

DEC 10 2024

### **Ongoing Trail Maintenance Activities on Lebanon's Trail System**

Build Lebanon Trails (BLT) is celebrating our 20-year history of building and maintaining Lebanon's Trails.

BLT holds regularly scheduled work days on the trail system which include daily visits to pick up litter and remove all graffiti. BLT volunteers have created five quick response graffiti removal teams (The Wipe Outs) who patrol and respond to tagging within 24 hours and remove the tags quickly. The Wipe Outs challenge trail users to report all graffiti immediately and then recheck the area in 24 hours to verify the tags have been removed. BLT volunteer groups take pride in their work and have named their teams. The Sign Ups install new and maintain existing trail signs and wayfinding information along the trail system. The Water Brigade waters all new trees, three years and younger, every Thursday in summer months. BLT has planted over 350 trees along the trails and will add more trees along the Georgia Pacific Mill Race Trail (GPMRT) project during construction. The Work Outs organize regular trail maintenance workdays year-round. The Dry Hards patrol wet concrete trail pours, even overnight, to protect fresh concrete from damage from wildlife, and not so wild, human encroachment. The Sit Arounds have installed fifty-three trailside benches to-date with more new benches scheduled for installation on the GPMRT in the Spring of 2025. There are still more BLT volunteer groups who walk the trails every day to ensure the trail system stays well maintained for all to enjoy. In addition, BLT is funding a temporary City trail maintenance worker who completes trail maintenance.

### **Public Benefits From Trails**

The following information refers to studies and data that demonstrates public benefits of trails, and debunking the myth of negative impacts to the community and nearby properties.

Quoted from PBOT, Portland Bureau of Transportation, Document dated February 8, 2023. Subject: Addressing Title 33.430.250.C.2. Identifying that the public benefits of the proposal outweigh all significant detrimental impacts for E07383.

"Potential Detrimental Impacts Negative concerns pre-construction are common to US trail projects. Such concerns are not realized. Some residents proximate to the proposed trail connection have expressed strong concern about potential detrimental impacts associated with its development. These include with undesirable actions resulting from increased active transportation access to their neighborhood. These concerns are common to US trail projects and have been well documented—and consistently debunked—through both academic research as well as by the Rails-to-Trails Conservancy. Rails-to-Trails has been advocating and

assessing the impacts of trails in the US since 1986. Some common concerns expressed pre-implementation to trail projects by those living closest to them: Crime. Vandalism. Drug Use. According to multiple articles by Rails-to Trails such concerns did not materialize, while benefits did, including increased access to nature, health and increased property values.”  
<https://www.portland.gov/transportation/bicycle-committee/documents/pbot-memo-bes-supporting-benefits-trail-connection/download>

## **History**

The properties where this proposed trail will be built were unmaintained for decades. This trail project, when completed, will be deeded to the City of Lebanon. All City of Lebanon Public Trails are well maintained and regularly patrolled.

## **Case Studies Identifying Standard Practices on Trail Width**

There are many local and national examples of 10-foot-wide trail standards. Below are only a few of the available examples:

Portland.gov: Trails should be 4–10 ft wide, with passing areas.

WSDOT Shared-use paths: The WSDOT Shared-Use Design Manual recommends a minimum paved width of 10 feet and a desirable width of 12 feet, excluding shoulders.

AASHTO Multi-use trails: The American Association of State Highway and Transportation Officials (AASHTO) recommends a minimum width of 10 feet, but 12 to 14 feet is recommended for areas with heavy use.

AASHTO Rural paths: Paths in rural areas should be 10 to 12 feet wide to maintain scenic qualities while still allowing for passing and social experiences.

AASHTO: The minimum paved width for a two-way multi-use trail is 10 feet (3.0 m), according to the American Association of State Highway and Transportation Officials.

Federal Highway Administration (FHWA) under Width and Clearance states: The paved width and the operating width required for a shared use path are primary design considerations. Figure 17 depicts a shared use path on a separated right of way. Under most conditions, a recommended paved width for a two-directional shared use path is 3.0 m (10 feet). In rare instances, a reduced width of 2.4m (8 feet) can be adequate.

