

# Economic and Fiscal Impact Analysis of the Vermont Trails and Greenway Council Member Organizations

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Prepared for:

Vermont Trails and Greenways Council



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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. We specialize in economic and fiscal impact analyses and have conducted numerous studies on trail and tourism based projects throughout the country. Through the services offered, Camoin Associates has had the opportunity to serve EDOs and local and state governments from Maine to Texas; corporations and organizations that include Lowes Home Improvement, FedEx, Volvo (Nova Bus) and the New York Islanders; as well as private developers proposing projects in excess of \$600 million. Our reputation for detailed, place-specific, and accurate analysis has led to projects in twenty-nine states and garnered attention from national media outlets including *Marketplace (NPR)*, *Forbes* magazine, 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. The firm currently has offices in Saratoga Springs, NY, Portland, ME, 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](http://www.camoinassociates.com). You can also find us on Twitter @camoinassociate and on Facebook.



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## Project Support

Lat + Long Resource Group, LLC provides organizational and operational support to non-profits and small businesses across North America. Our consulting services include grant writing, project coordination and facilitation, and strategic planning. We specialize in multi-use and motorized recreation policy, planning, and program management. Lat + Long secured federal funding through the USDA Rural Business Opportunity Grant Program to conduct the Economic Impact Study and served as the Project Consultant for the Vermont Trails and Greenways Council. Through the generous financial support of the Council, USDA Rural Development (Vermont) and the four participating organizations; Catamount Trail Association, Green Mountain Club, Kingdom Trails Association, and the Vermont ATV Sportsman's Association, we were able to partner with Camoin Associates to produce a high quality and thorough analysis of the economic impact of recreation on the Vermont Trails System. For more information about our services, please contact Alexis Nelson at [alexis@latlongresourcegroup.com](mailto:alexis@latlongresourcegroup.com)



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## Executive Summary

Camoin Associates was retained by the Vermont Trails and Greenways Council (the “VTGC”) to provide an economic and fiscal impact assessment of how four<sup>1</sup> statewide and regional trail associations (the “Trails”) impact the economy of Vermont (the “State”). To study this, we examine the question, “What would change in the State, if the Trails ceased to exist?” We would expect that certain visitors who currently come to Vermont for the Trails, specifically those visitors who are not residents of the Vermont, would no longer spend money in the local economy because the Trails are their primary reason for visiting. This spending is referred to as “net new” because it is spending that is dependent on the Trails and would not otherwise occur in the state.

It is important to note here that this impact analysis only looks at the impact of the four trail systems that participated in the survey, namely the Catamount Trail Association, the Kingdom Trails Association, the Vermont All-Terrain Sportsman’s Association, and the Green Mountain Club. The actual impact of recreation on the Vermont State economy is much greater and includes many more trails and recreation types.

The infographic on the following page outlines the findings of this analysis.

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<sup>1</sup> This study analyzes the impact of the Catamount Trail Association, the Kingdom Trails Association, the Vermont All-Terrain Sportsman’s Association, and the Green Mountain Club.

# Economic Impact

## Vermont Trails and Greenway Member Organizations

The following organizations participated in this impact study: Catamount Trail Association, Long Trail (managed by Green Mountain Club), Kingdom Trails Association, and Vermont All Terrain Sportsman Association (VASA).



Annual Trail Use by Organization

- Long Trail - 49%
- VASA Trail - 26%
- Kingdom Trails - 23%
- Catamount Trail - 2%

### Annual Economic Impacts in Vermont



365 Jobs Supported



\$9 Million in Earnings

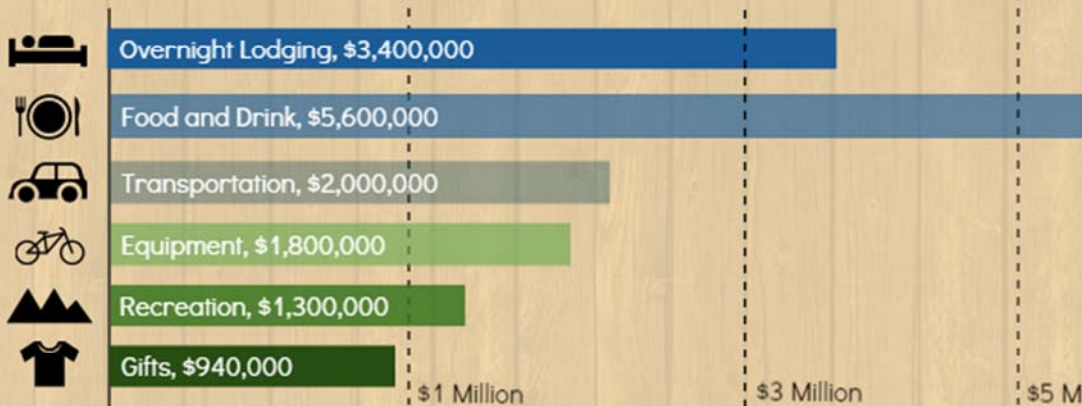


\$22.4 Million in Sales

**\$30.8 Million**

Total Annual Economic Activity Supported by Trail Use

### Annual New Spending Impacts

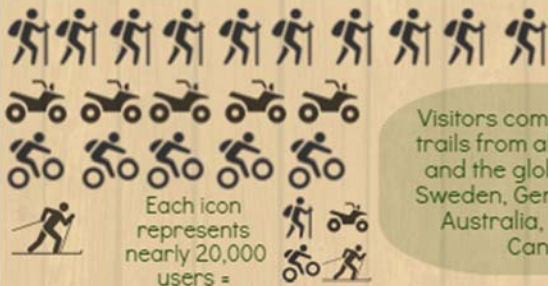


Annually, over

**\$15 million**  
in new sales

occur in Vermont as a result of trail visitors spending on travel expenses such as food, lodging, and equipment.

