

Benefits of Non-Motorized Trails

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The following is a summary of the many benefits that non-motorized trails can provide in the state of Oregon.

1. Economic Benefits.

a. Money spent in communities by trail users.

Across Oregon, non-motorized recreational trails are stimulating tourism and recreation-related spending. Local trail users, vacationers and conference attendees provide direct economic benefits to hotels, restaurants and other businesses from increases in tourist activity and increased spending on durable goods such as bikes or skates, and soft goods such as gasoline, food, and drinks. This, in turn, attracts and revitalizes businesses, creates jobs, and increases public revenue.

Evidence from economic studies include:

- Events associated with the Oregon Trail Sesquicentennial celebration in 1993¹ (coordinated by the nonprofit Oregon Trail Coordinating Council) included the "Official Oregon Trail Sesquicentennial Wagon Train" (joined by over 10,000 people along its route and 20,000 for evening programs), the "Oregon Trail Fest" kickoff event (a two-day event in Portland involving nearly 100,000 people), "Company's Coming" (a statewide clean-up day), and "Trail's End Finale" (with over 5,000 participants). Also, considerable commemorative merchandise including license plates, rifles, pins, blankets, checks, coins, traveler's journals, and wine were produced and marketed. The Council raised over \$4.5 million in federal, state, and private funds estimated to have leveraged another \$19.8 million in additional revenues in the form of contributions. Preliminary estimates of visitor spending generated by the Oregon Trail Interpretive Center near Baker City, OR, for example, recorded 672,555 visitors from May 23, 1992 through July 1994.
- A study conducted by the National Park Service Rivers, Trails and Conservation Assistance Program² examined the economic impact of three rail-trails from May 1990 to February 1991. The trails included two suburban/rural trails—the Heritage Trail in Iowa and the St. Marks Trail in Florida, and an urban trail—the Lafayette/Moraga Trail in California. Estimates for average user expenditures and total economic activity resulting from trail use are included in Table 1.

¹ Renner, J. (1994). Making a Case for the Economic Benefits of Historic and Heritage Tourism. Paper Presented at the 12th. National Trails Symposium. Anchorage, AK. September 28-October 1, 1994.

² National Park Service. (1992). The Impacts of Rail-Trails, A Study of Users and Nearby Property Owners From Three Trails. Rivers, Trails and Conservation Assistance Program.

Table 1. Rail-Trail Economic Contribution Estimates.

Trail Name/Length	Average User Expenditures	Annual Economic Contribution
Suburban/Rural Trails		
Heritage Trail (IA) 26 mi.	\$9.21	\$1.2 million
St. Marks Trail (FL) 16 mi.	\$11.02	\$1.9 million
Urban Trail		
Lafayette/Moraga (CA) 7.6 mi.	\$3.97	\$1.5 million

The more rural trails had average expenditures significantly larger than the urban trail (but the urban trail had significantly more users). The study found that auto-related expenditures were the largest trip-related expenditures, and visitors staying at least one night in the area generated the largest average expenditures. Trail-related equipment, such as bicycles and skates, represented the single largest source of expenditures for all three trails.

- Users of the Sugar River Trail in southwestern Wisconsin were surveyed during a period from 1979 through 1985³. Analysis of this survey data showed a low average in 1979 of \$5.20 per person and a high average in 1984 of \$10.99 being spent per trail user. Based on these estimates and amount of trail use, the total annual contribution of the trail to the local economy ranged from \$158,704 to \$522,025.
- A study of trail users of the Northern Central Rail Trail (NCRT)⁴ near Baltimore, reported that trail visitation grew from under 10,000 visitors per year in 1984 to over 450,000 in 1993. The value of goods purchased because of the NCRT for 1993 was estimated in excess of \$3.4 million. Trail users who had purchased goods for use on the trail spend on average \$203 in 1993. Similarly, users who purchased soft goods (food, etc.) before or after using the trail spent an average of \$6.30 per visit. Additionally, the study estimated that the trail supports 264 jobs statewide.
- A study of visitors to Wisconsin's Elroy-Sparta State Trail⁵ found that suburban and rural trails with historic or natural characteristics that encourage vacation-style trips generate more revenue per use than urban and suburban trails used for light recreation and commuting. Half of all trail users to the Elroy-Sparta State Trail were identified as out-of-state visitors who bring new money into the state. Total expenditures in 1988 were over \$1.2 million. The study reported that

³ Lawton, K. (1986). The Economic Impact of Bike Trails: A Case Study of the Sugar River Trail. Unpublished Manuscript. New Glarus, WI: Sugar River State Trail Corp.

