

OFF-HIGHWAY VEHICLES IN PENNSYLVANIA

AN ECONOMIC IMPACT STUDY & OHV USER SURVEY



Authorized by: Pennsylvania Off-Highway Vehicle Association

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Purpose of the Study

This study, authorized by the Pennsylvania Off-Highway Vehicle Association, was conducted to assess the impact of off-highway Vehicles on the economy of the Commonwealth of Pennsylvania. For purposes of this study, off-highway vehicles (OHVs) were defined as all-terrain vehicles (ATVs) and trail bikes.

Methodology

A two-page mail questionnaire, accompanied by a cover letter from the Pennsylvania Off-Highway Vehicle Association, was sent to a systematic random sample of 500 households owning one or more off-highway vehicles from a mailing list provided by the Pennsylvania Off-Highway Vehicle Association. Two-hundred households completed and returned the questionnaire, representing a return of 40%. The number of usable questionnaires constituted a sample size of (n = 200). This sample size is greater than that required (n = 178) for a 95% confidence level. This means that the likelihood of sampling error was less than 5 percent. Summary statistics were utilized in tabulating and analyzing the data.

For calculation purposes, this study uses estimates of 340,000 ATVs and 130,000 Trail Bikes in use in Pennsylvania.

These numbers were derived from Pennsylvania DCNR studies from June 2001, which list numbers of these vehicles in use in year 2000. That study reports 68,476 registered ATVs, and estimated that number represents 14% of the total number of ATVs. However, that percentage estimate has not been changed for several years. This study assumes that the number of registered ATVs is actually closer to 20%, which results in an estimated 340,000 ATVs.

That same study estimates that there were 100,200 off-road motorcycles in use in Pennsylvania in 2000. Applying growth-rate numbers from previous years and adding in an estimated number of dual-purpose motorcycles used off-road, this number is rounded off to 130,000 Trail Bikes in Pennsylvania for 2001.

Presentation of the Data

The data gleaned from the questionnaires are presented in the following manner: (1) a tabular summary of the economic impact data to include footnotes which direct the reader to the location of the calculations for each line item of the summary; (2) an overall summary of the specific data reported in the questionnaires; and (3) a tabular presentation of the findings for each of the items on the questionnaire. Appropriate computations were performed and presented within the appropriate table.

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**Summary of the Estimated Annual Economic Impact of Off-Highway Vehicles
on the Commonwealth of Pennsylvania**

Estimated Component	Annual Economic Impact on the Commonwealth of Pennsylvania
OHVs Purchased (taxes included)	\$ 676,800,000
OHV Fuel Purchased	\$ 45,750,816
OHV Personal Clothing and Accessories Purchased	\$ 57,188,500
OHV Accessories Purchased	\$ 68,626,200
OHV Repairs, Consumable Parts, Maintenance and Lubricants Purchased	\$ 68,626,200
Participation in OHV Organized Events	\$ 22,875,400
Food Purchased on OHV Trips	\$ 12,009,585
Lodging Purchased on OHV Trips	\$ 70,041,650
Registration Fees for All-Terrain Vehicles	\$ 2,448,000
All Other OHV-Related Purchases	<u>\$ 9,150,250</u>
Estimated Total Annual Economic Impact on Off-Highway Vehicles on the Commonwealth of Pennsylvania	<u>\$ 1,033,516,601</u>

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An Overall Summary of the Data Collected

The data presented here are taken from the results of the information collected in the completed questionnaires from a sample of 200 households owning one or more off-highway vehicles. In most cases, *the median was used to represent averages.*

Profile of the average off-highway vehicle owner in Pennsylvania: The average off-highway vehicle owner in the Commonwealth of Pennsylvania is a male from the southwestern region of the state between the ages of 31 and 50, with an estimated annual household income of about \$60,000.

Percentage of Pennsylvania households owning all-terrain vehicles (ATVs): 42% of households owned one ATV, and additional 40% of households owned two ATVs. The median number of ATVs per household is two.

Percentage of Pennsylvania households owning trail bikes: 45% of households owned one trail bike, and an additional 36% households owned two trail bikes. The median number of trail bikes per household is two.

Reason for purchasing OHV(s): 98% of households purchased their OTV(s) for recreation and pleasure. 22% of households indicated that they had also purchased their OHV(s) for competitive events.

Percentage of OHVs purchased in Pennsylvania: 96% of households purchased their OHV(s) within Pennsylvania.

Average purchase price of OHV(s): 38% of households spend between \$3,000 and \$5,999 for their OHV(s), while an additional 31% of households spent from \$6,000 to \$9,000 for their OHV(s). The median expenditure for OHVs is estimated to be approximately \$6,000.

Average number of days OHVs are used annually: 42% of households used their OHV(s) between 30 to 60 days. The median number of days that OHVs are used is estimated to be approximately 60 days per year.

Average number of miles ridden on each Pennsylvania outing: 45% of households reported riding their OHV(s) between 20 to 50 miles on each Pennsylvania outing. The median number of miles ridden on each Pennsylvania outing is estimated to be 50 miles.

Average frequency of OHV purchases in Pennsylvania: 58% of households indicated that they had purchased their OTV(s) every 4 years or less. The median frequency of OHV purchase was every 4 years.

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Average amount of annual expenditure on fuel during Pennsylvania outings: 44% of households indicated that they spent from \$101 to \$300 annually on fuel for their OHV(s), while an additional 29% of households indicated that they spent from \$25 to \$100 annually for fuel. The median annual expenditure for fuel is estimated to be approximately \$200 per household.

Average amount of annual expenditure for OHV-related personal clothing and accessories in Pennsylvania: 36% of households reported that they spent from \$101 to \$250 annually for OHV-related personal clothing and accessories, while an additional 28% of households reported that they spent from \$251 to \$500 for such items. The median annual expenditure for OHV-related personal clothing and accessories is estimated to be \$250 per household.

Average amount of annual expenditure for OHV accessories in Pennsylvania: 30% of households stated that they spent from \$101 to \$250 annually for OHV accessories, while an additional 24% of households stated that spent \$from \$251 to \$500 annually for OHV accessories. The median annual expenditure for OHV accessories is estimated to be \$300 per household.

Average amount of annual expenditure for OHV repairs, consumable parts, maintenance, and lubricants in Pennsylvania: 35% of households indicated that they spent from \$251 to \$500 annually for OHV repairs, consumable parts, maintenance, and lubricants in Pennsylvania, and an additional 25% indicated that they spent from \$101 to \$250 annually for these services or items. The median annual expenditure for OHV repairs, consumable parts, maintenance, and lubricants is estimated to be \$300 per household.

Average amount of annual expenditure for participation in organized OHV events in Pennsylvania: 28% of households reported that they spent from \$51 to \$100 annually for participation in organized OHV events. An additional 23% of households reported that they had spent from \$0 to \$50 annually for organized OHV events, while another 23% reported that they had spent between \$101 and \$200 annually for such events. The median annual expenditure for participation in organized Pennsylvania events is estimated to be \$100 per household.