**410,000** Annual Trail Users



Visitors come to Vermont trails from all over the US and the globe, including Sweden, Germany, Brazil, Australia, China, and Canada.



Sales Tax, Property Tax, and State Tax Revenues

**\$2 Million**  
Tax Revenues

Vermont receives over \$2 million in tax revenues annually, as a result of trail users.

This impact focuses only on the four trail organizations and therefore represents only a limited portion of the total economic impact of trails and recreation on the State of Vermont economy.

## Introduction

The Vermont Trails and Greenways Council (“VTGC”) is an organization of volunteers dedicated to trail preservation, promotion, and development in Vermont. The VTGC commissioned Camoin Associates to complete an economic and fiscal impact analysis to study and report on four of its member including the Catamount Trail Association, the Kingdom Trails Association, the Vermont All-Terrain Sportsman’s Association, and the Green Mountain Club (collectively the “Trails”)<sup>2</sup>. The purpose of this study is to demonstrate the existing economic and fiscal benefits of the Trails on the State of Vermont’s (the “State”) economy.

The analysis will consider the many users of the Trails and how their spending in Vermont creates jobs, earnings, and sales for the State’s businesses and employees as well as additional tax revenue for the State. Additionally, the analysis estimates how the Trails create economic activity associated with spending by state residents and the value of the Trails to the State.

It is important to note here that this impact analysis only looks at the impact of the four trail systems that participated in the survey, namely the Catamount Trail Association, the Kingdom Trails Association, the Vermont All-Terrain Sportsman’s Association, and the Green Mountain Club. The actual impact of recreation on the Vermont State economy is much greater and includes many more trails and recreation types.

## History

The Vermont Trails and Greenways Council was first established in 1995 with the goal of ensuring access to adequate land and water-based trails and greenways in Vermont. The Council represents every kind of trail use and works to strengthen the Vermont trail systems to support trail recreation across the state. Within the Vermont Trails and Greenways Council, there are individual trail organizations that focus on their particular region or type of user. The following is a brief summary of these organizations.



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<sup>2</sup> Note that this analysis only includes the use and impact of these four statewide or regional trail networks and does not include other Vermont Trails and Greenways Council member organizations.

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## Catamount Trail Association

The Catamount Trail Association was incorporated in 1984 as a non-profit, member-driven organization with the primary goal of building and maintaining a long-distance Nordic ski-trail from Massachusetts to Canada as a public resource. The goal of connecting the state from end to end with a ski-trail was finally realized in 2007. The organization's vision is described on their website as follows: *The Catamount Trail is a fully conserved, well maintained public-access ski trail that spans the length of Vermont. The Catamount Trail and related trail networks are unique resources for winter recreation and important conservation and economic assets for the people and State of Vermont.*

The Catamount Trail Association hosts numerous events throughout the year including winter triathlons, instructional courses, uphill challenges, and others throughout the state. In total, the organization estimates that approximately 10,000 people use the Catamount Trail each year.<sup>3</sup>



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## Green Mountain Club

The Green Mountain Club was created in 1910 in Burlington, Vermont after which work began on the Long Trail – the oldest- long distance hiking trail in the United States. The Long Trail follows the main ridge of the Green Mountains from the Massachusetts-Vermont border to the Canadian border. The Green Mountain Club is charged with maintaining the Long Trail System as well as protecting other hiking trails in Vermont. Approximately 200,000 people use the Long Trail each year.



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<sup>3</sup> Source: Catamount Trail Association

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## Kingdom Trails Association

Taking the name from the “Northeast Kingdom” region of Vermont, the Kingdom Trails Association was established in 1994 to encourage recreational use in the region in a way that is ecologically sensitive and promotes the natural beauty. Working with private landowners, the Kingdom Trails Association offers year-round recreational opportunities on mapped trails. The vast majority of the users are mountain biking during the spring, summer, and fall seasons but there is also use during the winter by fat bikers, cross country skiers, and snowshoers. The trails are maintained with the funds generated from day passes and membership fees. The trails are home to a number of events, including Winterbike, Nembafest, and Circumburke.

Based on the day passes sold, member usage, and other estimates, the Kingdom Trails Association estimates that the trails are used approximately 94,000 times per year, the majority are mountain bikers during the spring, summer, and fall seasons.



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## Vermont All-Terrain Sportsman Association

Vermont All-Terrain Sportsman Association (“VASA”) is the statewide organization dedicated to developing, promoting, and conserving responsible, family friendly ATV recreation in Vermont. The Association has over 800 miles of trails on mostly private property. The 800 miles of trails are maintained by VASA and the local clubs are open only to the 2,500 members who have registered their ATV with the Vermont Department of Motor Vehicles and have paid their membership fee. There are 16 local clubs that provide the volunteers to support the trails. VASA also offers free safety training to all riders under the age of 18.<sup>4</sup>

VASA does not maintain trail user counts but, based on the information collected in the survey, we estimate that an average VASA member rides their ATV in Vermont 42 days per year. Based on 2,500 users, that is a total of 105,000 uses per year.



