

# LEELANAU & SLEEPING BEAR HERITAGE TRAIL

HEALTH, BUSINESS, AND VISITOR ASSESSMENT



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## INTRODUCTION & PURPOSE OF STUDY

Multi-use trail systems provide a variety of benefits to the community and region. This study specifically focuses on the health, economic, and visitor use benefits of two multi-use trail systems in the Traverse City region, managed by Traverse Area Recreation and Transportation (TART) Trails, Inc: the Leelanau and Sleeping Bear Heritage Trail. The purpose of this study is to understand the direct and indirect benefits of these two trail systems and the role of TART Trails in providing these benefits, as well as how overall community and regional factors affect the impact of the trail. This study captures the diversity of opinions for three major stakeholders: trail users, health care professionals, and the business community.

## METHODOLOGY

**Visitor assessment surveys.** To sample current users of the Leelanau Trail and Sleeping Bear Heritage Trail, paper surveys were used, and trail users were intercepted at multiple access points. The survey was based on TART Trails previous survey template and was edited by the researchers to include recreation motivations, sought after experiences, and economic valuation questions.

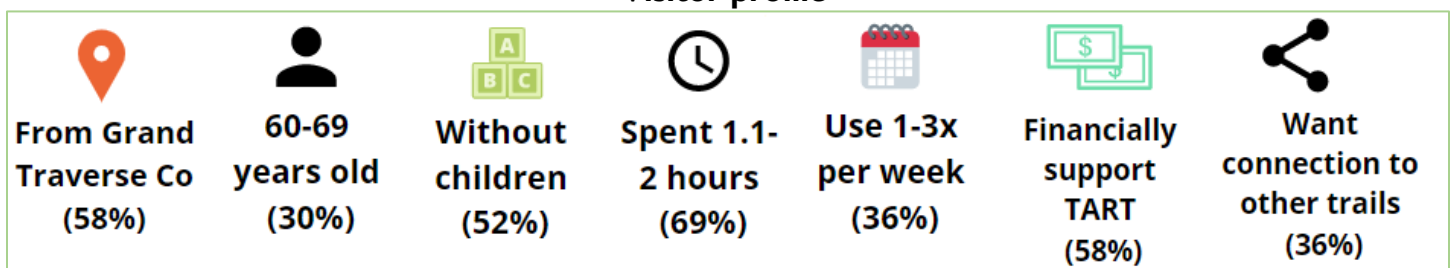
**Health and business interviews.** Major topics addressed in the business interviews included potential community and economic benefits, access and characteristics of trails, impact to local economy and business practices, and the policy environment surrounding the trail systems. Topics for the health interviews included potential community and health benefits, access and characteristics of the trail that condone physical activity, impact to community and individual health, and health and local policy environment. Interview protocols for business and health interviews were created based on the research objectives of the study, as well as heavily relying on the theory of ecological models of active living communities (Sallis et al., 2006). Data were coded according to the ecological model of active living communities. Main themes are identified and supported with key quotes from interviewees.

## RESULTS

### Visitor assessment surveys

#### Leelanau Trail

#### Visitor profile



### Why Do They Use the Leelanau Trail?



Exercise



Be healthier



Enjoy scenery



Relax physically

### How Does the Leelanau Trail Benefit the Area?



Promote outdoor lifestyle



Reduced health costs










Physical and mental health



Family and friends

### Sleeping Bear Heritage Trail

#### Visitor profile

						
From other Co in MI (45%)	60-69 years old (36%)	Without children (52%)	Spent 1.1-2 hours (57%)	Use >1x per month (56%)	Financially support TART (25%)	Want connection to other trails (47%)

### Why Do They Use the Sleeping Bear Heritage Trail?



Enjoy scenery



Exercise



Experience nature



Be healthier

### How Does the Sleeping Bear Heritage Trail Benefit the Area?



Promote outdoor lifestyle



Physical and mental health



Family and friends



Reduced health costs

### Local Business and Economic Benefits

Local business participants were asked to rank the benefits associated with the Leelanau and Sleeping Bear Heritage Trail systems in terms of what they think the trails bring to their community. Business participants believe that trail systems help provide a sense of pride to a community, and they believe the Leelanau and Sleeping Bear Heritage trail systems are succeeding in this benefit, rating it the most important benefit of the trails. They do believe trails contribute to direct economic benefits (e.g., “increasing local customers” and “tourism dollars”), but they did not see trail systems as an opportunity for more indirect economic benefits, like “work productivity.”



