

SUBMITTED TO:

Lewis County
7660 North State Street
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Economic and Fiscal Impact

OHV ACTIVITY ON LEWIS COUNTY

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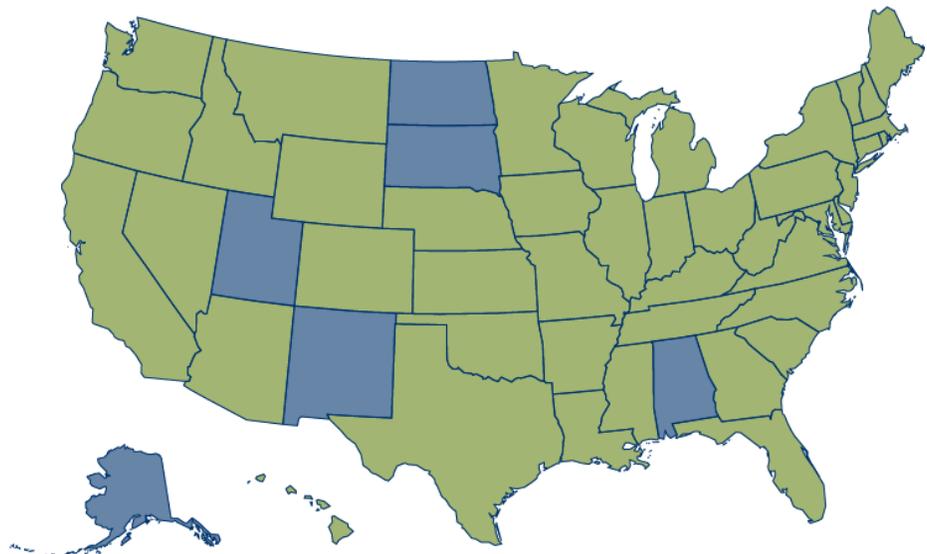
ABOUT CAMOIN ASSOCIATES

Camoin Associates has provided economic development consulting services to municipalities, economic development agencies, and private enterprises since 1999. Through the services offered, Camoin Associates has served EDOs and local and state governments from Maine to California; corporations and organizations that include Amazon, Lowes Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of \$6 billion. Our reputation for detailed, place-specific, and accurate analysis has led to over 1,000 projects in 44 states and garnered attention from national media outlets including Marketplace (NPR), Crain's New York Business, Forbes magazine, The New York Times, and The Wall Street Journal. Additionally, our marketing strategies have helped our clients gain both national and local media coverage for their projects in order to build public support and leverage additional funding. We are based in Saratoga Springs, NY, with regional offices in Richmond, VA; Portland, ME; Boston, MA; and Brattleboro, VT. To learn more about our experience and projects in all of our service lines, please visit our website at www.camoinassociates.com. You can also find us on Twitter @camoinassociate and on Facebook.

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CONTENTS

Executive Summary.....	1
Introduction.....	2
Survey Results.....	5
Economic Impact.....	16
Fiscal Impact.....	21
Attachment A: What is Economic Impact Analysis?.....	25
Attachment B: Survey Questions.....	26

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ECONOMIC IMPACT

of OHVs on Lewis County



6,086

total OHV trail users each year.

Local users spend a total of

30,626

days using the Lewis County trails each year.

Non-local users spend a total of

71,460

days using the Lewis County trails each year.



20%

Lodging



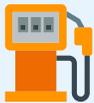
22%

Food and Drink



2%

Entertainment



9%

Gas



3%

Convenience Stores



36%

OHV Equipment



2%

OHV Repairs



4%

Shopping



2%

Other

A non-local OHV user spends

\$93

per day.

OHV user spending supports additional economic activity in Lewis County:



97

TOTAL JOBS



\$2,817,469

TOTAL EMPLOYEE EARNINGS



\$8,277,850

TOTAL SALES

\$140,563

Annual tax revenue generated by OHV activity

EXECUTIVE SUMMARY

Lewis County’s expansive off-highway vehicle (OHV) trails contribute to the county economy through visitor spending on lodging, food, entertainment, gas, equipment, and other retail. To quantify the impact of the trails on the region, Lewis County commissioned Camoin Associates to conduct an economic impact and fiscal benefit analysis of the OHV industry on the county. This study considers the economic impacts, in terms of jobs, wages, and sales, that would not occur but for the OHV activity. Fiscal benefits include the property tax, sales tax, and occupancy tax revenue that is generated from this activity.

OHV Users

In total, it is conservatively estimated that there are 6,086 OHV vehicles using Lewis County’s trails each year, equaling an estimated total of 102,086 user days. Of these user days, 30,626 are attributed to local users and 71,460 to non-local users. In other words, non-local users are visitors who would not be in Lewis County but for the OHV trails.

Economic Impact

OHV users spend money throughout the county’s economy. This direct spending creates new indirect and induced sales, as well as jobs and wages (earnings) throughout Lewis County. In total, 97 jobs, over \$2.8 million in wages (earnings), and nearly \$8.3 million in sales are attributed to OHV activity, annually.

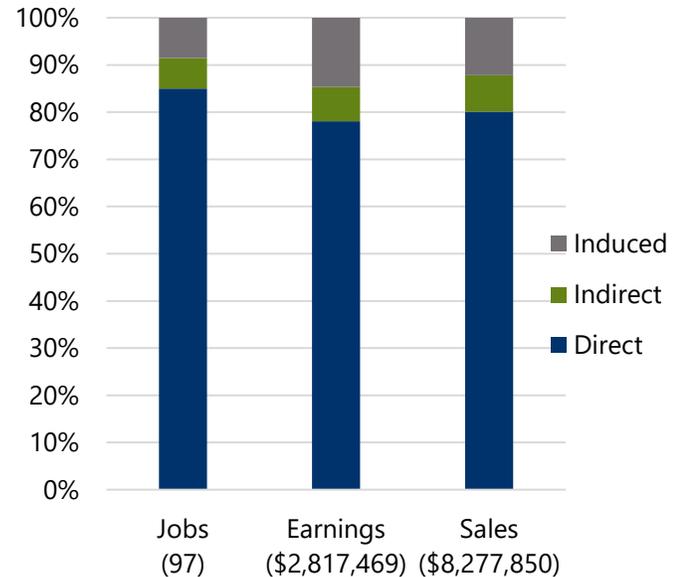
Fiscal Impact

Economic activity associated with Lewis County’s OHV users generate new property, sales, and occupancy tax revenue for the County. Total tax revenue that results from OHV activity is estimated to be nearly \$141,000 in Lewis County, annually.

An additional analysis was conducted to determine the amount of additional revenue that could be captured for New York State if OHV registration rules were expanded and if more OHV purchases were made in-state. It is estimated that there are 4,766 unregistered OHVs attributed to Lewis County riders. If these vehicles were registered, an additional \$59,569 would be generated for New York State. Additionally, nearly \$1.9 million in sales tax revenue is lost due to out-of-state purchases of OHVs.

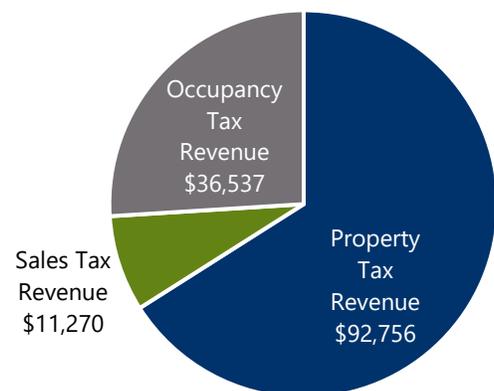
Figure 1

Economic Impact of OHV Trails



Direct impacts are generated by the OHV users. **Indirect** impacts accrue through business-to-business spending in the county and **induced** impacts result from employee spending. All impacts would be foregone without the OHV trails.

Annual Tax Revenue



INTRODUCTION

Lewis County commissioned Camoin Associates to quantify the economic impact and fiscal benefit of off-highway vehicle (OHV) activity to Lewis County, New York. Each year, Lewis County attracts OHV riders from across the region and beyond thanks to its extensive trail network.

This study is intended to quantify the impact of the OHV users on Lewis County and demonstrate the importance of the OHV industry to the regional economy.

METHODOLOGY

STUDY AREA

This study was conducted on Lewis County, New York (Figure 2). Surveys were conducted in Lewis County, and data regarding ridership in Lewis County was also collected.

SURVEY PROCESS

Throughout September and October 2021, a survey was conducted to evaluate the impact of OHV user spending on Lewis County. The Center for Community Studies at Jefferson Community College (JCC) developed this survey to gather information related to OHV users, including annual visits, spending habits, location of origin, and feedback on the trail network.