Average annual number of OHV riding trips to state forest trails within Pennsylvania: 46% of households stated that they took more than three trips annually to state forest trails, and an additional 13% stated that they took three trips annually to such trails. Almost one-fifth (18%) of households stated that they did not ride on state trails at all. The median number of riding trips annually to state forest trails in Pennsylvania is estimated to be 3.

Pennsylvania state forest trails most frequently visited: The Pennsylvania state forest trails most frequently visited are Marienville (70 households), Allegheny National Forest (43 households), Rocky Gap (20 households), Michaux State Forest (19), and Sproul State Forest (13 households). All other state forest trails mentioned were in single digits.

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Average annual number of OHV riding trips to private areas in Pennsylvania: 75% of households indicated that they took more than 3 trips annually to private riding areas in Pennsylvania. The median number of OHV riding trips to private areas in Pennsylvania is 4 or more.

Average amount of expenditure for food for each trip in Pennsylvania: 39% of households reported that they spent from \$51 to \$100 for food on each trip in Pennsylvania, while an additional 37% reported that they spent \$50 or less for food on such trips. The median annual expenditure for food on each trip in Pennsylvania is estimated to be \$75 per household.

Average amount of expenditure for lodging for each trip in Pennsylvania: 32% of households stated that they spent from \$1 to \$50 for lodging on each trip in Pennsylvania, while an additional 20% of households stated that they spent from \$51 to \$100 on each trip. An additional 27% of households stated that they did not spend anything for lodging on any trip they took to Pennsylvania trails. The median expenditure for lodging for each trip in Pennsylvania is estimated to be \$50 per household.

Methods used to transport OHV(s) on riding trips in Pennsylvania: 51% of households indicated that they used a trailer to transport their OHVs, while 27% indicated that they used a truck. An additional 19% indicated that they used both a trailer and a truck within the course of one year.

Average number of OHV trips taken outside Pennsylvania annually: 37% of households reported that they took no OHV trips outside Pennsylvania in the course of one year, while 15% reported that they took one trip annually outside Pennsylvania. An additional 17% reported that they took 2 such OHV trips annually. The median number of trips taken annually outside Pennsylvania is estimated to be 1.

Average amount of expenditure for each trip outside Pennsylvania: 32% of households stated that they spent from \$100 to \$250 on each OHV trip outside Pennsylvania, and an additional 15% stated that they spent from \$251 to \$500. The median expenditure for each trip outside Pennsylvania is estimated to be \$275.

Percentage of households registering their ATV(s) in Pennsylvania: 72% of households indicated that they registered their ATVs in Pennsylvania.

Average amount of annual expenditure in Pennsylvania for all other OHV-related purchases: 32% of households reported that they spent more than \$400 annually on OHV-related purchases not included in previous purchase categories, while 25% reported that they spent from \$100 to \$200 annually on such purchases. The median annual expenditure for all other OHV-related items is estimated to be \$250.

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Table 1

ATV Ownership

How many ATVs do you own? (n = 142)

Number of ATVs	Number Responding	Percentage of Respondents
One	60	42%
Two	56	40%
Three	16	11%
Four	6	4%
Five or more	4	3%

Computation of Estimated Number of Individuals Owning ATVs: (N = 340,000)

42% of sample own 1 ATV	$340,000 \times 42\%$	= 142,800 households
40% of sample own 2 ATVs	$340,000 \times 40\% / 2$	= 68,000 households
11% of sample own 3 ATVs	$340,000 \times 11\% / 3$	= 12,467 households
4% of sample own 4 ATVs	$340,000 \times 4\% / 4$	= 3,400 households
3% of sample own 5 or more ATVs	$340,000 \times 3\% / 5$	= 2,040 households

Estimated Total Number of Households Owning ATVs = 228,707 households

ATVs per Household



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Table 2

Trail Bike Ownership

How many trail bikes do you own? (n = 114)

Number of Trail Bikes	Number Responding	Percentage of Respondents
One	52	45%
Two	41	36%
Three	12	11%
Four	4	4%
Five or more	5	4%

Computation of Estimated Total Number of Individuals Owning Trail Bikes: (N = 130,000)

45% of sample own 1 trail bike	$130,000 \times 45\%$	= 58,500 households
36% of sample own 2 trail bikes	$130,000 \times 36\% / 2$	= 23,400 households
11% of sample own 3 trail bikes	$130,000 \times 11\% / 3$	= 4,767 households
4% of sample own 4 trail bikes	$130,000 \times 4\% / 4$	= 1,300 households
4% of sample own 5 or more trail bikes	$130,000 \times 4\% / 5$	= 1,040 households

Estimated Total Number of Households Owning Trail Bikes = 89,007 households

Trail Bikes per Household



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Table 3

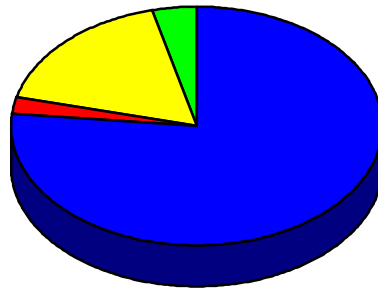
Reason for Purchasing OHV(s)

Why did you purchase your OHV(s)? (n = 200)

Purchase Reason	Number Responding*	Percentage of Respondents
Pleasure / Recreation	196	98%
Job-Related	6	3%
Competition	44	22%
Other	10	5%

*Respondents could indicate more than one choice.

Reason for OHV Purchase



- Pleasure / Recreation
- Job-Related
- Competition
- Other

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Table 4

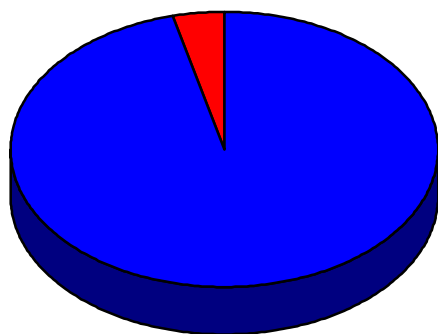
Geographic Location of OHV Purchase

Did you purchase your OHV(s) in Pennsylvania? (n = 200)

Pennsylvania Purchase	Number Responding	Percentage of Respondents
Yes	192	96%
No	8	4%

Computation of the Estimated Number of OHVs Purchased in Pennsylvania:
470,000 (total number of OHVs in Pennsylvania) x 96% (estimated percentage of OHVs purchased in Pennsylvania) = **451,200**

Location of Purchase



■ Purchased in Pennsylvania
■ Purchased outside Pennsylvania

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Table 5

Purchase Price of OHV(s)

How much did you spend for your OHV(s)? (n = 200)

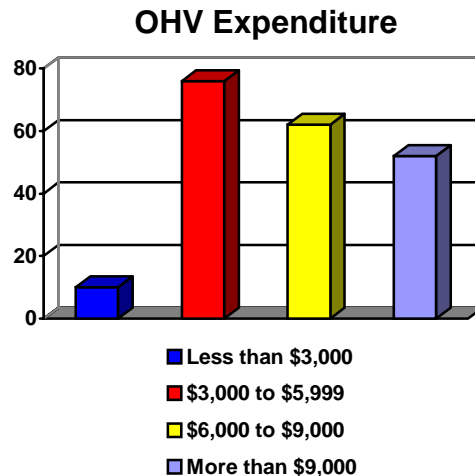
Expenditure Level	Number Responding	Percentage of Respondents
Less than \$3,000	10	5%
\$3,000 to \$5,999	76	38%
\$6,000 to \$9,000	62	31%
More than \$9,000	52	26%