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<sup>4</sup> Source: VASA Website [http://vtvasa.org/client\\_media/files/2016Brochures-web.pdf](http://vtvasa.org/client_media/files/2016Brochures-web.pdf)



# Methodology

## Survey Process

Throughout 2016, surveys were conducted throughout Vermont to gain insights into the characteristics of the users of the Trails. The survey included questions regarding location of origin, time spent on the trail, time spent in Vermont, types of activities the users typically participate in, and spending habits (See Attachment B for the list of questions).



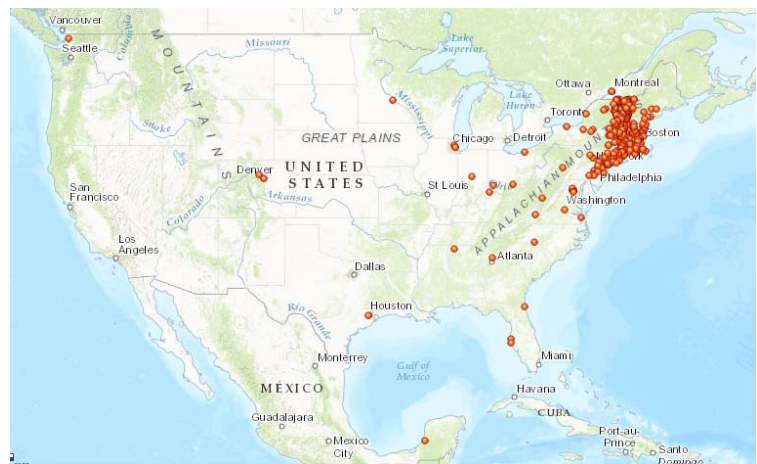
When the surveying process was first outlined, the intention was for each of the four trail organizations to conduct in-person surveying at different points throughout the system. For a number of different reasons this surveying method was not feasible for all of the different trail systems, so a variety of techniques were employed to gather data from as many users as possible, while at the same time working to limit over-representation of a unique group (i.e. only trail club members as opposed to one-time users).

**Catamount Trail Association:** Unfortunately, the winter of 2015-2016 will be remembered as never actually arriving. There was very little snowfall throughout Vermont, which did not allow for sections of the cross country trail to be useable by Nordic skiers. In order to gain information from those who typically use the trails, an effort was made to collect information at ski events that attract similar participants and using an online survey that went to the Association’s full eNews list of friends, members of the organizations, and event participants. In total, 212 surveys were collected including 155 online surveys and 57 in person surveys.

**Green Mountain Club:** The Green Mountain Club conducted their surveying on-site during the summer of 2016 at trailheads. The survey was conducted at the visitor center. In total, 87 surveys were collected.

**Kingdom Trails Association:** The surveying for the Kingdom Trails Association was conducted during the mountain biking season using surveys at the registration desk. In addition, the survey was sent out to their mailing list which includes everyone who has used the trails, including both members and non-members. In total, 1,036 surveys were collected including 108 in-person surveys and 935 online surveys.

**VASA:** The surveying for the VASA trails was conducted using an online survey sent out to members during the Spring and Summer of 2016. In order to ride on the VASA trails, you must be a member, so it was reasonable to measure the spending and usage of only the members. In total, 285 online survey forms were completed.



Home zip code of survey takers

## Methodology Employed

Camoin Associates employed the following methodology to determine the economic impact of the Trails:

1. The individual trail organizations provided Camoin Associates with the average annual usage of the individual trail systems and Camoin Associates calculated the usage for the entire system per year.
2. Based on information gathered in the survey, Camoin Associates developed an estimate for the percent of users who come to the Trails from within Vermont (“Local Visitor”) and the percent of visitors who come from outside of the Vermont (“Non-Local Visitor”).
3. Using the Non-Local Visitor survey data, Camoin Associates looked further into why the user was in Vermont and whether the trail was their primary or secondary reason or whether they traveled to Vermont for another reason and just happened to use the trail. Only those Non-Local Visitor who were in Vermont because of the trail (primary or secondary reason) are considered “net new” for purposes of the economic impact study.
4. Using the usage estimates (Step 1), the percent of Local and Non-Local Visitors (Step 2) and the percent of Non-Local Visitors who are in Vermont because of the Trails (Step 3), Camoin Associates determined the number of net new Non-Local Visitors that use the Trails on an annual basis. These Non-Local Visitors who are in Vermont because of the Trails are considered to be **net new visitors** to the State and their spending is directly related to the Trails.
5. Using the data collected in the survey, Camoin Associates estimated the percent of the net new visitors to the State that are taking a day trip or overnight trip to Vermont as a result of the Trails.
6. Based on spending estimates for the visitors identified in Step 5, Camoin Associates determined **average visitation spending** of a typical net new Non-Local Visitor.
7. Camoin then aggregated the “new” visitation spending by multiplying the average spending (Step 6) by the “new visitor” estimates (Step 4).
8. Camoin then calculated direct jobs/economic activity resulting from the “new” spending (Step 7).
9. The direct economic activity was then entered into the EMSI model (described below) to calculate the associated indirect impacts.
10. Arrived at total economic impacts as the sum of all direct and indirect impacts in an average year.



