A*
YUMA	2,648
TOTAL	56,139

## LOCATION OF OHV ACTIVITY DAYS TRAVELING TO LA PAZ COUNTY

E

LA PAZ COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	N/A*
COCHISE	810
COCONINO	3,213
GILA	N/A*
GRAHAM	116
GREENLEE	N/A*
MARICOPA	50,527
MOHAVE	49,687
NAVAJO	497
PIMA	21,062
PINAL	4,220
SANTA CRUZ	N/A*
YAVAPAI	591
YUMA	22,507
TOTAL	153,230

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO MARICOPA COUNTY

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MARICOPA COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	411
COCHISE	7,563
COCONINO	38,560
GILA	6,220
GRAHAM	3,011
GREENLEE	122
LA PAZ	820
MOHAVE	21,220
NAVAJO	16,907
PIMA	42,849
PINAL	51,062
SANTA CRUZ	1,438
YAVAPAI	28,675
YUMA	11,474
TOTAL	230,332

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO MOHAVE COUNTY

E

MOHAVE COUNTY ACTIVITY DAYS	
TRAVELING FROM ORIGIN COUNTY	OHV DAYS
APACHE	2,055
COCHISE	2,701
COCONINO	12,211
GILA	2,552
GRAHAM	521
GREENLEE	N/A*
LA PAZ	984
MARICOPA	85,508
NAVAJO	3,481
PIMA	10,894
PINAL	N/A*
SANTA CRUZ	N/A*
YAVAPAI	45,230
YUMA	9,709
TOTAL	1 <b>75,84</b> 6

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO NAVAJO COUNTY

E

NAVAJO COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	19,526	
COCHISE	2,701	
COCONINO	10,604	
GILA	8,612	
GRAHAM	1,853	
GREENLEE	N/A*	
LA PAZ	N/A*	
MARICOPA	159,356	
MOHAVE	6,211	
PIMA	55,196	
PINAL	23,210	
SANTA CRUZ	539	
YAVAPAI	9,164	
YUMA	8,826	
TOTAL	305,798	

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO PIMA COUNTY

PIMA COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	9,866	
COCHISE	16,476	
COCONINO	3,213	
GILA	4,785	
GRAHAM	5,502	
GREENLEE	733	
LA PAZ	N/A*	
MARICOPA	193,041	
MOHAVE	7,764	
NAVAJO	1,989	
PINAL	29,962	
SANTA CRUZ	4,225	
YAVAPAI	3,252	
YUMA	20,742	
TOTAL	301,550	

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO PINAL COUNTY

PINAL COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	1,850	
COCHISE	N/A*	
COCONINO	N/A*	
GILA	3,509	
GRAHAM	521	
GREENLEE	N/A*	
LA PAZ	N/A*	
MARICOPA	320,007	
MOHAVE	N/A*	
NAVAJO	5,221	
PIMA	62,458	
SANTA CRUZ	N/A*	
YAVAPAI	591	
YUMA	7,944	
TOTAL	402,101	

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO SANTA CRUZ COUNTY

SANTA CRUZ COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	2,055	
COCHISE	19,447	
COCONINO	1,285	
GILA	1,116	
GRAHAM	174	
GREENLEE	N/A*	
LA PAZ	N/A*	
MARICOPA	182,676	
MOHAVE	N/A*	
NAVAJO	N/A*	
PIMA	147,431	
PINAL	17,302	
YAVAPAI	296	
YUMA	N/A*	
TOTAL	371,782	

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO YAVAPAI COUNTY

E

YAVAPAI COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	2,878	
COCHISE	4,862	
COCONINO	72,943	
GILA	5,104	
GRAHAM	116	
GREENLEE	N/A*	
LA PAZ	3,115	
MARICOPA	551,915	
MOHAVE	42,441	
NAVAJO	7,708	
PIMA	51,564	
PINAL	18,146	
SANTA CRUZ	1,798	
YUMA	16,328	
TOTAL	778,918	

# LOCATION OF OHV ACTIVITY DAYS TRAVELING TO YUMA COUNTY

YUMA COUNTY ACTIVITY DAYS		
TRAVELING FROM ORIGIN COUNTY	OHV DAYS	
APACHE	N/A*	
COCHISE	4,862	
COCONINO	9,319	
GILA	638	
GRAHAM	927	
GREENLEE	N/A*	
LA PAZ	5,902	
MARICOPA	117,897	
MOHAVE	6,470	
NAVAJO	N/A*	
PIMA	31,229	
PINAL	3,798	
SANTA CRUZ	N/A*	
YAVAPAI	8,277	
TOTAL	189,319	