# Lebanon Trails Strategic Plan

Draft July, 2009



## INTRODUCTION

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### TRAIL AND PATHWAY DEVELOPMENT

Trails and pathways are an important component of the *City of Lebanon Parks Master Plan*, adopted by the City of Lebanon in March 2006. The goal contained within that plan regarding trail and pathway development is as follows:

*“Goal 6: Trails and Pathways. Develop pedestrian paths and trails along street rights-of-way, utility corridors, greenways, rivers, and park access routes linking open spaces, residential neighborhoods, existing parklands, places of commerce, public facilities, civic buildings, and school sites.”*

The following passage is the definition for trails and pathways used within the *City of Lebanon Parks Master Plan*:

*“Trails and Pathways are public access routes and trail-oriented recreational activities including sidewalks, bikeways, multi-use trails and paths. These emphasize safe travel for pedestrians to and from parks and around the community. Trails and Pathways provide opportunities for connection between park facilities and neighborhoods. They provide a variety of trail-oriented activities and can help reduce dependence on the automobile. Trails are described by the predominant activity, such as Hiking, Nature/Interpretive, Historic, Multi use, Exercise, Bikeways.”*

The goal of this Strategic Plan is to facilitate the development of Lebanon’s proposed trail system by providing a conceptual framework for the development of all trail segments.

### CITY OF LEBANON FACILITIES PLANS

The *Lebanon Transportation System Plan* supports the development of new multi-use trails as a means of filling in the gaps in the City’s pedestrian facilities. The *Capital Improvements Program 2008 – 2012* includes several trail development projects intended to expand recreational opportunities and improving overall connectivity within the community.

### ZONING

As recreational trails are a part of public use facilities, they are permitted in most zones. The *Lebanon Development Code* allows conditional use approval, or approval upon administrative review, of recreational trails in the following zones:

Residential Low Density (Z-RL)	Neighborhood Commercial Zone (NCM)
Residential Mixed Density (Z-RM)	Central Business Commercial Zone (Z-CCM)
Residential High Density (Z-RH)	Highway Commercial Zone (Z-HCM)
Mixed Use Zone (Z-MU)	Public Use Zone (Z-PU)
Neighborhood Mixed Zone (Z-NMU)	

Recreational trails are not permitted in Industrial Use Zones (Z-IND), but may be permitted upon administrative review if the proposed project implements the City's adopted facilities plan.

## THE PLANNING PROCESS

The process for development of this plan essentially consisted of three steps. The first step was to collect relevant background information regarding the development of a recreational trails system. This included research of existing trails plans, an inventory and evaluation of Lebanon's existing trails, and a review of steps needed for trail development.

Step two was to assess the needs of the community, and the areas of opportunity for meeting those needs. This was determined primarily through resources such as the *City of Lebanon Parks Master Plan*, contact with City personnel and public input gathered during public meetings held by the Linn County Regional Trails Committee, local volunteer trails advocacy group Build Lebanon Trails (BLT), Lebanon Parks Committee and public meetings held during the development of the Cheadle Lake Recreational Area Conceptual Plan.

The final step in the planning process was to develop criteria and recommendations for development of new trail sections.

The Lebanon Trails Strategic Plan provides detailed descriptions and information on each trail section. These recommendations have been reviewed by the BLT Steering Committee, Lebanon Maintenance Services Division, Public Works, Parks Committee/Tree Board, and the City Manager before acceptance as an addendum to the *City of Lebanon Parks Master Plan*.

The entire planning process is summarized below:

1. **Inventory and Analysis** – Background trail information, existing trails, trail conditions, areas of opportunity, City controlled trail corridors.
2. **Needs Assessment** – *City of Lebanon Parks Master Plan* and related planning document research. Public input and stakeholder involvement. Determination of trail priority.
3. **Strategic Plan** – Final recommended trail route, land acquisition, trail maps, trail features, improvements, and funding options.

## GOAL

The following goal and specific objectives were taken from the *City of Lebanon Parks Master Plan* and are statements of the community's goals as they relate to development of recreational trails.