⁴ PKF Consulting. (1994). Analysis of Economic Impacts of the Northern Central Rail Trail. Prepared for the Maryland Greenways Commission, Maryland Department of Natural Resources.

⁵ Schwecke, Sprehn, Hamilton and Gray. (1989). A Look at Visitors on Wisconsin's Elroy-Sparta Bike Trail. University of Wisconsin Extension, Madison, WI.

- spending by out-of-state visitors for lodging, bike rentals, bus shuttle service, and restaurant meals was roughly twice as high as for in-state visitors. The study also reported that peak-season hotel rooms along the Elroy-Sparta Trail were booked up a full year in advance.
- The Minnesota Department of Natural Resources analyzed survey data gathered on six rail-trails from 1980 through 1988 and found that trip-related expenditures varied greatly depending upon which trail was visited and how far users traveled to get to the trails⁶. Users who traveled less than 25 miles to get to the trails spend an average of \$.61 to \$2.86 per day, depending on the trail visited. Those traveling 25 miles and farther spent up to \$53.20 per day on average.

b. Impacts on property values and ability to sell.

People owning property bordering a proposed trail sometimes are concerned that developing a trail will lower their property values. However, a rather substantial body of research from across the U.S. demonstrates that proximity to trails and open space has very little impact on the value of property. In many cases, trails often increase the value of residential property and the ability to sell a property. Research findings include:

- In a survey sponsored by the National Association of Home Builders⁷ recent home buyers 55 years and older were asked to identify amenities that would seriously influence their decision to purchase a home. According to study results, walking and jogging trails are the most desirable amenity, with roughly half of active adults and older seniors (52%) saying the presence of trails would seriously influence the home buying decision. This number increases substantially with annual incomes greater than \$75,000 (65%). Outdoor spaces (especially parks) were second on the list at 51%, followed by public transportation at 46%.
- A study in Salem, Oregon⁸ found that proximity to greenbelt parcels (privately owned in this case) added a premium of \$1,200 per acre, in comparison to similar properties 1,000 feet or more from the greenbelt.
- A study of property values in Eugene, Oregon⁹ examined the effects of the South Ridgeline Trail on the property values of nearby homes. The study found that distance to the nearest trailhead was strongly significant in the sale price of a home. The study concluded that the value of a home increased \$6.77 for every foot of decrease in this distance.

⁶ Regnier, C. (1989). Minnesota Off-Road Bike Trail Use: 1980-1988. St. Paul, MN: Minnesota Department of Natural Resources, Trails and Waterways Unit. Unpublished paper.

⁷ Wylde, M. (2000). Boomers on the Horizon: Housing Preferences of the 55+ Market. Survey Sponsored by the National Association of Home Builders.

⁸ Nelson, A. (1986). Using Land Markets to Evaluate Urban Containment Programs. APA Journal, Spring, pp. 156-171.

⁹ Jensen, D., and Durham, J. (2003). The Property Value Effects of the South Ridgeline Trail. University of Oregon Economics. Department Undergraduate Honor Papers. Faculty Advisor: Harbaugh, B.

- A study of real estate agents with experience along Seattle's 12.1-mile Burke-Gilman Trail¹⁰ found the trail had increased the value of homes near, but not on, the trail by 6.5%. The trail has had no significant effect on the value of homes immediately adjacent to the trail. In addition, the study showed homes and condominiums near and adjacent to the trail are easier to sell because of their proximity to the trail.
- A study of property values in Boulder, Colorado¹¹ noted that housing prices declined an average of \$4.20 for each foot of distance from a greenbelt up to 3,200 feet. In one neighborhood, this figure was \$10.20 for each foot of distance. The study determined that, other variables being equal, the average value of property adjacent to the greenbelt would be higher than those 3,200 feet away.

c. Attracting businesses.

