

2014 JUNE

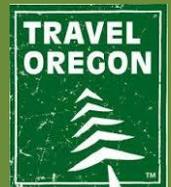
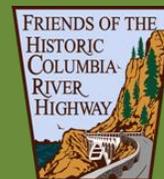


COLUMBIA RIVER GORGE BICYCLE RECREATION

ECONOMIC IMPACT FORECAST FOR THE COMMUNITIES ALONG THE
HISTORIC COLUMBIA RIVER HIGHWAY

Prepared By:

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Columbia River Gorge Bicycle Recreation: Economic Impact Forecast for the Communities along the Historic Columbia River Highway

June 2014

Prepared for the

Friends of the Historic Columbia River Highway
Oregon Tourism Commission
Port of Cascade Locks
Port of Hood River
City of The Dallas

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Preface

This research would not have been possible without the support of Travel Oregon, Friends of the Historic Columbia River Highway, Port of Cascade Locks, Port of Hood River, and City of The Dallas. Scott West, Chief Strategy Officer of Travel Oregon provided oversight for the project. Wayne Stewart of The Historic Columbia River Highway Committee, Kristen Stallman of the Oregon Department of Transportation, and Scott Warren of Travel Oregon provided valuable review and suggestions throughout. Our special thanks to the many bicycle recreation participants who were willing to share their detailed riding experience and perspectives necessary to complete this research.

Summary

The Columbia River Gorge extends from Gresham/Troutdale to The Dalles, and includes the Washington side of the river between Washougal and Dallesport. Proposed trail construction in the Columbia River Gorge will provide a continuous corridor for bicycle travel and recreation through the Oregon side of the Columbia River Gorge National Scenic Area, generally along the route of the Historic Columbia River Highway. This corridor will continue to attract regional and national/international attention as a bicycle recreation destination, and provide valuable economic benefits to the local communities located in the Gorge (in both Oregon and Washington) in the form of increased expenditures for lodging, food service, recreation and retail merchandise.

A survey of bicycle riders in the Columbia River Gorge was conducted to describe the existing bicycling activity patterns in the Gorge, and to help forecast the level of additional bicycle recreation activity and the associated economic impacts that would occur with completion of the proposed trail development, including recreation spending, employment, earnings, and tax receipts.

For analysis purposes the Columbia River Gorge is broken out into the following sections:

- Troutdale to Crown Point
- Crown Point to Cascade Locks
- Cascade Locks to Hood River
- Hood River to The Dalles
- Highway 14 corridor in Washington

Bicycle Recreation Activity in the Gorge

- The predominant type of bicycle recreation activity in the Gorge is day road rides and day mountain bike rides.
- A notable share of respondents (35%) reported significant bicycle recreation activity combining road and mountain bike use throughout the year.
- Most bicycle riders made more than one day trip during the year.
- The bicycle recreation participants were largely (self-identified) as a mix of advanced and competitor riders, with some intermediates, and very few beginners.

Economic Significance

- In 2013, an estimated 230,000 bicycle recreation trips generated over \$21 million in visitor spending made within the communities located in the Columbia River Gorge.
- Bicycle recreation spending supports approximately 270 full and part-time jobs, with earnings of \$5.7 million, and generating over \$900,000 in state and local tax receipts.
- More than half (58%) of the total bicycle recreation activity spending in the Gorge occurred in the city of Hood River.

Economic Impact Forecast

- Approximately two-thirds of all bicycle recreation participants report that they will increase their bicycle recreation activity in the Gorge once the Wyeth to Starvation Creek Trail project is completed.
- More than three-quarters of the road cyclists report that they will increase bicycle recreation activity in the Gorge when the Mitchell Point tunnel is constructed and the Trail is completed to Hood River. For mountain bikers, less than half (44%) plan to increase activity as a result of the proposed tunnel.
- The combined effect of both projects will enhance the appeal of the Gorge for both road cyclists and mountain bikers, resulting in additional bicycle recreation activity trips.
- With the completion of both bicycle trail development projects – the Wyeth to Starvation Creek Trail project and Mitchell Point tunnel to Hood River project -- bicycle recreation activity participants will make an additional \$6.3 million in expenditures per year in the local communities throughout the Gorge.
- Additional bicycle recreation spending will support an additional 82 full and part-time jobs with approximately \$1.7 million in earnings and \$270,000 in state and local tax receipts annually.

Potential Future Growth

While beyond the scope of this economic impact forecast, research conducted during the study suggests that additional economic activity is likely in the future as understanding of the Columbia River Gorge as a recreation destination increases. The following are considerations that suggest future growth beyond that described above:

- In 2010, National Geographic Traveler magazine rated the Columbia River Gorge as the world's sixth best sustainable tourist destination.

- Considering the national and international appeal of the region, there is potential that additional recreational activity could spur development leading to further economic benefits for Gorge communities.
- The upward potential largely depends on continued appeal and promotion to out-of-state and international visitors.
- In 2004, the Columbia Gorge American Viticulture Area was established, enhancing the development of vineyards and wine production – and further encouraging wine country tours.
- Analysis of comparable trails in other parts of the country suggests that use growth rates are often over 10% annually (ranging from 4.3% to 16.9%). This growth is typically associated with a pattern of ongoing trail investment and/or expansion, along with increased marketing efforts about the trail as a recreation destination.
- Overall, tourism development activities and the economic values realized by tourism will continue to be a primary source of benefits of Gorge communities.

I. Introduction

Proposed trail construction in the Columbia River Gorge will provide a continuous corridor for bicycle travel and recreation through the Oregon side of the Columbia River Gorge National Scenic Area. This corridor will continue to attract regional and national/international attention as a bicycle recreation destination, and provide valuable economic benefits to the communities located in the Gorge (in both Oregon and Washington) in the form of increased expenditures for lodging, food service, recreation and retail sales.

Today, 62 of the original 73 miles of the Historic Highway are now open to travel either by motor vehicle or by foot and bicycle. Under the Historic Columbia River Highway State Trail Plan (a joint effort by the Oregon Department of Transportation, Oregon Parks and Recreation Department, US forest Service and Hood River County), there's a clear path to reconnecting the remaining 11 miles of the Trail. Once restored, the Trail will allow cyclists to travel the Gorge from Troutdale to the The Dalles without being diverted to ride along the unprotected shoulder of I-84.

This study describes the existing bicycling activity patterns in the Columbia River Gorge, and estimates how the additional recreation spending made by bicycle riders would impact the local economies of the communities located within the Gorge for each of the two proposed development projects:

- 1) Wyeth to Starvation Creek Trail Project - A bicycle trail access point at Wyeth, which is adjacent to I-84 (Exit 51) between Cascade Locks and Hood River. There will be a paved parking lot, restrooms, picnic tables and access to both the State Trail and a significant network of mountain bike trails in the area. The Trail will be extended to the Starvation Creek Trailhead (I-84 Exit 55) where it will link to an existing section of the Trail extending to Viento (I-84 Exit 56).
- 2) Mitchell Point Tunnel Construction - At present there is a long stretch in the Gorge where cyclists must ride on the unprotected shoulder of interstate 84 in order to pass from the Viento exit to Hood River. A tunnel would bypass this segment and allow complete passage through the Gorge using the Historic Columbia River Highway and the State Trail.

The current volume and pattern of bicycle activity in the Gorge was estimated based on overall visitor volume estimates made by Oregon State Parks, and estimates of the share who rode bicycles, at key locations in the Columbia River Gorge: Vista House and Senator Mark O. Hatfield West and East Trailheads and Visitor Center.

Data collection

This report makes use of an online survey of over 1,100 respondents who rode a bicycle in the Columbia River Gorge during 2013. The on-line survey was made available through the Travel Oregon website, as well as provided to a variety of bicycle shops, tour operators, and bicycle riding clubs throughout the state. The survey questions were designed to measure visitor and trip characteristics, and travel spending patterns within the local areas. In addition to detailed trip-specific information and year-round cycling activity, bicycle recreation participants were asked about their likelihood to increase bicycle riding activity due to each of the two development projects: Wyeth to Starvation Creek Trail Project and Mitchell Point Tunnel to Hood River.

Readers of this report should be aware of several definitions regarding the interpretation of the finding herein:

- Bicycle recreation respondents reported the predominant types of bicycle riding activity in the Gorge as “Day Road Rides” and “Day Mountain Bike Rides.”
- A group of respondents reported a mix of both road and mountain bicycle recreation activity trips throughout the year. We identify them as “Both Types.”
- We report the characteristics and responses for these three groups:
 - a) Road Cyclists (reported 90% or more of trips on *road or paved trail routes*)
 - b) Both Types (reported a combination of *road or paved trail routes* and *mountain bike trails*)
 - c) Mountain Bikers (reported 90% or more of trips on *mountain bike trails*)

Report Contents

Section II provides an overview of bicycle recreation activity in the Gorge, as well as the demographics for those respondents. Section III provides details of location and primary characteristics for a selection of comparable cycling trails and mountain bike regions. Section IV provides an overview of the economic significance of bicycle recreation activity in the Gorge, with detailed economic impacts for 2013. Section V shows the results of the anticipated increase in bicycle recreation activity use, and a detailed forecast of the additional economic impacts that would result with the completion of the proposed trail development projects.

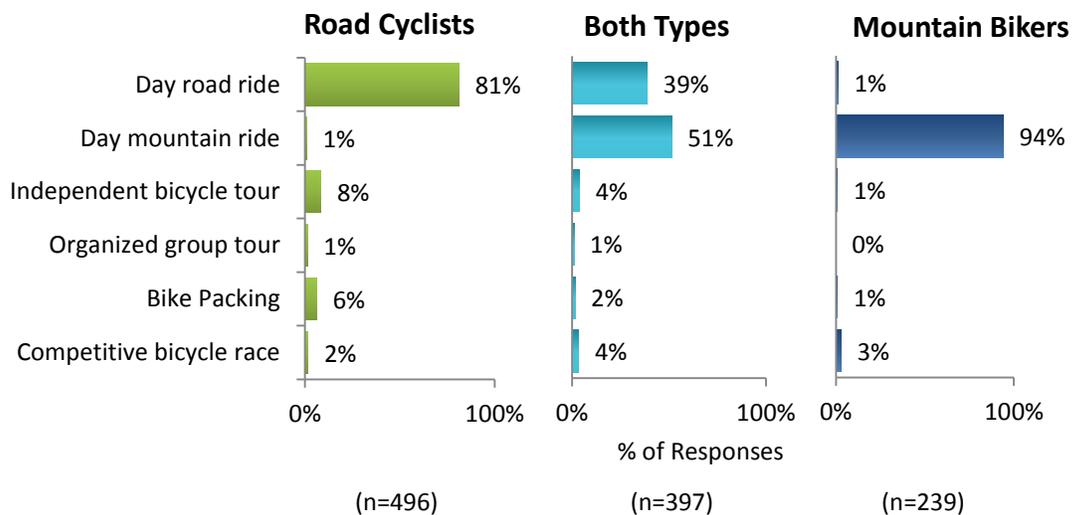
II. Bicycle Recreation Activity in the Gorge

This section provides a profile of bicycling recreation activity, trip characteristics, and demographics of bicycle riders in the Columbia River Gorge. Bicycle riders were identified by the type of bicycle activity they reported while in the Columbia River Gorge during the 2013. A notable share of respondents (35%) reported significant bicycle recreation activity for both road and mountain bike use throughout the year. For the purpose of this profile, these cyclists were identified as “Both Types.”

Type of Bicycle Activity

The predominant type of bicycle recreation activity in the Gorge was day road rides and day mountain bike rides. A subsample of bicycle riders who reported doing a mix of both day road rides and day mountain bike rides were identified as “Both Types.”

Most Recent Bicycle Riding Activity in the Gorge, 2013

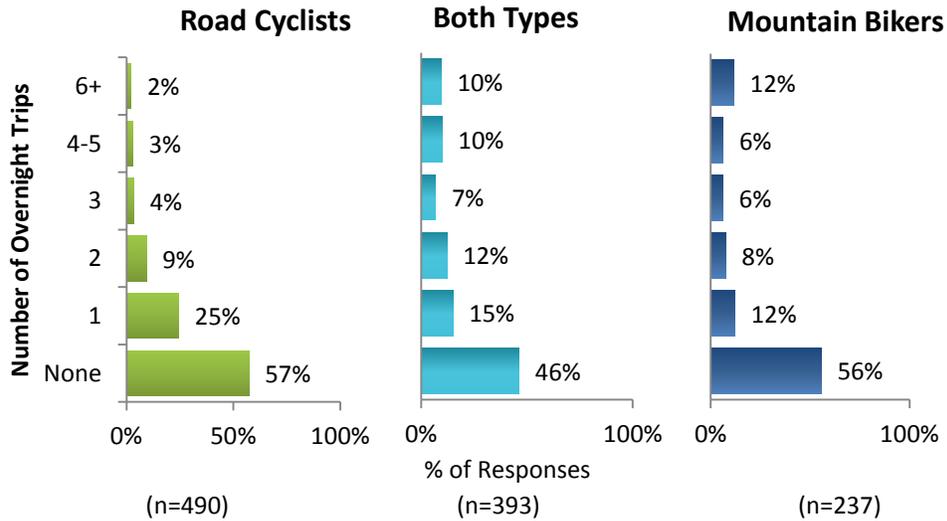


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Source: Dean Runyan Associates, Inc.

Overnight Trips

Those bicycle riders who rode both road and mountain bikes were somewhat more likely to have made an overnight trip with bicycle activity in 2013.