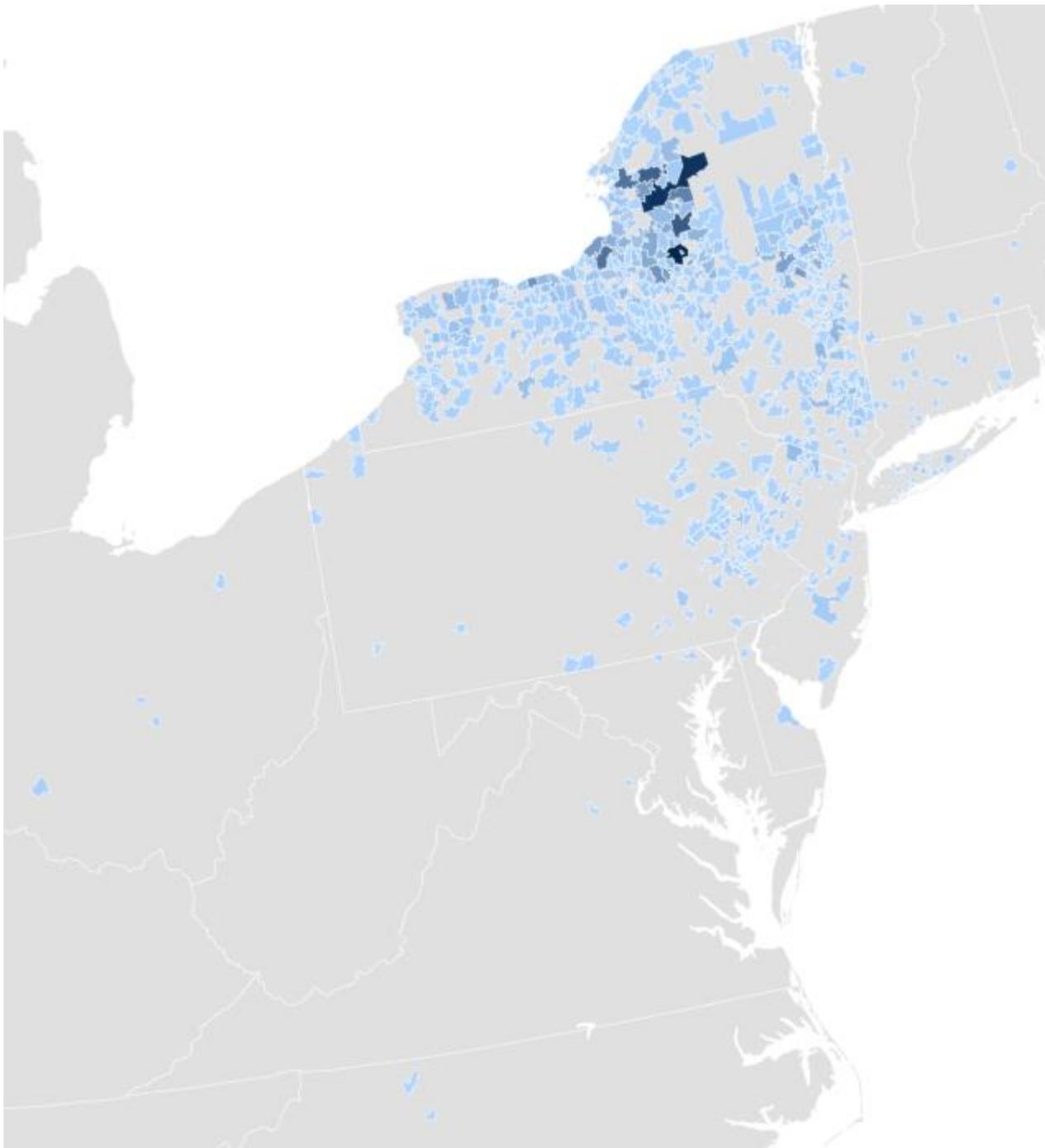
The survey was conducted in three formats: (1) the survey was distributed online via social media; (2) the survey was e-mailed to existing Lewis County mailing lists; and (3) representatives from JCC conducted an intercept survey for OHV users to complete in person. An intercept survey directly asks people to complete a survey based on their current experience of interacting with something, in this case, the OHV trails.

In total, 1,843 surveys were completed. Figure 3 illustrates the primary residence of survey respondents, by ZIP code. Respondents from 782 unique ZIP codes participated in the survey. For more information on survey questions, see Attachment B.

Figure 2: Study Area



Figure 3



Respondent ZIP Codes 1 39

Source: Survey, Camoin Associates

MODELING PROCESS

Camoin Associates used Economic Modeling Specialists, Intl. (Emsi) to calculate the economic impacts of the OHV users. The following briefly describes the methodology, particularly as it relates to visitor spending; additional information about the Emsi model can be found in Attachment A.

1. **Estimate Net New Visitation:** Camoin Associates used information about permits and 3-day passes provided by Lewis County, along with information gathered from the survey to estimate the number of “net new” visitors. Survey data was used to identify visitors for which the OHV trails were their primary reason for visiting the region and who traveled to the region from outside of Lewis County. “Net new” means visitation and spending that would not occur but for the OHV trails.
2. **Estimate Net New Spending:** Using the survey results, average spending per day, per net new visitor was estimated.
3. **Model Economic Impacts:** Using net new visitor spending amounts as inputs, we modeled the economic impacts - in terms of jobs, earnings, and sales on Lewis County. Economic multipliers were provided through the Emsi software package.
4. **Calculate Total Impacts:** We arrived at the total economic impacts as the sum of the direct, indirect, and induced impacts.

Modeling Software

Economic Modeling Specialists, Intl. (Emsi) designed the input-output model used in this analysis. The Emsi model allows the analyst to input the amount of new direct economic activity (spending, earnings, or jobs) occurring within the region and uses the direct inputs to estimate the spillover effects that the net new spending, earnings, or jobs have as these new dollars circulate throughout the economy. This is captured in the indirect and induced impacts and is commonly referred to as the “multiplier effect.” See Appendix A for more information on economic impact analysis.

What does “Net New” Mean?

When looking at the economic impacts of an industry, it’s important to look only at the economic changes that would not happen in the OHV industry’s absence. These effects are the “net new” effect: purchases made only as a result of the industry in question.

Definition of a “Job”

A “job” is equal to one person employed for some amount of time (part-time, full-time, or temporary) during the study period.

SURVEY RESULTS

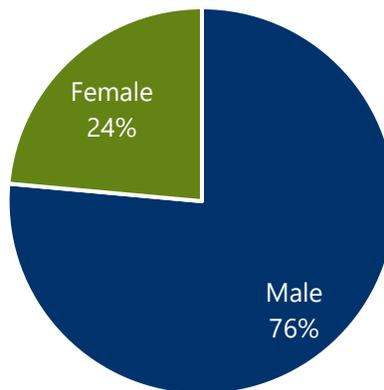
The following section summarizes the information captured in the OHV user survey, including the demographics of respondents, information about the Lewis County OHV experience, and key themes from survey comments. Data included in this section is an aggregation of all 1,843 survey responses.

DEMOGRAPHICS OF RESPONDENTS

The average age of survey respondents is 49. Over three-quarters of respondents were male, and household incomes are distributed across a wide range.

Figure 4

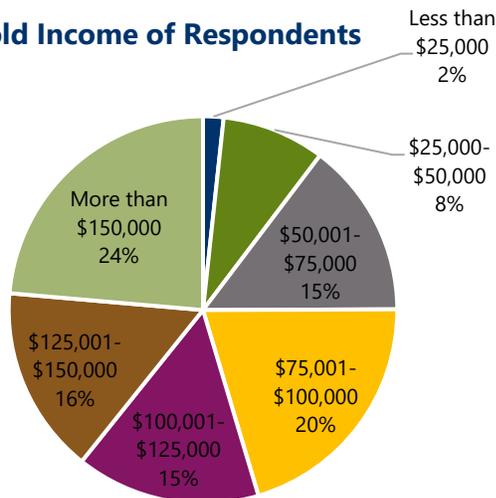
Gender of Respondents



Source: Survey

Figure 5

Household Income of Respondents



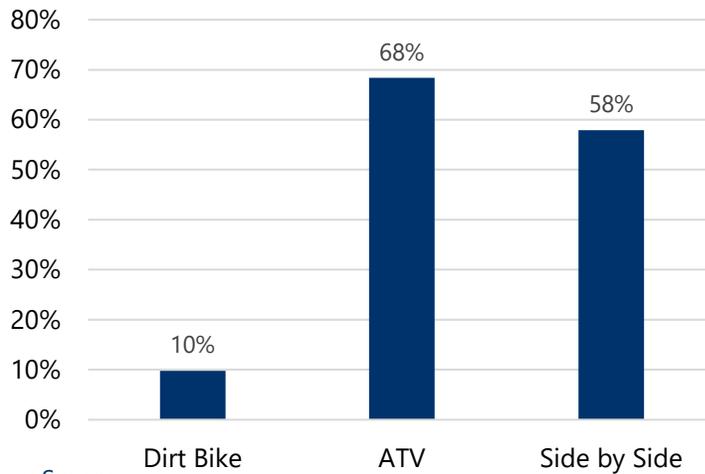
Source: Survey

OHV TYPES

ATVs are the most popular OHV among respondents. 68% of respondents ride ATVs, 58% ride side-by-sides, and 10% ride dirt bikes. Most respondents own the OHVs they ride (96%) with a smaller portion borrowing or renting OHVs. Note that respondents could select more than one response to these questions.