# APPENDIX E

IMPLAN Input-Output Model

## Backckground on Economic Impact Analysis and IMPLAN

The purpose of economic impact analysis is to trace the full impact of a spending event on income and jobs in a local economy. There are three stages of effects: direct, indirect and induced. The direct effect refers to the change in industry output necessary to accommodate the initial change in spending. Indirect effects involve interindustry linkages and refer to effects that arise when businesses directly affected by the spending event place upstream demands on other producers. Finally, induced effects refer to effects that arise when households and other institutions receiving income spend and recycle income within the local economy. Spending out of the income generated during the direct and indirect stages continues to circulate through the economy until it is dissipated through "leakages" in the form of savings or payments for goods and services from outside the local economy. In the end, the cumulative changes in incomes and employment are a multiple of the initial direct effects.

Economic impacts were estimated using county-level Arizona modules of IMPLAN, an input-output model developed and maintained by the Minnesota IMPLAN Group, Inc. (MIG). IMPLAN was originally developed by the USDA Forest Service to assist the Forest Service in land and resource management planning. MIG began work on IMPLAN databases in 1987 at the University of Minnesota. In 1993, Minnesota IMPLAN Group, Inc. was formed to privatize the development of IMPLAN data and software. IMPLAN data and accounts closely follow the conventions used in the "Input-Output Study of the U.S. Economy" by the Bureau of Economic Analysis (1980).

The specific models used were based on IMPLAN's 2000 national economic database. In building the models, trade flows were calculated using IMPLAN's "Regional Purchase Coefficients," which are econometrically-based estimates of the percentage of demand that is satisfied by local producers. Type SAM multipliers were used with the amount of recycled spending limited to households.

Impacts are reported for four types of economic variables: output (or gross sales), value added, employee compensation (or earnings) and employment. Value added is synonymous with gross state product and consists of employee compensation, proprietor income, property income and indirect business taxes. Earnings include wages, salaries and benefits. Employment is a count of both full- and part-time jobs.

# APPENDIX F

Telephone Script & Mail Questionnaire

### SCRIPT 1 (Original)

### **INTRODUCTION**

Hello, my name is {: I}.

I'm calling from Arizona State University's Survey Research Laboratory. Is this {*phone number on screen*}?

I'm calling on behalf of Arizona State Parks about off-highway recreational driving and its economic impact in Arizona.

The interview will take only 2 minutes. Your participation is voluntary and your answers are completely confidential. This call may be monitored for quality control.

For your household, we would like to speak to an adult 18 or older. [Would that be you?]

### **Question 1**

First, does anyone in your household own a motorized vehicle designed to travel off-highway such as an ATV, 4-wheel drive vehicle, SUV, motorcycle, dirt bike, mini-bike, dune buggy or snowmobile?

[CLARIFICATION: OFF-HIGHWAY: anywhere you would not ordinarily drive a regular passenger vehicle?]

- 1. YES
- 2. NO
- 9. DK/REF

#### **Question 2**

How many Off-highway Vehicles are owned by yourself or others in your household?

[DK/REF = 99]

### **Question 3**

Does anyone in your household drive any of these vehicles in places such as: backcountry roads, unimproved roads, trails that are roughly graded or non-maintained, or anywhere you would not ordinarily drive a regular passenger vehicle?

- 1. YES
- 2. NO
- 9. DK/REF

### **Question 4**

We are interested in off-highway recreational driving. By recreational driving, I mean driving offhighway just for fun or as a means to do outdoor recreation activities such as hunting, fishing, wildlife watching, camping, hiking or exploring the outdoors.

Is this the kind of off-highway recreational driving that you or other household members do?

- 1. YES
- 2. NO
- 9. DK/REF

## **Question 5**

About how many off-highway vehicle recreational trips do members of your household take per year?

[DK/RDF = 999]

### **Question 6**

I just need to ask you a few other questions simply for statistical purposes. All of your answers will be kept strictly confidential.

First, what is your zip code? FIVE DIGITS ONLY; 99999 = REFUSAL/DON'T KNOW)

[CLARIFICATION: We want to know what parts of the state our answers are coming from. We don't know your name or address, a computer generates the phone numbers.]