Computation of the Estimated Annual Amount Spent per Household for OHV(s) in Pennsylvania:

\$6,000 (median cost of OHV(s) per household) / 4 years (average number of years between OHV purchases) = **\$1,500** (estimated average annual expenditure for OHV(s) per household)

Computation of the Estimated Total Annual Expenditure for all OHVs Purchased in Pennsylvania:

451,200 (see Table 4) x \$1,500 (see computation from above) = **\$676,800,000**



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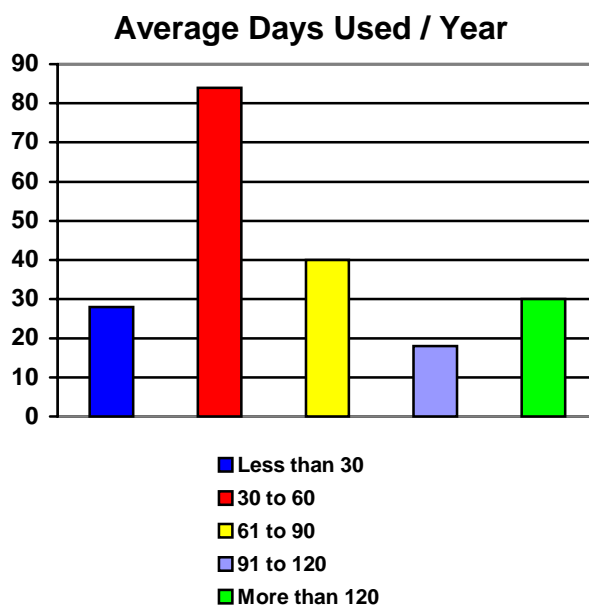
Table 6

Average Number of Days OHV(s) Used Annually

On average, how many days each year do you drive your OHV? (n = 200)

Average Number of Days	Number Responding	Percentage of Respondents
Less than 30 days	28	14%
30 to 60 days	84	42%
61 to 90 days	40	20%
91 to 120 days	18	9%
More than 120 days	30	15%

Average Number of Days OHVs are Used Each Year = 30 to 60 days



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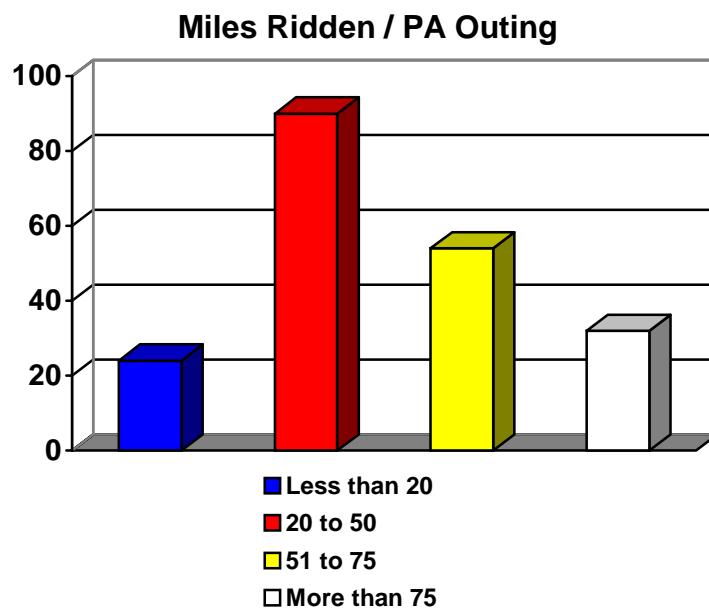
Table 7

Average Number of Miles Ridden on Pennsylvania Trips

On average, how many miles do you ride on each Pennsylvania outing? (n = 200)

Average Number of Miles	Number Responding	Percentage of Respondents
Less than 20 miles	24	12%
20 to 50 miles	90	45%
51 to 75 miles	54	27%
More than 75 miles	32	16%

Average Number of Miles Ridden on Each Pennsylvania Outing = 20 to 50 miles



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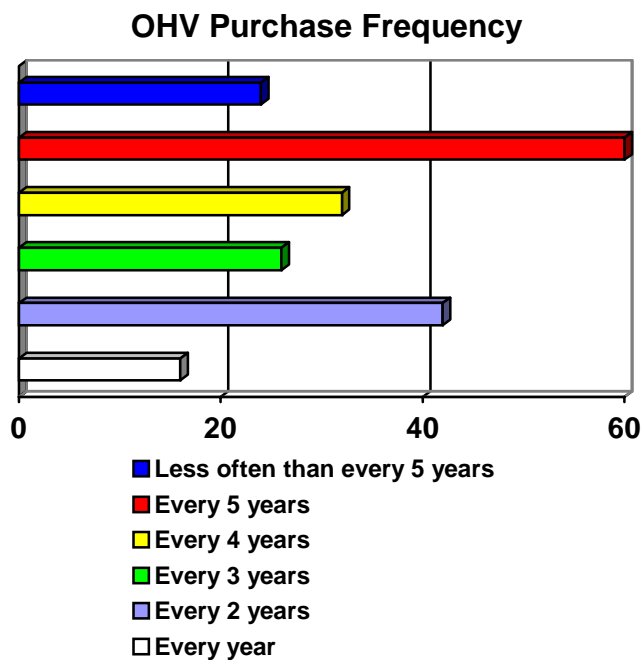
Table 8

Average Frequency of OHV Purchases in Pennsylvania

On average, how often do you purchase an OHV in Pennsylvania? (n = 200)

Average Frequency of Purchase	Number Responding	Percentage of Respondents
Every year	16	8%
Every 2 years	42	21%
Every 3 years	26	13%
Every 4 years	32	16%
Every 5 years	60	30%
Less often than every 5 years	24	12%

Average Frequency of OHV Purchases in Pennsylvania = every 4 years



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Table 9

Average Annual Expenditure for Fuel for OHV(s) in Pennsylvania

On average, how much do you spend in Pennsylvania each year on fuel for your OHV(s)?
(n = 200)

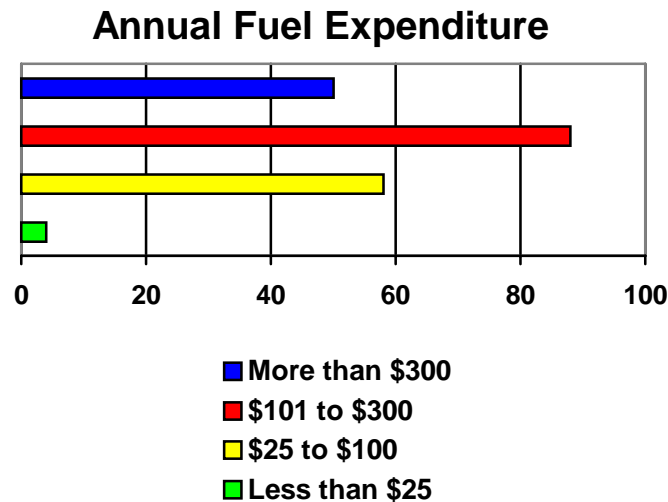
Average Annual Expenditure	Number Responding	Percentage of Respondents
Less than \$25	4	2%
\$25 to \$100	58	29%
\$101 to \$300	88	44%
More than \$300	50	25%