The following themes and quotes were identified from business participant interviews:

<b><i>Sense of community and outdoor culture</i></b>	<ul style="list-style-type: none"> <li>• Business participants voiced the importance of the small-town character of their communities and the sense of pride that comes with being a local business owner, manager, or employee, and a citizen of the community. The responses not only show the acceptance from most business participants for the trail, but that each trail showcases their community in a positive light and provides a space for community bonding and social cohesion.</li> </ul>
<b><i>Boost to local business seasonality</i></b>	<ul style="list-style-type: none"> <li>• Owners described how the ability for people to use the trail into the winter season provided an important economic benefit and affected how they conducted business. The trails are the primary economic drivers during the off-season in winter. Business participants in Empire and Glen Arbor were more likely to mention the increase in trail use and expansion of seasonality from the Sleeping Bear Heritage Trail.</li> </ul>
<b><i>Trails increase traffic to businesses</i></b>	<ul style="list-style-type: none"> <li>• Business participants find a linkage between increased sales and traffic to their stores. The trail systems add another layer of attractions that pulls tourists and locals to the nearby communities, giving their local businesses exposure simply being near the trail systems.</li> </ul>
<b><i>TART Trails as a community partner</i></b>	<ul style="list-style-type: none"> <li>• There is a consensus that TART Trails is a partner in the community that is active in overseeing the Leelanau and Sleeping Bear Heritage Trail, and incorporating the needs of community members and business leaders. TART Trails is the dominant organization that advocates for an active living community through their organizational mission- Enriching the Traverse region by providing a network of trails, bikeways and pedestrian ways; and encouraging their use.</li> </ul>

### Average Annual Direct Expenditures for Trail Use

<b>\$71,238.44</b>  Leelanau Trail	<b>\$3,326,294.00</b>  Sleeping Bear Heritage Trail
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## Health Benefits

Health participants were asked to rank what their ideal trail system would provide in terms of health benefits on an individual and community level. Then, they were asked to rank the same benefits, except thinking about the trail in question, either the Leelanau or Sleeping Bear Heritage Trail. The results of the top four health benefits the trails provide are listed below. Like the business participants, health professionals believe the local trail systems provide almost the exact ideal benefits that local health professionals desire.



The following themes and quotes were identified from health participant interviews:

### *Direct health benefits from walking and cycling on the trail*

- All health participants agreed that simply walking was the activity that provided the most health benefits from the trails. Ninety-two percent of health participants voiced the importance of biking on the trail, stating that biking providing more aerobic capacity exercise than walking. Direct health impacts range from mental and social bonds, to community cohesion, to the well-studied physical benefits such as increase in aerobic activity and decreasing diabetes rates in the region.

### *Both trail systems are highly accessible for all*

- All health participants reached the same consensus about the Leelanau and Sleeping Bear Heritage Trail- residents should easily be able to access the trails, which will help improve their health. There are multiple access points, unchallenging terrain, and affordable for all.