*GOAL 6: "Develop pedestrian paths and trails along street rights-of-way, utility corridors, greenways, rivers, and park access routes linking open spaces, residential neighborhoods, existing parklands, places of commerce, public facilities, civic buildings, and school sites."*

# 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 1993<sup>1</sup> (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 Program<sup>2</sup> 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.

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<sup>1</sup> 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.

<sup>2</sup> 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
<b>Suburban/Rural Trails</b>		
Heritage Trail (IA) 26 mi.	\$9.21	\$1.2 million
St. Marks Trail (FL) 16 mi.	\$11.02	\$1.9 million
<b>Urban Trail</b>		
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 1985<sup>3</sup>. 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)<sup>4</sup> 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 Trail<sup>5</sup> 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

<sup>3</sup> 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.

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

<sup>5</sup> 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 trails<sup>6</sup>. 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 Builders<sup>7</sup> 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, Oregon<sup>8</sup> 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, Oregon<sup>9</sup> 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.

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<sup>6</sup> 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.

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

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

<sup>9</sup> 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 Trail<sup>10</sup> 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, Colorado<sup>11</sup> 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 employees<sup>12</sup>.

- 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 city<sup>13</sup>.
- 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 district<sup>14</sup>.
- 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

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

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

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

<sup>13</sup> 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.

<sup>14</sup> 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 wages<sup>15</sup>. Chief executive officers of these firms said they chose Arizona for its "outdoor lifestyle and recreation opportunities<sup>16</sup>."

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 time<sup>17</sup>. 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 States<sup>18</sup>. 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 Trails<sup>19</sup>.  
(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.

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

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

<sup>17</sup> 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.

<sup>18</sup> **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.**

<sup>19</sup> **FBI Uniform Crime Reports. (1995). Rails-to-Trails Conservancy.**

Table 3. Rail-Trails Reporting Minor Crimes<sup>20</sup>.

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 Francisco<sup>21</sup> 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 1992<sup>22</sup> 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 study<sup>23</sup> 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 Seattle<sup>24</sup> 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 basis<sup>25</sup>. Physical activity need not be unduly strenuous for an individual to reap significant health benefits. Even small increases in light to moderate activity, equivalent

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<sup>20</sup> 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.**

<sup>21</sup> 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.

<sup>22</sup> 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.

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

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

<sup>25</sup> 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 estimates<sup>26</sup> 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 known to protect against injury and disability because it builds muscular strength and flexibility, which helps to maintain functional independence in later years of life<sup>27</sup>.

A nationwide study on the cost of obesity<sup>28</sup> 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 hard<sup>29</sup>. 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 Survey<sup>30</sup> 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

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<sup>26</sup> Benefits of Trails and Greenways. Trails and Greenways Clearinghouse.

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

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

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

<sup>30</sup> 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 project<sup>31</sup>. In addition, when residents are encouraged to become involved in a trail project, they feel more connected to the community<sup>32</sup>.

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 community<sup>33</sup>.

### 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.

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<sup>31</sup> 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.

<sup>32</sup> Warren, N. (1998). Nova Scotia Hiking Trails Study. Nova Trails Federation.

<sup>33</sup> 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 experiences<sup>34</sup>. 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 trail<sup>35</sup>.

#### 5. Recreation Benefits.

Linear corridors offer several benefits over traditional park facilities<sup>36</sup>. 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 environment<sup>37</sup>. 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 species<sup>38</sup>.

In addition, trails can help improve air and water quality. Trails provide enjoyable and safe options for transportation, which helps reduce air pollution<sup>39</sup>. 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.

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<sup>34</sup> 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.

<sup>35</sup> North American Water Trails, Inc. Why Water Trails?

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<sup>37</sup> State of California. (2001). California Recreational Trails Plan. Department of Parks and Recreation.

<sup>38</sup> San Diego County. Five-Year Strategic Plan. Appendix C.

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## 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 them<sup>40</sup>. 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.

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<sup>40</sup> Trails and Greenways Clearinghouse. Benefits of Trails and Greenways.