Computation of the Estimated Total Number of Households Owning OHVs:

228,707 (estimated total number of households owning ATVs) + 89,007 (estimated number of households owning trail bikes) x 72% (to account for the 28% of households owning both ATVs and trail bikes) = **228,754**

Computation of the Estimated Total Annual Expenditure for Fuel for OHVs in Pennsylvania:

228,754 (see computation above) x \$200 (average annual expenditure for fuel per household) = **\$45,750,816**



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Table 10(a)

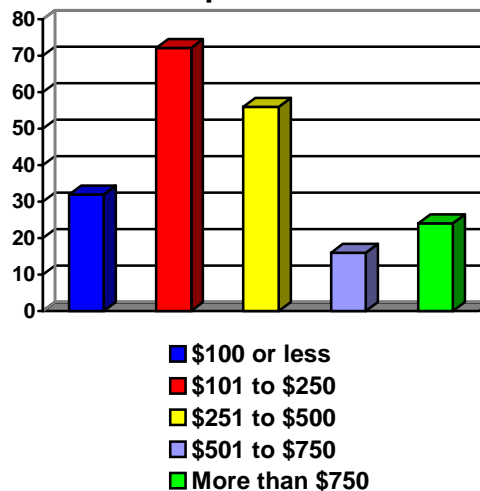
**Average Annual Expenditure for OHV-Related Personal
Clothing and Accessories in Pennsylvania**

On average, how much do you spend each year on OHV clothing and personal accessories?
(n = 200)

Average Annual Expenditure	Number Responding	Percentage of Respondents
\$100 or less	32	16%
\$101 to \$250	72	36%
\$251 to \$500	56	28%
\$501 to \$750	16	8%
More than \$750	24	12%

Computation of the Estimated Total Annual Expenditure for OHV-Related Personal Clothing and Accessories = 228,754 (estimated total number of households owning OHVs) x \$250 (average annual expenditure for OHV-related personal clothing and accessories per household) = **\$57,188,500**

**Clothing and Accessories
Expenditure**



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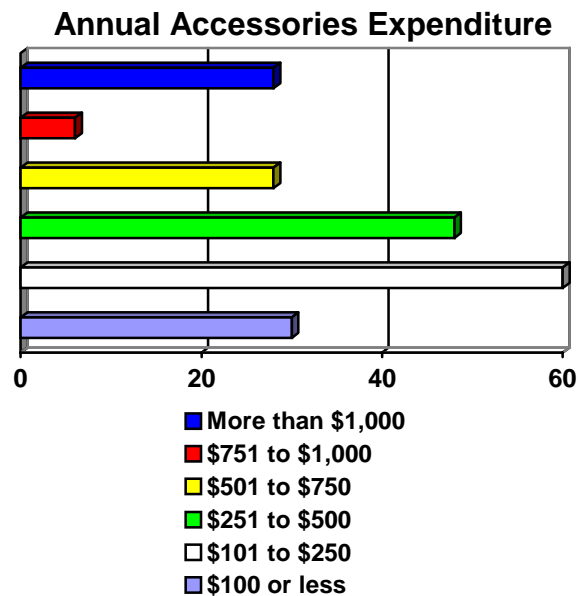
Table 10(b)

**Average Annual Expenditure for OHV Accessories in
Pennsylvania**

On average, how much do you spend each year on accessories for your OHV(s)? (n = 200)

Average Annual Expenditure	Number Responding	Percentage of Respondents
\$100 or less	30	15%
\$101 to \$250	60	30%
\$251 to \$500	48	24%
\$501 to \$750	28	14%
\$751 to \$1,000	6	3%
More than \$1,000	28	14%

Computation of the Estimated Total Annual Expenditure for OHV Accessories in Pennsylvania = 228,754 (estimated total number of households owning OHVs) x \$300 (average annual expenditure for OHV accessories per household) = **\$68,626,200**



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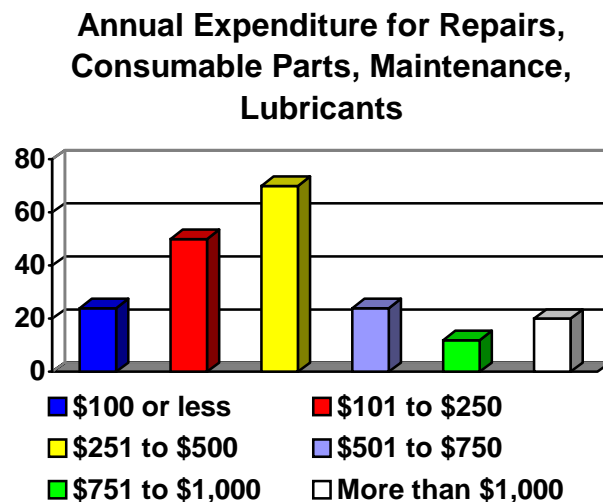
Table 10(c)

**Average Annual Expenditure for Repairs, Consumable Parts,
Maintenance and Lubricants in Pennsylvania**

On average, how much do you spend each year on repairs, consumable parts, maintenance, and lubricants? (n = 200)

Average Annual Expenditure	Number Responding	Percentage of Respondents
\$100 or less	24	12%
\$101 to \$250	50	25%
\$251 to \$500	70	35%
\$501 to \$750	24	12%
\$751 to \$1,000	12	6%
More than \$1,000	20	10%

Computation of the Estimated Total Annual Expenditure for OHV Repairs, Consumable Parts, Maintenance, and Lubricants = 228,754 (estimated total number of households owning OHVs) x \$300 (average annual expenditure for repairs, consumable parts, maintenance, and lubricants per household) = **\$68,626,200**



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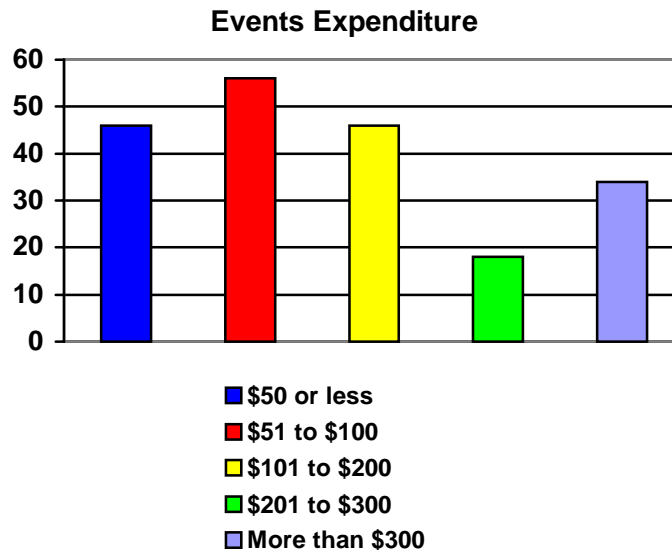
Table 10(d)