### *Trails provide preventative health benefits*

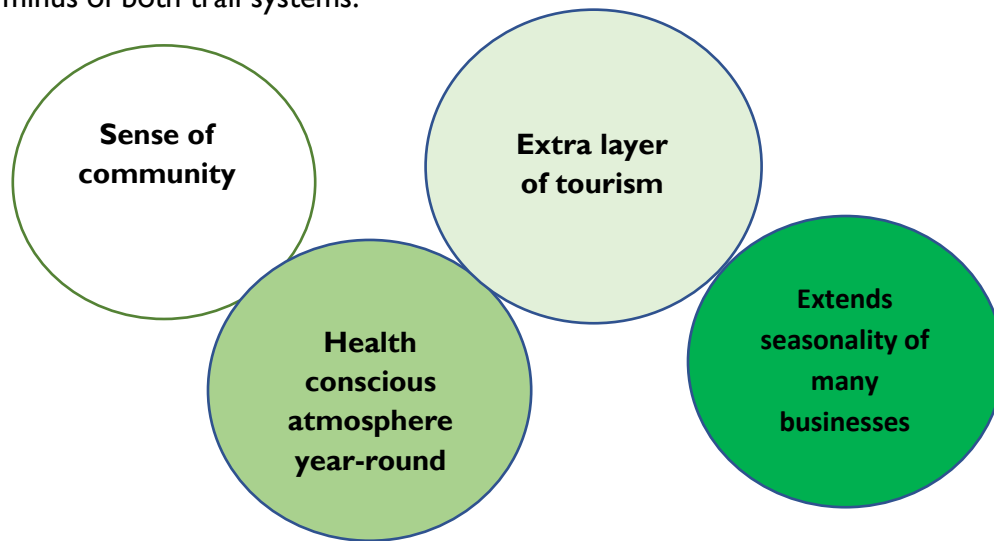
- There is an agreement about the preventative health benefits the trail systems have the potential to bring, and already bring, to the current users of the trail but that the nature of the health profession hinders physicians from encouraging these preventative approaches because they are focused on being reactive to time-sensitive treatments.

### *Potential for partnerships with the trails and health organizations*

- The potential for partnership discussed by health participants can provide an alley way into promoting trail use to those patient populations who are not already incorporating trail activities into their lives. Health participants are encouraged that connecting their patients with the trail system can increase health benefits to the community.

## IMPLICATIONS

Overall, the results from the interviews and visitor assessment surveys indicate the importance of the Leelanau and Sleeping Bear Heritage Trail systems for the multitude of economic and health benefits they provide, but also from the **sense of community** and **extra layer of tourism** the trails give the local community. The trails allow the community to showcase the natural resources that make this area unique and ultimately bring outside visitors to the businesses, and create a **health conscience atmosphere year-round**, with the availability of both summer and winter activities that **extend the seasonality of many businesses** located at the terminus of both trail systems.



The Leelanau Trail system is **not** a tourism-driven or trail frequently used by families with children, whereas the Sleeping Bear Heritage Trail **is** a largely tourism-based destination trail that works in tangent with the Sleeping Bear Dunes National Park system. The Leelanau Trail is a **frequently used trail for locals** for exercise and relaxation, as well as an avenue for nature appreciation. The Sleeping Bear Heritage Trail is used **by non-local residents** for the same reasons as the Leelanau Trail. Both trails are extremely **accessible** in terms of users with physical disabilities, families with children, and low income or minority populations. These trail systems are providing preventative health benefits for current users. TART Trails is an important and trusted community leader that has a good relationship with local businesses and residents and could help bridge the gap between health professionals and outdoor trail use.

**"Our research shows that TART trails are providing the benefits we would expect any trail system to provide, like appreciation of nature and access to scenic views. But, the Leelanau and Sleeping Bear Heritage trails go above and beyond those benefits, helping to improve citizens' health and providing direct economic value to local businesses. The investment put into these trails will only magnify these benefits and the community recognizes that more trails will result in more benefits."**

Taylor Stein, Professor of Ecotourism & Outdoor Recreation

### Similar Studies for Economic and Health Benefits of Multi-use Trail Systems

#### Health Benefits

The results from the health interviews indicate that both the Leelanau and Sleeping Bear Heritage Trail are providing a full spectrum of health benefits - ranging from physical and mental health, to social cohesion and family bonding. Three studies that quantified the health benefits of comparable multi-use, paved trail systems in other areas the US help to highlight the potential health impacts of the Leelanau and Sleeping Bear Heritage Trail.