# Measuring Trails Benefits: Property Value

## How are trails related to property value?

Trails can be associated with higher property value, especially when a trail is designed to provide neighborhood access and maintain residents' privacy. Trails, like good schools or low crime, create an amenity that commands a higher price for nearby homes. Trails are valued by those who live nearby as places to recreate, convenient opportunities for physical activity and improving health, and safe corridors for walking or cycling to work or school.

Price is not property owners' only concern. Legal, well-marked access eliminates problems with trail users trespassing. Research also shows that those who opposed a trail prior to construction generally find a trail to be a much better neighbor than they anticipated.

When trails increase property value, local governments receive more property tax revenue. Depending on the trail, this revenue boost can help to partially offset the trail's construction and maintenance costs.

Additional details on each of these topics, as well as other relevant research, are available at <http://headwaterseconomics.org/trail>.

## Select Research Highlights

- In [San Antonio, Texas](#), neighborhood trails were associated with a two percent house price premium. Trails that were surrounded by greenbelts were associated with a five percent house price premium.<sup>1</sup>
- In [southwestern Ohio](#), the Little Miami Scenic Trail is associated with higher property value in urban, suburban, and rural settings. Up to a mile away from the trail, for every foot closer to the trail, property value increase by about \$7. A home a half mile from the trail would sell for approximately nine percent less than a home adjacent to the trail.<sup>2</sup>
- In suburban [New Castle County, Delaware](#), homes within 50 meters of bike paths commanded a four percent price premium.<sup>3</sup>
- In rural [Methow Valley, Washington](#), homes within one-quarter mile of trails benefited from a 10 percent price premium.<sup>4</sup>
- Along a popular trail in [Austin, Texas](#), the price premium ranged from 6 to 20 percent, depending on whether the neighborhood had views of the greenbelt surrounding the trail and whether it had direct neighborhood access to the trail.<sup>5</sup> This price premium translated to roughly \$59,000 per year in [additional tax revenue](#) or five percent of the annual cost of trail construction and maintenance.<sup>6</sup>

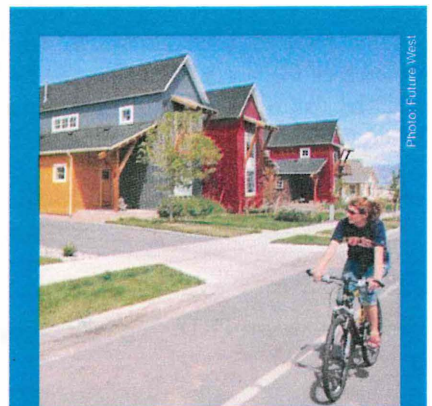


Photo: Future West

### How to use this information:

This research is of interest to property owners adjacent to a proposed trail, residential developers who are considering incorporating trails in new subdivisions, and local government staff who want to understand trails' fiscal impacts.

This summary is one of several handouts describing the state of research related to the benefits of trails. The other summaries address:

- Public health
- Business impacts
- Quality of life
- Overall benefits
- Access

This series offers a succinct review of common benefits identified in the 130+ studies in Headwaters Economics' free, online, searchable **Trails Benefits Library**.



- In [Indianapolis](#), researchers found that a high-profile, destination trail was associated with an 11 percent price premium for homes within a half mile of the trail. Other trails had no price premium.<sup>7</sup>
- In [Seattle Washington](#)<sup>8</sup> and [upstate New York](#),<sup>9</sup> adjacent property owners were concerned about trail-related crime before the trail was built. Researchers found no change in crime rate after the trail was built.

## Methods

To measure the price premium attributable to proximity to trails, researchers use statistical models that compare the price of homes identical in all ways (e.g., size, age, number of bedrooms) except their distance from a trail. When this price difference is calculated over thousands of homes, researchers are able to estimate the average price premium for homes near trails.

Some research uses surveys to ask homeowners whether they believe the trail increases their property value and by how much. Due to the subjective and likely biased nature of these questions, conclusions from these surveys are unreliable. Careful statistical modeling provides more objective estimates.

Original studies and additional details on methods can be found in the Trails Benefits Library at <http://headwaterseconomics.org/trail>.