In modeling the economic impact of the Trails, net new visitor spending on food, retail, lodging, and transportation are the “Direct Impact.” “Indirect Impacts” occur as visitor-oriented business, such as restaurants, hotels, gift shops, and others, make purchases from second-tier suppliers, those second-tier suppliers make purchases from third-tier suppliers, and so on, back through the supply chain. Another component of indirect impacts are induced impacts—those impacts that occur as employees, both those working directly for visitor-oriented businesses as well as for those businesses that supply to them—spend their wages in the economy. Together, direct, indirect, and induced impacts comprise the total economic impact of each scenario on Vermont.

## Modeling Software

Economic Modeling Specialists, Inc. (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 or jobs) occurring within the study area and uses the direct inputs to estimate the spillover effects that the net new spending or jobs have as these new dollars circulate through the study area’s economy. This is captured in the indirect impacts and is commonly referred to as the “multiplier effect.” See Attachment A for more information on economic impact analysis.

# Economic Impact Analysis

Users of the Trails have an impact on Vermont in a number of ways, including:

- 1) Non-residents traveling to Vermont to use the Trails and spending money in Vermont (see Economic Impact section of the report for more information);
- 2) Residents spending money in Vermont because of access to the Trails, such money that would otherwise go out of state (see Economic Activity section of the report for more information);
- 3) The value of the Trails to residents of Vermont (see Direct Use benefit section of the report for more information); and,
- 4) The fiscal impact of the Trails on the tax revenue generated for the State (see Fiscal Impact section of the report for more information).



The next section will calculate the total number of annual users, the number of visitors from outside of Vermont, their typical spending patterns, and how these visitors impact the State’s economy.

## Visitation Estimates

### Total Use

Based on the information collected from the different trail organizations and data collected from the survey, Camoin Associates estimates that the Trails have nearly 410,000 user-days per year. This includes both local and non-local users and use throughout all of the seasons.

Annual Trail Use	
Trail System	Annual Users
Catamount Trail	10,000
Long Trail	200,000
Kingdom Trails	94,000
VASA	105,750
<b>Total</b>	<b>409,750</b>

Source: Trail Associations and Survey

### Non-Vermont Users

For the purpose of evaluating the impact of the Trails on Vermont, Camoin Associates used a question regarding the subject’s primary residence to determine the proportion of trail users who live outside the State and came to Vermont because of the Trails. Spending by these users is considered “net new” to the State because, if not for the Trails, this spending would not have occurred. Conversely, it was assumed that users from within the State and those that were in Vermont for other reasons and just happened to use the trail would still have spent a similar amount in the State even without the Trails. In other words, the recreation dollars spent by these non-net new users in the state could reasonably be assumed to be spent in Vermont on other similar types of offerings. Additional information regarding the impact of the Trails on state residents is provided later in this report.

### Net New Visitor Days

Trail System	System Annual Users	% Non-Resident	Non Resident Visitors	% Net New	Number Net New
Catamount Trail	10,000	42%	4,238	88%	3,708
Long Trail	200,000	71%	141,860	87%	123,256
Kingdom Trails	94,000	75%	70,263	97%	68,338
VASA	105,750	34%	35,513	61%	21,792
<b>Total</b>	<b>409,750</b>	<b>61%</b>	<b>251,874</b>	<b>86%</b>	<b>217,094</b>

Source: Survey, Camoin Associates

Of the 409,750 user days, 39% were days spent by Vermont residents, while 61% were spent by visitors from beyond the State. Of those visitors from out of Vermont, 86% indicated in the survey that they were in Vermont because of access to the Trails, these 217,094 user days are considered the “net new” portion.



In the review of the location of origin of the visitors, there are people from all around the country and world including from Canada, Sweden, Germany, Australia, China, and Brazil.

Digging further into the habits of the net new trail users, the majority of them stay overnight in Vermont when using the Trails. The table below also shows the average number of days spent in Vermont for the survey takers who indicated that they would be staying in Vermont overnight. The Green Mountain Trail users have the highest average, with many people responding to the survey staying in Vermont for long periods of time and using the trail for that many days as well. The other three trail systems have average overnight stays of around 3 days.

Length of Stay in Vermont					
	Day Visit		Multiple Day		
	% of Net New Users	# of New New Users	% of Net New Users	# of New New Users	Average Number of Days in Vermont
Catamount Trail	22%	819	78%	2,890	3.59
Long Trail	8%	9,302	92%	113,953	8.43
Kingdom Trails	22%	15,374	78%	52,963	2.76
VASA	19%	4,036	81%	17,757	3.05
<b>Total</b>	<b>14%</b>	<b>29,531</b>	<b>86%</b>	<b>187,563</b>	

Source: Survey, Camoin Associates

## Visitor Spending Impacts

The users of the Trails will have an impact on the state economy as they make purchases including lodging, transportation, and food and beverage purchases. Based on the information collected from the survey, we are able to estimate the average spending of day and overnight users of the different trail systems.<sup>5</sup> Note that the table to the right calculates average spending per party, per trip and does not yet break it down to per person or per day.

It is interesting to note that the Catamount Trail users and VASA users spend the most money, with the Long Trail users spending the least. The lower spending amounts for users of the Long Trail/Green Mountain Club system is expected as there are many long-distance or thru-hikers on the Long Trail and they spend very little money as they do not venture off trail often and tend to bring food with them. On average, day users of all the trail systems spend about 20%-30% of what the overnight visitors spend.