## **Question 7**

What is your age?

[ENTER AGE:] [2 DIGITS; DK/REFUSE = 99]

## **Question 8**

How many adults over the age of 18 live in your home, including yourself?

[DK/REF = 99]

#### **Question 9**

And how many children under 18 live with you?

[DK/REF = 99]

### **Question 10**

What is the highest level of education you had the opportunity to complete?

- 1. DID NOT COMPLETE HIGH SCHOOL
- 2. COMPLETED HIGH SCHOOL
- 3. SOME COLLEGE OR A COMMUNITY COLLEGE
- 4. CURRENTLY ENROLLED IN COLLEGE
- 5. 4 YEAR COLLEGE DEGREE OR BS
- 6. COMPLETED GRADUATE DEGREE
- 9. DK/REFUSED

#### **Question 11**

How many years have you lived in Arizona?

[IVWR: less than 1 year = 00; 12.5 years = 13]

#### **Question 12**

Finally, I'm going to ask you about your total household income, before taxes, for 2000. I'll read some ranges of household incomes, and you just say 'stop' when I say the category your household falls into.

(If you are more comfortable doing so, just give me a number.) [IVER: USE 0 for REFUSALS]

- 1. Under \$10,000
- 2. \$10,000--\$20,000
- 3. \$20,000--\$30,000
- 4. \$30,000--\$40,000
- 5. \$40,000--\$60,000
- 6. \$60,000--\$80,000
- 7. \$80,000--\$100,000
- 8. \$100,000--\$120,000
- 9. Over \$120,000
- 0. DON'T KNOW/REFUSED

IF Respondent has an OHV they drive off-highway for recreation ask next, else quit

#### **Question 13**

That concludes the telephone interview. We would like to know if you would be willing to fill out a mail survey which will give State Parks some more detail on OHV use in the state.

As an incentive, we will include the Arizona Off-Highway Recreation Guides along with the survey.

[CLARIFICATION: So we can get more detail on your off-highway recreation.]

- 1. YES
- 2. NO
- 9. DK/REF

# SCRIPT 2

[At the end of March, we met with Tanna. During that meeting we discussed the problems we were having getting people's cooperation. Given the resources available and our current progress, we would fall very short of our target. We suggested using the State Parks (SCORP) project to help with recruiting OHV enthusiasts (and add additional money to our efforts).

We added the following question to the end of the survey:

"Finally, does anyone in your household own a motorized vehicle designed to travel offhighway such as an ATV, 4-wheel drive vehicle, SUV, motorcycle, dirt bike, mini-bike, dune buggy or snowmobile?

We are interested in off-highway recreational driving. By recreational driving, I mean driving off-highway just for fun or as a means to do outdoor recreation activities such as hunting, fishing, wildlife watching, camping, hiking or exploring the outdoors.

Do any household members do this kind of off-highway recreational driving? "

Cooperation rates were higher, so we stayed with the second script throughout the remainder of the OHV project. We did, however, delete most of the SCORP specific questions to shorten the questionnaire to what follows.]

# INTRODUCTION

Hello, my name is \_\_\_\_\_.

We are not selling anything. We are calling on behalf of Arizona State Parks. I would like to ask you some questions about outdoor recreation in Arizona.

I'm calling from ASU's Survey Research Laboratory.

The questions take about 3 minutes, your participation is voluntary and confidential. No information is ever released that would allow anyone to identify you or anyone else in your family. This call may be monitored for quality control.

Before we start, can I confirm that I dialed {telephone number on screen}?

## **Question 1**

We are interested in people's use of city, county, state and national parks.

In the **last 3 months**, how many times have you or anyone in your household visited an outdoor park or recreation area in Arizona?

[CLARIFICATION: Any area that allows outdoor recreation activities including canal banks and catchment areas, city or state parks, and forest service land]

[ENTER NUMBER OF TIMES, AS 25 or 1 or 0 or 100; DK = 999)

IF 0 to question 1, ask question 2, else skip it

#### Question 2

What about in the **past 12 months**?

(How often have you or anyone else in your household visited an outdoor park or recreation area in Arizona?)

[ENTER NUMBER OF TIMES, AS 25 or 1 or 0 or 100; DK = 999)

#### Question 3

How many miles did you travel to the park or area you visited **most often** within the last {*either 3 or 12 depending on answer to question 1* months?