## Contact

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*Research shows that homes near trails often have higher property value, with a price premium ranging from five to ten percent in most studies.*

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## Footnotes

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# May

## The Impact of Trails and Greenways on Property Values

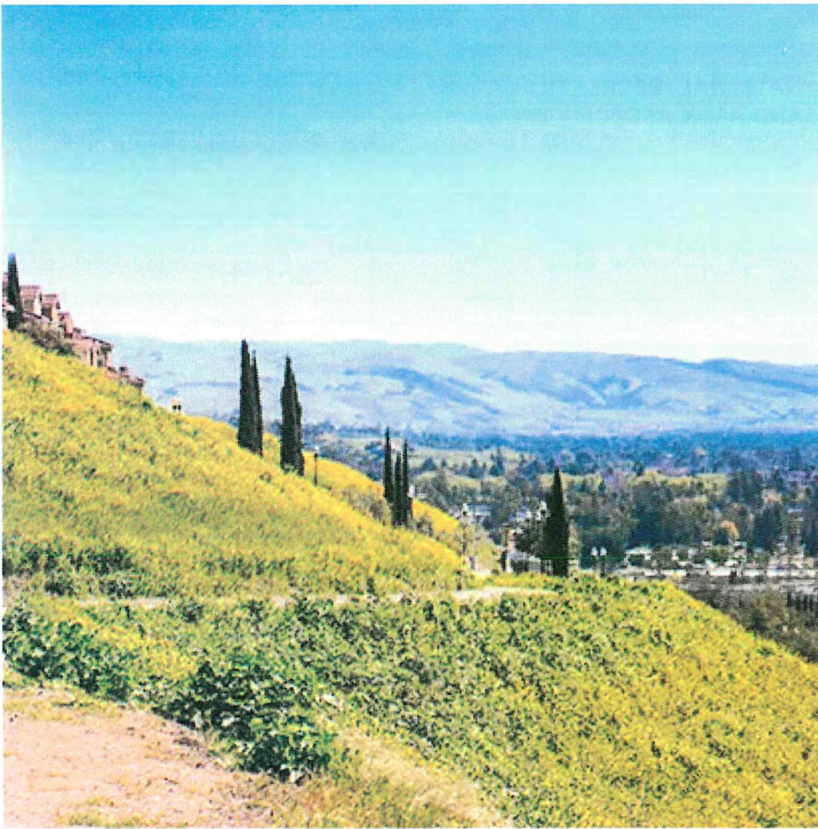
April 23, 2020, Department, by John L. Crompton, Ph.D.

[Finance for the Field](#)

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In 1989, the President's Commission on Americans Outdoors recommended the nation develop a system of recreational corridors: "Fingers of green that reach out from and around and through communities all across America." They called for a "prairie fire of local action" to implement the vision. Three factors came together to create a "perfect storm," which ignited that vision.

First, Congress was concerned the dramatic contraction of active rail lines from their peak of 254,251 miles in 1916 to 141,000 miles by 1980 was resulting in a loss of land corridors — which preempted any future reactivation that may be desired for military or mass transportation purposes. Consequently, in 1983 to



preserve the corridors for potential future transportation uses, Congress amended section 8(d) of the National Trail Systems Act (often called the Railbanking Act or the Rails-to-Trails Act) to preserve established railroad corridors for interim trail and future rail use. This legislation spurred an extraordinary surge in trails.

The lack of funding needed to compensate adjacent landowners and to pay for the cost of transitioning rail line beds to hike-bike trails was a barrier to realizing the potential of the railbanking provision. The second element in the “perfect storm” was the 1992 federal Transportation Bill. This included a component that funded nontraditional projects that enhanced the existing transportation infrastructure. The funds provided up to 80 percent of the cost of a project, so local and state entities were required to finance only 20 percent of the

cost. This offered a strong incentive for local trail initiatives. Similar enhancement funding has been included in every subsequent Transportation Bill.

The third factor emerged in the last quarter of the 20th century, when Americans became much more aware of the importance of exercise in maintaining good health. During the 1970s and 1980s, 25 million Americans took up running while many more engaged in regular walking. The most recent survey by the National Association of Homebuilders reported that walking/jogging trails ranked third or fourth among all homebuyer age groups as most desired local amenities on a list of 19. This reflects the growing prominence of trails in both the commuting and leisure dimensions of people’s lives.