Figure 6

Which of the following OHVs do you ride?

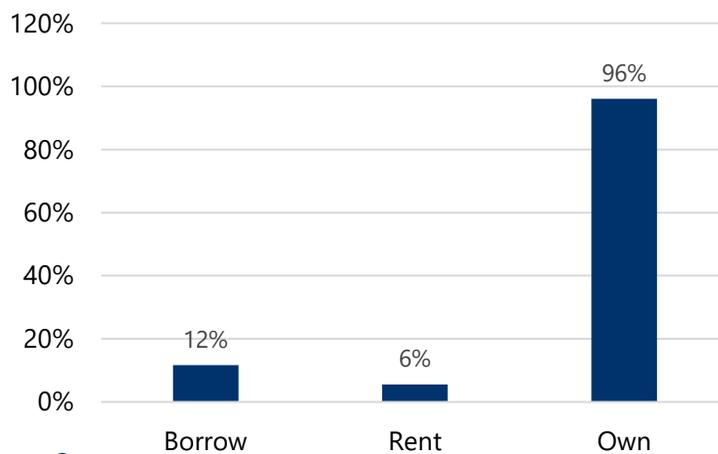


Source: Survey

*Respondents could select multiple.

Figure 7

Do you borrow, rent, or own the OHVs that you ride?



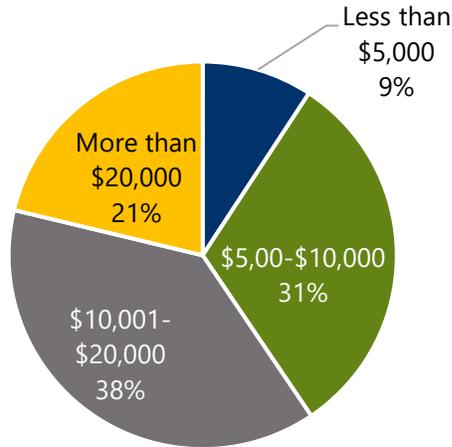
Source: Survey

*Respondents could select multiple.

Respondent spending on their last OHV purchase spans a variety of ranges with most (38%) being in the \$10,001-\$20,000 range.

Figure 8

How much did you spend on your last OHV purchase?

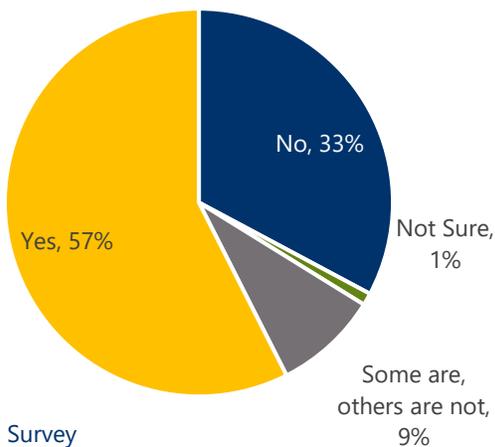


Source: Survey

More than half of respondents (57%) have their OHVs registered in New York State, while the majority (78%) made their last OHV purchase in New York.

Figure 9

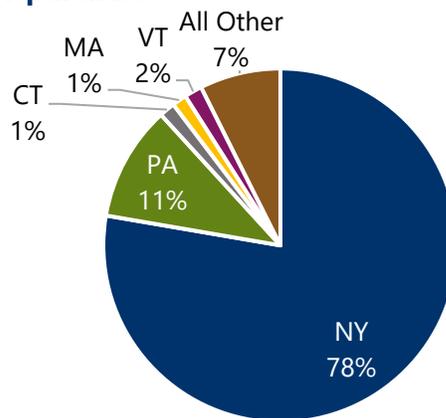
Are your OHVs registered in NYS?



Source: Survey

Figure 10

In what state did you make your last OHV purchase?



Source: Survey

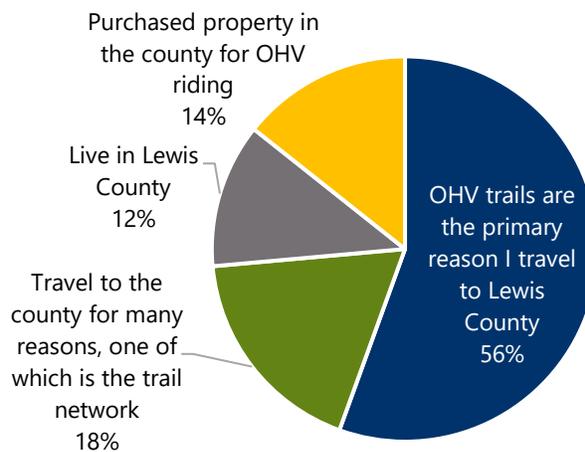
OHV EXPERIENCE

On average, respondents make 3.8 trips per season to Lewis County to use the OHV trails. Trips average 2.9 days in length and respondents spend an average of 12.7 days riding trails in Lewis County per season. Respondents have on average 7.4 people in their immediate group when they ride the OHV trails

For 56% of respondents, OHV trails are the primary reason they travel to Lewis County. 18% of respondents travel to the county for many reasons, one of which is the trail network. 14% of respondents purchased property in the county for OHV riding and 12% live in Lewis County.

Figure 11

Which of the following statements best describes your choice to ride OHVs in Lewis County?

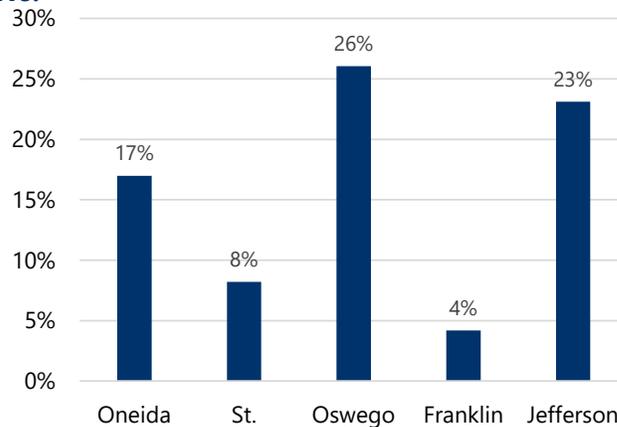


Source: Survey

In addition to Lewis County, 26% of respondents ride OHVs in Oswego County, 23% in Jefferson County, 17% in Oneida County, and a smaller percentage in St. Lawrence and Franklin counties.

Figure 12

In which of the following additional counties do you ride OHVs?

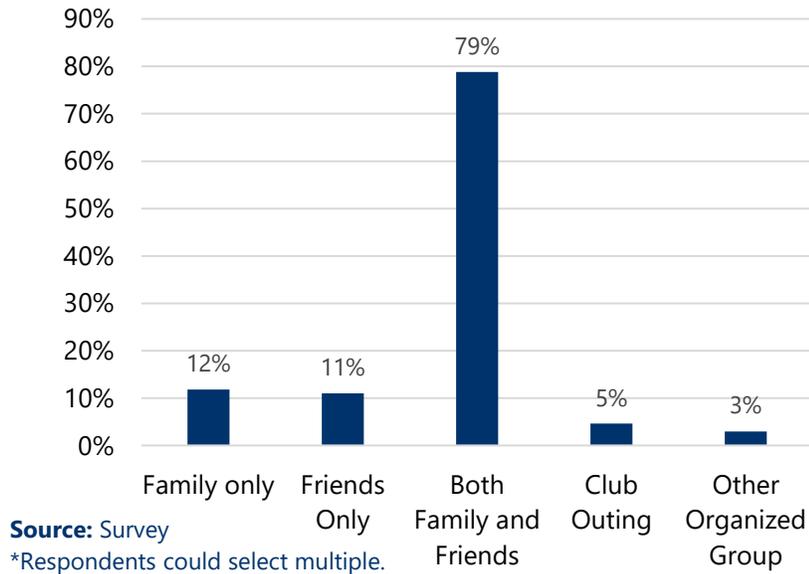


Source: Survey
*Respondents could select multiple.

79% of respondents are joined by both family and friends on a typical OHV outing. Club outings and other organized groups are less common among respondents.

Figure 13

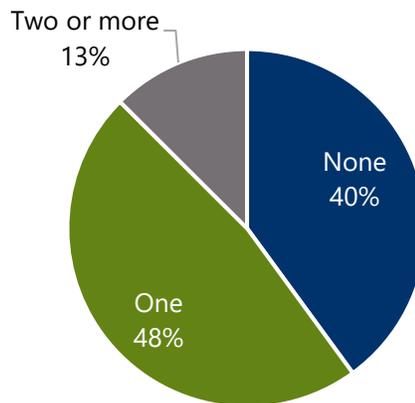
Who goes on a typical OHV outing with you?



61% of respondents encounter law enforcement at least once in a typical day while riding OHVs in Lewis County.

Figure 14

How many times would you say you encounter law enforcement in a typical day while riding OHVs in Lewis County?