[IVWR: DO NOT READ CATEGORIES BELOW; THERE ARE 8 BLOCKS PER MILE]

- 1. Less than 1/4 mile (less than 2 blocks we'll verify this)
- 2. 1/4 to 1/2 mile (less than 4 blocks)
- 3. 1/2 to 1 mile (less than 8 blocks)
- 4. 1 to 2 miles
- 5. 2 to 3 miles
- 6. 3 to 5 miles
- 7. 5 to 10 miles
- 8. 10 to 20 miles
- 9. 20 to 50 miles
- 10. 50 to 100 miles
- 11. 100 to 200 miles
- 12. 200 miles or more

99. DK/REF

#### **Question 4**

Finally, I just need to ask you a few other questions simply for statistical purposes. All of your answers will be kept strictly confidential.

What is your age?

# [ENTER AGE:] [2 DIGITS; DK/REFUSE = 99]

## Question 5

Are you:

- 1. employed full time,
- 2. employed part time,
- 3. retired,
- 4. not employed now,
- 5. a homemaker, or
- 6. a student?
- 9. DK/REFUSED

#### **Question 6**

What is the highest level of education you had the opportunity to complete?

- 1. Did Not Complete High School
- 2. Completed High School
- 3. Some College Or A Community College
- 4. Currently Enrolled In College
- 5. 4 Year College Degree Or Bs
- 6. Completed Graduate Degree

#### 9. DK/REFUSED

#### **Question 7**

What is your zip code? (99999 = REFUSAL/DON'T KNOW)

[We want to know what parts of the state our answers are coming from. We don't know your name or address, a computer generates the phone numbers.]

## Question 8

What is your current marital status? Are you single-never married, married, separated, divorced, widowed, or living together?

- 1. Single Never Married
- 2. Married
- 3. Separated

- 4. Divorced
- 5. Widowed
- 6. Living Together
- 9. DK/REF

# Question 9

I'm going to ask you about your total household income, before taxes, for 2001. I'll read some ranges of household incomes, and you just say 'stop' when I say the category your household falls into.

(If you are more comfortable doing so, just give me a number.)

- 1. Under \$10,000
- 2. \$10,000--\$20,000
- 3. \$20,000--\$30,000
- 4. \$30,000--\$40,000
- 5. \$40,000--\$60,000
- 6. \$60,000--\$80,000
- 7. \$80,000--\$100,000
- 8. \$100,000--\$120,000
- 9. Over \$120,000
- 0. DON'T KNOW/REFUSED

# Question 10

Finally, does anyone in your household own a motorized vehicle designed to travel off-highway such as an ATV, 4-wheel drive vehicle, SUV, motorcycle, dirt bike, minibike, dune buggy or snowmobile?

We are interested in off-highway recreational driving. By recreational driving, I mean driving offhighway just for fun or as a means to do outdoor recreation activities such as hunting, fishing, wildlife watching, camping, hiking or exploring the outdoors.

Do any household members do this kind of off-highway recreational driving?

[CLARIFICATION: OFF-HIGHWAY: anywhere you would not ordinarily drive a regular passenger vehicle?]

- 1. YES
- 2. NO
- 9. DK/REF

# Question 11

Would you be willing to participate in a State Parks survey about off highway vehicle use?

The survey is self-administered. We would mail it to your home and you can fill it out at your convenience.

As an incentive, we will also include the Arizona Off-Highway Recreation Guides along with the survey.

1. YES 2. NO

- 9. DK/REF



Dear OHV User,

The State agencies providing off-highway vehicle management and recreation sites in Arizona would like to improve their service to you. To accomplish this, they need to know more about how off-highway vehicles (OHV's) are used throughout the state for recreation.

Recently you received a telephone call asking you to participate in a mail survey about OHV recreation in Arizona. Your response to the enclosed questionnaire is particularly important because you represent other OHV users like yourself. Because a small number of people are being asked to participate in the survey, your responses are of great importance to the success of this study. The questionnaire should take about 15 minutes to complete.

Your participation is voluntary and all information will only be used when they have been combined with the answers of other respondents. You can be assured of complete confidentiality. Your questionnaire has an identification number for mailing purposes only. We will use the number only to check your name off the mailing list when your questionnaire is returned.

Please return the completed questionnaire in the enclosed pre-stamped envelope. In appreciation for your time and effort in providing the necessary information, upon receipt of your questionnaire we will mail the current Arizona Off-Highway Vehicle Recreation Guide.