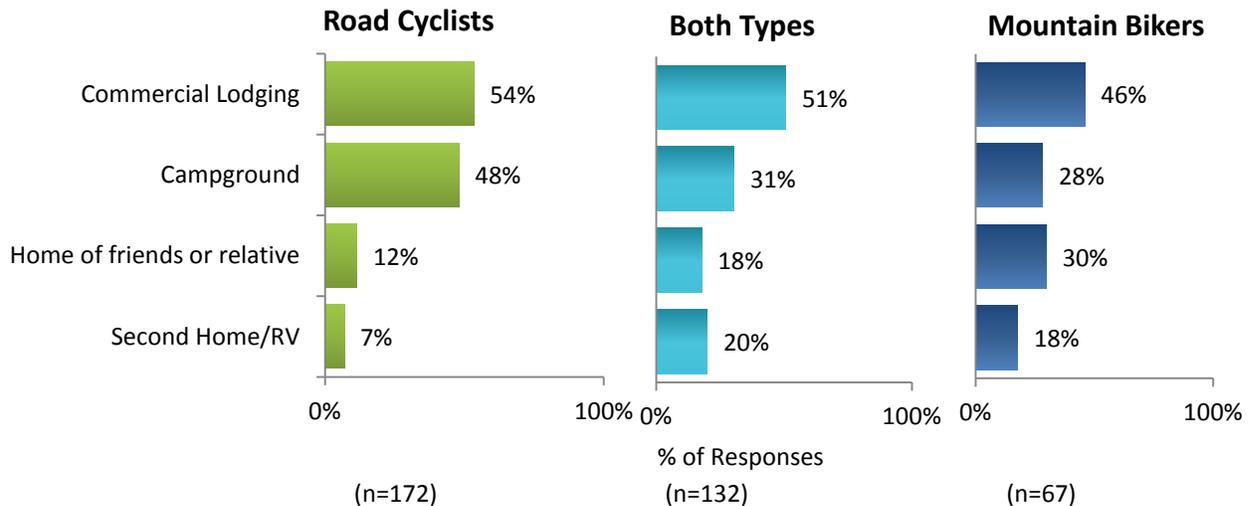
Overnight Trips with Bicycle Activity in the Gorge, 2013



Detail may not add to 100% due to rounding.
Source: Dean Runyan Associates, Inc.

Among all those who reported an overnight trip, commercial lodging was the most frequently identified accommodation type. Road cyclists stayed somewhat more often in campgrounds, while mountain bikers stayed somewhat more often with friends and family.

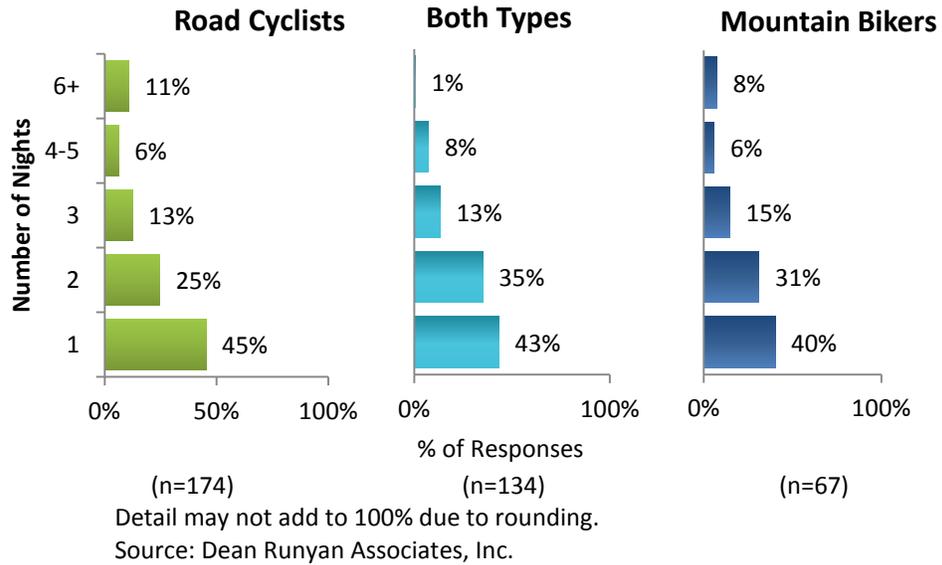
Type of Overnight Accommodation, 2013



Detail may total more than 100% due to multiple responses.
Source: Dean Runyan Associates, Inc.

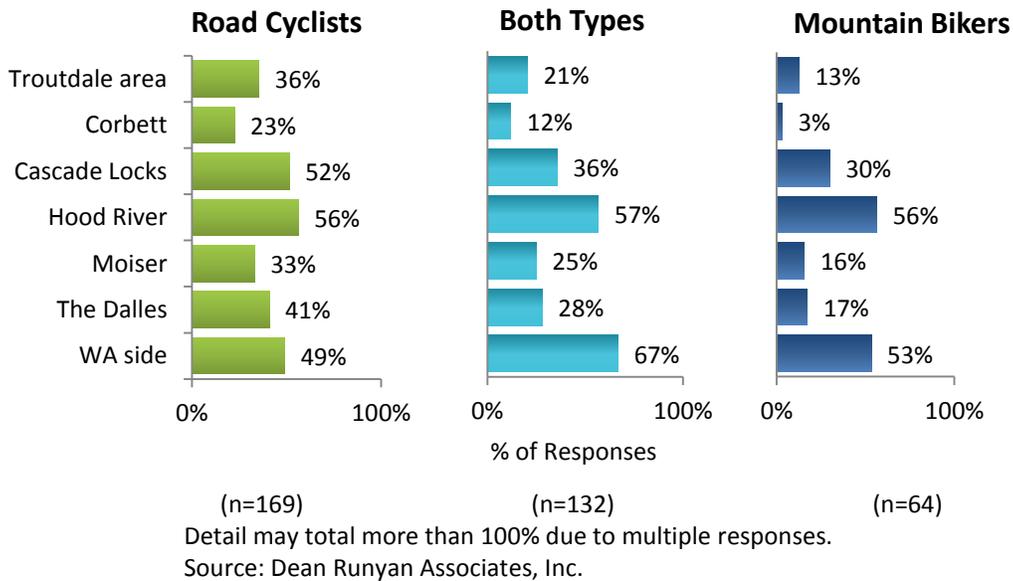
All three groups of bicycle riders had a similar trip length with single night stays reported between 40 to 45 percent of the time.

Length of Overnight Trip, 2013



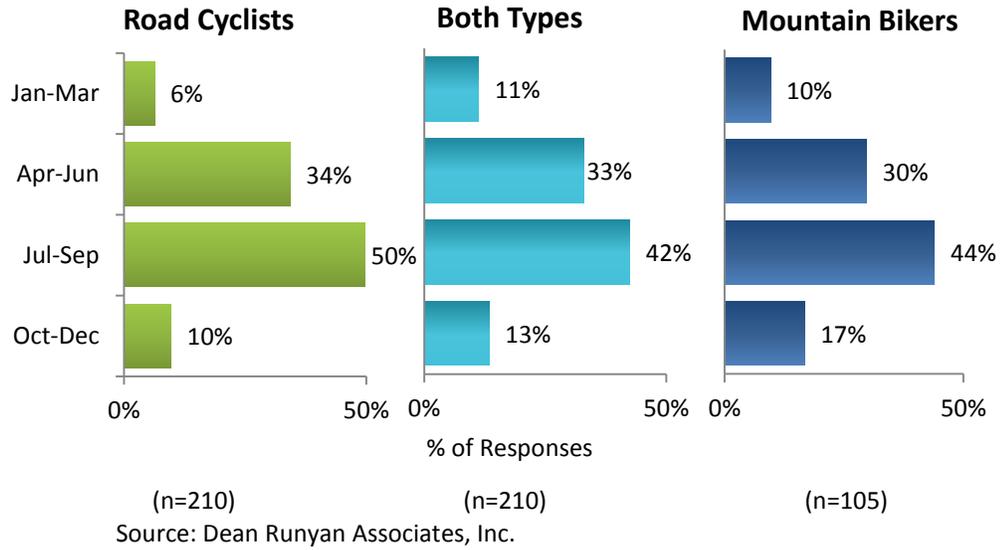
Among each of the bicycle rider types, the city of Hood River was the most frequently identified location visited on overnight trips. Road cyclists reported they were more often in the Troutdale area, Corbett, Moiser, and The Dalles. Each of the bicycle rider types also reported frequent visits to the Washington side of the Gorge.

Cities and Locations Visited on Overnight Trips by Type of Bicycle Rider, 2013



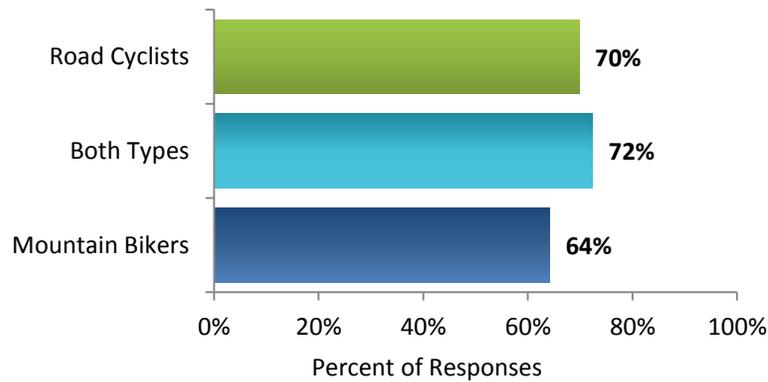
Seasonal variation of bicycle activity was also fairly similar among the three groups, with the summer months (Jul-Sep) as the peak. Mountain bike riders tended to be somewhat more likely than road cyclists to participate during the fall and winter months of the year.

Seasonal Variation of Overnight Trips with Bicycle Riding Activity



It is also important to note, as overnight trips are often multi-purpose, that approximately two-thirds or higher reported that the bicycle riding activity was the primary reason for the trip.

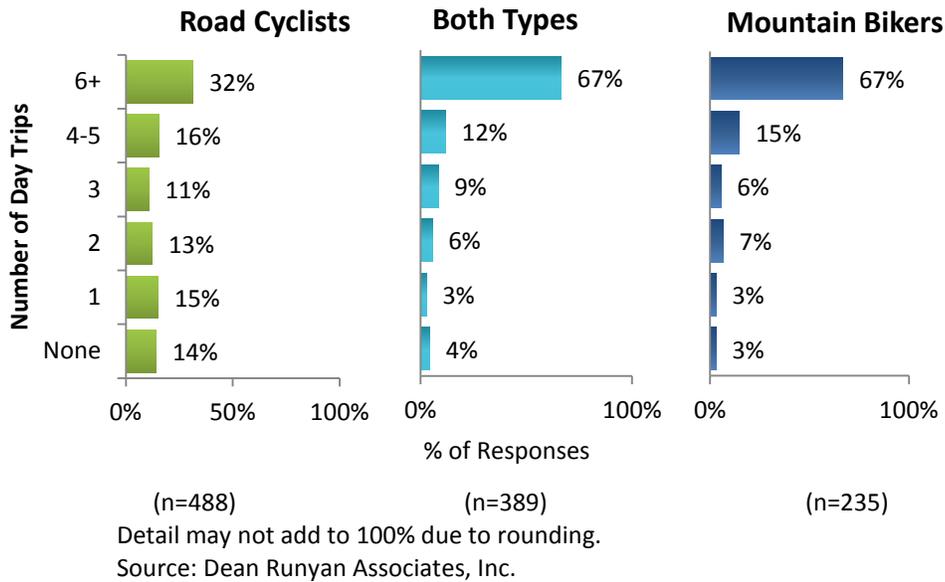
Primary Reason for Overnight Trip with the Bicycle Riding Activity, 2013



Day Trips

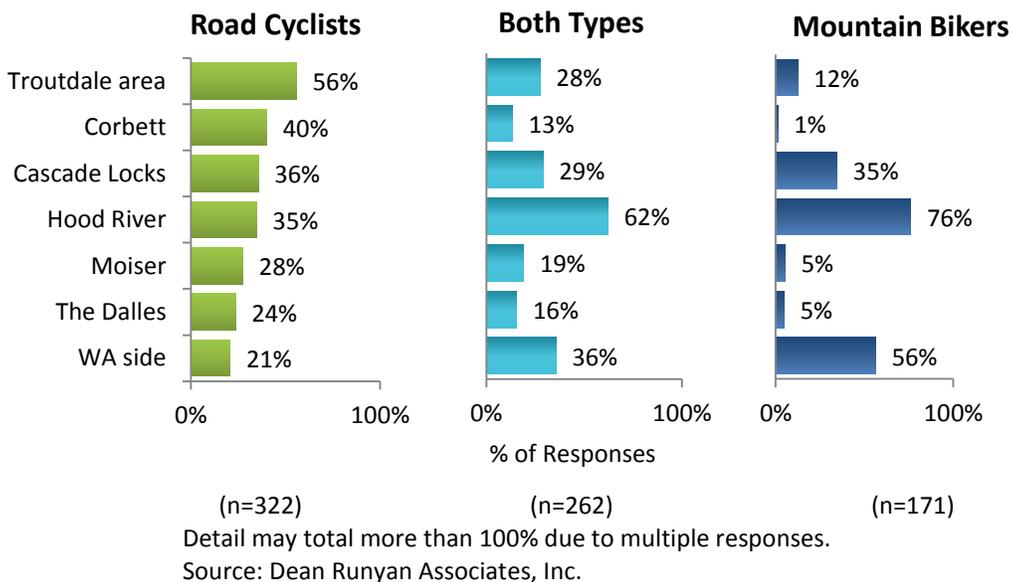
Most bicycle riders made more than one day trip in 2013, though those who rode mountain bikes were much more likely than road cyclists to have made six or more day trips.