### **Gauging Property Owners’ Perceptions**

For the most part, the rationale underlying the proposition that trails and greenways may positively influence property values differs from that associated with parks. Unlike parks, any added property value is not likely to come from the views of nature or open space that a property owner enjoys, because in many cases, especially in urban trail contexts, there are no such vistas. Rather, any added value derives from access to the linear trail. It is a trail’s functionality or activity potential that is likely to confer added value, not the panorama of attractive open space.

In a recent article published in the *Journal of Park and Recreation Administration*, Sarah Nicholls, a professor in the department of business at Swansea University’s School of Management, and I reviewed findings of studies that evaluated the impact of trails on property values. Those conducted in the 1980s and 1990s relied on responses to surveys by people living next to trails.

Typically, they were asked two questions. First, did the trail increase or decrease their property’s value? Opinion surveys from the 10 urban studies addressing this question reported that among 2,647 households residing proximate to 24 urban trails, only 6 percent perceived trails had a negative impact on their property. In contrast, 47 percent believed the trail increased their property’s value.

Among the 1,212 proximate property owners along eight primarily rural trails, most perceived the trail did not influence their property’s value. Again, only 6 percent reported a decrease, but the proportion perceiving an increase was much lower than along the urban trails (16 percent compared to 47 percent).

These findings were important because they strongly suggested that exposure to a trail after it has been open for a number of years led those most impacted to conclude that fears of negative financial repercussions associated with a trail are generally without merit.

Second, was the property likely to sell more quickly or more slowly because of its proximity to the trail? Responses were reflective of those to the first question. Among those residing proximate to urban trails, 62 percent perceived a sale would be faster and 8 percent slower, while the rural residents' responses were 29 percent faster and 9 percent slower.

### Analyzing the Data

This approach had three obvious limitations. First, responses were subjective best guesses given by homeowners who, in many cases, had given little or no thought to the issue, and whose answers were not informed either by personal experience with recent market transactions or by knowledge of comparable sales transactions. Second, the sample sizes of these studies were small. Third, only one of the 18 studies appeared in a refereed journal, which means they may not possess the rigor that is expected in peer-reviewed social science research.

The emergence of much more advanced electronic technology in the late 1990s enabled these issues to be addressed by using more sophisticated research and statistical processes, and databases comprised of sales transactions. We identified 20 studies that investigated the impact of trails on residential property values. The results indicated that a small positive premium of between 3 percent and 5 percent was the most widespread outcome for a single-family home located next to a trail. However, there were outliers that suggested the premium might be as high as 15 percent in some cases, while in other contexts there may be a small negative impact.

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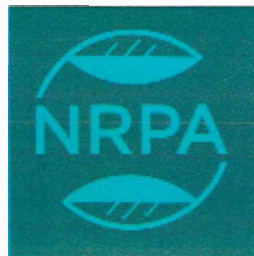
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## Regular Paper

# The Impact of Greenways and Trails on Proximate Property Values: An Updated Review

John L. Crompton  
Sarah Nicholls

## Executive Summary

In the 1980s a “perfect storm” emerged that enabled trails and greenways to move to a central role in contemporary discussions of urban planning. It was comprised of three elements: Railbanking legislation that preserved railroad corridor rights-of-way and authorized their conversion to trails; federal funding for trails in transportation bills; and a public perception of trails as a priority urban infrastructure amenity.

When trails are retrofitted through communities, they are invariably opposed by some proportion of proximate property owners who fear a devaluation of their property. To address this issue, a number of opinion surveys were administered between 1978 and 2006 to residents living proximate to trails. 16 such studies were reviewed. They revealed that in both urban and rural contexts only 6% perceived the trail to negatively impact their property value. However, while 47% of the 2,647 respondents living close to one of the 22 urban trails believed it increased their property’s value, this was believed by only 16% of the 1,212 who resided proximate to one of 10 rural trails.