**Average Annual Expenditure to Participate
in Organized Events in Pennsylvania**

On average, how much do you spend each year to participate in organized events? (n = 200)

Average Annual Expenditure	Number Responding	Percentage of Respondents
\$50 or less	46	23%
\$51 to \$100	56	28%
\$101 to \$200	46	23%
\$201 to \$300	18	9%
More than \$300	34	17%

Computation of the Estimated Total Annual Expenditure to Participate in OHV Organized Events in Pennsylvania = 228,754 (estimated total number of households owning OHVs) x \$100 (average annual expenditure to participate in organized events in Pennsylvania per household) = **\$22,875,400**



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Table 11(a)

**Average Number of Annual OHV Riding Trips to
State and Federal Forest Trails Within Pennsylvania**

On average, how many OHV riding trips do you make to State and Federal Forest Trails each year? (n = 200)

Average Number of Trips	Number Responding	Percentage of Respondents
None	36	18%
One	22	11%
Two	24	12%
Three	26	13%
More than three	92	46%

Average Number of Annual Riding Trips to State and Federal Forest Trails Within Pennsylvania = 3 per household

**Annual Trips to State Forest
Trails**



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Table 11(b)

State and Federal Forest Trails Visited

What State and Federal Forest Trails do you visit? (n = 200)

State or Federal Forest Trail Visited	Number Responding
Marienville Trail	70
Allegheny National Forest	43
Rocky Gap	20
Michaux State Forest	19
Sproul State Forest	13
Timberline	8
Bald Eagle State Forest	7
Pohopoco Tract	5
Potter County	5
Susquehannock	4
Delaware State Forest	3
Kettle Creek	3
Forbes State Forest	2
Hickory Run	2
Moshannon	2
Shenango Reservoir	2
Tower City	2
Tradaughton	2
Warren	2

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Table 11(c)

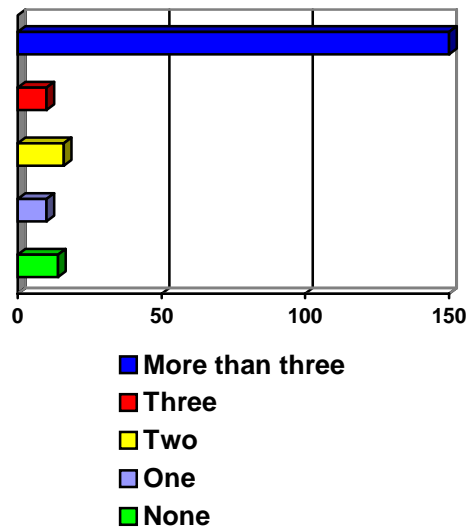
**Average Annual Number of OHV Riding
Trips to Private Areas Within Pennsylvania**

On average, how many OHV riding trips do you make to private riding areas each year?
(n = 200)

Average Number of Trips	Number Responding	Percentage of Respondents
None	14	7%
One	10	5%
Two	16	8%
Three	10	5%
More than three	150	75%

**Average Annual Number of OHV Riding Trips to Private Areas Within
Pennsylvania = 4 or more per household**

Annual Trips to Private Areas



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 11(d)

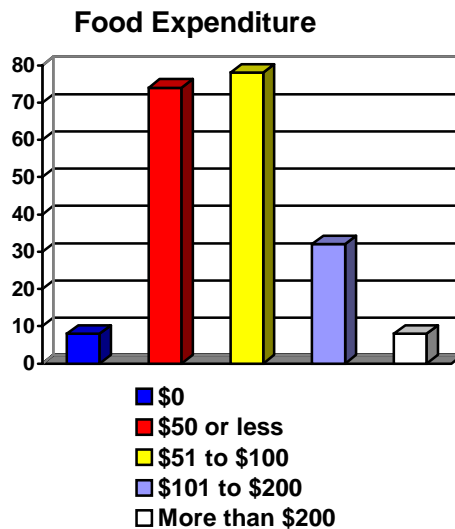
Average Expenditure for Food on Each Pennsylvania Trip

On average, how much do you spend on food on each in-state trip? (n = 200)

Average Food Expenditure	Number Responding	Percentage of Respondents
\$0	8	4%
\$50 or less	74	37%
\$51 to \$100	78	39%
\$101 to \$200	32	16%
More than \$200	8	4%

Computation of the Estimated Total Annual Number of Trips to State Forest Trails and Private Riding Areas = 228,754 (estimated total number of households owning OHVs) x 7 (average number of trips to state forest trails and private riding areas per household) = **1,601,278 trips**

Computation of the Estimated Total Annual Expenditure for Food on all Pennsylvania Trips = 1,601,278 (see computation above) x \$75 (average expenditure for food on each in-state trip per household) = **\$12,009,585**



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 11(e)

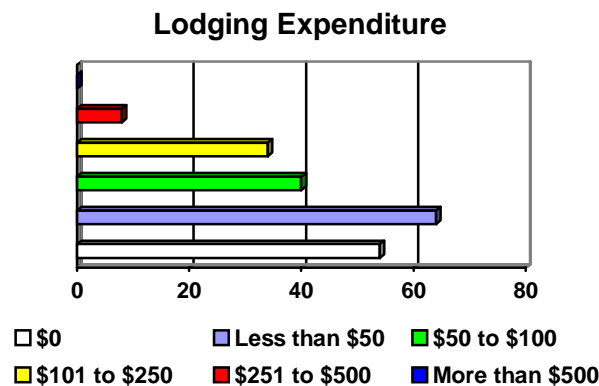
Average Annual Expenditure for Lodging for Each Pennsylvania Trip

On average, how much do you spend on lodging for each in-state trip? (n = 200)

Average Lodging Expenditure	Number Responding	Percentage of Respondents
\$0	54	27%
Less than \$50	64	32%
\$50 to \$100	40	20%
\$101 to \$250	34	17%
\$251 to \$500	8	4%
More than \$500	0	0%

Computation of the Estimated Total Expenditure For Lodging On Each Pennsylvania Trip = 228,707 x 87.5% (percentage sample taking in-state trips) = 200,119 (estimated total number of households taking OHV trips within Pennsylvania);
200,119 x \$50 (average expenditure for lodging on each trip per household) = **\$10,005,950** (estimated total expenditure on lodging for each Pennsylvania trip)

Computation of the Estimated Total Annual Expenditure for Lodging On All Pennsylvania Trips = \$10,005,950 (see computation above) x 7 (combination of average number of state forest trail trips and in-state private riding areas per household) = **\$70,041,650**



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 11(f)

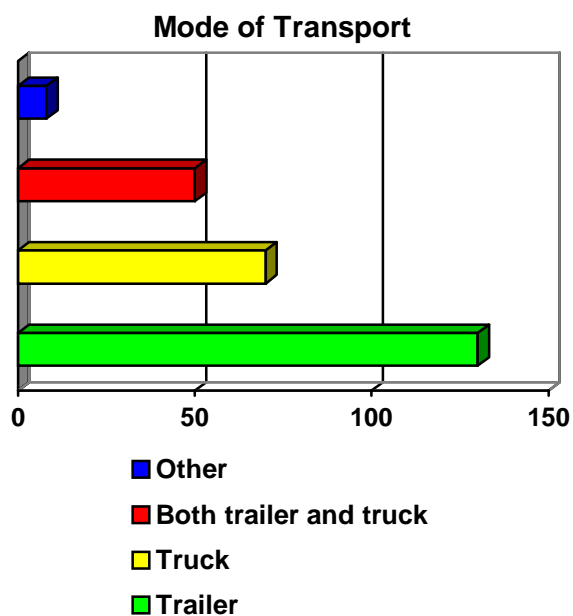
Mode Used to Transport OHV(s) on Pennsylvania Trips

How do you transport your OHV(s) on these in-state trips? (n = 200)

Mode of Transportation	Number Responding*	Percentage of Respondents
Trailer	130	51%
Truck	70	27%
Both trailer and truck	50	19%
Other	8	3%

*More than one response could be given.