Day Trips with Bicycle Activity in the Gorge, 2013



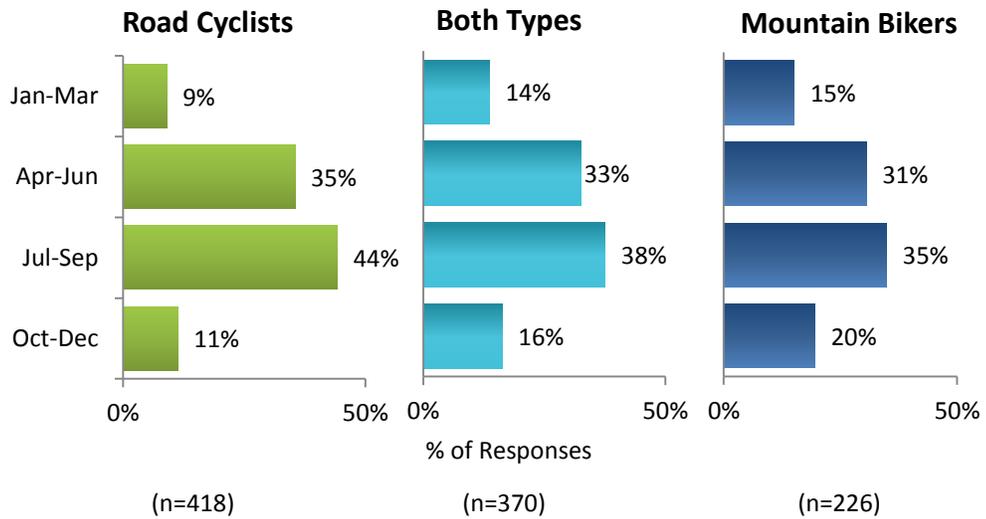
Among the cities and locations visited on day trips, road cyclists were more often in the Troutdale area, Corbett, Moiser, and The Dalles; while those who rode mountain bikes primarily were more likely to have visited Hood River.

Cities and Locations Visited on Day Trips by Type of Cyclist, 2013



The summer season (Jul-Sep) was reported as the peak period of bicycle recreation activity. Among each of the three rider types, seasonal variation of bicycle riding activity was fairly similar, though those who rode mountain bikes tended to be somewhat more likely than road cyclists to participate during fall and winter months.

Seasonal Variation of Day Trips with Bicycle Recreation Activity

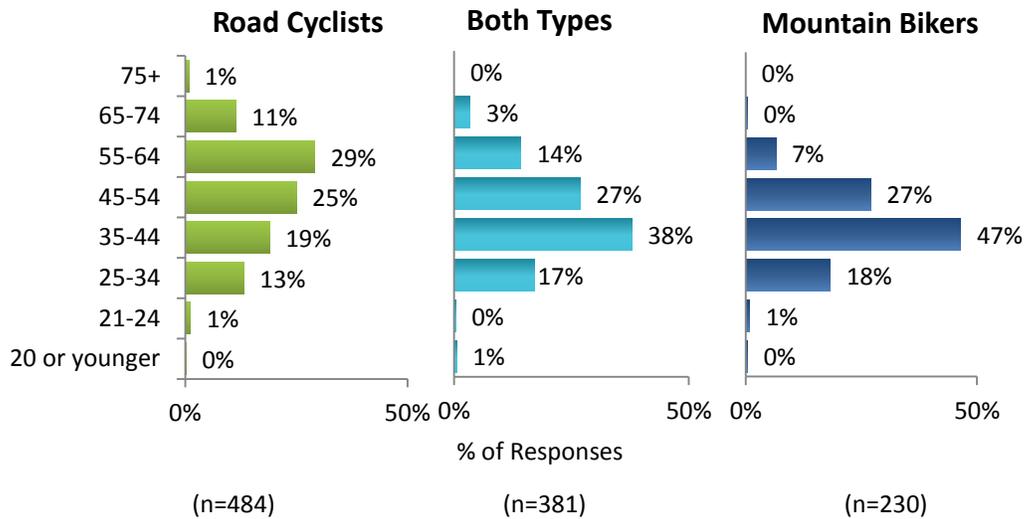


Source: Dean Runyan Associates, Inc.

Demographics

In terms of the age distribution of bicycle recreation respondents, mountain bike riders are somewhat younger compared to road cyclists, who reported a higher proportion of riders over 54 years of age.

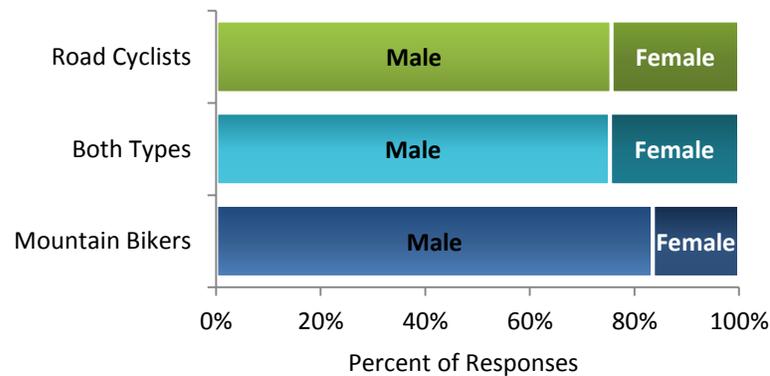
Age Distribution of Bicycle Recreation Respondents, 2013



Source: Dean Runyan Associates, Inc.

With respect to gender, bicycle recreation respondents are about 80 percent male.

Gender Distribution of Bicycle Recreation Respondents, 2013

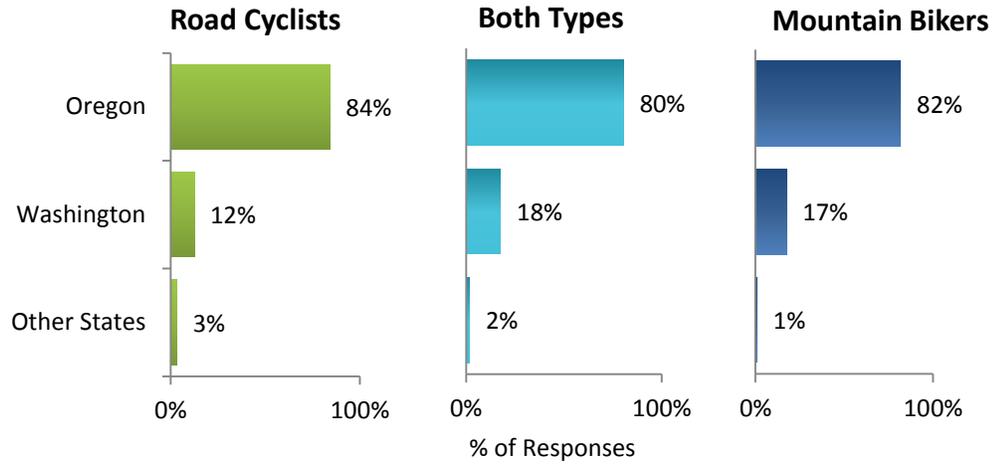


Detail may not add to 100% due to rounding.

Source: Dean Runyan Associates, Inc.

The vast majority of the bicycle recreation respondents were residents of Oregon. This finding is the likely result of the survey invitation made through organizations that are primarily based in Oregon.

State of Resident for Bicycle Recreation Respondents, 2013



(n=482)

(n=379)

(n=230)

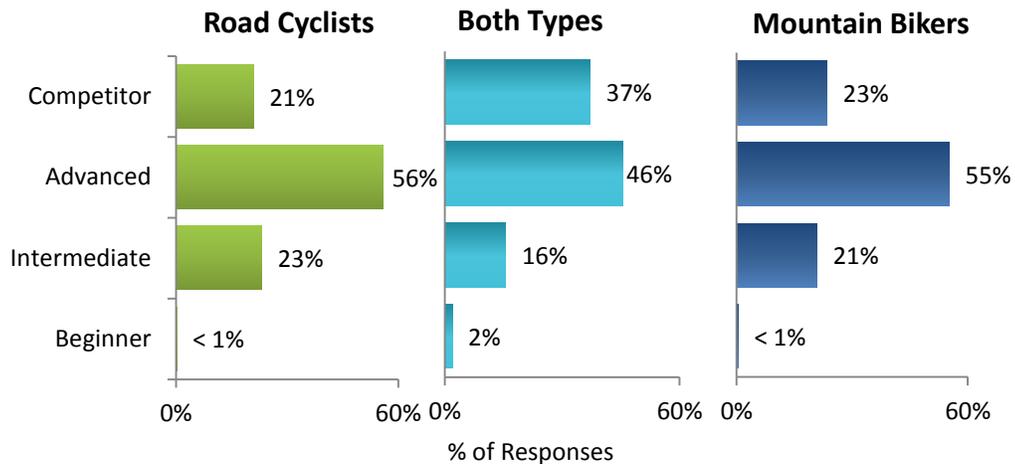
Detail may not add to 100% due to rounding.

Source: Dean Runyan Associates, Inc.

Level of Experience

With respect to level of experience, the bicycle recreation respondents were largely a mix of advanced and competitor riders, with some intermediates, and very few who considered themselves beginners.

Level of Experience for Bicycle Recreation Respondents, 2013



(n=484)

(n=380)

(n=230)

Source: Dean Runyan Associates, Inc.

III. Comparable Cycling and Mountain Bike Trails

Providing information on comparable facilities and regions is often useful in order to provide valuable perspective on the project at hand. For the current project, this information is used to help establish the likely scale of the expanded trail system and to prepare projections regarding use levels and patterns. In particular the data representing these facilities are used for estimating trail volumes and growth patterns, as well as to indicate the nature of typical trail users.

The cycling trail facilities in the Columbia River Gorge are rather unique in that the route through the Gorge combines dedicated trail segments, with segments of the Historic Columbia River Highway that are shared in some cases with vehicles. The finished trail system will provide a variety of settings for road cycling activity and will be particularly interesting to cyclists in that regard.

The Gorge also hosts a substantial amount of mountain bike trail use, with preliminary plans to add more. Some of the new mountain bike terrain would be accessed via segments of the cycling trail system at the proposed Wyeth Trailhead.

The following discussion of comparable facilities is organized into two sections, one for cycling trails and the other for mountain bike regions.

Road Cycling Trails

To select this list of facilities a scan was performed of cycling trails and trail systems throughout the US, focusing on those that represented similar features to the existing and proposed trails in the Gorge. Specific criteria included:

- Paved surface
- Primarily rural; not an urban bike path or walkway
- Connected to or reasonably accessible from at least one urban area
- Provides access to one or more additional urban locations that include food, lodging and other travel services; small rural communities were the priority
- At least 20 miles long
- Associated with one or more water features; other notable features were a priority
- Established long enough to provide reliable use level and trend data

Approximately 40 trails were included in the initial list. Preliminary data collection and contacts with trail operators were used to reduce this list to nine trails that best met the criteria above. A summary of the location and characteristics of these trails appears in Table III-1.

Table III-1
Selected Cycling Trail Comparable Facilities

Trail	Location	Length (mi)	Primary Characteristics
Nature Coast State Trail	Florida	32	West of Gainesville, connects four small communities; associated with the Suwanee River, wetlands and a state park
Withlacoochee State Trail	Florida	46	Between Orlando and Tampa, associated with the Withlacoochee River, a state park and a wildlife management area; connects several small communities
Silver Comet Trail	Georgia	62	Northwest of Atlanta; associated with several streams, passes through a wildlife management area, across a 750-foot restored railroad Trestle, and through an 800-foot tunnel; passes through a number of small communities
Longleaf Trace	Mississippi	41	Connected with Hattiesburg; features several tunnels and bridges, rural farm and forest terrain, wetlands and connects several small towns
Allegheny River Trail	Pennsylvania	32	Located southeast of Erie; adjacent to the Allegheny River, connecting several small communities; passes through two railroad tunnels
Sauk Rail Trail	Iowa	33.2	located northwest of Des Moines; connects five rural communities, a lake, wetlands, farm and valley terrain, and passes through a wind turbine farm
Great Miami River Recreation Trail	Ohio	80.7	One of several substantial trails located in the Miami Valley in central Ohio; passes through Dayton and links numerous towns in four Ohio counties; follows the Miami River and connects wetlands, lakes, and recreation locations
Wood River Trails	Idaho	33.7	Connects Ketchum, Sun Valley and two other communities; follows the Wood River and accesses other mountain and valley terrain
Trail of the Coeur d'Alenes	Idaho	71	Located south of Coeur d'Alene in the Silver Valley, connecting several mountain towns with the Washington prairie; follows the Coeur d'Alene River, lakes, a state park, and crosses Lake Coeur d'Alene

Source: Dean Runyan Associates

Nature Coast State Trail

The Nature Coast State Trial is located to the west of Gainesville, at the base of Florida's panhandle. The trail connects the communities of Chiefland, Fanning Springs, Trenton and Cross City and runs adjacent to the Andrews Wildlife Management Area and Fanning

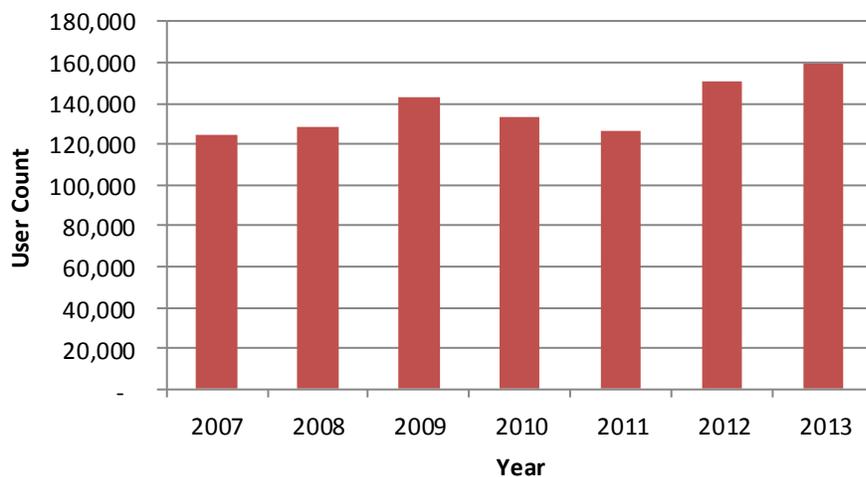
Springs State Park. A highlight of the trail is the historic bridge crossing that the trail uses to pass over the Suwanee River. The trail also features three historic train depots and lodging and food service offered in the communities it connects

Construction of the trail began in 1996 when the property was acquired from CSX Transportation, Inc. by the Office of Greenways and Trails Acquisition Program, a component of Florida Forever. Paving of the trail was funded by the Florida Department of Transportation.