Arizona State University is administering the survey, on behalf of Arizona State Parks and the Arizona Game and Fish Department. If you have any questions, please call me at 602-543-6111. Survey results on the economic impact of OHV recreation will be made available to city, county and state decision-makers. Thank you for your cooperation and for your contribution to the improvement of Arizona's OHV recreational facilities.

Warmest Regards,

Jonathan Silberman, Ph.D. Professor of Economics

# Arizona OHV User Study



A study conducted by Arizona State University

Sponsored by Arizona State Parks Arizona Game and Fish

# Arizona OHV User Study

Thank you for participating in this study. Your answers will help recreation planners better serve the needs of Arizona Off-Highway Vehicle (OHV) users like you. Please read each question carefully before responding. Answer to the best of your ability and feel free to make additional comments on the last page.

1.	In what month and year was you Please write in month and year b	r <b>last</b> recreation trip during which below.	you <b>used an O</b>	HV?
	MonthYear	-		
2.	In which Arizona County, town Mexico).	or area was that <b>trip taken</b> ? If out	of state, please	write in the location (state or
3.	How many people were in your Number of people	travel party (those that you share e	expenses with) of	on this most recent trip?
3a.	Was this a <b>group ride</b> ? □ Yes → How many people in □ No	the entire group?		
4.	NT 1 C1 'C 1	ite in number of hours OR number	r of days)	
5.	ATV (All Terrain Vehic 4-wheel drive truck	id you use? ( <i>please check all that d</i> cle)	Vehicle) e/mini-bike	<ul> <li>Snowmobile</li> <li>Other, please specify:</li> </ul>
6.	On your <b>most recent</b> recreation participate? ( <i>check all that apply</i> Driving backroads Dirt biking Hill climbing Trail riding Snowmobiling Open-area driving Rock Crawling Competitive events Hiking/walking Sightseeing	<ul> <li>Picnicking</li> <li>Mountain bike riding</li> </ul>	<ul> <li>Persor</li> <li>Swimi</li> <li>Visitir</li> <li>Backp</li> <li>Cross-</li> <li>Photog</li> <li>River</li> <li>Rock of</li> </ul>	nal watercraft riding ming ng historical/ archeological sites acking country skiing/Snowshoeing graphy running

8. On your **last trip**, what percentage of your recreation time was spent on OHV recreation activities? (*please check only one*)

9. With respect to your **most recent** recreation trip during which you used an OHV, please indicate the Arizona town(s)/ county(ies) or the state(s) in which trip and OHV **expenditures were made**. Then, estimate the amount of money that was spent by YOUR TRAVEL PARTY (those that you share expenses with) during your trip in that town/county or state. Finally, indicate the TOTAL amount of money spent on the category.

Categories:	Home town/ county	\$ spent	First other town/county	\$ spent	Second other town/county	\$ spent	Total \$ spent
	county		town/county	+ +	town/county	-	spent
Overnight lodging at motels/campgrounds							
Restaurant dining							
Groceries, food, drinks							
Gasoline/fuel							
OHV activity equipment, supplies & services such as							
replacement parts & repairs							
First aid supplies or medical treatment							
Shopping for gifts/ souvenirs/clothing/ personal items							
Other recreation expenses such as equipment rental, permit							
& admission fees, tours, lessons, etc							

10. This is a hypothetical question. Assume that recreation using an OHV became more expensive due to an increase in gas prices or something else. The total estimated trip expenses for your travel party are listed in the preceding question. Now think about YOUR PORTION of the trip expenditures. What is the MAXIMUM amount you would be willing to pay to experience your last recreation trip using an OHV IN ADDITION TO YOUR PORTION OF THE TRIP EXPENDITURES AS LISTED ABOVE. For example, if the trip expenditures above were \$500, there were 5 people in your travel party, and your portion of the expenditures was \$100, how much money above \$100 would you be willing to pay to experience the recreation trip?

Amount willing to pay: \$\_\_\_\_\_

11. We are interested in knowing more about your feelings regarding your **most recent** recreation trip that included OHV activities. Please **circle** the number that best represents the **importance** of each of the following items. Then let us know your **level of satisfaction** for each objective by circling your level of **agreement**.