Many communities want to attract new, expanding, or relocating businesses to their area in order to increase their employment and tax bases. The importance of "quality of life" is increasingly cited as a major factor in corporate and business location decisions. As an amenity that plays an important role in increasing a community's "quality of life", trails are becoming more and more attractive to businesses and their employees¹².

- The City of Pueblo, Colorado attributes the investment in trails and parks along the Arkansas River and Fountain Creek as one of the most important components in the economic revitalization efforts of this industrial city¹³.
- The River Walk is often visited by prospective businesses looking to relocate to the San Antonio, Texas area. A business location along the River Walk is considered very desirable because the pedestrian system provides a retreat for employees during lunch and access to valuable green space within the central business district¹⁴.
- A survey of 71 economists rated factors for Arizona's attractiveness as a place to live, work, vacation, retire, and locate future plants and corporate headquarters. The strongest factors contributing to Arizona's positive image were climate, job opportunities, and open space including abundant outdoor recreation

¹⁰ Seattle Engineering Department (1987). Evaluation of Burke-Gilman Trail's Effect on Property Values and Crime. Seattle, WA. Office for Planning.

¹¹ Correll, Lillydahl and Singell. (1978). The Effects of Greenbelts on Residential Property Values: Some Findings on the Political Economy of Open Space, Land Economics.

¹² National Park Service. (1995). Economic Impacts of Protecting Rivers, Trails and Greenway Corridors. Rivers Trails and Conservation Assistance, National Park Service. Fourth Edition (Revised).

¹³ Federal Highway Administration (1992). Transportation Potential and Other Benefits of Off-Road Bicycle and Pedestrian Facilities. U.S. Department of Transportation. Case Study No. 7. Publication No. FHWA-PD-92-040.

¹⁴ Federal Highway Administration (1992). Transportation Potential and Other Benefits of Off-Road Bicycle and Pedestrian Facilities. U.S. Department of Transportation. Case Study No. 7. Publication No. FHWA-PD-92-040.

opportunities. Seventy firms relocated or expanded their businesses in Arizona, creating 27,800 jobs and \$970 million in indirect salaries and wages¹⁵. Chief executive officers of these firms said they chose Arizona for its "outdoor lifestyle and recreation opportunities"¹⁶.

d. Proximity to Trails and Crime.

People owning property bordering a proposed trail often are concerned that developing a trail will increase crimes such as muggings, assault, rape, trespass, burglary and vandalism. However, studies from across the U.S. consistently report no increase in crimes against people or against property that can be attributed to a specific trail, and that support by property owners for trails generally increases over time¹⁷. Research findings include:

- A comprehensive study sponsored by the Rails-to-Trails Conservancy examined the incidence of crime at 372 rail-trails across the United States¹⁸. Overall, the study shows that rail-trails are safe places for people to recreate (see Table 2 below). In 1995, only eleven of 372 rail-trails experienced any type of major crime, such as mugging, assault, rape and murder. When contrasted with general major crime statistics in urban, suburban and rural areas, rail-trails have experienced very low major crime rates.

Table 2. Crime Rates: Comparing Statistics For the Nation vs. Rail Trails¹⁹.
(Rates from 1995 per 100,000 population/users)

Crime	Urban		Suburban		Rural	
	U.S.	Rail-Trails	U.S.	Rail-Trails	U.S.	Rail-Trails
Mugging	335	0.53	102	0.00	19	0.00
Assault	531	0.58	293	0.02	203	0.01
Forcible Rape	43	0.04	29	0.00	26	0.01
Murder	11	0.04	4	0.01	5	0.01

The study also reported incidents of minor crimes at the 372 rail-trails (see Table 3). It also cites several local law enforcement agencies that state heavy trail usage acts as a deterrent in formerly isolated areas.