A volunteer base of about eight people assists with trail monitoring and maintenance.

Use in 2013 amounted to about 180,000 bicycle riders. Unfortunately data prior to 2007 are not consistent. Growth from 2007 to 2013 averages about 4.3% per year.

Figure III-1
Nature Coast State Trail Annual Use



Source: Dean Runyan Associates

Trail management estimates that between one third and one half of trail users are from the local area, with the rest from more distant locations and out of state.

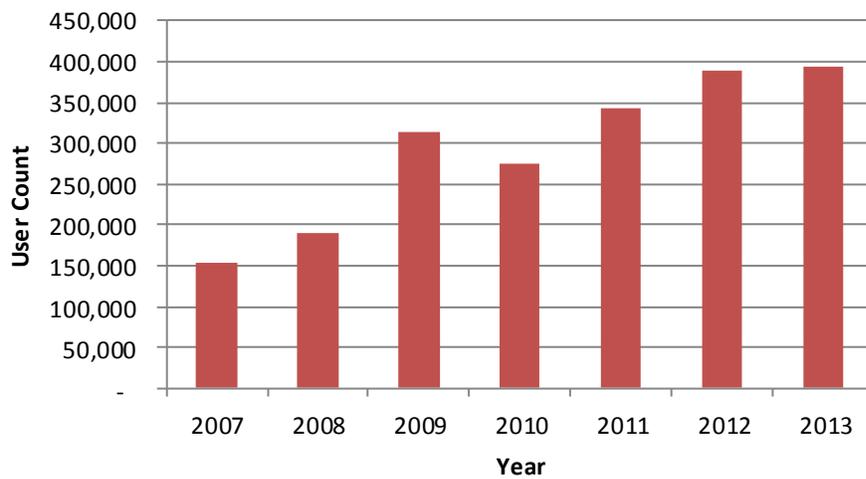
Withlacochee State Trail

The Withlacochee State Trail is situated between Orlando and Tampa in central Florida, running from Dade City in the south to Citrus Springs in the north for a total of 46 miles. A portion of the trail is adjacent to the Withlacochee River and crosses the Withlacochee State Forest and Croom Wildlife Management Area. Near the southern boundary, Silver Lake Recreation Area offers year-round camping. The trail passes through a number of small communities that offer lodging, food and recreation services.

The State of Florida purchased the right-of-way from, CSX Transportation in 1989, consisting of the segments between Gulf Junction, near Citrus Springs, and Owensboro Junction, just north of Dade City. The first phase of trail was opened in 1999. Subsequent projects added additional segments and trail upgrades. The Trail is currently managed by the Florida Department of Environmental Protection, Division of Recreation and Parks, the same agency that originally developed the initial trail segments. Rails to Trails of The Withlacoochee Inc., is a nonprofit citizens' support organization for the Withlacoochee State Trail.

Annual use in 2013 amounted to about 395,000 bicycle riders, having grown to that level from 2007 at about 16.9% per year. Data prior to 2007 are not collected with consistent methodology.

Figure III-2
Withlacoochee State Trail Annual Use



Source: Dean Runyan Associates

Silver Comet Trail

The Silver Comet Trail is located 13 miles northwest of Atlanta, Georgia, making use of an abandoned railroad right-of-way. There is no charge for use and it is wheelchair accessible. The 61.5 mile trail starts in Smyrna and ends at the Georgia/Alabama state line, near Cedartown. At the state line the Silver Comet connects to the 33-mile long Chief Ladiga Trail. The combined Silver Comet and Chief Ladiga trail extends 94.5 miles from Smyrna to Anniston, Alabama

The trail passes through Paulding Wildlife Management Area, makes use of the 750-foot restored Pumpkinvine Trestle, and passes through the 800-foot Brushy Mountain tunnel.

The trail also crosses and runs adjacent to several creeks and passes through a number of small communities that offer food, lodging and recreation services.

The right-of-way was purchased by Georgia Department of Transportation in 1992, with trail construction beginning in 1998. The trail was completed in 2008. The PATH Foundation of Atlanta conceived of and implemented the project; the Foundation is responsible for building a network of off-road trails in and around Atlanta for more than 22 years and to date has developed over 180 miles of trail throughout Georgia.

A detailed study of trail use and user characteristics was conducted in 2010, making use of volunteer use counters and an intercept and online e survey. An economic study was also included.

Total reported use amounted to 1.89 million trail users, as appears in the table below. This number is the sum of counts at each of nine count locations and includes activity in both directions. Given that nearly all of the trail users traveled out and back on the trail (because a high proportion arrived by motor vehicle and parked), and many probably passed over more than one counter, the total of individual users is probably between 500,000 and one million.

<u>Count Location</u>	<u>Count</u>
GA/AL state line	47,002
Cedartown trail head	25,124
Rockmart trail head	90,087
Rambo Nursery trail head	191,984
Dallas trail head	203,111
Hiram trail head	270,217
Powder Springs	276,664
Silver Comet Cycles trail head	349,885
Smyrna trail head	433,535
Total	1,887,609

Of all users 71% were on bicycles. Although no specific data are provided, research shows that the majority of trail users are from the counties through which the trail passes and immediately adjacent counties in the Atlanta metro area, although about a fifth were from elsewhere in Georgia and out of state.

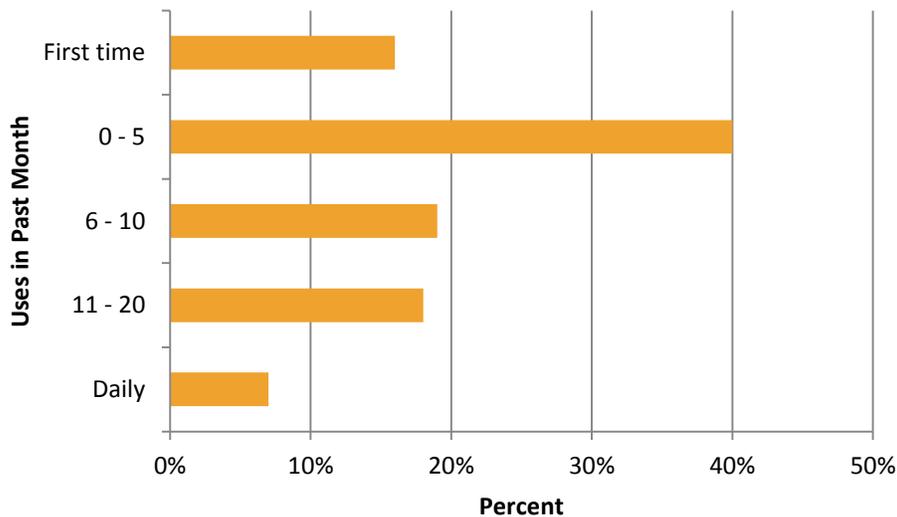
The following are some other findings from the trail intercept survey:

- 84% of trail users arrive by motor vehicle; 8% arrive on a bike and 7% walk
- Essentially all trail users are focused on exercise or recreation; few are commuters

- Median use of the trail was for 60 minutes, with a trip distance of 12 miles
- Average trip was for 96 minutes covering 21 miles

Finally, data show that many users frequent the trail fairly often, as appears in the figure below, which shows the number of trail uses during the previous month. If most trail users from out of the area – about 20% overall – are in the first two categories, then it appears that a fairly high proportion of trail users use the trail fairly often.

Figure III-3
Silver Comet Trail Frequency of Use



Source: Dean Runyan Associates

Longleaf Trace

The trail is located in south central Mississippi, extending from Hattiesburg to the community of Prentiss. The 41 mile trail makes use of the abandoned Mississippi Central Railroad right-of-way and includes eight covered rest areas that provide shade, restrooms and vending machines. Features include several tunnels and bridges, extensive rural farm and forest terrain, wetlands and a range of small towns that offer retail, food, lodging and recreation services. Bike rentals are available in Hattiesburg. Jeff Davis Lake, near the trail, offers camping and lake recreation.

The trail opened in 2000 after a substantial community-based effort that began in 1995. The trail is operated by the Pearl and Leaf Rivers Rails to Trails Recreation District, a joint venture of the counties of Forrest, Jefferson Davis, and Lamar and the municipalities of Bassfield, Hattiesburg, Prentiss, and Sumrall. Member counties and municipalities support the district through a one fourth (1/4) mill tax levy, in the name of economic development and multiple recreational opportunities for local residents.

Georgia Pacific Corporation and a large number of other sponsors supported the effort from the onset, and the District maintains a large number of ongoing business and community sponsors that support the trail. Initial funding was also provided by the U.S. Department of Transportation.

According to the trail manager there are no formal use counts, but estimates based on periodic counts performed by University of Southern Mississippi students show about 80,000 users per year. The trail grew from about 35,000 users during its first five years. The growth from 35,000 to 80,000 over nine years represents an average annual growth rate of 9.6% per year.

Of the 80,000 current users about 15,000 (19%) are from within the state but not local, and another 5,000 (6%) out of state, leaving about 75% local. The manager estimates use is about two thirds bicycles, one third pedestrian. Some students from the area use the trail for commuting.

Allegheny River Trail

The Allegheny River Trail is located in the in the northwest corner of Pennsylvania, southeast of Erie. The 32 mile trail is adjacent to the Allegheny River, a designated National Wild and Scenic River. The trail extends from Bandon near the confluence of the Allegheny and Calion Rivers to Franklin in the north. The trail passes through two railroad tunnels. The Kennerdell Tunnel is 3,350 feet long, and the Rockland Tunnel extends 2,868 feet. The trail in the tunnels requires lights for passage and is marked with reflectors.

The trail utilizes an abandoned railroad right of way, originally acquired from the Allegheny Valley Railroad when it ceased operations in 1984. The property was donated to the nonprofit Allegheny Valley Trails Association, which is building an extensive rail-trail system in northwestern Pennsylvania.

The Allegheny Valley Trails Association is a volunteer organization, founded in 1990, that seeks to acquire abandoned railway rights of way in the Allegheny River watershed and convert them into multipurpose, non-motorized recreational trails. The organization works closely with local, state, and federal government agencies.

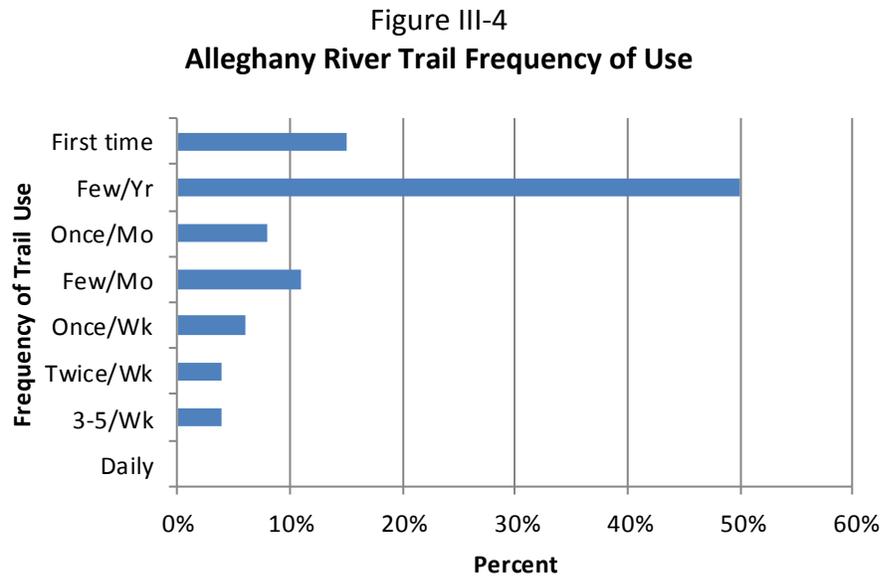
The communities along the trail offer food, lodging and recreation services, with bicycle rentals are available in Franklin. The Trails Association is sponsored by a number of businesses in the region.

Funding for right of way acquisition, trail design and construction came primarily from federal, state, and local grants. Expenses for maintaining the trail system are covered primarily from communities in the area. Businesses and area residents support the Association through a sponsorship program.

The most recent use data for this trail is for 2006, from a detailed study that included the four trails in the region. Use figures for the Allegheny River Trail are from a single counter location, but are adjusted to represent uncounted portions of the trail. Total usage amounted to 56,000, with about 160,000 users for all trails in the region. No historical data are provided.

The trail experienced strong use from outside the area, with about three quarters of respondents reporting that they live outside the Oil Heritage Region in which the trail is located.

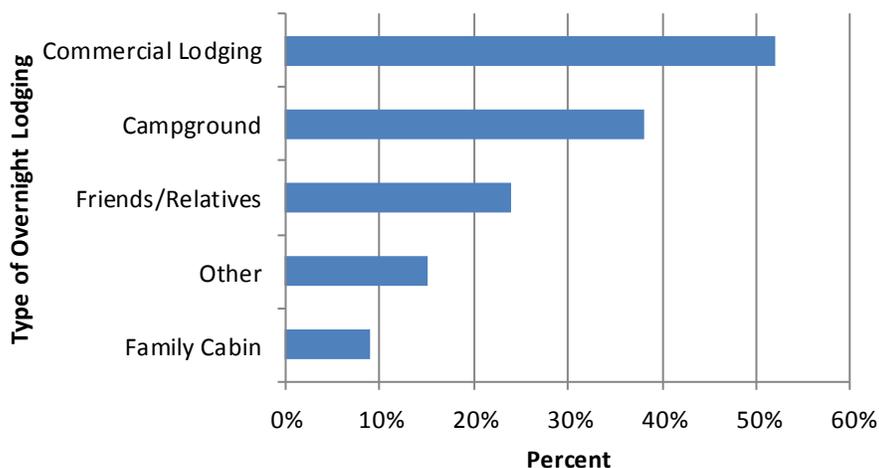
This is consistent with the frequency of use that was reported, with a high portion of users either first time or occasional users of the trail.