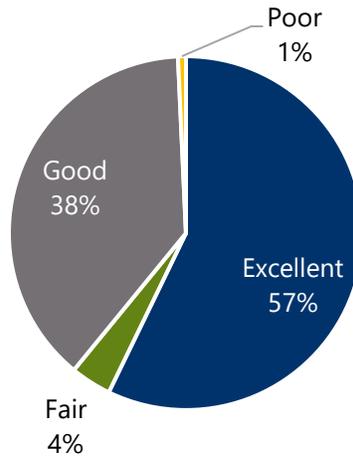


Source: Survey

95% of respondents rate their overall OHV recreation experience in Lewis County as excellent or good. Only 1% of respondents rate their experience as poor.

Figure 15

How would you rate your overall OHV recreation experience in Lewis County?



Source: Survey

Respondents were asked to identify what needs to be done to improve the OHV riding experience in Lewis County. Creating new trails/more trail miles was the most popular answer, with 67% indicating that this needs improvement. Adding connections to trails in neighboring counties and opening more roads to OHV users were also identified by over half of the respondents. Respondents could select multiple responses.

Table 1

Please indicate what, if anything, needs to be done to improve the OHV riding experience in Lewis County.

	Needs Improvement
Creating new trails/more trail miles	67%
Add connections to trails in neighboring counties	63%
Opening more roads to OHV use	56%
Creating additional trail signage	45%
Creating off trail riding areas	40%
Improving access to/number of trailheads	28%
Improving infrastructure (water, restrooms, additional parking, etc.)	19%
Additional camping grounds	19%
Improving trail maintenance	18%
No improvements are needed	5%

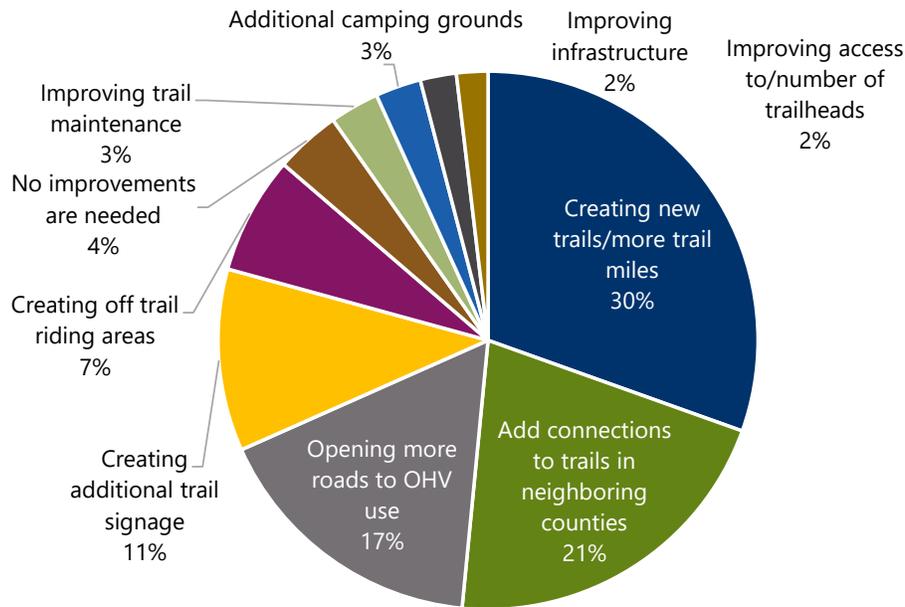
Source: Survey

*Respondents can select multiple.

When asked to identify the one most important improvement needed, creating new trails/more trail miles was the most popular option, being selected by 30% of respondents. Improving access to/number of trailheads and improving infrastructure are lower priorities for respondents.

Figure 16

What is the one most important improvement that needs to be made to make your OHV riding experience more enjoyable?



Source: Survey

69% of survey respondents think that securing and expanding private landowner trail access by incentivizing landowners to open OHV trails needs to be done to protect the OHV riding experience in Lewis County. 52% of respondents identified this as the most important thing that needs to be done.

Table 2

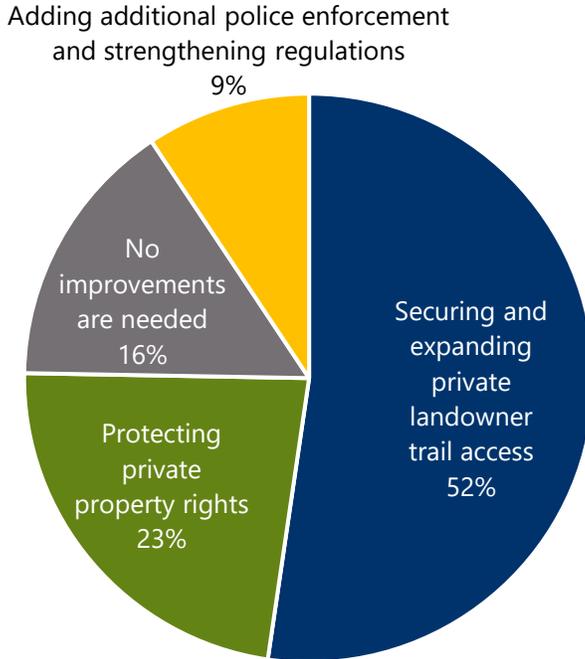
Please indicate what, if anything, needs to be done to protect the OHV riding experience in Lewis County.

	Needs to be Done
Securing and expanding private landowner trail access by incentivizing landowners to open OHV trails	69%
Protecting private property rights	36%
No improvements are needed	16%
Adding additional police enforcement and strengthening regulations	14%

Source: Survey

Figure 17

What is the one most important thing that needs to be done to protect the OHV riding experience in Lewis County?

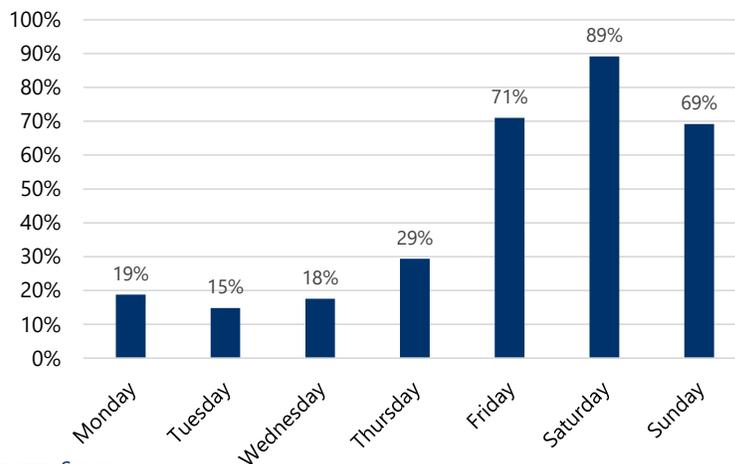


Source: Survey

Unsurprisingly, weekends are the most popular time for respondents to ride OHVs in Lewis County. 89% of respondents ride on Saturdays, 71% on Fridays, and 69% on Sundays.

Table 3

On which days of the week do you typically ride OHVs in Lewis County?

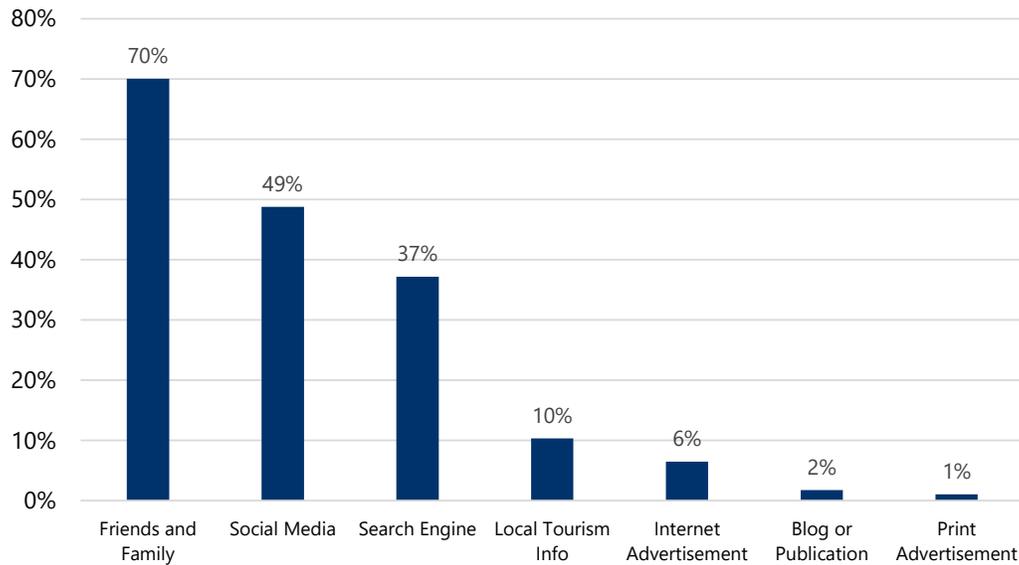


Source: Survey

When planning a trip to Lewis County, friends and family are by far the most popular source of information. For 70% of respondents, friends and family is one of the top two sources used.

Figure 18

When planning a trip to Lewis County, which two of the following sources do you most commonly use to gather information about OHV riding?