¹⁵ National Park Service. (1995). Economic Impacts of Protecting Rivers, Trails and Greenway Corridors. Rivers Trails and Conservation Assistance, Fourth Edition (Revised).

¹⁶ Valley National Bank. (1980). Arizona's Favorable Image Spurs Economic Growth. Arizona Progress November. Phoenix, AZ: Economic Research Department.

¹⁷ Florida Department of Environmental Protection (1998). Thinking Green. A Guide to the Benefits and Costs of Greenways and Trails. Office of Greenways and Trails, Tallahassee, FL.

¹⁸ Tracy, T., and Morris, H. (1998). Rail-Trails and Safe Communities: The Experience on 372 Trails. Rails-to-Trails Conservancy. Washington, D.C.: National Park Service.

¹⁹ FBI Uniform Crime Reports. (1995). Rails-to-Trails Conservancy.

Table 3. Rail-Trails Reporting Minor Crimes²⁰.

Crime	Urban	Suburban	Rural
Burglary	0%	.01%	.01%
Trespassing	5%	3%	4%
Graffiti	26%	17%	12%
Littering	24%	24%	25%
Sign damage	22%	22%	23%
Unauthorized motorized use	18%	14%	23%

(A total of 36 urban, 82 suburban and 254 rural rail-trails were surveyed in 1995.)

- A 1978 study of the Lafayette/Moraga Trail near San Francisco²¹ found that over 60% of property owners surveyed reported no problems due to the presence of the trail. The problems most commonly related by property owners were trespass and motor vehicle use of the trail. The study concluded that most property owners believed there were fewer problems after creation of the trail than before, and 92% felt the trail had either improved or had no effect on the quality of their neighborhoods. A follow-up study by the National Park Service in 1992²² reported that neighborhood perceptions of problems due to crime and/or nuisances were largely unchanged from the 1978 report.
- A similar result was observed in a 1990 USDA Forest Service study²³ of 19 trails in Illinois. While the study found that typical users did not perceive problems, respondents from urban settings reported slightly greater perception of problems than did those from suburban and rural greenways.
- A study of the Burke-Gilman Trail in Seattle²⁴ reported that homes bordering the trail actually had lower rates of burglary and vandalism than the neighborhood average.

2. Health and Fitness Benefits.

Trail activities such as walking, jogging or running, in-line skating, cross-country skiing, and bicycling are well documented to help improve health and fitness when done on a regular basis²⁵. Physical activity need not be unduly strenuous for an individual to reap significant health benefits. Even small increases in light to moderate activity, equivalent

²⁰ Tracy, T., and Morris, H. (1998). **Rail-Trails and Safe Communities: The Experience on 372 Trails. Rails-to-Trails Conservancy. Washington, D.C.: National Park Service.**

²¹ Correll, Lillydahl, and Singell. (1978). The Effects of Greenbelts on Residential Values: Some Findings on the Political Economy of Open Space. *Land Economics*, 54(2), pp. 207-217.

²² National Park Service. (1992). *The Impacts of Rail-Trails, A Study of Users and Nearby Property Owners From Three Trails. Rivers, Trails and Conservation Assistance Program.*

²³ Gobster, P. (1990). *The Illinois Statewide Trail User Study. Rails-to-Trails Conservancy. Chicago, U.S. Forest Service.*

²⁴ Seattle Engineering Department (1987). *Evaluation of Burke-Gilman Trail's Effect on Property Values and Crime. Seattle, WA. Office for Planning.*

²⁵ State of Indiana. (2000). *Indiana Trails Plan 2000.*

to walking for about 30 minutes a day, will produce measurable benefits among those who are least active. This health benefit accrues to the individual, and, in the form of reduced health-care costs, to society as well.

Many people realize exercise is important for maintaining good health in all stages of life, however many do not regularly exercise. The U.S. Surgeon General estimates²⁶ that 60% of American adults are not regularly active and another 25% are not active at all. In communities across the country, people do not have access to trails, parks, or other recreation areas close to their homes. Non-motorized trails provide a safe, inexpensive avenue for regular exercise for people living in rural, urban and suburban areas.