Voi	Importance to You			e to	Evaluation of most recent trip	Satisfaction				
Not	at all ortant		Extre: impo	•	Lyandadion of most recent trip		at all afied		Extre sati	mely sfied
1	2	3	4	5	Developing my skills and abilities	1	2	3	4	5
1	2	3	4	5	Gaining a greater sense of self-confidence	1	2	3	4	5
1	2	3	4	5	Experiencing a greater sense of independence	1	2	3	4	5
1	2	3	4	5	Enjoying going exploring on my own	1	2	3	4	5
1	2	3	4	5	Being in control of things that happen	1	2	3	4	5
1	2	3	4	5	Enjoying risk-taking adventure	1	2	3	4	5
1	2	3	4	5	Talking to others about my equipment	1	2	3	4	5
1	2	3	4	5	Enjoying the closeness of family	1	2	3	4	5
1	2	3	4	5	Enjoying group affiliation & togetherness	1	2	3	4	5
1	2	3	4	5	Enjoying having easy access to natural landscapes	1	2	3	4	5
1	2	3	4	5	Enjoying a wide variety of environments within a single park or recreation area	1	2	3	4	5
1	2	3	4	5	Enjoying having access to close-to-home outdoor amenities	1	2	3	4	5
1	2	3	4	5	Enjoying being able to frequently participate in desired activities and settings	1	2	3	4	5
1	2	3	4	5	Releasing or reducing some built-up mental tension	1	2	3	4	5
1	2	3	4	5	Escaping every-day responsibilities for a while	1	2	3	4	5
1	2	3	4	5	Feeling good about solitude, being isolated and independent	1	2	3	4	5
1	2	3	4	5	Getting away from family for a while	1	2	3	4	5
1	2	3	4	5	Enjoying the natural beauty and scenery	1	2	3	4	5
1	2	3	4	5	Overall OHV recreation experience	1	2	3	4	5
1	2	3	4	5	Access to OHV recreation sites/roads/trails	1	2	3	4	5
1	2	3	4	5	Number of OHV recreation areas	1	2	3	4	5
1	2	3	4	5	Law enforcement in OHV areas	1	2	3	4	5
1	2	3	4	5	Safety of OHV areas	1	2	3	4	5
1	2	3	4	5	Information available about OHV recreation	1	2	3	4	5
1	2	3	4	5	Others demonstrating respect for other recreation users	1	2	3	4	5
1	2	3	4	5	Maintenance of OHV recreation areas	1	2	3	4	5
1	2	3	4	5	Support facilities for OHV recreation	1	2	3	4	5
1	2	3	4	5	Signs on OHV roads and trails	1	2	3	4	5
1	2	3	4	5	The challenge of the roads/trails	1	2	3	4	5
1	2	3	4	5	The diversity/variety of OHV opportunities	1	2	3	4	5
1	2	3	4	5	Cleanliness of OHV areas	1	2	3	4	5
1	2	3	4	5	Low level of vehicular noise in the areas	1	2	3	4	5
1	2	3	4	5	Low level of vehicular-related dust in the area	1	2	3	4	5
1	2	3	4	5	People staying on established OHV roads/trails	1	2	3	4	5
1	2	3	4	5	Others demonstrating respect for the environment	1	2	3	4	5
1	2	3	4	5	Others demonstrating respect for private property	1	2	3	4	5

#### Now we would like to ask you some questions about OHV purchases and recreation trips you have taken in the last 12 months.

12. For **just those OHVs purchased in the LAST 12 MONTHS**, fill in the appropriate spaces indicating: a) the type of OHV (i.e., dune buggy, dirt bike, 4-wheel drive truck, ATV, etc.); b) cost of the vehicle INCLUDING taxes and delivery; c) was the OHV new or used; d) percentage of the time OHV was used for recreation.

# **No OHV purchases** in last 12 months

Type of OHV (write in	n type)/Cost	New or us	ed OHV?	Percent of time OHV used for recreation				
Type of OHV:	Cost: \$ \$	New OHV 	Used OHV D	<i>0-25%</i>	26%- 50% □	51%- 75% □	76%- 100% □	
	\$							

13. During the **past 12 months** did you purchase a **tow vehicle** or trailer with OHV use in mind? A tow vehicle is any vehicle used to tow your OHV or OHV trailer.

 $\Box$  No -> *if no, please skip to question 15*  $\Box$  Yes -> *if yes, please complete the next question* 

14. Please fill in: a) cost of the vehicle; b) was the vehicle new or used; c) percentage of time the vehicle was used for recreation.