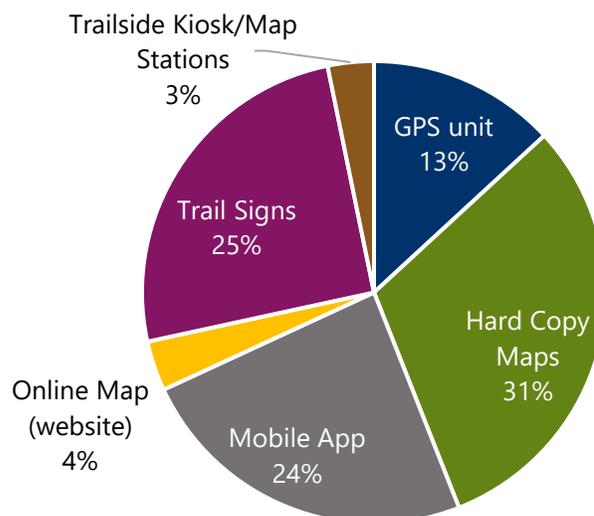


Source: Survey

Hard copy maps are the preferred trail navigation tool for nearly a third of respondents (31%). This is followed by 25% of respondents who prefer trail signs and 24% who prefer a mobile app.

Figure 19

What is your preferred trail navigation tool?

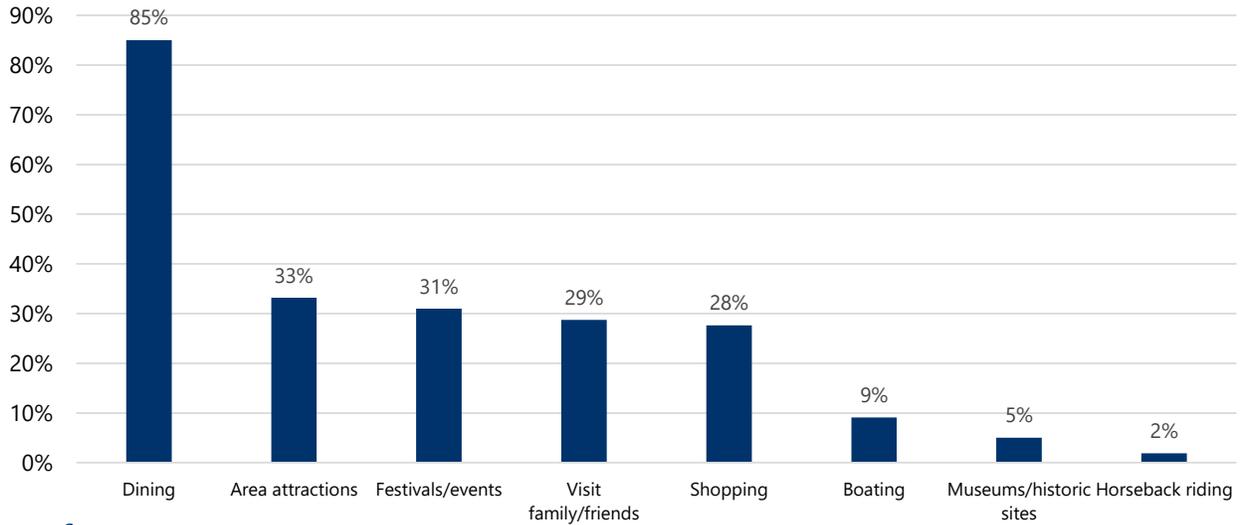


Source: Survey

Most respondents (85%) also dine out when on an OHV trip. A third of respondents leverage other area attractions while on an OHV trip.

Figure 20

What other activities do you or members of your immediate travel group participate in while you're on an OHV trip?

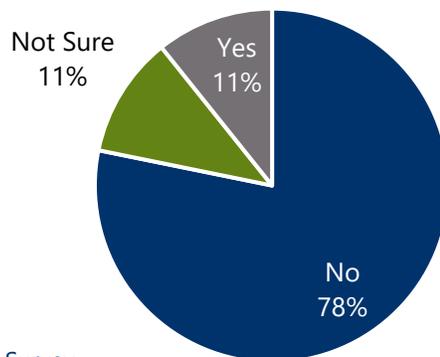


Source: Survey

Local storage for OHVs is not a priority for respondents. Only 11% of respondents would be interested in local storage.

Figure 21

Would you be interested in local storage for your OHV?

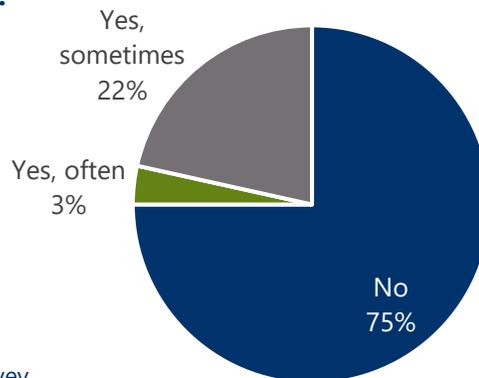


Source: Survey

75% of respondents report that they do not have difficulty finding lodging that meets their needs. Only 3% of respondents report that they often have issues with this.

Figure 22

Do You Have Difficulties Finding Lodging That Meets Your Needs Within a Reasonable Distance When on an OHV Trip?



Source: Survey

THEMES

The survey allowed respondents to add additional comments if desired. Several key themes emerged from these comments:

- ◆ Many respondents indicated that they had an extremely positive experience using the OHV trails in Lewis County. It was noted that the county's OHV experience is one of the best in the state, and there is an opportunity for the region to become an even bigger OHV destination.
- ◆ There is a desire among respondents to expand OHV registration to include vehicles such as side by sides and OHVs that are over the current weight limit. Most respondents want to follow the rules but are frustrated with a lack of registration options for these vehicles.
- ◆ At the same time, a portion of respondents do not want to see registration expanded to include larger vehicles. Respondents pointed to trail damage and safety concerns from sharing the trails with larger vehicles.
- ◆ Respondents expressed a desire for increased law enforcement presence on the trails, for general safety, speed enforcement, and drunk driving prevention.
- ◆ Adding more off-road trails and off road riding options and expanding trails to connect with other counties and riding areas were also mentioned by many respondents.
- ◆ To further improve the OHV experience, many respondents would like to see improved maps and signage.

ECONOMIC IMPACT

When looking at the economic impacts of an industry, it is important to look only at the economic changes that would not happen in the industry's absence. These effects are the "net new" effect: purchases made only as a result of the industry in question. In the case of the OHV industry, economic activity is driven by visitation and visitor spending. Net new visitation is defined as visitors who would not be in the region but for the OHV trails. In other words, net new visitors are visitors from outside of the region who travel to Lewis County because of the OHV trails, or who have purchased second homes in the region because of the trails. Throughout the economic impact analysis, these are collectively referred to as either "net new users" or "non-local" users. The economic impact does not include the effect of spending by individuals who live in the region or who travel to the region for other reasons and also use the OHV trails (the "local users").

ANNUAL VISITATION ESTIMATES

According to Lewis County, there were 5,538 permitted vehicles using the trail in 2021 which includes a combination of permitted users (3,516) and users who purchased 3-day passes (2,022). In addition to these vehicles, a portion of vehicles do not have a pass or a permit. According to the survey conducted of OHV users, 91% of total respondents used permits or passes with the remainder (9%) not using permits or passes. This means that in total, there were an estimated 6,086 vehicles using Lewis County's OHV trails in 2021.¹ Table 4 displays the total estimated annual vehicles using the OHV trails. The percent of vehicles that are registered or unregistered with New York State in each category (permit users, pass users, and other) was obtained from the survey results and is also displayed in the table.

Table 4

Total Annual Vehicles (2021)	
Total number of 3-day passes	2,022
Registered (58%)	1,173
Unregistered (42%)	849
Total Number of Permits	3,516
Registered (69%)	2,426
Unregistered (31%)	1,090
Other Vehicles (no permit or pass)	548
Registered (60%)	329
Unregistered (40%)	219
Total Annual Vehicles	6,086
Registered	3,927
Unregistered	2,158

Source: Lewis County, Survey, Camoin Associates

To calculate the economic impact of the OHV trails it is necessary to convert the total annual vehicles to "vehicle days."² According to the survey, OHV users ride the Lewis County trails for 12.7 days annually, on average. It is

¹ Note that this is a conservative estimate of non-permitted users, and therefore of total users. In distributing the survey to Lewis County's existing contact lists, the survey likely disproportionately captured permitted users.

² The term *vehicle* is used to describe an individual vehicle whereas a *vehicle day* is the number of days spent per year. For example, one vehicle could have five vehicle days.

therefore assumed that 3-day pass holders use the trails for three days (per pass) while all other users (permit holders and unregistered riders) use the trails for 12.7 days, annually. In total, this means that there were an estimated 57,675 OHV vehicle days in Lewis County in 2021.