The most common mode of transporting OHVs during in-state trips is by **trailer**.



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 11(g)

**Average Expenditure for Fuel to Transport
OHV(s) on Each Pennsylvania Trip**

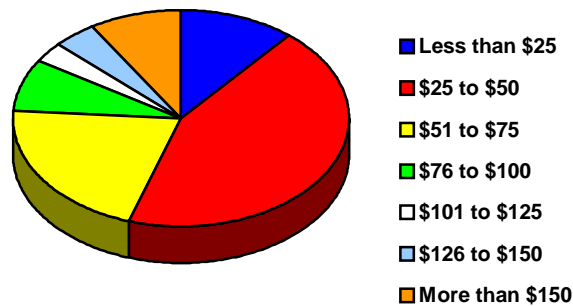
On average, how much do you spend on fuel to transport your OHV on each in-state trip?
(n = 200)

Fuel Expenditure	Number Responding	Percentage of Respondents
Less than \$25	22	11%
\$25 to \$50	88	44%
\$51 to \$75	42	21%
\$76 to \$100	16	8%
\$101 to \$125	6	3%
\$126 to \$150	8	4%
More than \$150	18	9%

Computation of the Estimated Total Expenditure for Fuel to Transport OHVs During Each Pennsylvania Trip = 200,119 (estimated total number of households taking OHV trips in Pennsylvania) x \$30 (average expenditure for transport fuel per household) = **\$6,003,570**

Computation of Estimated Total Annual Expenditure for Fuel to Transport OHVs On All Pennsylvania Trips = \$6,003,570 (see computation above) x 7 (combination of annual trips to state forests and private riding areas per household) = **\$42,024,990**

Fuel Transportation Expenditure



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

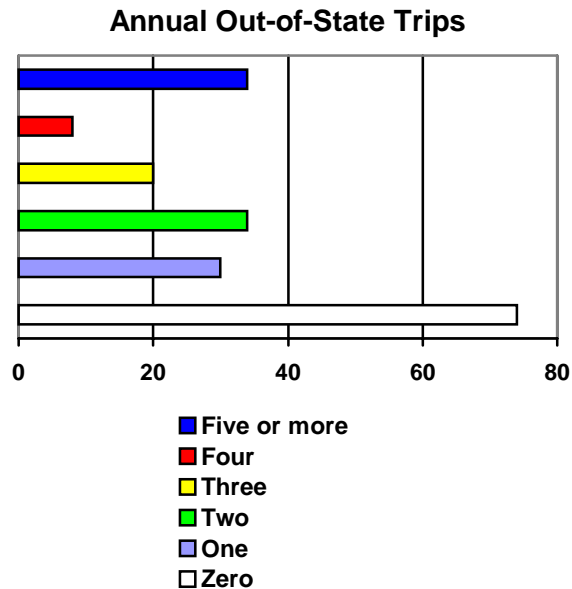
Table 12

Average Annual OHV Trips Outside Pennsylvania

On average, how many OHV trips do you take outside Pennsylvania each year? (n = 200)

Average Annual Trips	Number Responding	Percentage of Respondents
Zero	74	37%
One	30	15%
Two	34	17%
Three	20	10%
Four	8	4%
Five or more	34	17%

Average Annual Number of OHV Trips Outside Pennsylvania = 1 per household



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 13

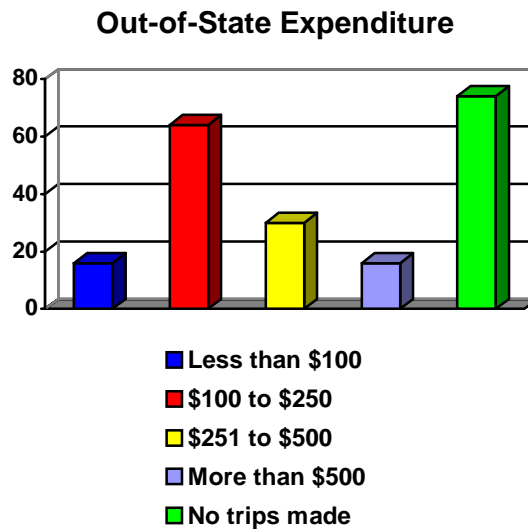
Average Expenditure for Each Trip Outside Pennsylvania

On average, how much do you spend on each of these out-of-state trips? (n = 200)

Average Expenditure on Out-of-State Trips	Number Responding	Percentage of Respondents
Less than \$100	16	8%
\$100 to \$250	64	32%
\$251 to \$500	30	15%
More than \$500	16	8%
No trips made	74	37%

Computation of the Estimated Total Expenditure During Each Trip Outside Pennsylvania = 200,119 (estimated total number of households taking out-of-state OHV trips) x \$275 (average expenditure per out-of-state trip per household) = **\$55,032,725**

Computation of Estimated Total Annual Expenditure on All Trips Outside Pennsylvania = \$55,032,725 (see computation above) x 1 (average number of annual out-of-state trips per household) = **\$55,032,725**



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 14

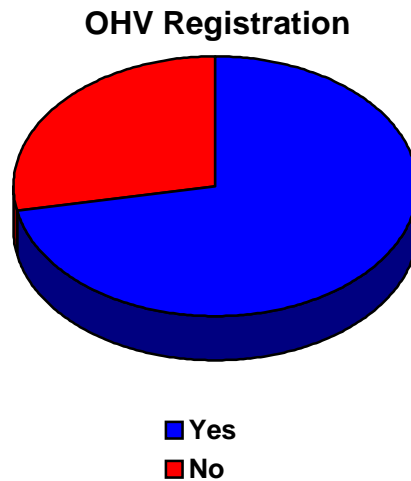
ATV Registration in Pennsylvania

Is your ATV registered with the Commonwealth of Pennsylvania? (n = 142)

PA Registration	Number Responding	Percentage of Respondents
Yes	103	72%
No	39	28%

Computation of the Estimated Number of ATVs Registered in Pennsylvania = 340,000 (estimated total number of OHVs in Pennsylvania) x 72% (percentage of registered OHVs in Pennsylvania) = 244,800