Opinion data provide general impressions, but they lack empirical verification and quantitative dollar amounts. The emergence of GIS technology and hedonic analysis in the post-2000 era remedied these limitations. Twenty hedonic analyses were identified and their results showed that proximity to a trail resulted in home prices that typically were between 3% and 5% higher than those of comparable homes in the area.

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**Sarah Nicholls** is a professor in the Department of Business, School of Management at Swansea University, Wales.

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# Trails: building blocks for healthier, wealthier communities

*Regional trails provide many benefits to local communities, from economic development to increased tourism, improved health to better transportation options. Consider a few reasons why your community should invest in a new trail or expand one you have now.*

## **Better health**

Studies consistently show the health benefits of trails. In communities closer to a trail, residents are more likely to be active. People who live near trails walk on average 15 to 30 minutes more per day than those who live in neighborhoods with fewer trails or other ways to get around without a car.

## **Lower transportation costs**

Transportation costs are shown to decrease with the number of trails in a community. The greater Portland region is a prime example. In 2005, it was estimated that trails save us \$1.1 billion per year on gas and other auto-related expenses. These savings allows residents to spend more where they want or need to.

## **Increased property values**

In Indianapolis, a study found that homes within a half mile of the Monon Trail were worth \$13,059 more than the average home in the area. For homes within one mile of Ohio's Little Miami Scenic Trail, every foot closer to the trail increased a home's sale price \$7.05.



Cyclists on Troutdale Main Street.

## **Workers and talent**

A study by the National Association of Home Builders showed that trails help attract educated employees and talent to an area. According to Portland-area economist Joe Cortright, young, educated workers are looking for walkable and bikeable communities with nearby natural areas. Trails provide them with both active transportation and access to parks.

***“Trails consistently remain the number one community amenity sought by prospective homeowners.”***

*National Association of Home Builders*

## **Business booms**

Greenville County, S.C., recently completed the Swamp Rabbit Trail, a major tourist amenity connecting downtown Greenville and Travelers Rest. The two communities' businesses saw a major rise in new customers and increased spending from current customers. One bike shop saw a 20 percent annual growth rate thanks to the trail. The county as a whole estimates that the new trail's economic impact is worth \$7 million per year

### **Tourists and the jobs they create**

Recreational trail use helps boost the local economy. In Virginia, an estimated 1.7 million recreational visitors have used the Washington and Old Dominion Trail, bringing in \$12 million annually in recreation dollars. Meanwhile, the West Orange, Little Econ and Cady Way trails in Orange County, Fla., support 516 recreation and tourism jobs. Across the country, there are examples of trails bolstering communities' recreation and tourism industries.

### **Safety and security**

Overall, creating trails has not caused safety or security problems for communities. A study based in Omaha, Neb., found that trails within communities were very safe. In a survey, negative or crime-related experience with trails were infrequent, and even those reported were relatively minor.

### **Questions about trails?**

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## The Relative Impacts of Trails and Greenbelts on Home Price

Paul K. Asabere · Forrest E. Huffman

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**Abstract** This study examines the impacts of trails and greenbelts and other amenities on home value. Using the hedonic framework the study provides analyses of a database consisting of roughly 10,000 sales of homes occurring from April 2001 to March 2002 in and around San Antonio, Bexar County, Texas. Among other things, our study shows that trails, greenbelts, and trails with greenbelts (or greenways) are associated with roughly 2, 4, and 5%, price premiums, respectively. The following amenities: proximity to golf course, neighborhood playground, tennis court, neighborhood pool, view, and cul-de-sac, all add significantly to home value.

**Keywords** Amenity · Trail · Greenbelt · Home value · Hedonic estimation

### Introduction

As many Americans become more health conscious, walking, jogging, and bicycle riding have become major recreational activities. The development of multi-purpose trails has increasingly become arguably the most popular initiative across the country. A National Park Service study revealed that the economic impact of a trail involves a combination of newly created trail-related jobs and expansion of existing businesses related to travel and tourism. Cities such as Providence, Rhode Island, Boston, Massachusetts and Chattanooga, Tennessee transformed industrial blight into beautiful and useful riverfront greenways and trails as part of strategic plans to attract businesses and residents. Many cities have sought to emulate the success of

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