Average Spending per Party		
Catamount Trail		
	Day Visitor	Overnight Visitor
	Per Party	Per Party
Transportation	\$ 48	\$ 226
Food & Drink (Restaurant)	\$ 88	\$ 236
Food & Drink (Grocery)	\$ 26	\$ 133
Overnight Lodging	\$ -	\$ 334
Gifts/Souvenirs	\$ 36	\$ 110
Recreation (admission fees)	\$ 29	\$ 197
Equipment Purchases	\$ 78	\$ 333
<b>Average Spending Per Party</b>	<b>\$ 305</b>	<b>\$ 1,569</b>
Long Trail/Green Mountain Club*		
	Day Visitor	Overnight Visitor
	Per Party	Per Party
Transportation	\$ 20	\$ 81
Food & Drink (Restaurant)	\$ 36	\$ 179
Food & Drink (Grocery)	\$ 11	\$ 152
Overnight Lodging	\$ -	\$ 177
Gifts/Souvenirs	\$ 15	\$ 35
Recreation (admission fees)	\$ 12	\$ 23
Equipment Purchases	\$ 32	\$ 11
<b>Average Spending Per Party</b>	<b>\$ 125</b>	<b>\$ 657</b>
Kingdom Trails		
	Day Visitor	Overnight Visitor
	Per Party	Per Party
Transportation	\$ 69	\$ 145
Food & Drink (Restaurant)	\$ 91	\$ 230
Food & Drink (Grocery)	\$ 62	\$ 152
Overnight Lodging	\$ -	\$ 470
Gifts/Souvenirs	\$ 27	\$ 66
Recreation (admission fees)	\$ 64	\$ 126
Equipment Purchases	\$ 63	\$ 129
<b>Average Spending Per Party</b>	<b>\$ 376</b>	<b>\$ 1,317</b>
VASA		
	Day Visitor	Overnight Visitor
	Per Party	Per Party
Transportation	\$ 152	\$ 226
Food & Drink (Restaurant)	\$ 118	\$ 326
Food & Drink (Grocery)	\$ 89	\$ 285
Overnight Lodging	\$ -	\$ 119
Gifts/Souvenirs	\$ 51	\$ 119
Recreation (admission fees)	\$ 33	\$ 116
Equipment Purchases	\$ 44	\$ 390
<b>Average Spending Per Party</b>	<b>\$ 487</b>	<b>\$ 1,580</b>

\* There were too few respondents that were only staying in Vermont for the day to come up with good estimates for spending on the Long Trail. In this case we based the day user spending off of the Catamount Trail spending and reduced it down proportionally to how the overnight spending baskets relate to each other (Long Trail overnight spending is approximately 41% of the Catamount Trail overnight spending).

<sup>5</sup> Note: In order to make a conservative estimate for the spending baskets, the analysts assumed that no money was spent in a category if the survey taker did not fill in that category. This is likely a conservative assumption and undercounts total spending.

The table to the right breaks down the spending into per person and per day estimates. Using the Catamount Trail as an example, we know that a day user party spends \$305 and the survey results tell us that they have an average of 2 people per party or \$135 per person. There are 819 net new day users of the Catamount Trail per year, and if they each spend an average of \$135 that is \$110,491 per year. The overnight users spend \$1,569 per party per visit, with an average stay of 3.6 days and 3 people per party that is \$145 dollars per day. With 2,890 overnight net new users that is \$417,845 new spending resulting from overnight users of the Catamount Trail. In total, the Catamount Trail creates nearly \$528,336 in direct spending per year in Vermont.

The same process was followed for the four trail systems, and in total results in over \$15 million in new spending in Vermont.



Total Net New Spending in Vermont		
Catamount Trail		
	Day Visit	Multiple Day
Spending Per Party	\$ 305	\$ 1,569
Spending Per Day	\$ 305	\$ 437
Average Party Size	2	3
Average Spending per Person	\$ 135	\$ 145
Total Net New Users	819	2,890
Total Net New Spending	\$ 110,491	\$ 417,845
<b>Total Annual Spending</b>		<b>\$ 528,336</b>
Long Trail/Green Mountain Club		
	Day Visit	Multiple Day
Spending Per Party	\$ 125	\$ 657
Spending Per Day	\$ 125	\$ 78
Average Party Size	2	3
Average Spending per Person	\$ 56	\$ 31
Total Non-VT Residents	9,302	113,953
Total Non-VT Resident Spending	\$ 517,003	\$ 3,511,049
<b>Total Annual Spending</b>		<b>\$ 4,028,052</b>
Kingdom Trails		
	Day Visit	Multiple Day
Spending Per Party	\$ 376	\$ 1,317
Spending Per Day	\$ 376	\$ 478
Average Party Size	3	4
Average Spending per Person	\$ 115	\$ 117
Total Non-VT Residents	15,374	52,963
Total Non-VT Resident Spending	\$ 1,767,459	\$ 6,178,065
<b>Total Annual Spending</b>		<b>\$ 7,945,524</b>
VASA		
	Day Visit	Multiple Day
Spending Per Party	\$ 487	\$ 1,580
Spending Per Day	\$ 487	\$ 518
Average Party Size	3	5
Average Spending per Person	\$ 148	\$ 111
Total Non-VT Residents	4,036	17,757
Total Non-VT Resident Spending	\$ 595,607	\$ 1,975,772
<b>Total Annual Spending</b>		<b>\$ 2,571,379</b>
<b>Total Direct Net New Spending</b>		<b>\$ 15,073,291</b>

Source: Survey, Camoin Associates

The table below shows the direct, indirect, and total impact of user spending on the Vermont economy. The indirect activity calculates how the user's spending and associated economic activity continues to circulate adding more jobs, earnings, and sales to the regional economy. The approximately \$15 million in visitor related sales calculated above was used as an input into the EMSI model to estimate the impact on jobs, earnings, and sales. The total net new impact of new visitor spending is 365 jobs, \$8.8 million in earnings, and over \$22 million in sales. This represents the annual economic impact the State would lose without the visitors to the Trails.