Source: Dean Runyan Associates

Over half of those staying overnight used some form of commercial lodging, with camping and the homes of friends or relatives also popular.

Figure III-5
Allegheny River Trail: Overnight Lodging



Note: Respondents may check more than one type of lodging; commercial lodging includes rented cabins, B&Bs.

Source: Dean Runyan Associates

Other findings include:

- About 46% of parties consist of two people, and another 20% are solo
- Of all parties only 15% include children under 15
- 17% of trail users stayed overnight in the area
- 71% of trail users are on a bicycle, most of the remainder are on foot
- Two thirds of trail users were on the trail for more than two hours; a quarter were there between one and two hours
- Nearly three quarters (72%) report that using the trail is the primary reason for their trip to the area
- Average daily expenditure per party for local area users was \$10.91 (2007 dollars); average for out-of-area users was \$88.49

Sauk Rail Trail

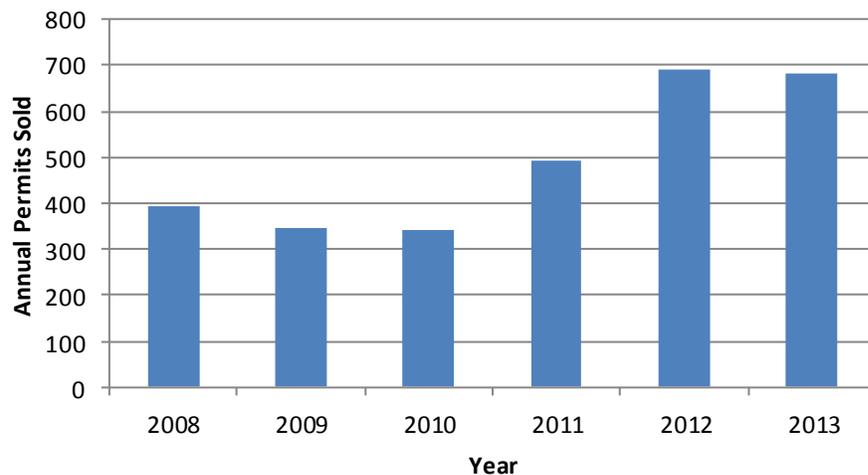
The 33 mile Sauk Rail-Trail is located northwest of Des Moines in central Iowa, extending from Swan Lake State Park in Carroll to Black Hawk State Park in Lake View. The trail links the communities of Swan Lake, Maple River, Breda, Carnarvon and Lake View with farm and wetlands areas. Features include Black Hawk Marsh, Breda's Railroad Depot, Hazelbrush Wildlife Area, Mid-Prairie Park and Rolling Hills City Park in Carroll. The trail also passes through a wind turbine farm.

The trail is managed by the Carroll and Sac County Conservation Boards, with maintenance assistance from the cities through which it passes. Three additional counties, operating

with cooperation from the Iowa Great Lakes Trail Association, in an effort to extend the trail to a lakes recreation area to the north that has an existing trail system.

User fees are required for those ages 18 and up, \$1.00/day or \$15.00/year. A substantial portion of use however is by those who have not purchased a pass, since there is no pass enforcement. Data are available regarding sale of passes however, which provide some information on trail growth. Between 2008 and 2013 average annual pass growth was 11.7% per year.

Figure III-6
Sauk Rail Trail Use Pass Sales, 2008-2013



Great Miami River Recreation Trail

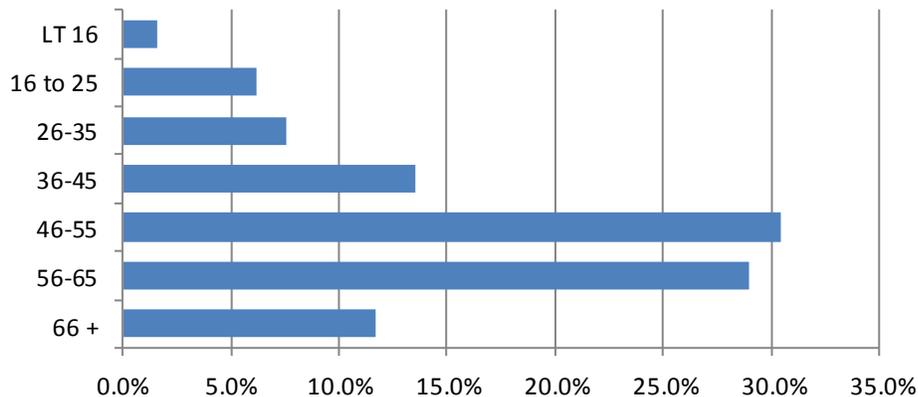
The Great Miami River Recreation Trail is one of several substantial trails located in the Miami Valley in central Ohio. The 75 mile trail begins in Fairfield, passes through Dayton and extends to Piqua. The trail links numerous towns in four Ohio counties and follows the banks of the Miami River for most of its route. The trail in the river corridor traverses many rural areas and also connects a number of wetlands, lakes, and recreation locations such as parks. Estimated annual use is 70,000; no historical data are available.

A trail user survey was conducted in 2013, gathering data from 569 respondents. A few significant findings include:

- A high proportion (81%) live in the immediate four-county area; 16% are from elsewhere in Ohio and 2% from out of state
- Users tend to be middle age or older – see data below
- Only about 8% of user parties include children
- Nearly three quarters (73%) of respondents report using the trail once per week or more, which is consistent with the proportion who live in the area

- About two thirds of use (63%) was bicycle, with most of the remainder walking or running
- About seven in ten users (68%) are on the trail for an hour or more
- Only 4% of respondents say they are commuting; with most of the remainder on the trail for “Health and Exercise”, “Recreation” or “Fitness Training” -- accordingly the survey responses do not represent commuters

Figure III-7
Great Miami River Recreation Trail: Average User Age, 2013



The trail was conceived by the Miami Valley Regional Bicycle Council as part of one of the country’s first bicycle trail regional plans, which was initially conceived in 1965 and adopted in 1973. Horace Huffman Jr., of Dayton and president of the Huff Corporation, a bicycle manufacturing company, was instrumental in this planning process, and was inspired by the work in Sacramento, California to establish a trail along the American River. The Miami Conservancy District built the initial 8.2 mile segment which was dedicated at Dayton's First River Festival in 1976. Currently the Conservancy maintains 34 miles of the trail, with the remainder maintained by other partner organization. The consortium of eleven local and regional organizations that sponsor the trail include transportation and parks and recreation departments, local convention and visitor bureaus and conservation organizations.

The consortium also provides the Miami Valley Trail website that offers extensive information about the trail, the communities it passes through, and links to commercial and other services. The site was founded on a volunteer basis by Thomas Recktenwalt, who built and maintained the site for fifteen years.

Wood River Trails

This 34 mile set of paved multi-use trails connects the communities of Bellevue, Hailey, Ketchum and Sun Valley in Idaho. Much of the trail system is on abandoned railroad right of way and has an extensive history associated with transportation for mining and ranching. The trail crosses a variety of terrain and includes sections along the Wood River.

The area also includes a number of mountain bike trails and will host the 2014 USA Cycling Marathon Mountain Bike National Championships.

The trail project began in the mid-1970s and has now includes a number of interpretive installations along the various trail segments that focus on area history. The trail is currently maintained by the Blaine County Recreation District and is supported by the Wood River Bike Coalition.

Of the 725,000 total trail user days, single track and backcountry trails added up to 380,000+ of use while bike path and multi-use path usage totaled close to 350,000 trail days. Hiking and biking dominate the usage patterns with the bike path being usage coming in at 79% biking and 13% hiking/running.

Sustain Blaine, and economic development agency, is studying the economic benefits of bicycling in the Wood River Valley. From their initial findings:

“Based on a variety of surveys conducted in 2011 and subsequent analysis, Sustain Blaine estimates that road and mountain biking are responsible for a Direct Economic Impact of about \$6 million across the Sun Valley Region. Bike-specific retail and employees involved in the biking sector are accountable for 85% of this total while revenues from biking events and activities delivered the remaining 15%.”

Additional analysis of the data provides an overview of trail users:

- Visitor usage is at least 28%, while local usage is 46%
- 52% are 40-60 years of age
- 52% male
- 3.1 people per party
- Hiking: 46%; biking: 46%
- 61% travel by car to area
- 47% stay in a hotel
- Number of days visited: 4-7
- 76%, of visitors are from the Intermountain West.

Trail of the Coeur d'Alenes

The Trail of the Coeur d'Alenes is located south of the town of Coeur d'Alene through the Silver Valley, following the abandoned Union Pacific Railroad right-of-way from Mullan, near Wallace and the Montana border, to Plummer, a town on the prairie near the Washington border. The 71 mile trail follows the Coeur d'Alene River, past a number of lakes, and crosses and runs along Lake Coeur d'Alene. The Lake crossing is on the Chatcolet Bridge and leads to Heyburn State Park.

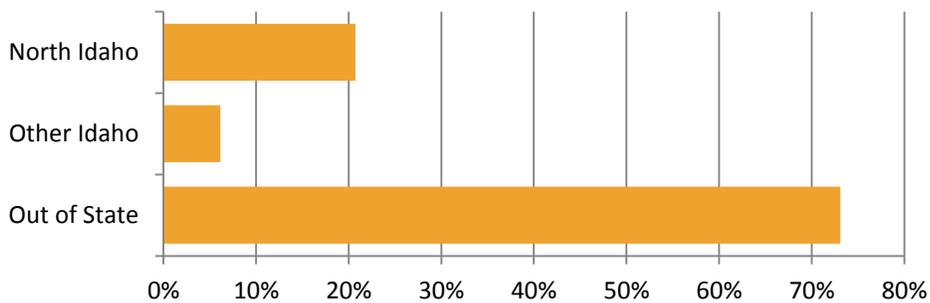
The trail is divided into two sections based on management. The Coeur d'Alene Tribe manages the 14.5 mile portion within their reservation with the remainder of the trail managed by the Idaho Department of Parks and Recreation. Trail governance includes a six member commission responsible for trail development, funding, management and operation. In addition, cities and counties along the trail assist with law enforcement and maintenance through joint powers agreements.

There are several shuttles that provide service on the trail, typically operated by lodging properties or bicycle shops.

Trail use consists of primarily of bicycles and pedestrians in the summer, with skiers and snowmobilers in the winter. According to use counts during 2013 total use was about 67,000, down from about 100,000 in 2006 and 2007. Trail staff however report that counters have been unreliable for the past several years and are probably undercounting.

Staff emphasize that the trail is a draw for visitors to the area. Data from a customer survey in 2013, including about 110 respondents, show that nearly three quarters of trail users are from out of state, and only one in five from the local North Idaho area.

Figure III-8
Trail of the Coeur d'Alenes: Residence of Trail User Respondents, 2013



Friends of the Coeur d'Alene Trails maintain a website with substantial information including maps, up-to-date information and links to services. The site is sponsored by a number of lodging, food service, bicycle and recreation businesses, as well as the state travel marketing organization.

Summary and Interpretation

A summary of use levels and growth patterns appears in Table II-3. It is apparent that use levels can be substantial, with higher use generally associated with trails located near populated areas and with good access. Users of trails located in more rural locations are often visitors to the area, and demonstrate how good quality trails function as a visitor attraction. Trail use growth rates are often over 10% per year, typically associated with a

pattern of ongoing trail investment and/or expansion that increase trail capacity and knowledge of the trail as a recreation destination.

Table III-3
Cycling Trail Use and Growth Rate

Trail	Location	Year Initiated	Annual Use	Average Growth Rate	Comments
Nature Coast State Trail	Florida	1996	180,000	4.3%	
Withlacoochee State Trail	Florida	1989	395,000	16.9%	
Silver Comet Trail	Georgia	1998	500,000 – 1 million	NA	
Longleaf Trace	Mississippi	1995	80,000	9.6%	
Allegheny River Trail	Pennsylvania	1984	56,000	NA	2006 use number; 160,000 total trail users in the area
Sauk Rail Trail	Iowa	1998	NA	11.7%	
Great Miami River Recreation Trail	Ohio	1976	70,000	NA	
Wood River Trails	Idaho	1985	350,000	NA	Bike/Ped only, summer
Trail of the Coeur d'Alenes	Idaho	2002	120,000	NA	

Source: Dean Runyan Associates

Other findings include:

- Trails are typically supported by the communities with which they are associated, offering services such as lodging, food service and recreation; bicycle retail establishments are strong supporters of trails.
- Cycling trails are sometimes associated with mountain bike trail systems, particularly in mountainous rural areas; the cycling trails are sometimes used for access to mountain bike trailheads.
- All trails are associated with a voluntary organization that shares responsibility for trail development, maintenance and marketing.

- In many cases there is strong local government support for trail development and activity.

Mountain Bike Trails

An initial list of facilities in the US was identified making use of the following criteria:

- A system consisting of multiple trails, associated with a specific location such as a specific trailhead or a community
- Primarily rural; not associated with an urban area larger than a village
- Associated with at least one urban location that includes food, lodging and other travel services
- Regional or national reputation as a mountain biking location
- Established long enough to provide reliable use level and trend data

Approximately 15 mountain biking locations were included in the initial list. Preliminary data collection and contacts with trail operators were used to reduce this list to seven locations that best met the criteria above. A summary of the location and characteristics of these trails appears in Table II-4.

Table III-4
Selected Mountain Bike Regions

Trail	Nearby Community	Trail Miles	Annual Use
Kingdom Trails	Newport, VT	110	63,000
Forks Area Trail System	Augusta, GA	34	
CAMBA Trails, Cable Cluster	Cable, WI	60	25,000
Crested Butte	Crested Butte, CO	400+	
Moab	Moab, UT	NA	200,000+
Curt Gowdy State Park	Cheyenne, WY	35	135,000

Source: Dean Runyan Associates

Kingdom Trails, Vermont

Kingdom Trails is located in Vermont's East Burke Village, south of Newport. The site was established in 1994 by a group of local property owners and businesses. It is a not-for-profit organization and receives permission to use the land it is on from as many as 55 local landowners. Day passes for children and adults, as well as year-round passes for individuals or families are available for sale.