- Oregon's **2018 Health Benefit Estimates from Outdoor Recreation**<sup>1</sup> report found the average cost of illness savings from various activities across a variety of different activities on local trails:

Activity	Energy Expended, Per User Occasion, kCal	COI Savings, Total Annual (\$million)	COI Savings, Annual/ Participant	COI Savings, Per User Occasion
Walking on local trails/paths	508	\$71.60 - \$125.86	\$71.06 - \$125.86	\$71.60 - \$125.86
Jogging/running on trails/paths	1,307	\$10.43-\$64.72	\$17.48-\$93.52	\$0.70-\$3.74
Bicycling on paved trails	680	\$15.42-\$15.84	\$15.69-\$18.70	\$0.59-\$0.70
Cross-country/Nordic skiing on groomed trails	1,340	\$0.52-\$4.41	\$3.19-\$23.30	\$0.49-\$3.57

COI = Cost of Illness

- A cost-effectiveness ratio was conducted on a rail-trail in Morganstown, Virginia comparing the cost of maintenance and creation of trails to implementing a public health program. This study found that maintenance and costs of the Leelanau and Sleeping Bear Heritage Trails (\$58.24; \$45.83 per person) **is considerably less than** the cost of a public health program (\$206-\$905 per person).<sup>2</sup>
- A study in Lincoln, Nebraska also estimated a cost-benefit ratio of using bike and pedestrian trails and found that for every \$1 invested in trails for physical activity, it led to \$4.64 per person in direct medical benefit.<sup>3</sup>

#### Economic Benefits

There is a consensus in the local business community that the Leelanau and Sleeping Bear Heritage Trail have a positive, direct effect on local businesses. Because of this agreement, we can connect these results to similar studies that implemented economic impact analysis on the local businesses nearby rail-trails. This table summarizes four studies across the country:

Location	Trail	Urban or rural trail	Number of visitors	Length of trail (miles)	Economic impact from direct spending (in millions of dollars per year)
LA	Tammany Trace	Urban-rural	227,893	31	2.8 million <sup>4</sup>
VA	Virginia Creeper Trail	Rural	101,537	34	1.2 million <sup>5</sup>
CA	Lafayette-Moraga	Rural	Unknown	7.7	1.9 million <sup>5</sup>
IA	Heritage	Rural	135,000	26	4 million <sup>5</sup>

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- <sup>1</sup> Rosenburger, R.S. & Dunn, T. (2018) Oregon outdoor recreation metrics: Health, physical activity, and value, *2019-2023 Oregon Statewide Comprehensive Outdoor Recreation Plan Supporting Documentation*, Oregon Parks and Recreation.
- <sup>2</sup> Abildsco, C.G., Zizzi, S.J., Selin, S., & Gordon, P.M. (2012) Assessing the cost-effectiveness of a community rail-trail in achieving physical activity gains, *Journal of Park and Recreation Administration*, 30(2), 102-113.
- <sup>3</sup> Wang, G., Macera, C.A., Soucie, B.S., Schmid, T., Pratt, M., & Buchner, D. (2005) A cost-benefit analysis of physical activity using bike/pedestrian trails, *Health Promotion Practice*, 6(2), 174-179.
- <sup>4</sup> Hammons, H.T. (2015) Assessing the economic and livability value of multi-use trails, *Thesis to the University of Oregon Department of Planning, Public Policy and Management*.
- <sup>5</sup> Bowker, J.M., Bergstrom, J.C., & Gill, J. (2007) Estimating the economic value and impacts of recreational trails: A case study of the Virginia Creeper Rail Trail, *Tourism Economics* 13(2), 241-260.