Annual Economic Impact			
	Direct	Indirect	Total
Sales	\$ 15,073,291	\$ 7,340,400	\$ 22,413,691
Jobs	292	73	365
Earnings	\$ 5,957,056	\$ 2,918,958	\$ 8,876,014

Source: EMSI, Camoin Associates

## Fiscal Impact

In addition to the economic impact on the Vermont economy (outlined above), the net new users of the Trails also have a fiscal impact in terms of annual property tax and sales tax revenue collected by the State.

### Sales and Use Tax

Sales tax will be generated for Vermont in two ways:

1. Spending - Sales Tax Resulting from Trail Users Spending: From the spending by the net new Trails users on taxable goods and services, and
2. Earning - Sales Tax Resulting from Jobs Created by Trail Users Spending: Due to spending by net new Trail users, businesses hire employees and those employees spend a portion of their wages on taxable goods in Vermont.

### Sales

Based on in-State spending by Trail net new users, and the assumption that 75%<sup>6</sup> of the total sales are on taxable goods, Vermont would receive over \$1 million in new sales tax revenue.

State Sales and Use Tax Generated by Trail User Spending	
Total Sales in Vermont Generated by Trails	\$ 22,413,691
Percent Taxable	75%
Taxable Spending in Vermont	\$ 16,810,268
State Sales Tax	6%
<b>Annual Sales Tax Revenue from Sales</b>	<b>\$ 1,008,616</b>

Source: Camoin Associates

### Earnings

The additional earnings described by the total economic impact of Trails net new users would lead to additional sales tax revenue for the State. It is assumed that 90% of the earnings would be spent within Vermont and that 30%<sup>7</sup> of those purchases would be taxable. Using a sales tax rate of 6%, the Trails net new users generate over \$143,000 in sales tax revenue for the State annually.

State Sales Tax Revenue from Earnings Generated by Trails	
Total Earnings Generated by Trails	\$ 8,876,014
Percent Spent in Vermont	90%
Total Spent in Vermont	\$ 7,988,413
Percent Spent on Taxable Goods	30%
Total Taxable Sales	\$ 2,396,524
Tax Rate	6%
<b>Annual Sales Tax Revenue from Earnings</b>	<b>\$ 143,791</b>

Source: Camoin Associates

### Other State Tax Revenue

The economic activity associated with the Trails net new users support economic activity and therefore other tax revenue in the State. Based on current estimates, sales generated by the Trails net new users accounts for 0.0768% of the Gross State Product (GSP), and therefore we assume that 0.0768% of the State's tax revenue is from activity associated with the Trails users. Total state tax revenue (excluding Sales and Use Tax described

<sup>6</sup> Camoin Associates assumes 75% of the spending by VTGC users in Vermont is on taxable goods. This is based on a review of the spending categories reported in the survey and the total spending amounts in each category. Each category was identified as taxable or non-taxable to establish a basic assumption on the percent of all goods that are taxable.

<sup>7</sup> Camoin Associates assumes that 30% of the spending by people who have jobs in Vermont as a result of the VTGC user spending is taxable. This assumption is based on typical spending habits where a good portion of spending goes towards non-taxable items such as food from grocery stores, utilities, housing, health care, etc.

above) is approximately \$1.1 billion.<sup>8,9</sup> If Trails net new users account for .0768% of this revenue that is equal to over \$851,000 annually in the State. The following table calculates the impact of the Trails net new users on the State’s property tax collection.

All State Revenue (except Sales and Use)	
Total Sales in Vermont Generated by Trails	\$ 22,413,691
Gross Regional Product for Vermont	\$ 29,200,000,000
Percent GRP from Trails	0.0768%
Total State Tax Revenue (except Sales and Use)	\$ 1,109,000,000
Percent Real Property Tax Revenue from Trails	0.0768%
<b>State Tax Revenue from Trails</b>	<b>\$ 851,260</b>

Source: July 2016 Economic Review and Revenue Forecast Update, Camoin Associates, EMSI

## Total State Tax Revenue

Vermont receives over \$2 million in tax revenue annually as a result of the net new users of the Trails. This figure does not include the local tax revenue that is generated.

Annual State Tax Revenue	
Sales Tax Revenue from Trail Related Sales	\$ 1,008,616
Sales Tax Revenue from Jobs Created by Trail Related Sales	\$ 143,791
Other State Tax Revenue	\$ 851,260
<b>Total Annual Sales Tax Revenue</b>	<b>\$ 2,003,667</b>

Source: Camoin Associates

## Regional Impact

This economic impact analysis focuses only on the “net new” economic activity that occurs in Vermont as a result of the Trails. However, it is also important to note that the various trail systems have a significant economic and fiscal impact on the host communities throughout the State. As evidenced in the survey, the Trails encourage travel within Vermont that otherwise might not occur if the trails didn’t exist. Therefore, any interstate travel that occurs as a result of the Trails is a net positive for the host communities.