The 110 miles of trails spread across the Darling Hill ridge to the slopes of Burke Mountain itself. The individual trails come in a range of difficulties from peaceful rides through meadows on old logging roads to steep and technical singletrack routes that make use of the site's roughly 800 feet of elevation from bottom to top. The facilities of a ski area provide summer lift capacity for downhill riding. A staff of 10 designs, creates, and maintains the trails.

Use in 2013 totaled 63,000, up from 57,000 in 2012. Growth over the past several years has averaged 18% per year, and is projected to continue.

Immediately nearby is the Burke Mountain Ski Area, and slightly further out is the city of Newport, which offers lodging as well as other recreation.

Forks Area Trail System, South Carolina

Forks Area Trail System consists of roughly 34 miles of beginner to intermediate bike trails in the heavily wooded Long Cane Ranger District of Sumter National Forest, near the city of Augusta. The trails have few technical features but offer high speeds and good flow, making this an excellent place for beginner mountain bike enthusiasts. It is designed and maintained by the Central Savannah River Area chapter of the Southern Off-Road Bicycle Association, in partnership with the US Forest Service.

There is no fee for using the trails, which are maintained through donations and volunteer work. The area consists of six loop trails ranging from 4-7.5 miles, with about three miles of connecting trail, all located adjacent to the Savannah River.

Just across the river, the city of Augusta, Georgia is home to the famous Masters golf tournament, and is large enough to provide a variety of lodging and entertainment options.

CAMBA Trails, Cable Cluster, Cable, Wisconsin

CAMBA's Cable Cluster is 60 miles of trails near the town of Cable, WI. Trails were created and are maintained by the Chequamegon Area Mountain Bike Association, a chapter of the International Mountain Biking Association, in partnership with the US Forest Service. There are two different trailheads with eight trails between them, winding through scenic Wisconsin forests; all together they receive around 25,000 riders each year. The annual

Chequamegon Fat Tire Festival hosts a 3000+ rider cross country race between the two trailheads.

The area is heavily wooded, and the trails range from smooth and easy to steep and difficult. CAMBA has five other trail clusters in the surrounding area, totaling about a dozen trailheads between them.

The town of Cable provides lodging, retail and entertainment. Nearby is the Telemark Resort, known for its skiing and other snow sports.

Crested Butte, Colorado

Crested Butte is a small community located in the Gunnison Valley between Gunnison and Aspen in the central Colorado Rockies. From the base at about 9,000 feet elevation the area features nearly two dozen trails totaling over 400 miles. Trails extend to elevations over 12,000 feet and connect with Aspen. The Crested Butte Mountain Biking Association, founded in 1983 and a chapter of the International Mountain Biking Association, develops and maintains the trail system. Most trails are situated on US Forest Service and the Bureau of Land Management land.

Over two million visit the US Forest Service lands in the area. Unfortunately no data are available to estimate the portion who ride mountain bicycles.

The town of Crested Butte offers snow sports in the winter and fishing, hiking and sightseeing attractions in the summer. The community includes many food service, lodging and recreation businesses.

Moab, Utah

Moab is a town in South Eastern Utah with access to a large number of mountain biking trails in the surrounding area. Most notable is famous Slickrock bike trail in the Sand Flats Recreation Area. Most of the area was developed for biking starting in the mid-90s. Most area trails are managed by Grand County, the Bureau of Land Management, Utah State Parks and Recreation, or some combination, with the assistance of community volunteers and the local chapter of the IMBA.

With hundreds of miles of trails in the area, there are a multitude of options for bikers of every skill level. Data from a 2012 report indicates that Moab's mountain biking trails receive over 200,000 riders annually.

The town of Moab is a thriving resort community that can provide food, lodging, and access to other entertainment such as bird watching, hiking, and golfing. Nearby is the famous Arches National Park.

Curt Gowdy State Park, Wyoming

Curt Gowdy State Park has roughly 35 miles of trails situated near the city of Cheyenne. It was established in 2006 by Wyoming State Parks, in partnership with the International Mountain Biking Association. The trails are maintained by the local IMBA chapter, the Overland Mountain Biking Club. There is a daily admission fee of \$4 for state residents and \$6 for out of state visitors.

The numerous stacked loops run through a variety of scenic terrain, ranging from rocky and technical alpine single tracks over exposed granite slabs and boulders, to smooth paths along the shores of the Granite Springs and Crystal Lake reservoirs. Total use for the Park in 2013 amounted to 135,000 visitors.

There are opportunities for fishing, kayaking, hiking and rock climbing in other parts of the park. The trail head is roughly halfway between the towns of Laramie and Cheyenne, both of which offer lodging and recreation of their own, including a disc golf course in Cheyenne.

Sedona, Arizona

Dozens of mountain bike trails, managed by the Verde Valley Cyclists Coalition and the US Forest Service, run through the red rock hills and desert canyons surrounding Sedona. The trail system is extensive, with options that can challenge mountain bikers of any skill level. If you wish, you can bike out to the nearby Montezuma Castle National Monument.

The city of Sedona is a thriving resort town that offers other recreation such as hiking, fishing, golf, and horseback riding, as well as a multitude of lodging options.

Summary and Interpretation

As was the case for cycling trails, higher mountain bike use is generally associated with trails located near populated areas and with good access. In one case, trail use average growth rates increased by nearly 20% per year. The success of mountain bike trails also seems to correspond with a pattern of ongoing trail investment and/or expansion that increase trail capacity and skill-level diversity.

Other findings include:

- Mountain bike trails are typically supported by the communities with which they are associated, offering services such as lodging, food service and other types of outdoor recreation activities.

IV. Economic Significance of Bicycle Recreation Activity

The economic significance of bicycle recreation activity in the Columbia River Gorge is represented by the recreation spending, employment, earnings, and tax receipts that occur in local communities throughout the Columbia River Gorge. The data collection for this research focused on travel spending and the communities within the Gorge where this spending occurs.

Bicycle Recreation Party Trips

Bicycle recreation party trips (with average of 2.9 adult persons for overnight trips, and 2.7 for day trips) are estimated for both road cyclists and mountain bike riders in the Columbia River Gorge. Estimates of bicycle recreation party trips are based on the findings of a bicycle recreation participant survey of respondents who rode a bicycle in the Gorge during 2013. For road cyclists, respondents reported the number of times that they rode each of the following road segments throughout the year:

- Troutdale to Crown Point
- Crown Point to Cascade Locks
- Cascade Locks to Hood River
- Hood River to The Dalles
- Highway 14 (Washington state side)

For mountain bike trail riders, respondents reported their annual number of trips for a selection of mountain bike trails with access points that begin in or are accessed along the Historic Columbia River Highway, including:

- Chenoweth Rim/Eagle Caves (The Dalles)
- EasyClimb (Cascade Locks)
- Falls Creek (Wind River)
- Syncline (Bingen)
- Lacamas Lake (WA)
- Larch Mountain (OR)
- Larch Mountain (WA)
- Post Canyon (Hood River)
- Three Corner Rock (WA)
- Trail 400 (OR)
- Woopdee Trail (Hood River)

The volume and distribution of bicycle recreation trips is shown below in Table III-1. Estimates were made using the overall proportions of use reported for each segment/trail identified in the bicycle recreation use survey. Volume counts were considered with respect

to Oregon Parks and Recreation Department road counters for two locations: Crown Point State Scenic Corridor – Vista House, and Historic Columbia River Highway State Trail. Bicycle use was estimated from these overall vehicle counts, as well as adjustments made for bicycle activity not included in the vehicle counts. For mountain bike trail counts the Bureau of Land Management Sandy Ridge Trail System was used as a proxy for Post Canyon (a trail estimated to be similar in terms of annual use). The Sandy Ridge Trail System is located approximately 40 miles east of Portland and considered to be an upper limit of use for a mountain bike system in close proximity to the Columbia River Gorge.

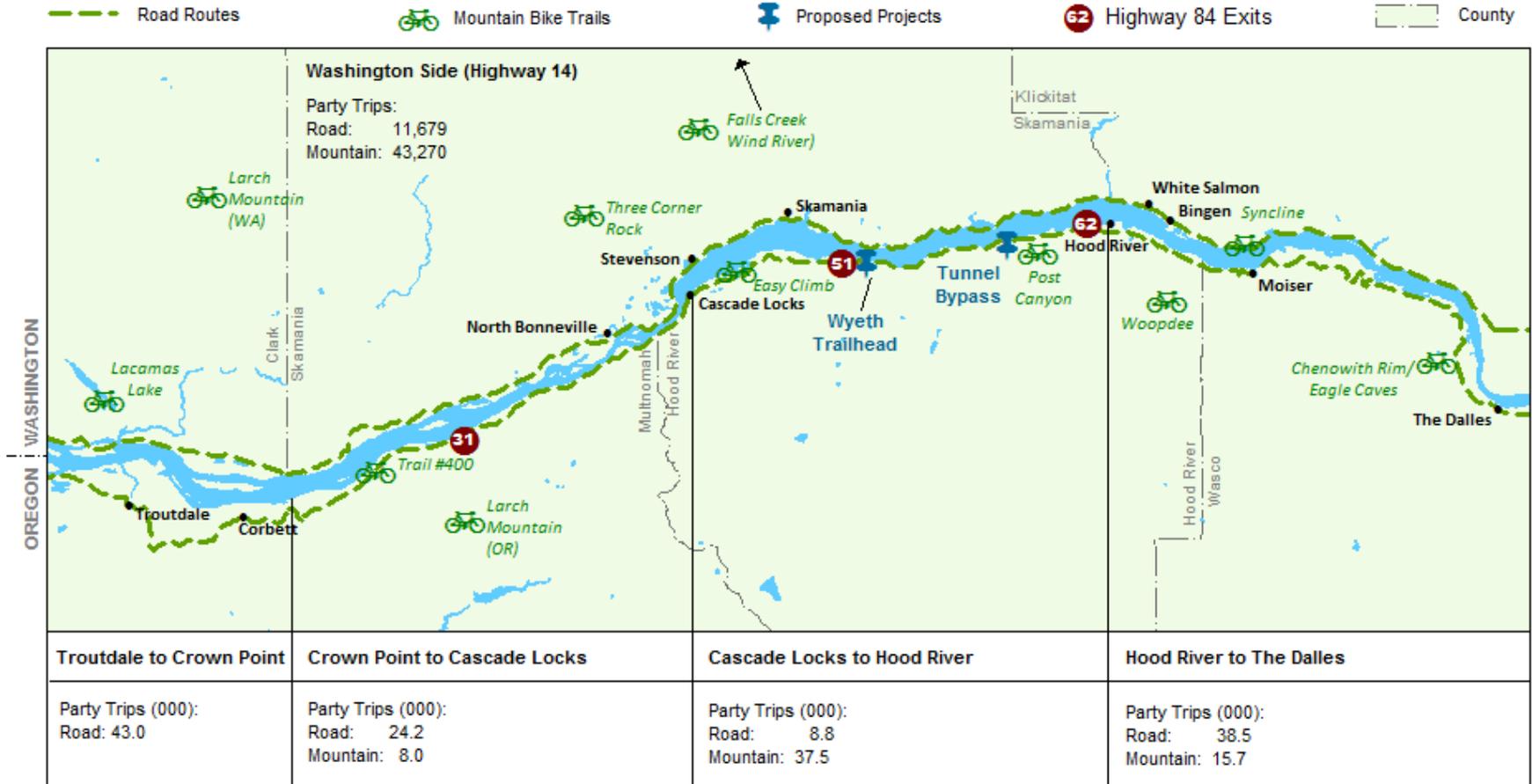
Estimates of total road and mountain bike trips are shown in Figure IV-1 (map on page 31) for each of the road segments. Mountain bike trips were summarized by road segment based on the location of the trailhead.

Table IV-1
Estimated Bicycle Recreation Trips in the Columbia River Gorge, 2013

Road Segments	Number of Party Trips (est.)
Troutdale to Crown Point	43,000
Crown Point to Cascade Locks	24,200
Cascade Locks to Hood River	8,800
Hood River to The Dalles	38,500
Highway 14 in Washington	11,700
Road Cyclist Trips	126,200
Mountain Bike Trails	
Chenowith Rim/Eagle Caves (The Dalles)	2,400
EasyClimb (Cascade Locks)	6,900
Falls Creek (Wind River)	5,800
Syncline (Bingen)	19,800
Lacamas Lake (WA)	7,700
Larch Mountain (OR)	3,900
Larch Mountain (WA)	6,800
Post Canyon (Hood River)	30,600
Three Corner Rock (WA)	3,300
Trail 400 (OR)	4,200
Woopdee Trail (Hood River)	13,300
Mountain Bike Trips	104,700
Total Bicycle Trips	230,900

Source: Dean Runyan Associates

Figure IV-1
Estimated Bicycle Recreation Trips in the Columbia River Gorge by Road Segment, 2013



Average Travel Party Trip Spending

For the purpose of this analysis we assume that bicycle riders in the Gorge have an average per party per trip spending pattern that is similar to that of Oregon State Park visitors in the Columbia River Gorge. A recent study of spending and economic activity from visitors to Oregon State Park properties in the Columbia River Gorge Management Unit more than 4,000 surveys were completed by visitors during the summer of 2012. Survey respondents reported trip expenditures made by their entire travel party within 30 miles of the Oregon State Park property within the Columbia River Gorge Management Unit. These results show that the average spending of visitors (per party per trip) ranges from about \$43 (day trip) to nearly \$600 for an overnight trip with detailed spending categories shown in Table IV-2 below.