Computation of the Estimated Total Annual Registration Fees for ATVs in Pennsylvania = 244,800 (see computation above) x \$10 (registration fee of \$20 payable every two years) = **\$2,448,000**



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

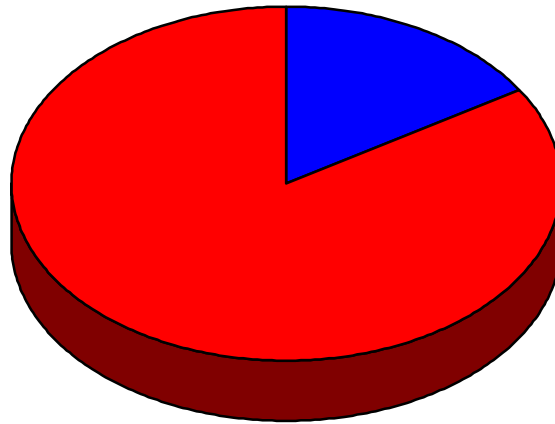
Table 15

**Number of Households Reporting Other OHV-Related
Expenditures in Pennsylvania**

Do you make any OHV-related expenditures not listed above? (n = 200)

Other OHV Expenditures	Number Responding	Percentage of Respondents
Yes	32	16%
No	168	84%

Other Expenditures



■ Yes
■ No

OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 15(a)

Other OHV Expenditures

These expenditures include:

- Insurance
- Hunting trips
- Periodical subscriptions
- Snow removal
- Camping equipment
- Indoor racing
- Mowing
- Passes to ride
- Maintenance
- Telephone calls
- Tolls
- Tags
- Camping supplies
- Safety courses
- Donations
- Licenses
- OHV sporting events
- New trailers
- Club activities
- Photography
- Riding at elementary schools

OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 15(b)

**Annual Expenditure for All Other OHV-Related Purchases
in Pennsylvania**

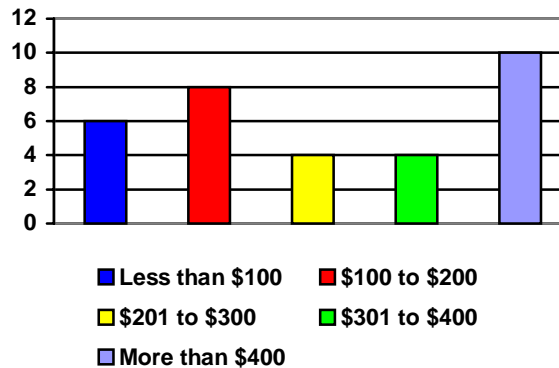
How much do you spend each year on these other OHV-related expenditures? (n = 32)

Annual Other OHV-Related Expenditures	Number Responding	Percentage of Respondents
Less than \$100	6	19%
\$100 to \$200	8	25%
\$201 to \$300	4	12%
\$301 to \$400	4	12%
More than \$400	10	32%

Computation of the Estimated Total Number of Households Reporting Other OHV-Related Expenditures: 228,754 (estimated total number of households owning OHVs) x 16% (percentage of respondents who reported other expenditures) = **36,601 households**.

Computation of the Estimated Total Annual Expenditure for All Other OHV-Related Items in Pennsylvania: 36,601 (see computation above) x \$250 (average annual other OHV-related expenditures per household) = **\$9,150,250**

Other Expenditures



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

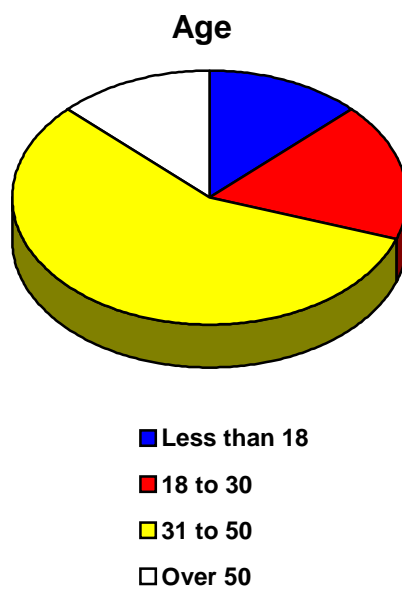
Table 16(a)

Age of Respondents

Indicate your age. (n = 200)

Age	Number Responding	Percentage of Respondents
Less than 18	2	1%
18 to 30	20	10%
31 to 50	150	75%
Over 50	28	14%

The average age of respondents is between **31 and 50** years old.



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

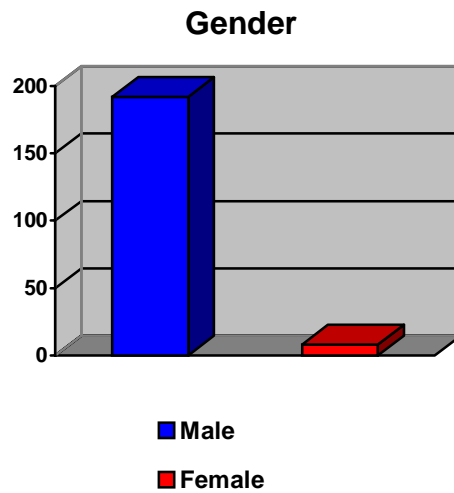
Table 16(b)

Gender of Respondents

Indicate your gender. (n = 200)

Gender	Number Responding	Percentage of Respondents
Male	192	96%
Female	8	4%

Respondents were **overwhelmingly male**.



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

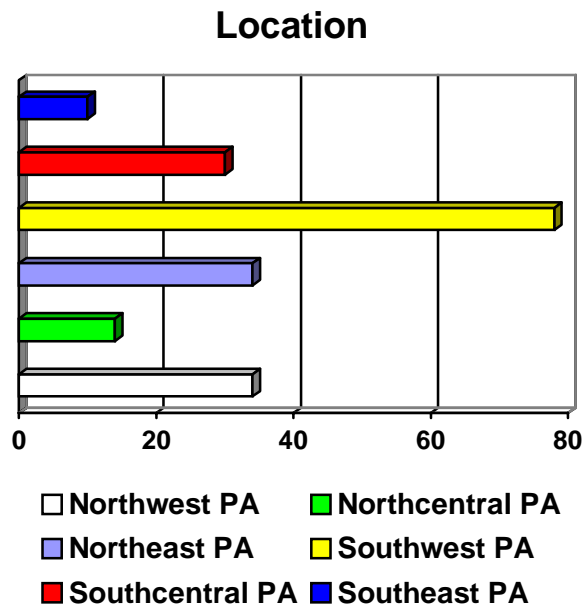
Table 16(c)

General Location of Respondents

Indicate your general location. (n = 200)

General Location	Number Responding	Percentage of Respondents
Northwest PA	34	17%
Northcentral PA	14	7%
Northeast PA	34	17%
Southwest PA	78	39%
Southcentral PA	30	15%
Southeast PA	10	5%

The general location of the average respondent was **Southwestern Pennsylvania**.