<sup>8</sup> Source: July 2016 Economic Review and Revenue Forecast Update prepared for the State of Vermont Emergency Board and Legislative Joint Fiscal Office by Kavet, Rockler & Associates, LLC. [http://www.leg.state.vt.us/jfo/state\\_forecasts/2016-07%20July%20Forecast.pdf](http://www.leg.state.vt.us/jfo/state_forecasts/2016-07%20July%20Forecast.pdf)

<sup>9</sup> Includes the following revenue sources: Personal Income; Corporate; Meals and Room; Cigarette and Tobacco; Liquor; Insurance; Telephone; Beverage; Electric; Estate; Property; Bank; and Other.



## Economic Activity

Previous sections of this report focus on the economic and fiscal impacts of the Trails on the State of Vermont whereas the following is the economic activity associated with the trail and considers the spending of all users of the trail, not simply those that are net new. “Economic activity” is a compilation of the general economic activity around, in this case, trail use. It reports all the people using the trails and what they might be spending. It is a good way to simply summarize what is happening whereas the economic impact analysis focuses only on “new” spending that, but for the Trails, would not occur within the State of Vermont. Economic impact analyses are considered a more rigorous look not at just what is happening, but what is changing economically in the state. While not as rigorous as the economic impact study, the economic activity is a good measure of the size of the Trails activity relative to the state’s economy.

Using the average spending per party, average party size, and average number of days in Vermont of the non-net new users (both Vermont residents and non-Vermont residents who indicated that the Trails were not their primary or secondary reason for being in the state) plus the economic impact of net new trail users estimated in the previous section, it is estimated that the Trails account for over \$30.8 million in economic activity annually.

Net New Economic Impact		
Net New Economic Impact		\$ 15,073,291
<b>Sub-Total Economic Activity</b>		<b>\$ 15,073,291</b>
Non-Vermont Resident Economic Activity		
	Average Spending per Person (3.78 people per party and 2.55 days in Vermont)	Total Non-Vermont Non-Net New Spending (34,780 per Year)
Transportation	\$ 14	\$ 493,090
Food & Drink (Restaurant)	\$ 21	\$ 744,883
Food & Drink (Grocery)	\$ 14	\$ 495,458
Gifts/Souvenirs	\$ 6	\$ 220,177
Recreation (admission fees)	\$ 12	\$ 405,482
<b>Sub-Total Economic Activity</b>	<b>\$ 68</b>	<b>\$ 2,359,089</b>
Vermont Resident Economic Activity		
	Average Spending per Person (3.65 people per party)	Total Resident Spending (157,876 per Year)
Transportation	\$ 26	\$ 4,046,103
Food & Drink (Restaurant)	\$ 22	\$ 3,470,937
Food & Drink (Grocery)	\$ 20	\$ 3,146,641
Gifts/Souvenirs	\$ 5	\$ 772,527
Recreation (admission fees)	\$ 12	\$ 1,934,797
<b>Sub-Total Economic Activity</b>	<b>\$ 85</b>	<b>\$ 13,371,004</b>
<b>TOTAL ECONOMIC ACTIVITY</b>		<b>\$ 30,803,384</b>

Source: Camoin Associates, Survey

Again, of the approximately \$30 million in total economic activity, roughly \$15 million can be considered “net new” to the state.

## Direct Use Benefit

In addition to the visitors to Vermont that are drawn by the Trails, residents of Vermont also benefit immensely from the opportunities for recreation, and the general enjoyment of nature. The use of Trails by residents has measurable economic value referred to as “direct use benefit.”

The direct use benefit is not an actual measure of spending, but rather measures how much residents of Vermont value the Trails. Essentially, direct use is the value that any given resident places on a particular activity that they do within the system, even if that activity is free. Economists have determined that certain recreational activities are worth specific dollar amounts to participants in these activities. The “value per visit” is the money saved by visitors from not having to pay for the recreational experiences they enjoy on VTGC member organization lands. Put another way, it is how much visitors would be willing to pay to do those activities, if the activities were not free. Since these activities are (generally) free, visitors receive a benefit (value) by not having to pay that amount.

Based on the findings of the survey, approximately 157,900 Vermont residents use the Trails on an annual basis. Using the U.S. Army Corps of Engineers estimates that General Use recreation (including trails, picnicking, sitting, etc.) is worth \$3.90 per visit for a total of \$615,715 per year.

Annual Direct Use Value		
Resident Users	Value per Visit (U.S. Army Corps of Engineers)	Total Value
157,876	\$3.90	<b>\$ 615,715</b>

Source: Survey, Camoin Associates, U.S. Corps of Engineers FY2016 Economics Guidance Memorandum 16-03

## Other Spending

In addition to the economic activity and economic impact described above, there is also spending on equipment that is not included in this analysis. The survey focused on spending per trip and while some people did include spending related to major purchases such as new mountain bikes, new ATVs and new skis, it would not be appropriate to attribute those major purchases to each of the trips to Vermont. So it is important to note that the State also receives sales tax and economic activity when people make these major purchases in Vermont because of their regular use of the Trails.



## Attachment A: What is an 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 spending. These sets of industry-to-industry purchases are referred to as the “Indirect Effects” of the change in final demand.

Finally, the widget manufacturer has employees who will naturally spend their wages. As with the Indirect Effects, the 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; such effects are referred to as the “Induced 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 and the Induced Effects. The ratio between Direct Effects and Total Effects (the sum of Indirect and Induced Effects) is called the “multiplier” and is often reported as 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 and induced 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

## Vermont Trails and Greenways Council - Visitor Survey

Please fill out one survey per party and do not fill this survey out more than once. Thank you.