Type of vehicle	e / Cost	New or us	sed vehicle?	Percent	of time vehic	hicle used for recreation			
		New	Used	0%-	26%-	51%-	76%-		
		vehicle	vehicle	25%	50%	75%	100%		
Tow vehicle	\$								
Trailer	\$								

15. For **all** of the OHVs owned by your household (**not purchased in the last 12 months**), fill in the appropriate spaces indicating: a) the type of OHV (i.e., dune buggy, dirt bike, 4-wheel drive truck, ATV, etc.), and b) percentage of the time OHV was used for recreation over the past year. (*Other than those listed in question 12*).

<b>Type of OHV</b> (write in type)	Perce	ent of time OF	IV used for re	ecreation
	0-25%	26-50%		76-100%



16. Please use the Arizona map above to **identify the county location** of your recreational trips during which you use an OHV. How many trips have you taken in the last 12 months in each Arizona county OR adjacent state or Mexico and what is the average number of days you were away from home?

	Number of OHV trips	Average number of days per trip		Number of OHV trips	Average number of days per trip
Apache			Pima		
Cochise			Pinal		
Coconino			Santa Cruz		
Gila			Yavapai		
Graham			Yuma		
Greenlee			California		
La Paz			Nevada		
Maricopa			New Mexico		
Mohave			Utah		
Navajo			Mexico		
-			Other; <i>specify</i>		

17. To the best of your ability, please **estimate how much you spent** for all OHV recreation-related expenses in each of the following categories **DURING THE PAST 12 MONTHS**. If you own more than one OHV, combine expenses for them all in your estimates. (*Please check the appropriate box for each item*).

	Dollars spent over the last year on OHV related expenses:								
			\$100-	\$250-	\$500-	\$750-	\$1000-	\$2000-	
Expenditure categories:	\$0	\$1-99	\$249	\$499	\$749	\$999	\$1999	\$2999	\$3000+
OHV expenses									
Custom parts/Installation									
Tools									
Tires/Rims									
Parts/Repairs									
Vehicle insurance									
License/Permits/Emissions									
checks									
<b>OHV</b> recreation									
expenses									
Helmets or other safety									
gear									
Specialty clothing									
Manuals/Magazines									
Fuel									
Emergency supplies									
Equipment rental/Towing									
Club/Association dues/									
Donations/Raffles									
Out-of-pocket medical									
costs									
Park/Parking fees									
Lodging									
Restaurants/Bars									
Groceries/Liquor									
Entertainment									
Event entry fees									
Souvenirs/T-									
shirts/Shopping									
Camp gear									
Photo/Video equipment									
Other									
(specify:)									

Finally, we would like to ask you some background information about you and your household. This information will be kept in strictest confidence and used for statistical purposes only.

18. What is your home zip code?

19. How long have you lived in Arizona? Number of years:

20. Are you a member of an OHV club?  $\Box$  Yes  $\Box$  No

21. How many people in your household drive an OHV for recreation?

22. Are you?: □ Married □ Not married 23. And are you:  $\Box$ Male 🛛 Female 24. What is your age? 25. How many children live at home with you? 26. Please indicate the highest level of education you have attained. (*Please check only one*) Less than high school □ Assoc./technical degree □ Master's degree □ High school graduate □ Bachelor's degree Doctoral degree 27. Please check the box for the race/ethnicity you consider yourself to be: (*please check all that apply*) □ White □ Asian/Pacific Islander □ Latino(a)/Hispanic □ Black/African American American Indian  $\Box$  Other (*specify*):

28. Which category below best describes your **total annual household** income for 2000 including all sources and before taxes? (*Please check only one*)

□ \$15,000 or less □ \$15,001-25,000 □ \$25,001-35,000 □ \$35,001-45,000
 □ \$45,001-55,000
 □ \$55,001-65,000

□ \$65,001-75,000
 □ \$75,001-100,000
 □ More than \$100,000

*"hank you for your participation! This questionnaire may be returned in the enclosed postage-paid envelope. If there is anything else you like to share with us, please write your comments in the space below:* 

