



2019 Research Executive Summary

Economic and Health Benefits of Walking, Hiking and Bicycling on Recreational Trails in Washington State



WASHINGTON STATE
Recreation and
Conservation Office



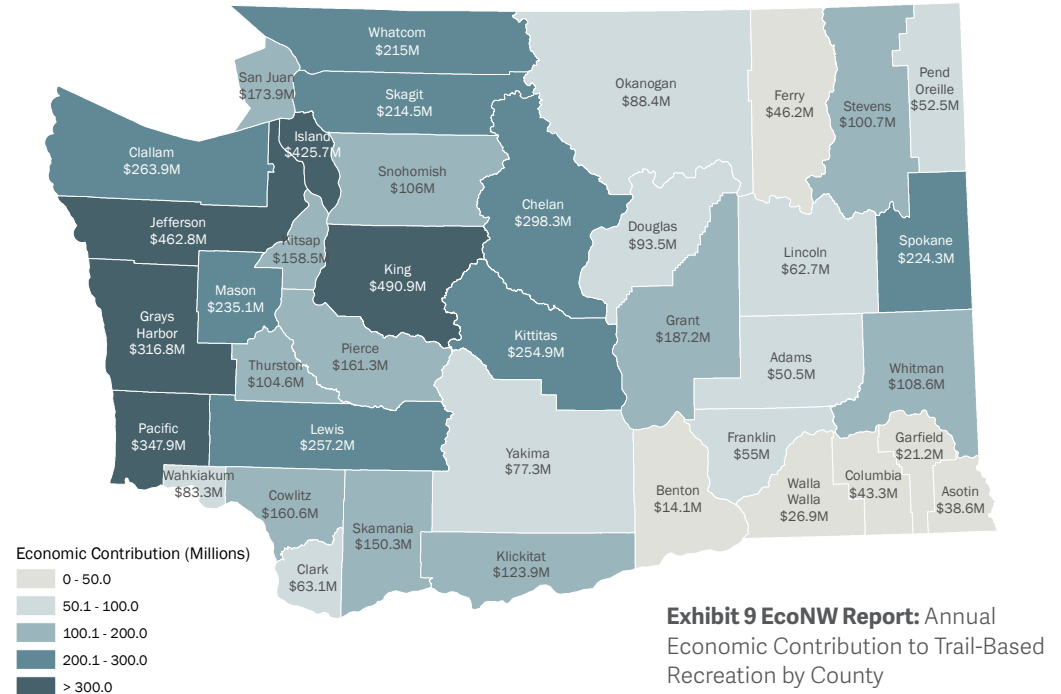
Economic and Health Benefits of Walking, Hiking and Bicycling on Recreational Trails in Washington State

It is time to think about trails as more than a privilege we enjoy from time to time, and to begin to understand the extent of monetary, health and environmental benefits trail systems provide Washington state. The analysis on the benefits of trails¹ facilitated by the Recreation and Conservation Office clearly demonstrates that trails are strong economic and health improvement drivers for every corner of Washington.

*Every county in Washington state benefits from walkers, runners, bikers and backpackers using our beautiful trail systems. Ninety percent of Washington residents participate in non-motorized recreation annually² with **each legislative district benefiting from between 2.1 and 27.2 million visits to their trails each year.***



Mountain bikers at Grand Ridge Park. Photo by Emma



This type of recreation directly and indirectly improves local economies, decreases health care-related costs by improving overall health and helps protect our wild spaces.

- Trails contribute over \$8.2 billion to Washington state's economy and support over 81,000 jobs each year
- Trail use results in over \$390 million in health savings each year
- Trail-based activities can improve physical and mental health, especially for children and communities at a higher risk of illness and chronic stress

¹ "Economic, Environmental and Social Benefits of Recreational Trails in Washington State." ECONorthwest, 2019. "Health Benefits of Nature Contact." University of Washington, 2019.