# Leelanau & Sleeping Bear Heritage Trail Benefit Study

## Health Benefits

Health professionals believe the local trail systems are efficient and effective in providing opportunities for valuable and important health benefits.

The following themes were identified:

### 1 TRAILS PROVIDE PREVENTATIVE HEALTH BENEFITS

Health professionals agree that TART Trails are key in providing preventative health benefits to current users of the trails. They also agree that the trails could provide preventative benefits to a wider population, but they struggle to identify how their profession can promote preventative health benefits of the trail to non-users.

### 2 DIRECT HEALTH IMPACTS FROM TRAIL ACTIVITIES

Direct health impacts range from mental and social bonds, to community cohesion, to the well-studied physical benefits, such as, increase in aerobic activity and decreasing diabetes rates in the region.

### 3 BOTH TRAILS HIGHLY ACCESSIBLE FOR ALL

Healthcare professionals believe Leelanau and Sleeping Bear Heritage trails are easily accessible and provide easy opportunities for people to use to improve their health. There are multiple access points, unchallenging terrain, and the trails are affordable to all.

### 4 POTENTIAL FOR PARTNERSHIPS WITH HEALTH ORGANIZATIONS

Health participants highlighted the great potential for more partnerships between diverse organizations to promote trail use among diverse populations.

### 5 INCREASING NUMBER OF CITIZENS DOING AEROBIC EXERCISE

Health participants stressed that use of the trail systems increase the number of citizens receiving important aerobic exercise benefits, which they normally would not be able to attain. The trail systems can provide for other important health benefits (e.g., reducing obesity), but increased promotion is needed.

### FOR THE LEELANAU AND SLEEPING BEAR HERITAGE TRAILS...

Maintaining trails are a cost-effective method to help citizens become more active.

Research shows that **\$104 investment in trail maintenance** of the LT and SB trails is equivalent to a **\$555 investment in a public health program.**

Abildsco et al., 2012

### ANOTHER STUDY IN LINCOLN, NEBRASKA FOUND...

A cost-benefit ratio of 4.64:1

Every **\$1** invested in trails led to **\$4.64** in direct medical benefit per user/occasion

Wang et al., 2005 Lincoln, NE



# Leelanau & Sleeping Bear Heritage Trail Benefit Study

## Business Benefits

Business participants believe that trail systems help provide a sense of pride to a community, which was the most important benefit of Leelanau and Sleeping Bear Heritage trail. They believe trails contribute to direct economic benefits (like “increasing local customers” and “tourism dollars”).

The following themes were identified:



## AVERAGE ANNUAL DIRECT SPENDING FOR TRAIL USE

Leelanau Trail: \$71,238.44

Sleeping Bear Heritage Trail: \$3,326,294.00

### 1 TRAILS INCREASE TRAFFIC TO BUSINESSES

Business participants find a linkage between increased sales and traffic to their stores. The trail systems add another layer of attractions that pulls tourists and locals to the nearby communities, giving their local businesses exposure simply being near the trail systems.

### 2 BOOST TO LOCAL BUSINESS SEASONALITY

Owners described how the ability for people to use the trail into the winter season provided an important economic benefit. The trails are the primary economic drivers during the off-season in winter. Business participants in Empire and Glen Arbor were more likely to mention the increase in trail use and expansion of seasonality from the Sleeping Bear Heritage Trail.

### 3 SENSE OF COMMUNITY AND OUTDOOR CULTURE

Businesses expressed the importance of the small-town character of their communities and the sense of pride that comes with being a local business owner, manager/employee, and citizen of the community. This shows the acceptance from most business participants for the trail and each trail showcases their community in a positive light and provides a space for community bonding and social cohesion.