Table IV-2
Average Visitor Expenditures, by Type of Trip
Average Expenditure (\$ per party per trip)

Spending Categories	Overnight				
	Lodging	Camping	Private Home	Non-local Day	Local Day
Lodging	287.53	0.00	0.00	0.00	0.00
Campground	0.00	68.93	0.00	0.00	0.00
Restaurants/Bars/Pubs	117.53	42.31	28.38	11.10	6.29
Groceries	29.86	56.05	24.27	10.48	15.40
Fuel/Gasoline	62.91	59.43	30.03	16.43	11.89
Entry Fees	8.06	10.79	13.78	3.11	3.53
Recreation & Entertainment	3.59	8.08	2.46	1.38	1.91
Miscellaneous Retail	35.48	21.19	8.22	1.87	1.06
Bicycle related repairs/clothing/gear *	26.40	26.40	26.40	5.90	3.36
Total	571.36	293.18	133.54	50.27	43.44
Average Number of Nights	3.2	1.6	1.6	NA	NA
Group Size	2.8	3.2	3.2	3.2	3.7

* Bicycle related repairs/clothing/gear spending category was added to the average trip spending based on a spending distribution of bicycle-related recreational activity while on trips in Oregon during 2012 (Dean Runyan Associates, April, 2013).

Note: Non-local day trips identified as those who traveled 30 miles or more from home.

Source: Eric M. White, Assistant Professor, Oregon State University, based on data derived from a survey of visitors to Oregon State Parks properties within the Columbia River Gorge Management Unit.

Economic Impact of Bicycle Recreation Activity

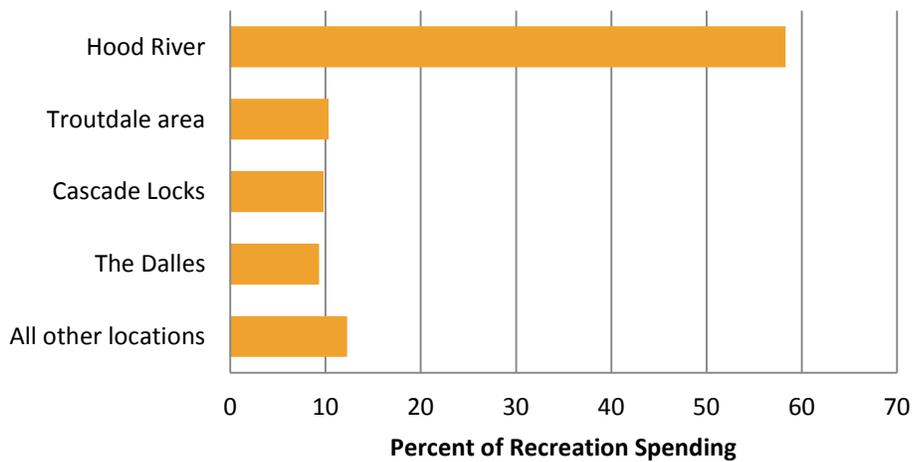
An estimated 230,000 bicycle recreation party trips generated approximately \$21 million in visitor spending made within the communities located in the Columbia River Gorge during 2013. Day trips accounted for the vast majority (87%) of these bicycle recreation party trips; while the overnight trips were far fewer in number, they generated more than half (56%) of the total spending. Overall, the economic impact of spending by bicycle recreation participants generated sales of approximately \$21 million, which supports 273 full and part-time jobs, with earnings made by employees and businesses of \$5.7 million, which generated over \$900,000 in state and local tax receipts during 2013. Due to a concentration of lodging, food and beverage, and retail venues, Hood River appears as a particularly notable community where bicycle recreation spending occurs. A summary of these impacts by community is shown in Table IV-3 and Figure IV-2 below.

Table IV-3
Economic Impacts of Bicycle Recreation by Community, 2013

Community	Spending (\$)	Earnings (\$)	Employment (jobs)	Tax Receipts (\$)	
				Local	State
Troutdale area	2,312,000	631,000	30	31,000	69,000
Cascade Locks	2,119,000	578,000	27	28,000	63,000
Hood River	11,986,000	3,271,000	155	158,000	356,000
The Dalles	1,881,000	513,000	24	25,000	56,000
All other locations	2,756,000	752,000	36	36,000	82,000
Total	21,054,000	5,745,000	273	278,000	626,000

Source: Dean Runyan Associates

Figure IV-2
Distribution of Bicycle Recreation Spending by Community, 2013



V. Economic Impact Forecast

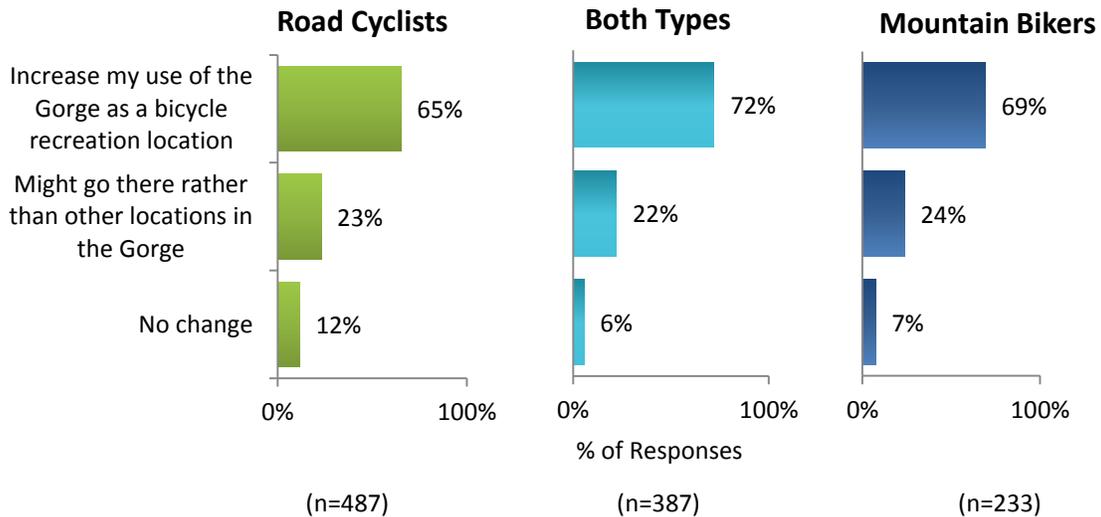
Potential Effects of Bicycle Trail Development Projects

The survey asked bicycle recreation participants the potential effects of two bicycle trail development projects: 1) a bicycle and hiking trail extension including a staging area with parking located at the Wyeth Trailhead, and 2) a new 1,200 foot tunnel to recreate the passage through Mitchell Point and trail extension to Hood River, which will allow cyclists and hikers to bypass I-84.

Wyeth to Starvation Creek Trail Project

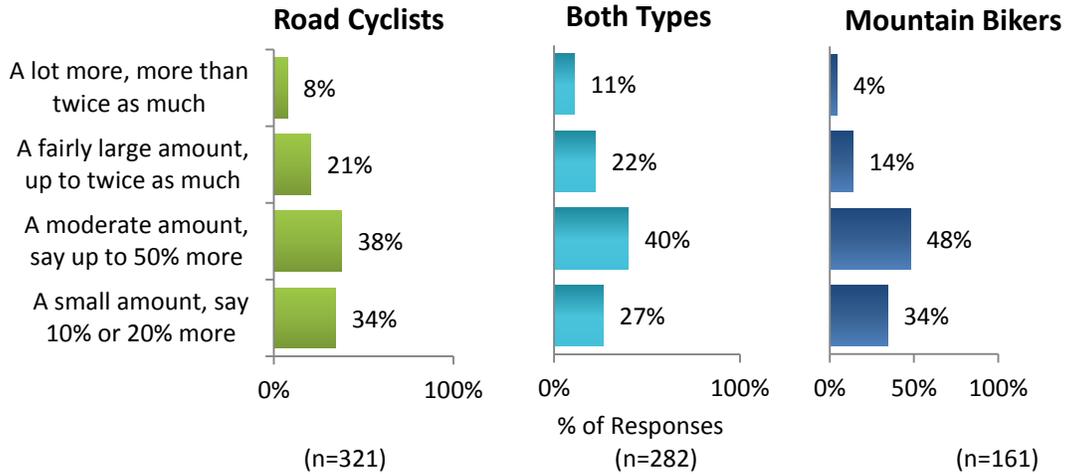
Approximately two-thirds (or more) for each of the bicycle recreation activity groups report that they will increase their use of the Gorge when the Wyeth to Starvation Creek Trail project is completed. More than half the respondents for each activity group report that they will either increase use by a moderate amount (up to 50% more), or by a fairly large amount (up to twice as much use). These findings suggest that, upon completion, the Wyeth to Starvation Creek Trail project will serve as a significant benefit for both road cyclists and mountain bikers, resulting in significantly more bicycle recreation trips in the Columbia River Gorge. More detailed results are presented graphically below.

When the Wyeth facility is built, how much do you think it would change your use of the Gorge as a location for your bicycle recreation?



Detail may not add to 100% due to rounding.
Source: Dean Runyan Associates, Inc.

How much do you think the Wyeth project would increase your use of the Gorge as a bicycle recreation location?

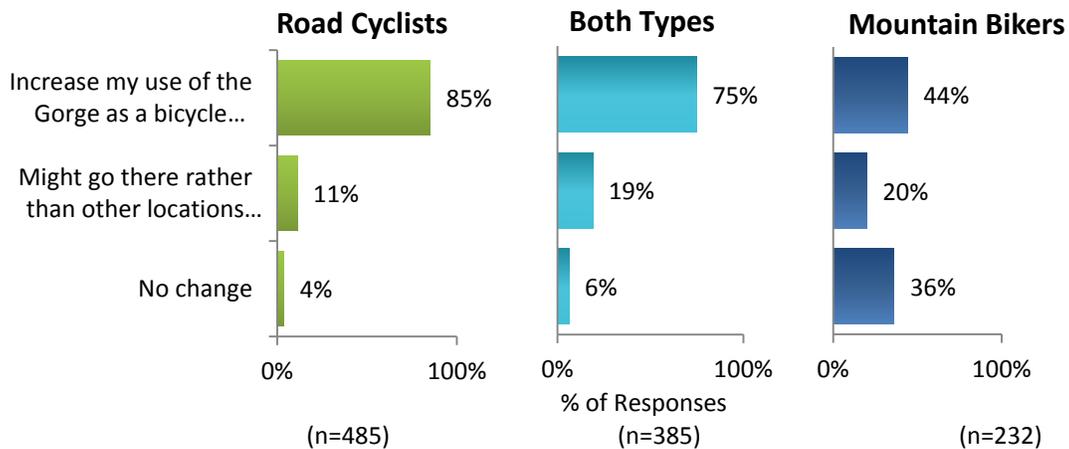


Note: includes only those respondents who indicate a change in behavior
 Detail may not add to 100% due to rounding.
 Source: Dean Runyan Associates, Inc.

Mitchell Point Tunnel Construction and Trail Extension

More than three-quarters of the road cyclists report that they will increase their bicycle recreation activity in the Gorge when the Mitchell Point Tunnel and trail extension is completed. For mountain bike riders, the anticipated effect on the level of bicycle activity is less pronounced, though also significant, with nearly half (44%) reporting that they will increase their use of the Gorge when the Mitchell Point Tunnel and trail extension is completed.

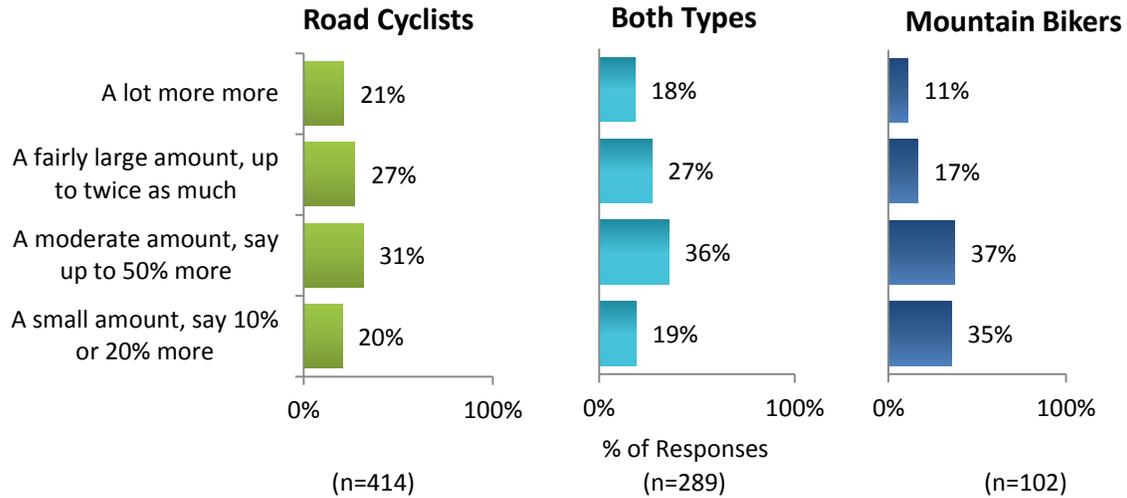
If a bypass trail is built, how much do you think it would change your use of the Gorge as a location for your bicycle recreation?



Detail may not add to 100% due to rounding.
 Source: Dean Runyan Associates, Inc.

For those respondents who expect to increase their bicycle recreation activity in the Gorge, most report at least moderate amount (up to 50%) of increased additional use. More detailed results are presented graphically below.

How much do you think a bypass trail project would increase your use of the Gorge as a bicycle recreation location?