² Washington State Recreation and Conservation Office. (2013). *The 2013 State Comprehensive Outdoor Recreation Plan*. Retrieved from https://www.rco.wa.gov/documents/rec_trends/2013-2018SCORP-FullRpt.pdf



Physical Health Benefits

Trail-based activities offer numerous health benefits including **improved cholesterol levels and protection against chronic diseases like cardiovascular disease, diabetes and obesity.**⁴ With 27.7% of Washington adults being obese and another 34.5% overweight, access to trails has never been more important to the overall health of Washington constituents.

Physical health benefits generate economic value based on the direct cost of illness savings and loss of productivity that occurs while dealing with an illness. The accompanying research indicates that Washington residents may **save over \$390 million each year** due to the increased activity from using trails. In fact, physically active adults have approximately 30% lower health care costs than inactive adults.⁵ These savings benefit participants, health insurers and health care providers.

In addition, lower income communities face more significant health challenges, and more barriers to accessing trails than more affluent areas. **Improving access and decreasing barriers to trails for these communities could help close the health gap in Washington state.**



Mental Health Benefits

Outdoor exercise has been demonstrated **to improve mood, restore attention, and decrease anger, depression and stress.** This is critical as Washington reports higher levels of adults suffering from some form of depression or mental illness and children reporting more major depressive episodes each year than the national average.⁶ **Children may particularly benefit from physical activity in nature as it is more conducive to social play, emotional development and improved cognitive function than indoor activity.**⁷

It is difficult to monetize the mental health benefits of trails, and therefore potential savings from mental health costs are not included in the health savings projections. However, this does not diminish the true value trails provide in addressing a growing health concern for our state.

The impact on jobs and the economy

Trail users benefit local economies in a myriad of ways including spending money on transportation, lodging, entry fees, food and supplies, equipment and other necessities. This type of spending has a ripple effect throughout the economy by increasing the demand for supply chain products and services and increasing spending from employer and employee households who directly benefit from trail-related products and services.

The ECONorthwest study estimates **\$8.2 billion in economic contributions** to Washington state from trails every year. This represents **approximately 1.45% of Washington's 2018 gross domestic product**, which, to put in context, is 11 times larger than commercial logging and 7 times larger than breweries contribute to our economy each year.³

³ Federal Reserve Bank of St. Louis. (2019). Total Gross Domestic Product for Washington (WANGSP). May 31. Retrieved from <https://fred.stlouisfed.org/series/WANGSP>.

⁴ Albright & Thompson, 2006; Ball, Bauman, Leslie, & Owen, 2001; Parkkari et al., 2000

⁵ Pratt, M., Macera, C. A., & Wang, G. (2000). Higher direct medical costs associated with physical inactivity. *Physician and Sports Medicine*, 28(10), 63-70.

⁶ Centers for Disease Control and Prevention, 2015; SAMHSA, 2015a and 2015b

⁷ Bodrova & Leong, 2005; Gray et al., 2015; Rivkin, 1995

Additional benefits of trails

Environmental Impacts of Trails

Although trails themselves do not provide significant environmental benefits, they have a lasting impact by preserving natural spaces from other uses like deforestation, developments for commercial or residential use and protecting ecological systems vital to the health of Washington forests and wild places that make this state such an amazing place to live and work.