### 4 TART TRAILS AS A COMMUNITY PARTNER

TART Trails is a partner in the community that remains active in overseeing the Leelanau and Sleeping Bear Heritage Trail, while incorporating the needs of community members and business leaders. TART Trails is the dominating organization that advocates for an active living community through the completion of their organizational mission - Enriching the Traverse region by providing a network of trails, bikeways and pedestrian ways; and encouraging their use

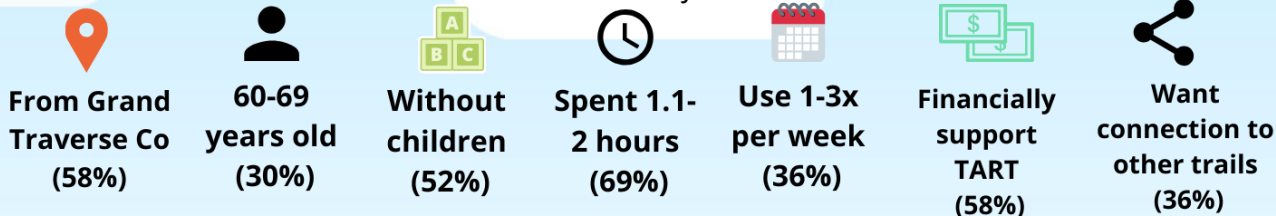


# Leelanau & Sleeping Bear Heritage Trail Benefit Study

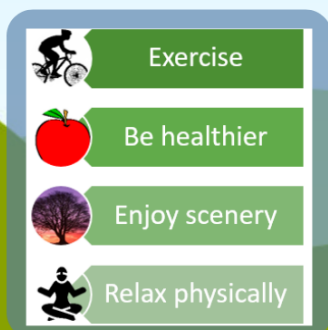
## Summer Visitor Assessment

### LEELANAU TRAIL

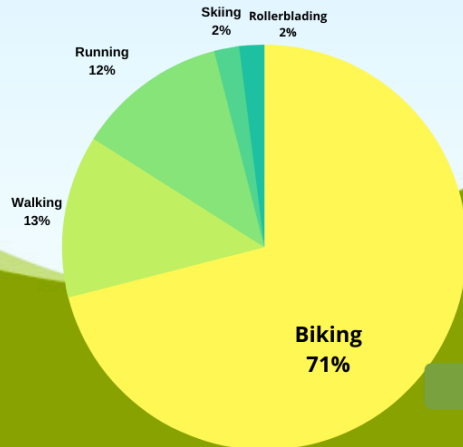
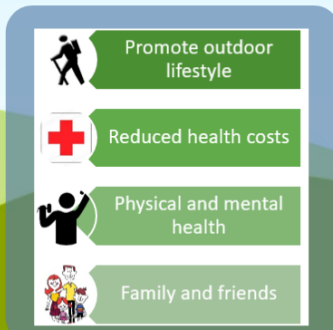
#### Visitor Profile...



#### Why Do They Use the Trails?

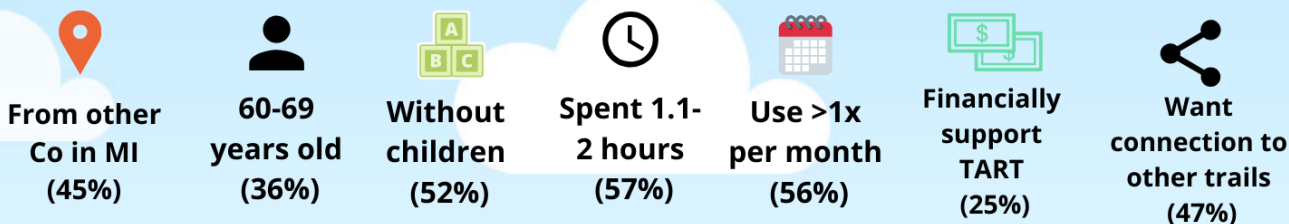


#### How Do the Trails Benefit the Area?



### SLEEPING BEAR HERITAGE TRAIL

#### Visitor Profile...



#### Why Do They Use the Trails?



#### How Do the Trails Benefit the Area?