Table 5

Total Vehicle Days (2021)

Permit Status	Number of Vehicles	Average Number of Rides	Total Vehicle Days
3-Day Passes	2,022	3	6,066
Permits	3,516	12.7	44,653
Other Vehicles	548	12.7	6,956
Total	6,086		57,675

Source: Lewis County, Survey, Camoin Associates

The economic impact analysis uses visitor spending as a key input. Therefore, it is necessary to convert the number of total vehicle days into total user days. Certain vehicle types, such as ATVs and side-by-sides, often carry more than one rider. Lewis County estimates that on average dirt bikes will have one user per vehicle, ATVs will have 1.25 users per vehicle, and side-by-sides will have 2.50 users per vehicle. The percent of each type of vehicle was obtained from the survey³ and these factors were applied to the total number of vehicles in each category to calculate the number of total user days.

Table 6

Total User Days (2021)

Vehicle Type	Vehicle Days by Type	Users per Vehicle	Total User Days
Dirt Bike (7%)	4,037	1.00	4,037
ATV (50%)	28,838	1.25	36,047
Side by Side (43%)	24,800	2.50	62,001
Total	57,675		102,086

Source: Survey, Lewis County

For the purposes of this analysis, the total user days must be converted to net new user days, which captures only the visitation to Lewis County that would not occur but for the OHV trails. According to the survey, 30% of OHV users were local users (i.e. individuals who either live in Lewis County or are in the county for many reasons, one of which is the OHV trails) while 70% were non-local users (i.e. individuals whose primary residence is outside of Lewis County but who travel to Lewis County because of the OHV trails or who purchased a property in the county because of the trails). This analysis assumes that the non-local users are net new. In other words, these users would not be

³ Note the percentages in Table 6 do not equal the percentages in Figure 6. This is because respondents could select multiple answers to the survey question if they ride multiple types of OHVs. Figure 6 displays the actual results of the survey and the percentages do not sum to 100% as respondents who select multiple options fall into multiple categories. For the purposes of the economic impact analysis these results were converted to a 0-100% scale.

in Lewis County (and spending money) without the OHV trails. Using these assumptions, it is estimated that there were 71,460 net new user days in 2021.

Table 7

Annual Net New User Days

	Number of User Days
Total OHV User Days	102,086
Local User Days (30%)	30,626
Net New (Non-Local) User Days (70%)	71,460

Source: Lewis County, Survey, Camoin Associates

NET NEW ANNUAL VISITOR SPENDING IMPACTS

The net new (non-local) OHV users will have an impact on the county economy as they make purchases on lodging, transportation, food and beverage, retail, and other recreation. Based on the information collected from the survey, we were able to estimate the average spending per group, per trip and derive the total visitor spending.

According to the survey, non-local OHV riders spent an average of \$1,990 per group, per trip in the county.⁴ Since the average group size of non-local users is 7.4 people, and the average number of days per trip is 2.9, average spending per user per day is \$93. This was multiplied by the 71,460 net new user days to calculate total annual OHV user spending of over \$6.6 million.

Table 8

Average Spending of Net New OHV Users

Category	Avg. Spent per Group per Trip	Avg. Spent Per User per Trip (7.4 people per group)	Avg. Spent Per User per Day (2.9 days per trip)	Total Spending (71,460 user days)
Lodging	\$406	\$55	\$19	\$1,353,208
Food and Drink	\$438	\$59	\$20	\$1,457,683
Area Entertainment	\$28	\$4	\$1	\$93,583
Shopping (souvenirs, clothing, etc)	\$82	\$11	\$4	\$273,827
Gas	\$171	\$23	\$8	\$570,269
OHV Repairs	\$34	\$5	\$2	\$111,813
Convenience Stores (not gas)	\$65	\$9	\$3	\$216,593
OHV Equipment and Accessories	\$723	\$98	\$34	\$2,407,110
Other	\$43	\$6	\$2	\$142,572
Total	\$1,990	\$269	\$93	\$6,626,658

Source: Survey

⁴ This excludes spending on travel to Lewis County.

The approximately \$6.6 million in OHV user related sales was used as the direct input into the Emsi model to estimate the total impact on jobs, earnings, and sales. Table 9 shows the total economic impact of OHV user spending on the county economy. This is the annual economic activity generated by non-local users and represents the economic activity the county would lose without the OHV industry.

Table 9

Annual Economic Impact of OHV Users on Lewis County

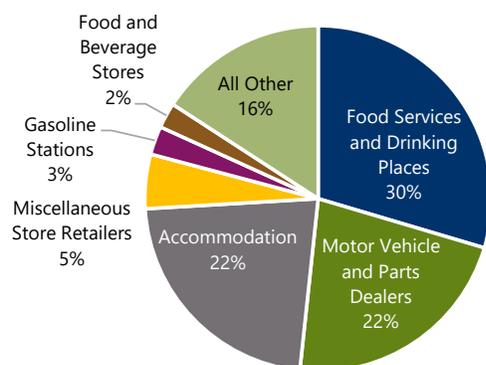
	Jobs	Earnings	Sales
Direct	83	\$2,199,594	\$6,626,658
Indirect	6	\$205,304	\$642,611
Induced	8	\$412,570	\$1,008,580
Total	97	\$2,817,469	\$8,277,850

Source: Emsi

The 97 jobs that are attributed to the OHV industry represent 1.4% of total jobs in the county and are in a wide range of industries. 30% of jobs supported by the OHV industry are in the food services and drinking places industry while 22% are in accommodations and 22% in motor vehicle parts and repairs. Table 10 shows the jobs supported by the OHV industry, by industry, as a percent of total jobs in the county.

Figure 23

Jobs Attributed to OHV Trail Use by Industry



Source: Emsi

ECONOMIC ACTIVITY: A NOTE ABOUT LOCAL USER SPENDING

As previously discussed, the spending of local OHV users is not considered to be net new and is not captured in the economic impact analysis. Although this is not net new activity, local users are participating in the local economy and their spending can be summarized as economic activity.

Using the average spending per local user per trip and the days spent using the trails per year (both from the survey), the total economic activity attributed to local users was calculated.

Local users spend on average \$73 per day in the region while using the OHV trails, with total economic activity attributed to local users equaling nearly \$28.4 million per year.

Annual Economic Activity from Local Users	
Avg. Spending per Local User per Day	\$73
Local Users	30,626
Days Using Trails per Year	12.7
Local User Days	388,946
Economic Activity	\$28,393,077

Source: Camoin Associates, Survey

A summary of economic activity is less rigorous than an economic impact analysis as it simply summarizes what is happening, rather than what is changing in the regional economy. Economic activity is a good measure of the size of the local OHV industry but is not directly comparable to or included in the economic impacts.

Table 10

Lewis County Jobs Attributed to OHV Trail Use

NAICS	Description	Jobs from		% of Total
		OHV Use	Total Jobs in County	
722	Food Services and Drinking Places	28	416	7%
721	Accommodation	22	72	31%
441	Motor Vehicle and Parts Dealers	22	74	30%
453	Miscellaneous Store Retailers	5	27	19%
903	Local Government	4	1,931	0%
447	Gasoline Stations	3	84	3%
445	Food and Beverage Stores	2	114	2%
531	Real Estate	2	26	7%
811	Repair and Maintenance	2	146	1%
713	Amusement, Gambling, and Recreation Industries	2	44	3%
541	Professional, Scientific, and Technical Services	1	128	1%
561	Administrative and Support Services	1	97	1%
238	Specialty Trade Contractors	1	301	0%
Total*		97	7,293	1%

Source: Emsi

*OHV related jobs do not equal total due to rounding. Total jobs in the county is the total jobs in all industries in the county, not just the industries displayed.

FISCAL IMPACT

In addition to the economic impact on the regional economy, the net new OHV users also have a fiscal impact in terms of property tax, sales tax, and occupancy tax revenue.

TAX REVENUE

PROPERTY TAX REVENUE

Although the use of the OHV trails does not directly generate property tax revenue for Lewis County, property tax revenue can be thought of as a function of the overall economic activity within a region. As economic activity increases so do assessed property values, and therefore, property tax revenue. In other words, without the OHV users and their associated economic activity, Lewis County's property tax revenue would be lower than it is currently.

To estimate the portion of property tax revenue that can be attributed to the OHV users and resulting economic activity, we determined the ratio of total "value added" sales⁵ associated with the OHV activity to the total Gross Regional Product (GRP)⁶ of Lewis County. This ratio is used as a proxy for the portion of property tax revenue that can be attributed to the OHV users.

To do so, we first consider the \$8.3 million in total sales that were calculated as part of the *Economic Impact Analysis* (Table 9). Of these total sales, a portion is considered to be value-added. Value added sales account for 0.5% of GRP in Lewis County. This is, in effect, the portion of the county's property tax base that is reliant on economic activity generated by the OHV users. Applying this ratio to the property tax levy of the county, we estimate total property tax revenue attributed to the OHV users (Table 11). *Note that this is the property tax revenue attributable to the economic activity generated by OHV related visitation and does not include the actual property taxes paid by homeowners.*

Table 11

Lewis County Property Tax Revenue

Total Sales (from <i>Economic Impact</i>)	\$8,277,850
Value Added Portion of Total Sales	\$4,785,562
2020 Gross Regional Product	\$913,195,286
Pct. Of GRP Attributable to OHV Users	0.5%
FY21 Property Tax Levy	\$17,700,000
Property Tax Revenue Attributable to OHV Visitation	\$92,756

Source: Emsi, Lewis County

⁵ Value added sales are a measure of contribution to GRP. This is the difference between an industry's total sales and the cost of its intermediate inputs. Intermediate inputs are goods and services that are used in the production process of other goods and services.