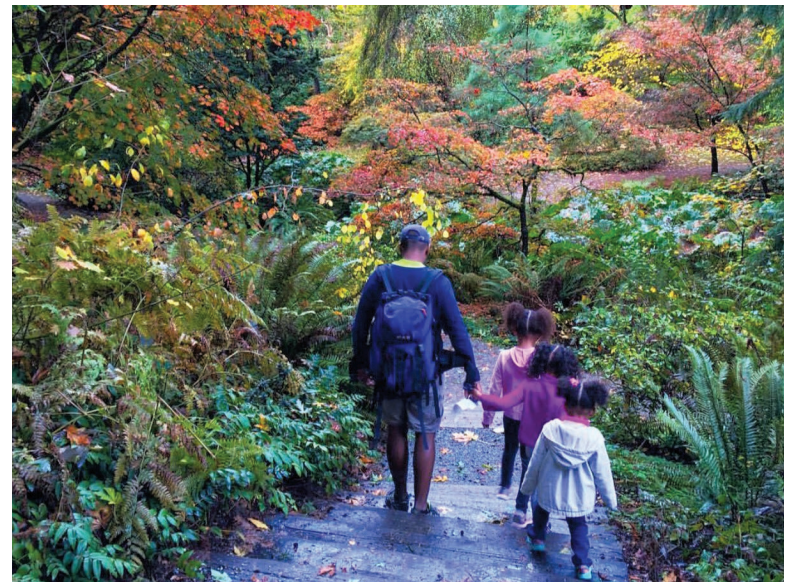
Trails typically provide protected corridors of natural space that are invaluable resources for environmental benefits like carbon sequestration, air filtration and habitats for various plants and animals. Using a conservative valuation model, **the study estimates the 332,000 acres of U.S. Forest Service land that is forested, not in a wilderness area, and near a trail provides more than \$5.9 billion in environmental benefits.**

Residential and Business Location Decisions Based on Quality of Life Factors

Although difficult to monetize, trails provide a key factor in improving the quality of life for those living and working nearby. Businesses who are trying to recruit and retain employees in sectors like technology, research and development or other professional services have prioritized quality of life as an important factor in deciding where to locate or expand their operations.⁸

Trails are a way Washington communities set themselves apart in attracting and retaining businesses that have a significant impact on their local economies and expand their tax base.

⁸ Reilly, C.J. and Renski, H. (2008). "Place and Prosperity: Quality of Place as an Economic Driver." *Maine Policy Review*, 17(1),12-25.



Above: Cyclists on the Alki Trail in West Seattle. Photo courtesy People for Bikes.
Below: A family explores Washington Park Arboretum. Photo by Gisselle Pichardo.

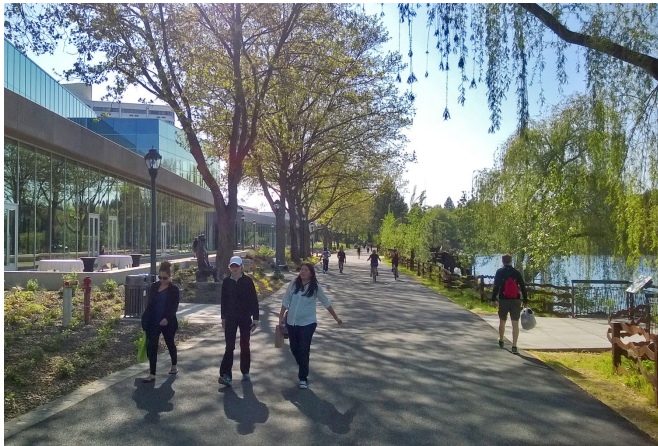
Case Study Highlights:
An Economic Tale of Two Trails

The study looked at two different trails to illustrate the economic and health-savings impacts of trails: the Spokane Centennial Trail and the Lake Serene Trail in the Mt. Baker-Snoqualmie National Forest. The first trail, being a trail that connects an urban center to rural areas, is mostly a residential-use trail and the second a rural, destination trail—both provide an important glimpse into the local economic benefit of a single trail.

The following chart outlines the estimated annual economic value the two different trails provide the local community when the trails are open and well-maintained throughout the year.

| Impact Type | Centennial Trail Annual Value | Lake Serene Trail Annual Value |
|-----------------------------|-------------------------------|--------------------------------|
| Local Economic Contribution | \$1.7 million | \$834,000 |
| Total Labor Income | \$594,000 | \$314,000 |
| Health Savings | \$1.6 million | \$38,000 |

These studies highlight the importance of every trail and the potential negative economic and health impacts that losing a trail can have on local communities across Washington. For example, there would be **a potential \$834,000 loss in visitors** contributing to the local economy due to the closure of a trail like Lake Serene.