OFF-HIGHWAY VEHICLES IN PENNSYLVANIA
AN ECONOMIC IMPACT STUDY & OHV USER SURVEY

Table 16(d)

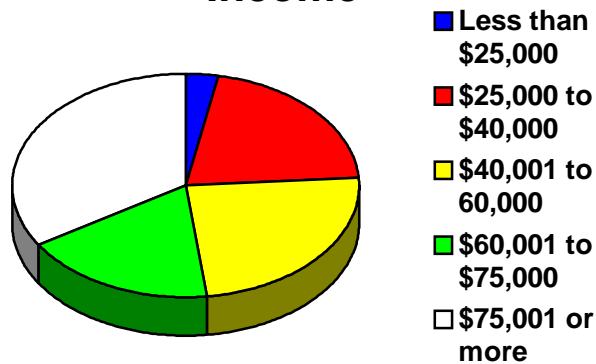
Annual Household Income of Respondents

Indicate your annual household income. (n = 200)

General Location	Number Responding	Percentage of Respondents
Less than \$25,000	6	3%
\$25,000 to \$40,000	42	21%
\$40,001 to \$60,000	48	24%
\$60,001 to \$75,000	36	18%
\$75,001 or more	68	34%

The average annual household income of respondents is **\$40,001 to \$60,000**.

**Annual Household
Income**



APPENDIX A

ECONOMIC IMPACT OF OHV ACTIVITY IN PENNSYLVANIA Activity Survey for OHV trails in Allegheny National Forest (ANF)

- 1) On average, how many trips do you make to the OHV trails in the ANF each year?
_____ 1 or less _____ 2 to 3 _____ 4 to 8 _____ More than 8
- 2) How long do you usually stay in the area when you come to trail ride in the ANF?
_____ 1 day _____ 2 days _____ 3 days _____ 4 or more days
- 3) When you ride the trails of the ANF, do you ride:
_____ ATV _____ Trail Bike _____ Both
- 4) When riding in the ANF, do you usually ride:
_____ Alone _____ In a group of 2 to 4 _____ In a group of 5 or more
(If you ride alone, skip to question 6)
- 5) With what type of group do you ride most often?
_____ Ride with a family group
_____ Ride with a peer group
- 6) What sort of accommodations do you use for overnight stays in the ANF area?
_____ Do not stay in area _____ Seasonal Residence _____ Stay free with friends
_____ Hotel/Motel _____ Non-Forest Service campground
_____ Forest Service developed campground
_____ Forest Service undeveloped campground
_____ Own property
(If you own property, please answer questions 7 and 8. All others skip to question 9.)
- 7) Was access to OHV trails in the ANF a factor in your decision to own property in the area?
_____ Yes _____ No
- 8) How much do you spend each year on property related costs? (This should include things like property/building maintenance and repair, property taxes, utility costs, etc.)
_____ \$0 to \$200 _____ \$201 to \$500 _____ \$501 to \$1000 _____ More than \$ 1 000

When answering questions 9 - 13, please include only money spent in the four-county ANF region.

- 9) On average, how much do you spend on overnight accommodations during each trip to ride in the ANF?
_____ \$0 to \$50 _____ \$51 to \$100 _____ \$101 to \$250 _____ \$251 to \$500
_____ More than \$500
- 10) On average, how much do you spend on food during each trip to ride in the ANF?
_____ \$0 to \$50 _____ \$51 to \$100 _____ \$101 to \$200 _____ More than \$200

SIURVEY CONTINUES ON BACK

11) On average, how much do you spend on fuel during each trip to ride in the ANF?
_____ \$0 to \$25 _____ \$26 to \$50 _____ \$51 to \$75 _____ More than \$75

12) On average, how much do you spend on OIIV-related expenses during each trip to ride in the ANF? (This should include things like lubes, parts, accessories, repairs, special event entry fees, etc.)
_____ \$0 to \$25 _____ \$26 to \$50 _____ \$51 to \$100 _____ More than \$ 1 00

13) On average, how much do you spend on non-OHV-related items **during each trip to ride in the** ANF? (This should include things like souvenirs, clothing, or any other purchases-)
_____ \$0 to \$25 _____ \$26 to \$50 _____ \$51 to \$100 _____ More than \$100

14) Using numbers 1 to 4, please rank what sort of trail riding experience is most important to you. Use 1 for most important and 4 for least important.

_____ Enjoyment of natural forest environment
_____ Casual, easy trails
_____ Technical, challenging trails
_____ Other (please specify) _____

15) Using numbers 1 to 5, please rank which types of trail system improvements are most important to you. Use 1 for most important and 5 for least important.

_____ Improved trailheads (water, restrooms, additional parking, etc.)
_____ Additional trailheads
_____ More trail mileage
_____ Additional OHV camping areas
_____ Other (please specify) _____

16) Using numbers 1 to 4, please indicate which trails you ride most often. Use 1 for most often, 2 for second most often, etc. If you do not ride one or more of the trails, leave those blanks empty.

_____ Marienville Trail _____ Willow Creek Trail _____ Rocky Gap Trail _____ Timberline Trail

17) How much time do you usually spend at the trail during each day's riding?

_____ 0 to 4 hours _____ 5 to 8 hours _____ 9 to 12 hours _____ more than 12 hours

18) Would you be willing to support ORV trail improvement in the ANF through an OHV user fee?

_____ Yes _____ No

19) Have you made return trips to the ANF Region for non-OHV activities as a result of being introduced to the area through OHV activity?

_____ Yes _____ No

Any additional comments about ANF trail system are invited and should be directed to: Motorized Trails, Allegheny National Forest, 222 Liberty Ave., P. O. Box 847, Warren, PA 16365.

Thank you for taking the time to fill out this survey. Please return both survey pages as promptly as possible.

APPENDIX B

April, 2001

Pennsylvania Off-Highway Vehicle Association, (PAOHV)
224 Pine St.
Harrisburg, PA

Dear ATV/Trail Bike enthusiast,

On behalf of the Pennsylvania Off-Highway Vehicle Association, (PAOHV), and recreation coordinators at the Allegheny National Forest, welcome to the first ever study of the economic impact of OHV activity in Pennsylvania.

For quite some time now, various ATV and Trail Bike clubs in PA have believed our sport is of significant economic importance, but it seems no one has any data to substantiate that belief. In order to investigate how much impact our sport has on our state, we developed the attached survey. It is hoped that the conclusions reached from this study can be used to improve OHV recreation in Pennsylvania by demonstrating how important we are to the states economic health.

You are critically important to the success of the study in that you have been selected to participate in it. Please take a few minutes to fill out the enclosed survey form. Rest assured that all responses remain anonymous and confidential. It should take no longer than 10 or 15 minutes to complete the survey, and your cooperation is important to the future of the sport. If you have any questions with the survey, please feel free to contact survey coordinator Harold Silbaugh at 814-886-5464.

The first page of the survey is for data collection on a statewide basis, and the second page is specific to the OHV trails in the Allegheny National Forest. If you have never been to the ANF trails, you can disregard the second page of the survey.

Thanks again for your prompt completion of the survey. When you are done, please check back over the form to assure you have filled out all questions that apply to you as accurately as possible, and return the survey in the enclosed self-addressed stamped envelope.

Study results will be available through PAOHV or the ANF later this summer.

Sincerely,

H- N. Silbaugh
PAOHV Study Coordinato