⁶ Gross Regional Product (GRP) measures the market value of all final goods and services produced in each county in a year.

SALES TAX REVENUE

Sales tax revenue will be generated for the county as employees spend their earnings in Lewis County. Sales tax revenue attributed to OHV activity is calculated using the total earnings (generated in the *Economic Impact* section) and the assumption that 25%⁷ of earnings will be spent within Lewis County and 40%⁸ of purchases will be taxable. The county's 4.00% sales tax rate is applied to calculate the sales tax revenue attributed to OHV users.

Table 12
Sales Tax Revenue

Total Earnings (from <i>Economic Impact</i>)	\$2,817,469
Amount Spent in Geography (25%)	\$704,367
Amount Taxable (40%)	\$281,747
Sales Tax Rate	4.00%
Sales Tax Revenue	\$11,270

Source: Emsi, Camoin Associates, Lewis County

OCCUPANCY TAX REVENUE

Lewis County also imposes an occupancy tax on accommodations spending. The OHV users' direct spending on lodging is used to calculate this. Since Lewis County collects occupancy tax on short term rentals, it is assumed that most lodging sales are taxable. 90% of lodging sales are assumed to be taxable to account for a small portion of stays that may not fall into this category. The county's 3.00% occupancy tax rate was applied and the total occupancy tax revenue generated by OHV users is displayed in Table 13.

Table 13
Occupancy Tax Revenue

Direct Lodging Sales (from <i>Economic Impact</i>)	\$1,353,208
Lodging Sales Subject to Occupancy Tax (90%)	\$1,217,887
Occupancy Tax Rate	3.00%
Occupancy Tax Revenue	\$36,537

Source: Camoin Associates, Lewis County

INCOME TAX REVENUE

In addition to the county impacts, New York State benefits from income tax revenue associated with Lewis County's OHV activity. Income tax revenue is estimated using total earnings. Workers in New York State pay an average of \$34.84 in income tax on every \$1,000 of earnings, or 3.48%. This tax rate was applied to total earnings to estimate income tax revenue attributed to OHV activity.

Table 14
Income Tax Revenue (New York State)

Total Earnings	\$2,817,469
NYS Average Income Tax Rate	3.48%
Annual Income Tax Revenue	\$98,048

Source: Camoin Associates, Empire Center for Public Policy

⁷ Based on the percent of industry demand that is met within the county, for a typical household spending basket (source: Emsi).

⁸ Based on information from the NYS Department of Finance and Taxation regarding purchases subject to sales tax.

TOTAL TAX REVENUE

Lewis County's total annual tax revenue attributable to the OHV users is displayed in Table 15.

Table 15

Annual Tax Revenue, Lewis County	
Property Tax Revenue	\$92,756
Sales Tax Revenue	\$11,270
Occupancy Tax Revenue	\$36,537
Total	\$140,563

Source: Camoin Associates

POTENTIAL NYS REVENUE FROM ADDITIONAL REGISTRATIONS AND SALES

REGISTRATIONS

In addition to the tax revenue associated with OHV activity, revenue is also generated through registration payments. Specifically, an ATV must be registered with the Department of Motor Vehicles (DMV) if it is operated anywhere in New York State, including on the owner's property. The ATV registration and registration renewal fee is \$12.50 per year. Dirt bikes and UTVs cannot be registered in New York State.

If New York State laws were updated, additional revenue could potentially be collected from currently unregistered users. To estimate the amount of potential revenue attributed to Lewis County OHV users, we looked at the current estimated unregistered users in Lewis County (2,158, see Table 4). According to the survey, 96% of users own their vehicles while 4% rent, therefore 96% was applied to the estimated unregistered users to exclude users that rent their vehicles. Based on the survey, OHV users own 2.3 OHVs on average. For the purposes of this analysis, we assume that all OHVs owned by unregistered users are unregistered. This means that an estimated 4,766 OHVs are unregistered among users of Lewis County's OHV trails. Applying the \$12.50 registration cost to this number of vehicles, the total potential uncaptured revenue is calculated.

Table 16

Potential Revenue from Unregistered Vehicles	
Unregistered Users	4,178
Owned Vehicles Adjustment (96%)	4,011
Avg. # of OHVs Owned	2.3
Estimated Unregistered Vehicles	9,225
Registration Cost	\$12.50
Potential Revenue	\$115,307

Source: Survey, Camoin Associates, NYS DMV

SALES TAX

A portion of users made their most recent OHV purchase out of state, resulting in lost sales tax revenue for New York State. The number of vehicles purchased out of state was estimated using data from the survey and estimates of total trail usage. According to the survey, the average purchase price of respondents' OHVs is over \$18,000. This

means that an estimated over \$23.3 million has been spent out of state on OHV purchases by Lewis County OHV trail users. Nearly \$1.9 million in sales and use tax revenue is lost due to these vehicles being purchased out of state.

Table 17

Sales Tax Revenue Potential	
Total Vehicles Riding Lewis County Trails	6,086
Number of Vehicles that are Owned by User (96%)	5,842
% of Vehicles Purchased Out of State	22%
Number of Vehicles Purchased from Out of State	1,285
Average Purchase Price	\$18,140
Total Spent Out of State	\$23,315,492
State and Local Sales Tax Rate	8.00%
Sales Tax Potential	\$1,865,239

Source: Survey, Lewis County, Camoin Associates

ATTACHMENT A: WHAT IS ECONOMIC IMPACT ANALYSIS?

The purpose of conducting an economic impact study is to ascertain the total cumulative changes in employment, earnings and output in a given economy due to some initial “change in final demand”. To understand the meaning of “change in final demand”, consider the installation of a new widget manufacturer in Anytown, USA. The widget manufacturer sells \$1 million worth of its widgets per year exclusively to consumers in Canada. Therefore, the annual change in final demand in the United States is \$1 million because dollars are flowing in from outside the United States and are therefore “new” dollars in the economy.

This change in final demand translates into the first round of buying and selling that occurs in an economy. For example, the widget manufacturer must buy its inputs of production (electricity, steel, etc.), must lease or purchase property and pay its workers. This first round is commonly referred to as the “Direct Effects” of the change in final demand and is the basis of additional rounds of buying and selling described below.

To continue this example, the widget manufacturer’s vendors (the supplier of electricity and the supplier of steel) will enjoy additional output (i.e. sales) that will sustain their businesses and cause them to make additional purchases in the economy. The steel producer will need more pig iron and the electric company will purchase additional power from generation entities. In this second round, some of those additional purchases will be made in the US economy and some will “leak out”. What remains will cause a third round (with leakage) and a fourth (and so on) in ever-diminishing rounds of industry-to-industry purchases. Finally, the widget manufacturer has employees who will naturally spend their wages. Again, those wages spent will either be for local goods and services or will “leak” out of the economy. The purchases of local goods and services will then stimulate other local economic activity. Together, these effects are referred to as the “Indirect Effects” of the change in final demand.

Therefore, the total economic impact resulting from the new widget manufacturer is the initial \$1 million of new money (i.e. Direct Effects) flowing in the US economy, plus the Indirect Effects. The ratio of Total Effects to Direct Effects is called the “multiplier effect” and is often reported as a dollar-of-impact per dollar-of-change. Therefore, a multiplier of 2.4 means that for every dollar (\$1) of change in final demand, an additional \$1.40 of indirect economic activity occurs for a total of \$2.40.

Key information for the reader to retain is that this type of analysis requires rigorous and careful consideration of the geography selected (i.e. how the “local economy” is defined) and the implications of the geography on the computation of the change in final demand. If this analysis wanted to consider the impact of the widget manufacturer on the entire North American continent, it would have to conclude that the change in final demand is zero and therefore the economic impact is zero. This is because the \$1 million of widgets being purchased by Canadians is not causing total North American demand to increase by \$1 million. Presumably, those Canadian purchasers will have \$1 million less to spend on other items and the effects of additional widget production will be cancelled out by a commensurate reduction in the purchases of other goods and services.

Changes in final demand, and therefore Direct Effects, can occur in a number of circumstances. The above example is easiest to understand: the effect of a manufacturer producing locally but selling globally. If, however, 100% of domestic demand for a good is being met by foreign suppliers (say, DVD players being imported into the US from Korea and Japan), locating a manufacturer of DVD players in the US will cause a change in final demand because all of those dollars currently leaving the US economy will instead remain. A situation can be envisioned whereby a producer is serving both local and foreign demand, and an impact analysis would have to be careful in calculating how many “new” dollars the producer would be causing to occur domestically.

ATTACHMENT B: SURVEY QUESTIONS

Lewis County Off Highway Vehicle (OHV) Study

The following survey is being conducted on behalf of Lewis County to collect the information to better understand the usage, needs, and economic impact of off highway vehicle users in Lewis County and the region.