# APPENDIX G

Sample Design

# State Parks Off-Highway Use Study - Fall 2001 to Fall 2002

Total - Both ve	ersions of scr	eening script								
County:	Population (2000 census)	Number of Households (2000 census)	Sample Numbers called	Number of Households reached	Number Completed Phone Survey	Response Rate from Phone Survey by County	Number Driving Off- Highway for Recreation	Percent Driving OHVs for Recreation	Number Agreeing to Self- administered	Percent Agreeing to Self- Administered
Apache	69,423	31,621	2886	1344	807	60%	313	39%	232	74%
Cochise	117,755	51,126		1486	825	56%	230		100	79%
Coconino	116,320	63,443	3406	1379	832	60%	322	39%	238	74%
Gila	61,335	28,189	3033	1263	668	53%	285	43%	231	81%
Graham	33,489	11,430	2718	1365	796	58%	306	38%	246	80%
Greenlee	8,547	3,744	2466	726	454	63%	240	53%	199	83%
La Paz	19,715	15,133	3119	800	369	46%	145	39%	106	73%
Maricopa	3,072,149	1,250,231	14501	6949	3560	51%	695	20%	507	73%
Mohave	155,032	80,062	3508	1839	877	48%	283	32%	224	79%
Navajo	97,470	47,413	2782	1338	649	49%	278	43%	217	78%
Pima	843,746	336,373	8221	3955	2125	54%	403	19%	309	77%
Pinal	179,727	81,154	3760	1589	816	51%	211	26%	160	76%
Santa Cruz	38,381	13,036	2758	1196	553	46%	113	20%	96	85%
Yavapai	167,517	81,730	3836	2920	894	31%	301	34%	228	76%
Yuma	160,026	74,140	3512	2484	799	32%	203	25%	156	77%
State	5,140,632	2,168,825	63,855	30,633	15,024	49%	4,328	29%	3,331	77%

Residential Hit Rate	48%
Response Rate (Phone)	49%
Compliance Rate for Self-administered	77%
Response Rate (Self-Administered)	yet to be determined

First Script	Only					Second Scri	pt Only				
County:		Number Driving Off- Highway for Recreation	Percent Driving OHVs for Recreation	Number Agreeing to Self- Administered	Percent Agreeing to Self- Administered	County:	Number Completed Phone Survey	Number Driving Off- Highway for Recreation	Percent Driving OHVs for Recreation	Number Agreeing to Self- Administered	Percent Agreeing to Self- Administered
Apache	70	18	26%	17	94%	Apache	737	295	40%	215	73%
Cochise	129	26	20%	22	85%	Cochise	696	204	29%	160	78%
Coconino	146	45	31%	32	71%	Coconino	686	277	40%	206	74%
Gila	67	22	33%	19	86%	Gila	601	263	44%	212	81%
Graham	24	4	17%	2	50%	Graham	772	302	39%	244	81%
Greenlee	9	5	56%	4	80%	Greenlee	445	235	53%	195	83%
La Paz	30	12	40%	7	58%	La Paz	339	133	39%	, 99	74%
Maricopa	2347	359	15%	274	76%	Maricopa	1213	336	28%	233	69%
Mohave	179	45	25%	37	82%	Mohave	698	238	34%	. 187	79%
Navajo	85	26	31%	25	96%	Navajo	564	252	45%	192	76%
Pima	1019	155	15%	115	74%	Pima	1106	248	22%	194	78%
Pinal	204	39	19%	31	79%	Pinal	612	172	28%	129	75%
Santa Cruz	31	7	23%	4	57%	Santa Cruz	522	106	20%	92	87%
Yavapai	213	66	31%	55	83%	Yavapai	681	235	35%	173	74%
Yuma	216	46	21%	35	76%	Yuma	583	157	27%	121	77%
State	4769	875	18%	679	78%	State	10255	3,453	34%	2,652	77%

# ABOUT THE AUTHOR

Dr. Jonathan Silberman is a Professor of Economics and former Dean of the School of Management at Arizona State University West. Under Dr. Silberman's leadership as dean the School of Management received accreditation from the AACSB International, implemented the new Global Business curriculum, and established the Corporate, Scottsdale and Connect MBA programs. Dr. Silberman's research is in the areas of regional economics, environmental economics, and public choice. He has extensive experience in the area of economic impacts for outdoor recreation and tourism, including numerous studies for the Army Corps of Engineers. His research has appeared in prestigious journals including: *The Journal of Political Economy, Land Economics, Social Science Quarterly, Economic Inquiry, The Journal of Urban Economics, Journal of Regional Science, Public Choice,* and the *Review of Economics & Statistics.*