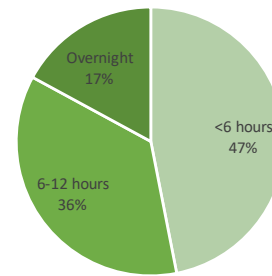
1. What is the zip code of your primary residence? \_\_\_\_\_
2. Age  
a. \_\_\_ <18      b. \_\_\_ 18-29      c. \_\_\_ 30-39      d. \_\_\_ 40-49      e. \_\_\_ 50-59      f. \_\_\_ 60-69      g. \_\_\_ 70+
3. Gender  
a. \_\_\_ Male                      b. \_\_\_ Female                      c. \_\_\_ Choose Not to Respond
4. How many people are in your party (including yourself)?  
a. \_\_\_ Adults                      b. \_\_\_ Children (18 and under)
5. How long will you be in Vermont (including travel time)?  
a. \_\_\_ Vermont is my primary residence                      c. \_\_\_ 6-12 hours  
b. \_\_\_ < 6 hours                      d. \_\_\_ Overnight: Number of nights \_\_\_\_\_
6. How long will you be on the trail? a. \_\_\_ <6 hrs    b. \_\_\_ 6-12 hrs    c. \_\_\_ 12-24 hrs    d. \_\_\_ overnight
7. How would you describe your primary reason for coming to the State?  
a. \_\_\_ Use of this trail is the primary reason I am in Vermont  
b. \_\_\_ I am in Vermont for many reasons, one of which is the trail  
c. \_\_\_ I was already in Vermont (or live here) and decided to come to the trail  
d. \_\_\_ I moved to Vermont because of access to the trail(s)
8. What activity are you participating in today?  
a. \_\_\_ Hiking/Trail Running                      e. \_\_\_ Backcountry Skiing/Snowboarding  
b. \_\_\_ Snowshoeing                      f. \_\_\_ Cross Country Skiing  
c. \_\_\_ Mountain Biking                      g. \_\_\_ ATV  
d. \_\_\_ Fat Biking
9. How many days per year, on average, do you participate in the following activities in Vermont (including today):  
a. \_\_\_ Hiking/Trail Running                      e. \_\_\_ Backcountry Skiing/Snowboarding  
b. \_\_\_ Snowshoeing                      f. \_\_\_ Cross Country Skiing  
c. \_\_\_ Mountain Biking                      g. \_\_\_ ATV  
d. \_\_\_ Fat Biking                      h. \_\_\_ Snowmobiling
10. Did this visit to the trail involve an overnight stay in one of the following types of accommodations?  
*Please indicate the number of nights.*  
a. \_\_\_ Motel/Hotel                      e. \_\_\_ Second Home  
b. \_\_\_ Bed and Breakfast                      f. \_\_\_ Vacation Rental  
c. \_\_\_ Friend or Relative's Home                      g. \_\_\_ Other \_\_\_\_\_  
d. \_\_\_ Campground
11. Please estimate the total amount your party will spend during your entire visit to Vermont (only report on this visit) in each of the following categories: Place a zero if you will not spend money in that particular category.  
a. Transportation (including parking and gas for personal vehicle) \$ \_\_\_\_\_  
b. Food & Drink (restaurants) \$ \_\_\_\_\_  
c. Food & Drink (grocery or convenience stores) \$ \_\_\_\_\_  
d. Overnight lodging \$ \_\_\_\_\_  
e. Gifts/souvenirs and other shopping \$ \_\_\_\_\_  
f. Recreation (such as admission fees, rentals, tours, etc.) \$ \_\_\_\_\_  
g. Equipment purchases (purchased in VT) \$ \_\_\_\_\_  
h. ATV vehicle maintenance and fuel (purchased in VT) \$ \_\_\_\_\_  
i. Other – please describe: \_\_\_\_\_ \$ \_\_\_\_\_
12. Do you pay any user/membership fees to any trail organizations within the state of Vermont? \_\_\_ Yes \_\_\_ No  
If yes, please list organization and amount: \_\_\_\_\_

## Attachment C: Survey Answers

The following are some additional findings from the data collected.

Age of Survey Taker		
Age	Number	Percent
<18	8	0%
18-29	148	9%
30-39	369	23%
40-49	517	32%
50-59	365	23%
60-69	173	11%
70+	25	2%

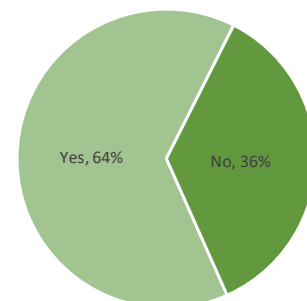
Length of Time on the Trail



What Activity Are You Participating in Today?		
Activity	Number	Percent
ATV	259	16%
Backcountry Skiing/Snowboarding	159	10%
Cross Country Skiing	55	3%
Fat Biking	87	6%
Hiking/Trail Running	175	11%
Mountain Biking	826	52%
Snowmobiling	1	0%
Snowshoeing	16	1%

\*For online survey takers this was asked as "What was the primary activity you were participating in during your last trip to Vermont?"

Do you pay any user/membership fees to any trail organizations within the state of Vermont?



Top Lodging		
Age	Number	Percent
Vacation Rental	197	20%
Campground	171	17%
Second Home	91	9%
Motel/Hotel	82	8%
Bed and Breakfast	78	8%
Friend or Relatives Home	61	6%
Total Responses*	995	100%

\*Some people selected multiple answers. The figures above are based only on those who selected just one lodging option for their stay.

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