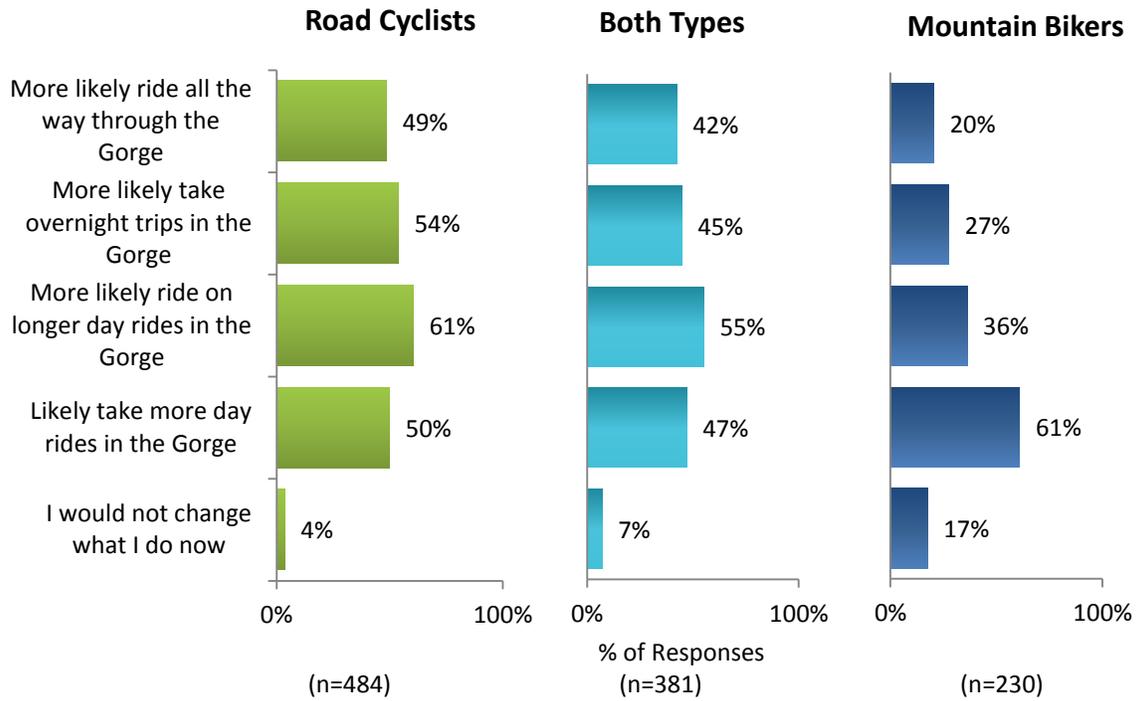


Note: includes only those respondents who indicate a change in behavior
 Detail may not add to 100% due to rounding.
 Source: Dean Runyan Associates, Inc.

Wyeth to Starvation Creek Trail Project and Mitchell Point Tunnel to Hood River Project

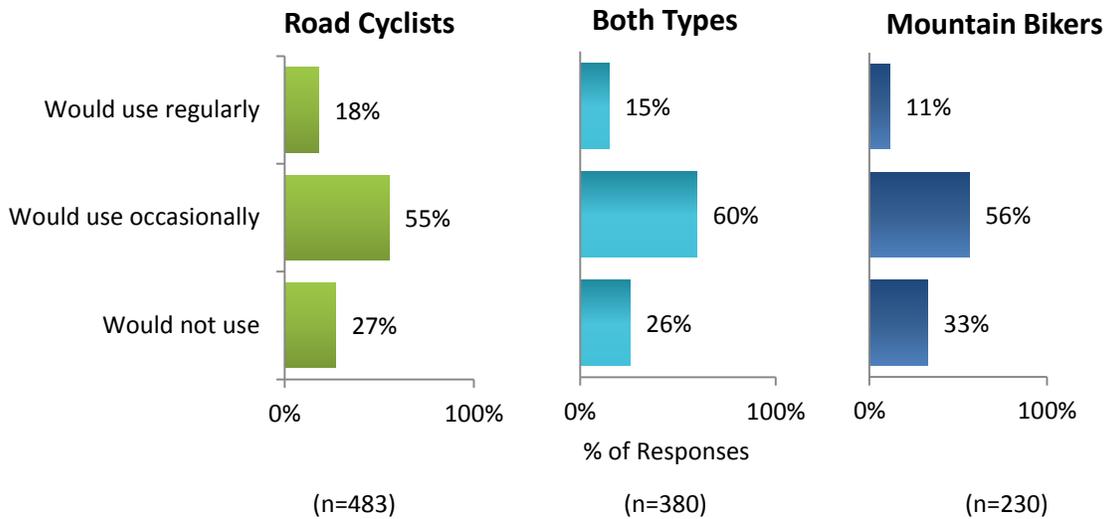
Considering the effects of completion for both projects, road cyclists report that they would be much more likely to ride all the way through the Gorge, and more likely to take overnight trips in the Gorge. Those who ride mountain bikes are more likely to ride longer on day trips and take more additional trips. This is an indication that the combined effect of both projects will enhance the appeal of the Gorge for both road cyclists and mountain bikers, resulting in additional bicycle recreation activity trips.

If both of these projects are built, would you change the trips you take for bicycle recreation in the Gorge?



Detail may total more than 100% due to multiple responses.
Source: Dean Runyan Associates, Inc.

If they were available, how much would you use "Bike In Only" overnight campgrounds in the Gorge?



Detail may not add to 100% due to rounding.
Source: Dean Runyan Associates, Inc.

Location of Bicycle Recreation Expenditures

Throughout the Columbia River Gorge, bicycle recreation activity participants will make additional expenditures for both day and overnight trips. Tables V-1 and -2 below show the distribution of additional recreation expenditures that would occur in the communities throughout the Gorge as a result of each of the proposed bicycle trail development projects.

Table V-1
Additional Bicycle Recreation Spending by Community
Wyeth to Starvation Creek Trail Development

Road Cyclists	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	24,000	212,000	236,000	20%
Cascade Locks	56,000	86,000	142,000	12%
Hood River	371,000	82,000	453,000	38%
The Dalles	138,000	38,000	176,000	15%
All other locations	18,000	172,000	190,000	16%
Total	607,000	590,000	1,197,000	100%

Mountain Bikers	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	0	14,000	14,000	1%
Cascade Locks	8,000	109,000	117,000	9%
Hood River	446,000	527,000	973,000	77%
The Dalles	0	2,000	2,000	0.2%
All other locations	8,000	156,000	164,000	13%
Total	462,000	808,000	1,270,000	100%

All Bicycle Riders	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	24,000	226,000	250,000	10%
Cascade Locks	64,000	195,000	259,000	10%
Hood River	817,000	609,000	1,426,000	58%
The Dalles	138,000	40,000	178,000	7%
All other locations	26,000	328,000	354,000	14%
Total	1,069,000	1,398,000	2,467,000	100%

Source: Dean Runyan Associates

Table V-2

Additional Bicycle Recreation Spending by Community
Mitchell Point Tunnel to Hood River and Wyeth to Starvation Creek Trail Development

Road Cyclists	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	53,000	985,000	1,038,000	25%
Cascade Locks	124,000	402,000	526,000	13%
Hood River	815,000	381,000	1,196,000	29%
The Dalles	303,000	176,000	479,000	12%
All other locations	39,000	799,000	838,000	21%
Total	1,334,000	2,743,000	4,077,000	100%

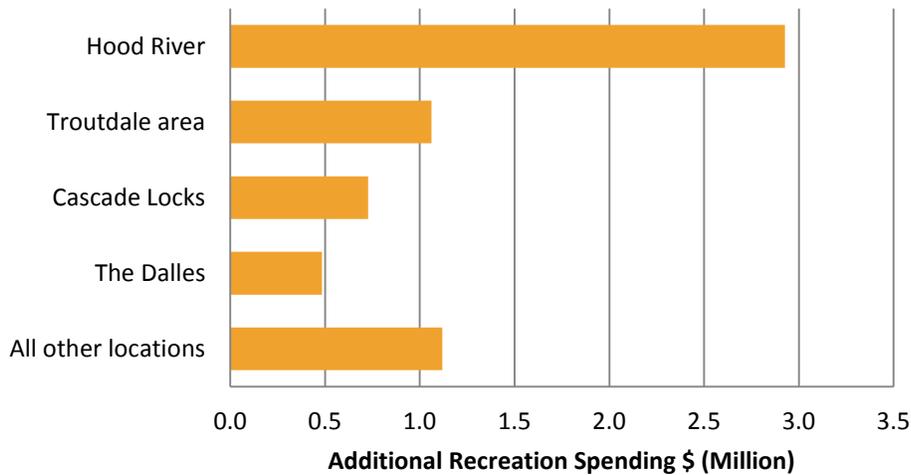
Mountain Bikers	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	0	24,000	24,000	1%
Cascade Locks	15,000	186,000	201,000	9%
Hood River	828,000	903,000	1,731,000	77%
The Dalles	1,000	3,000	4,000	0.2%
All other locations	15,000	266,000	281,000	13%
Total	859,000	1,382,000	2,241,000	100%

All Bicycle Riders	Overnight (\$)	Day (\$)	Total (\$)	Area percent
Troutdale area	53,000	1,009,000	1,062,000	17%
Cascade Locks	139,000	588,000	727,000	12%
Hood River	1,643,000	1,284,000	2,927,000	46%
The Dalles	304,000	179,000	483,000	8%
All other locations	54,000	1,065,000	1,119,000	18%
Total	2,193,000	4,125,000	6,318,000	100%

Source: Dean Runyan Associates

With the completion of the two bicycle trail development projects, bicycle recreation activity participants will make an additional \$6.3 million in expenditures per year in the local communities throughout the Gorge. The distribution of additional recreation spending is shown below. The concentration of additional expenditures that would occur in the City of Hood River (\$2.9 million) is primarily due to the location of the proposed development projects and the existing pattern of recreation spending and business activity.

Figure V-1
Distribution of Annual Recreation Spending Associated with Development Projects
Total Additional Expenditures: \$6.3 million per year



Source: Dean Runyan Associates

Additional Economic Benefits

Additional impacts associated with the proposed development projects include the employment and earnings that are generated by recreation expenditures in Columbia River Gorge area businesses, plus the associated local and state tax receipts. These additional impacts are summarized below. Table V-3 shows the additional economic impact of the Wyeth Trail to Starvation Creek Development; while Table V-4 shows the additional economic impact for completing both projects: Mitchell Point Tunnel to Hood River and Wyeth to Starvation Creek Trail Development.

These impact figures were calculated based on ratios from total travel-generated impact figures for the state of Oregon, assuming that, on the average, expenditures of all travelers and those of participating in bicycle recreation generate similar earnings, employment and tax payments in the Columbia River Gorge. The distribution of expenditures by community is based on the location of the anticipated increase in bicycle activity and the distribution of location visited reported by the bicycle recreation activity respondents.

Table V-3
**Additional Economic Impacts of Bicycle Recreation by Community
 Wyeth to Starvation Creek Trail Development**

Community	Spending (\$)	Earnings (\$)	Employment (jobs)	Tax Receipts (\$)	
				Local	State
Troutdale area	250,000	68,000	3	3,300	7,400
Cascade Locks	259,000	71,000	3	3,400	7,700
Hood River	1,426,000	389,000	18	18,800	42,400
The Dalles	178,000	49,000	2	2,300	5,300
All other locations	354,000	97,000	5	4,700	10,500
Total	2,467,000	674,000	32	32,500	73,300

Note: Distribution of impacts by community based on current expenditure patterns.

Source: Dean Runyan Associates

Table V-4
**Additional Economic Impacts of Bicycle Recreation by Community
 Mitchell Point Tunnel to Hood River and Wyeth to Starvation Creek Trail Development**

Community	Spending (\$)	Earnings (\$)	Employment (jobs)	Tax Receipts (\$)	
				Local	State
Troutdale area	1,062,000	290,000	14	14,000	31,500
Cascade Locks	727,000	198,000	9	9,600	21,600
Hood River	2,927,000	799,000	38	38,600	86,900
The Dalles	483,000	132,000	6	6,400	14,300
All other locations	1,119,000	305,000	15	14,800	33,200
Total	6,318,000	1,724,000	82	83,400	187,500

Note: Distribution of impacts by community based on current expenditure patterns.

Source: Dean Runyan Associates

Other Recreation Activity

Additional recreation activities would also occur from increased pedestrian/hiker use and other outdoor recreation activities, as well as additional national/international recognition of the Columbia River Gorge Region. The economic impacts associated with these additional expenditures for lodging, food service, recreation and retail sales are not included in this study's results.

Conditions for Continued Success

In the preceding sections of this report, the forecast of economic impact values is based on anticipated growth within the current pattern of use, as well as the existing infrastructure of travel accommodations and facilities. Considering the national and international appeal of the region, there is the potential that additional bicycle recreation activity, combined with the future demand for travel to the region, could spur additional recreation development leading to further economic benefits for the region.

The Columbia River Gorge, established in 1986 as a U.S. National Scenic Area, is noted for the Columbia River, the fourth-largest river in the US, which flows through a massive gorge, and is surrounded by towering mountains. The landscape of the Gorge transitions between temperate rainforest to dry grasslands in only 80 miles, and offers a dramatic change in scenery while driving down I-84. In 2010, *National Geographic Traveler* magazine rated the Columbia River Gorge the world's sixth-best sustainable tourism destinations for "an incredible job of protecting the views and many towns with considerable charm." The region as a whole offers many opportunities for outdoor recreation activities including: scenic hiking trails, windsurfing, kiteboarding, stand-up paddle boarding, white-water rafting and kayaking, and during winter months of the year access to skiing, snowshoeing, and ice-climbing. In 2004, the Columbia Gorge American Viticultural Area was established, further enhancing the development of vineyards and wine production on both sides of the Columbia River.

Given the natural amenities, recreation opportunities, and planning systems already in place, the overall effect of bicycle recreation activity could booster further tourism recreation activity and development for the region, as well as the state. The upward potential largely depends on the continued appeal, and promotion to out-of-state and international visitors, including external factors such the wealth of an expanding population of those with the means to travel abroad. Overall, tourism development activities and the economic values realized by tourism will continue to be a primary source of benefits for the communities throughout the Columbia River Gorge.

Questionnaire