Exercise derived from trail-related activities lessens health related problems and subsequent health care costs. Regular, moderate exercise has been proven to reduce the risk of developing coronary heart disease, stroke, colon cancer, hypertension, diabetes, osteoporosis, obesity, and depression. This kind of exercise is also know to protect against injury and disability because it builds muscular strength and flexibility, which helps to maintain functional independence in later years of life²⁷.

A nationwide study on the cost of obesity²⁸ concluded that increasing participation in the amount of regular moderate activity by the more than 88 million inactive Americans over age 15 could reduce annual national medical costs by \$76 billion in 2000 dollars. A recently completed plan entitled, A Healthy Active Oregon: The Statewide Physical Activity plan, points out that the current epidemic of obesity has also hit Oregon hard²⁹. At 22%, our state has the highest percentage of adult obesity of any state west of the Rockies. Add that to 38% of Oregon adults and we have the startling total of 60% of Oregonians not at a healthy weight. Our youth follow closely behind, with 28% of eighth graders and 21% of eleventh graders currently overweight. The Statewide Physical Activity plan is a call to action for all who can have an impact on promoting daily physical activity to improve the health of Oregonians. The plan has identified the need for more community trails as a top priority.

The Oregon Outdoor Recreation Survey was conducted over a one-year period from February 2001 to January 2002 by Oregon State University's (OSU) College of Forestry as a part of Oregon Parks and Recreation's Statewide Comprehensive Outdoor Recreation planning effort. The findings of the Oregon Outdoor Recreation Survey³⁰ identified that the most popular everyday activities in Oregon are running and walking for exercise and walking for pleasure. According to the OSU report, these activities are generally engaged in near home, and on a regular basis. These findings help to make

²⁶ Benefits of Trails and Greenways. Trails and Greenways Clearinghouse.

²⁷ Centers for Disease Control and Prevention. (1996). Surgeon General's Report on Physical Activity and Health. Department of Health and Human Services. July 1996.

²⁸ Pratt, M., Macera, C., and Wang, G. (2000). Higher Direct Medical Costs Associated With Physical Inactivity. *The Physician and Sports Medicine* 28(10).

²⁹ Oregon Coalition for Promoting Physical Fitness (2003). A Healthy Active Oregon: The Statewide Physical Activity Plan.

³⁰ Johnson, R. (2002). Oregon's Statewide Comprehensive Outdoor Recreation Plan: Demand and Needs Analysis. Oregon State University, Department of Forest Resources.

the case that neighborhood trails are essential in providing all Oregonians with a means to realize the health and fitness benefits associated with daily exercise.

Finally, every year, premature deaths cost American companies an estimated 132 million lost workdays at a price tag of \$25 billion. Each year, finding and training replacements costs industry more than \$700 million. In addition, American businesses lose an estimated \$3 billion every year because of employee health problems (National Park Service, 1983). Providing close-to-home access to trails can encourage regular exercise, improve overall employee health and help to reduce these work-related costs.

3. Social Benefits.

Trail projects help build partnerships among private companies, landowners neighboring municipalities, local government, and advocacy groups. Each trail contains elements of local character and regional influence, and reflects the hard work, enthusiasm, and commitment of individuals, organizations, elected officials, and agencies. All are able to take pride in having worked together to successfully complete a trail project³¹. In addition, when residents are encouraged to become involved in a trail project, they feel more connected to the community³².

Because of their linear design, trails act as a meeting place for the community. As a result, trails promote family unity as well as strengthen friendships and neighbor relations. They are places where entire families, friends and neighbors can gather and recreate together safely.

Neighborhood trails can improve pride in a community in other ways as well. A trail that runs through a community often leads to the residents and business owners showing their "best side" by cleaning or fixing up their property. A popular and well-managed trail can also serve as a focal point for a community for special events and a gathering place. These activities can lead to greater interaction between residents and improve the cohesion of a community³³.