1. Which of the following off highway vehicles OHV's do you ride?

<input type="checkbox"/> Dirt Bike	<input type="checkbox"/> ATV	<input type="checkbox"/> Side by Side	<input type="checkbox"/> Other
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Other _____

2. Do you borrow, rent, or own the OHV(s) you ride?

<input type="checkbox"/> Borrow	<input type="checkbox"/> Rent	<input type="checkbox"/> Own
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If you are an owner, how many do you own? _____

3. How much did you spend on your last OHV Purchase?

<input type="checkbox"/> Less than \$5000	<input type="checkbox"/> \$5001 - \$10,000
<input type="checkbox"/> \$10,001 - \$20,000	<input type="checkbox"/> More than \$20,000

4. In what state did you make your last OHV purchase?

5. Is your OHV Registered in New York?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not Sure
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6. Do you ride the Lewis County OHV Trails?

<input type="checkbox"/> Yes, I have a permit
<input type="checkbox"/> Yes, I purchase a three day pass
<input type="checkbox"/> Yes, but only on the free weekend
<input type="checkbox"/> Yes, without a permit
<input type="checkbox"/> No

7. Which of the following statements best describes your choice to ride OHV's in Lewis County?

<input type="checkbox"/> I live in Lewis County.
<input type="checkbox"/> My primary residence is not in Lewis County, but I purchased property in the County for OHV riding.
<input type="checkbox"/> I don't live in Lewis County and the OHV trails are the primary reason I travel to Lewis County.
<input type="checkbox"/> I don't live in Lewis County and travel to Lewis County for many reasons, one of which is the trail network.

8. Please indicate the state, county and zip code of your **primary** residence:

State:
County:
Zip code:

9. If you own property in Lewis County in addition to your primary residence, please indicate the ZIP code for this property.

<input type="checkbox"/> I do own additional property and the ZIP CODE is: _____
<input type="checkbox"/> I do not own additional property

If your primary residence is not in Lewis County, please answer the two questions in the enclosed box below.

10. In a typical season how many trips do you take to Lewis County for OHV Recreation? _____

11. How long (number of days) are your typical trips to Lewis County? _____

12. In a typical season, how many days do you spend trail riding in Lewis County? _____

13. In which of the following counties do you ride OHV's?

<input type="checkbox"/> Oneida	<input type="checkbox"/> Oswego	<input type="checkbox"/> Jefferson
<input type="checkbox"/> St. Lawrence	<input type="checkbox"/> Franklin	

14. Including you, how many people are in your typical immediate group when you ride in Lewis County? _____

15. Who goes on a typical OHV outing with you? (Check all that apply)

<input type="checkbox"/> No one	<input type="checkbox"/> Both family & friends
<input type="checkbox"/> Family only	<input type="checkbox"/> Club outing
<input type="checkbox"/> Friends only	<input type="checkbox"/> Other organized group

16. How much (in dollars) do you estimate you and your immediate travel group (the individuals you included in your answer to question 14) spend on a typical OHV trip **in Lewis** on:

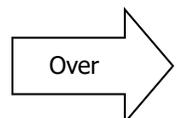
Lodging	\$
Food and drink at Bars/Restaurants	\$
Area entertainment, admissions	\$
Shopping (souvenirs, clothing, etc)	\$
Gas (purchased in Lewis County)	\$
OHV Repairs	\$
Convenience stores (not gas)	\$
Transportation to the area	\$
OHV equipment and accessories	\$
Other (Specify: _____)	\$

17. With respect to each of the following aspects of an OHV trip to Lewis County, please rate the level of importance to you on a scale of very important to not at all important:

	Very	Somewhat	Not Very	Not at all	Not sure
Riding with family					
Riding with friends					
Scenery					
Length of ride					
Exploring new trails					
Relaxation					
Restaurants/entertainment					
Trail signage					
Trail safety					
Variety of terrain					
Lodging options					
Activities for family members					

18. How would you rate your overall OHV Recreation experience in Lewis County?

<input type="checkbox"/> Excellent	<input type="checkbox"/> Good	<input type="checkbox"/> Fair	<input type="checkbox"/> Poor
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19. How many times would you say you encounter law enforcement in a typical day while riding OHVs in the region?

<input type="checkbox"/> None	<input type="checkbox"/> One	<input type="checkbox"/> Two or more
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20. Please indicate what, if anything, needs to be done to improve the OHV riding experience in Lewis County (Check all that apply)

A	<input type="checkbox"/> Creating new trails/more trail miles
B	<input type="checkbox"/> Opening more roads to OHV use
C	<input type="checkbox"/> Improving trail maintenance
D	<input type="checkbox"/> Creating additional trail signage
E	<input type="checkbox"/> Creating off trail riding areas
F	<input type="checkbox"/> Improving infrastructure (water, restrooms, additional parking, etc.)
G	<input type="checkbox"/> Improving access to/number of trailheads
H	<input type="checkbox"/> Additional camping grounds
I	<input type="checkbox"/> Add Connections to Trails in other Counties
J	<input type="checkbox"/> No improvements are needed

21. Using a LETTER (A-J) from the choices above what is the ONE most important improvement that needs to be made to make your OHV riding experience more enjoyable? _____

22. Please indicate what, if anything, needs to be done to protect the OHV riding experience in Lewis. (Check all that apply)

A	<input type="checkbox"/> Adding additional police enforcement and strengthening regulations
B	<input type="checkbox"/> Protecting private property rights
C	<input type="checkbox"/> Securing and expanding private landowner trail access by incentivizing landowners to open OHV trails
D	<input type="checkbox"/> No improvements are needed

23. Using a LETTER (A-D) from the choices above what do you believe is the ONE most important item that would safeguard the OHV experience in the region? _____

24. When planning a trip to Lewis County, which **two** of the following sources do you most commonly use to gather information about OHV Riding?

<input type="checkbox"/> Friends and Family	<input type="checkbox"/> Blog or Publication
<input type="checkbox"/> Search Engine (Google, Bing...)	<input type="checkbox"/> Print Advertisement (magazine, newspaper...)
<input type="checkbox"/> Social Media (Facebook, Twitter, Instagram...)	<input type="checkbox"/> Internet Advertisement
<input type="checkbox"/> Local Tourism Info (Visitor's Center or Guide, Local TV...)	<input type="checkbox"/> State Tourism Info (I Love NY website, Interstate/Highway Informational Centers...)
<input type="checkbox"/> Other Specify: (_____)	

25. On which days of the week do you typically ride OHVs in Lewis County? (Check all that apply)

<input type="checkbox"/> Monday	<input type="checkbox"/> Friday
<input type="checkbox"/> Tuesday	<input type="checkbox"/> Saturday
<input type="checkbox"/> Wednesday	<input type="checkbox"/> Sunday
<input type="checkbox"/> Thursday	

26. Of the following, what is your preferred trail navigation tool?

<input type="checkbox"/> Mobile App	<input type="checkbox"/> Trailside Kiosk/Map Stations
<input type="checkbox"/> Hard Copy Maps	<input type="checkbox"/> Online Map (website)
<input type="checkbox"/> GPS unit	<input type="checkbox"/> Trail Signs

27. What other activities do you or members of your immediate travel group participate in while you're on an OHV trip? (Check all that apply)

<input type="checkbox"/> Shopping	<input type="checkbox"/> Dining
<input type="checkbox"/> Visit family/friends	<input type="checkbox"/> Museums/historic sites
<input type="checkbox"/> Festivals/events	<input type="checkbox"/> Area attractions
<input type="checkbox"/> Boating	<input type="checkbox"/> Horseback riding
<input type="checkbox"/> Other (Specify: _____)	

If you do not have a in Lewis County, please answer the three questions in the enclosed box below.

28. Would you be interested in local storage space for your OHV?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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29. Do you have difficulties finding lodging that meets your needs within a reasonable distance?

<input type="checkbox"/> Yes, often	<input type="checkbox"/> Yes, sometimes	<input type="checkbox"/> No
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30. Where do you think additional lodging is needed in Lewis County?

31. What is your age? _____

32. What is your gender? _____

33. Which of these categories best describes your annual household income?

<input type="checkbox"/> Less than \$25,000	<input type="checkbox"/> \$100,001-\$125,000
<input type="checkbox"/> \$25,000-\$50,000	<input type="checkbox"/> \$125,001-\$150,000
<input type="checkbox"/> \$50,001-\$75,000	<input type="checkbox"/> More than \$150,000
<input type="checkbox"/> \$75,001-\$100,000	<input type="checkbox"/> Prefer not to answer

34. Do you snowmobile in Lewis County?

<input type="checkbox"/> Yes	<input type="checkbox"/> No
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35. What additional recreational activities or events do you participate in within Lewis County?

36. Please share any additional comments in the box below.

Comments:

37. If you would like your name to be entered for a chance to win a Family 4 pack of Lewis County OHV Trail Permits, please include your contact information.

Name: _____

Email: _____

Phone: _____

Thank you for helping us with this survey. For more information regarding this survey contact Jackie Mahoney from Lewis County Recreation, Forestry and Parks at (315) 376-5972.

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