Centennial Trail, Spokane



Lake Serene, Mt. Baker Snoqualmie National Forest

Photos courtesy Wikipedia/Jdubman and Lukasz Grabarski

Policy Recommendations

The following policy recommendations will build on the current success trails have on local Washington communities across the state and expand the economic, health and environmental benefits of trails.

1. Encourage Development of New Trails & Improve Quality of Existing Trails

Build new trails and trailheads in areas where there is high use of other trails or a scarcity of trails. Maintain and improve the quality of trails to improve the experience of the user and therefore be a source of high value and benefits.

2. Develop State-Wide Permitting Requirements

Requirements for building new trails varies across the state. A state-wide permitting process and set of clear trail language definitions would greatly improve the prospect of building new trails.

3. Conduct Comprehensive Planning for Trails

Long-term, state-wide trail planning, similar to what is done for roads, could help address congestion and areas of future population growth to maximize the future benefits of trails.

4. Encourage Development of Trails that Promote Multi-Day Trips

Dollars spent on overnight trips are significantly higher than on day trips. Therefore connecting existing trails and allowing for more camping would increase the economic benefits to local communities.

5. Encourage Visitation by Adding New and Improving Existing Amenities

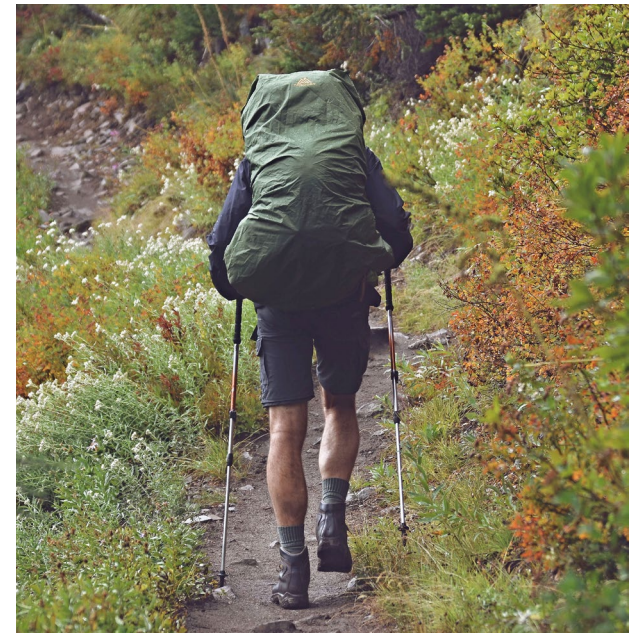
Amenities like maps, bathrooms, ample parking, water fountains and views improve the quality of trails and in turn increase visitation. A plan to address scarcity of amenities is needed.

6. Use Trails as a Health Intervention Strategy

Increased access to trails for populations vulnerable to health issues could have a major impact on overall health and could include public transportation to trails and subsidizing trail fees.

7. Improve Data Collection of Trail Usage and Create Consistency

Participant use and economic benefit analysis is limited by the quantity and quality of data available. Therefore increasing survey samples and improving existing surveys is recommended.



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Economic and Health Benefits of Walking, Hiking and Bicycling on Recreational Trails in Washington State Advisory Committee

Evergreen Mountain Bike Alliance

Cascade Bicycle Club

U.S. Forest Service

Washington Governor's Office

Washington State Parks

Yakima Valley Conference of Governments

Other firms, agencies and staff contributed to other research that this analysis relied on.

Background:

The funding for this project was passed by the legislature as part of the 2018 supplemental operating budget. The two reports were developed by ECONorthwest and the University of Washington. The economic and health savings data was calculated utilizing a combination of survey, on-site counts, economic models and third-party research.

There have been several studies and surveys that assess the number of people and visits to trails in Washington state each year, but this is one of the first substantial undertakings in understanding the economic, health savings and environmental benefits of trails to date.



Talapus and Olallie Lake Trail. Photo by Rafael Reese.



Big Four Ice Caves. Photo by Luke Radford.

Cover photos courtesy Jason Prater, Amira Ahmad, Tara Weber