4. Educational Benefits.

Trails present a unique opportunity for education. People of all ages can learn more about nature, culture or history along trails. Of particular importance, trails provide firsthand experiences that educate citizens about the importance of the natural environment and respect for nature. This education can be accomplished using comprehensive trail guides, signage, public outreach, and informative classes to encourage awareness of the natural, cultural, and historical attributes of the trail.

³¹ National Bicycle and Pedestrian Clearinghouse (1995). The Economic and Social Benefits of Off-Road Bicycle and Pedestrian Facilities. NBPC Technical Brief. Technical Assistance Series, Number 2.

³² Warren, N. (1998). Nova Scotia Hiking Trails Study. Nova Trails Federation.

³³ State of Indiana (2000). Indiana Trails 2000.

Restricted budgets in schools across the nation have heavily affected transportation and have reduced educators' abilities to provide away-from-the-classroom learning experiences³⁴. As a result, trails are becoming more and more valuable as real-life outdoor laboratories for learning about the natural environment. Trails can provide a perfect classroom for the teaching biologist, botanist, and ecologist, both amateur and professional. Educators, naturalists, rangers and scoutmasters—all can demonstrate and illustrate their lessons along the trail³⁵.

5. Recreation Benefits.

Linear corridors offer several benefits over traditional park facilities³⁶. These benefits include providing greater perimeter area, multiple visitor experiences, increased access, and lower acquisition and development costs. Many trails have multiple recreation benefits such as providing access to fishing, vista points for photography, picnic areas for socializing, and camping areas. They also provide access to areas for enjoying solitude, observing wildlife and experiencing the natural environment³⁷. Finally, multiple-use trails serve a wide range of recreationists including bicyclists, walkers, joggers, equestrians, in-line skaters, people in wheelchairs, hikers, bird-watchers, parents with strollers, picnickers, and people who just want to sit in the sunshine.

6. Environmental Benefits.

Trails can be an integral part of our natural environment and should be used as a tool for conservation. Trails can be planned to assist with preserving important natural landscapes, providing necessary links between fragmented habitats and providing tremendous opportunities for protecting plant and animal species. Increased development has contributed to the creation of habitat "islands"—isolating wildlife, reducing their natural habitats and survival. Trails with sufficiently wide corridors of natural area can provide that important link between these island populations and habitats and increase the available land to many wildlife species³⁸.

In addition, trails can help improve air and water quality. Trails provide enjoyable and safe options for transportation, which helps reduce air pollution³⁹. They can also improve air quality by protecting the plants that naturally create oxygen and filter out air pollutants. By protecting land along rivers and streams, trails prevent soil erosion and filter pollution caused by surface runoff.

³⁴ Federal Highway Administration (1992). Transportation Potential and Other Benefits of Off-Road Bicycle and Pedestrian Facilities. U.S. Department of Transportation. Case Study No. 7. Publication No. FHWA-PD-92-040.

³⁵ North American Water Trails, Inc. Why Water Trails?

³⁶ Federal Highway Administration (1992). Transportation Potential and Other Benefits of Off-Road Bicycle and Pedestrian Facilities. U.S. Department of Transportation. Case Study No. 7. Publication No. FHWA-PD-92-040.

³⁷ State of California. (2001). California Recreational Trails Plan. Department of Parks and Recreation.

³⁸ San Diego County. Five-Year Strategic Plan. Appendix C.

³⁹ Practical Horseman (2002). Ride Where Trains Once Rolled.

7. Preserving our History and Culture.

Trails have the power to connect us to our heritage by preserving historic places and by providing access to them⁴⁰. They can give people a sense of place and an understanding of the enormity of past events, such as Native American trails, the Lewis and Clark expedition, westward migration along the Oregon Trail and accessing historic sites throughout the state. Special events such as the previously mentioned Oregon Trail Sesquicentennial celebration help to point out the importance of historic trails to all Oregonians. In addition, other trails preserve transportation corridors. Rail-trails along historic rail corridors (e.g. the OC&E-Woods line Trail in Klamath Falls) provide a glance at the importance of this mode of transportation.

⁴⁰ Trails and Greenways Clearinghouse. Benefits of Trails and Greenways.