

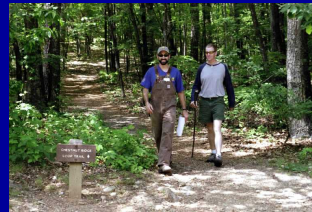
# Economic Benefits of Bicycle and Pedestrian Facilities



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Living Towns Workshop – Village of Marshall  
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## Highlights



- ♦ Overview of Economic Benefits
- ♦ Case Study: Trails in Virginia
  - Virginia Creeper Trail
  - Washington & Old Dominion Trail
- ♦ Summary & Additional Resources

## Economic Benefits of Trails & Bike/Ped Facilities

- ♦ Direct Expenditures
  - Trail users expenditures for equipment and clothing
  - Trail management agency spending on materials, supplies, salaries
- ♦ Tourism Development
  - Commercial business expansion related to trail activities (outfitters, lodging, food)
- ♦ Public Health & Wellness
- ♦ Traffic Mitigation; Infrastructure Cost Reduction
- ♦ Real Estate Values & Marketability
- ♦ Corporate Relocation and Retention, Enhanced Quality of Life

### Direct Expenditures

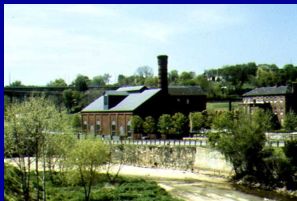
#### Outdoor Recreation Sales

In 1995, Outdoor Industry Association estimates total sales of outdoor products at \$10 billion.



#### Wildlife-Related Expenditures

In 2001, 82 million people in the US spent \$108 billion on wildlife related recreation. (US Fish & Wildlife Service)



#### Heritage Tourism

One of the fastest growing areas of tourism - in 2001, 65% of adult travelers visited a heritage or historic site while on vacation. (Travel Industry of America)

## Economic Impact of Bicycle Touring

In 2000, Maine DOT conducted a Bicycle Touring Study, and found over 2 million bicycle tourist visit the state annually with an estimated impact of \$36 million.



In 2004, North Carolina studied impacts of bicycling in Outer Banks, and found that income from bicyclists produced \$60 million in annual revenues.

## Community Health & Wellness

- 60% of American adults are not regularly active. Almost ½ of children 12-21 are not active on a regular basis.
- ♦ More than 2,600 Americans die from cardiovascular disease each day – average of 1 death every 33 seconds.
- ♦ 1988 Corporate Wellness Study for the City of San Jose, CA
  - 14% lower medical insurance claims
  - 30% fewer days in the hospital



-US Surgeon General and Centers for Disease Control

## Reduced Infrastructure Costs; Traffic Mitigation

### Seattle Engineering Department Study

- Value of trips divert from roads to bikeway, included congestion, impacts to roads, parking, air pollution
- Calculated cost savings of \$1,790 per day for 1000 trips  
\$450,000 per year



## Real Estate Values & Marketability

Trails and bikeways are amenities that help attract buyers.

- ♦ Denver Study:
  - 73% of real estate agents reported homes near trails were easier to sell
  - 57% of homeowners felt their home would sell more quickly because of its location near a trail
  - 29% reported they were influenced in buying their home by its proximity to a trail



## Corporate Relocation & Retention

“Our greenway system has been key to revitalizing our city and attracting new businesses.”

- David Crockett, Chattanooga City Council Chair

Chattanooga, Tennessee:  
Approximately \$1 billion in  
new private sector investment  
during past 10 years.



## 2002 Virginia Outdoors Plan



- Walking for pleasure is the most popular form of outdoor recreation, with 69% of the population participating.
- Bike for pleasure, 39.9%
- Nature study, horseback riding, and fitness trails all ranked in the top 30





## Virginia Travel Industry Data

Data from the VA Dept of Taxation show lodging sales totaled \$2.35 billion in 2004, up 2% from 2003.

Food service sales totaled \$9.7 billion in 2004 up 8.8% from 2003 (estimated 1/3 made by travelers).

Travelers to an area spend money on lodging, food, and equip rental, without requiring services such as schools, and libraries.

<http://www.vatc.org/research.htm>



## Trails In Virginia



Blue Ridge Music Trail: A traveler's guide to live traditional music and dance along the blue ridge.



Civil War Trails: ...exploring nearly 300 sites associated with our nation's greatest drama.



Rail-Trails provide for family-friendly recreation options.



Virginia's Birding Trail: More than 2.4 million individuals are spending nearly \$788 million annually on wildlife-related recreation in Virginia (US Fish and Wildlife Service).

## Trails Promote Local Business



“Over the last 10 years Damascus has mounted a comeback based on our increasing tourists visits. The community now supports 6 new restaurants, a hiking outfitter, 8 B&Bs, a full service bike shop, 3 bike rental/shuttles, a guided touring company, 2 antique shops, and an ice cream shop and bakery.”

– Tom Horsch, Damascus, Virginia

## Economic Impact of Trails In Virginia 2002-2004

Project Goal: Conduct a study of 3 case study trails in Virginia to document economic impacts and benefits.



1. W&OD
2. New River
3. Virginia Creeper



## Virginia Trail Study Project Partners

Virginia Trails Association  
 Virginia Dept Conservation & Recreation  
 Virginia Dept of Forestry  
 Virginia Dept of Transportation  
 National Park Service  
 Virginia Creeper Trail Club  
 Roanoke Valley Greenways Commission  
 Northern Virginia Regional Commission  
 Northern Virginia Regional Park Authority  
 Friends of the W&OD

### Tech Support:

J.M. Bowker, USDA Forest Service, Southern Research Station  
 Joshua Gill & John Bergstrom, University of Georgia, Department  
 of Agriculture & Applied Economics

## Case Study: Virginia Creeper Trail



### Trailheads mile

1. Abingdon 0
2. Watauga 4
3. Alvarado 8
4. Damascus 16
5. Straight Branch 20
6. Taylor's Valley 21
7. Creek Junction 24
8. Green Cove 30
9. Whitetop 33

Elevation:  
 Lowest point: 1900'  
 Highest point: 3576'





## Case Study: Virginia Creeper Trail

### Summary Findings

Visitors to the trail spend \$2.5 million annually, \$1.5 spent in Grayson and Washington counties, which supports 27 jobs.

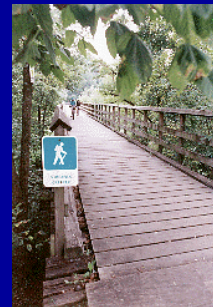
- Non-local day visitor - \$30.90/person/visit
- Non-local overnight visitor - \$119.85/person/visit



Abingdon 0 \_\_\_\_\_ 16 \_\_\_\_\_ 33 Whitetop  
Damascus

## Creeper Trail Study Methods

- ♦ November 2002-October 2003
- ♦ Stratified random sample
  - 3-day strata: Mon-Thur, Fri & Sun, Sat
  - 3 primary access sites, 6 secondary
- ♦ 2 page survey, on-site
- ♦ Total surveys completed: 1036
- ♦ Estimated total visits: 130,172  
(Range: 119,905-140,439)
  - Locals: 61,503
  - Non-Locals: 68,669



## Creeper Trail Highlights

### Entering Sites

#### Locals

Abingdon - 67%  
Damascus - 10%  
Watauga - 9%  
Other - 14 %

#### Non-Locals

Abingdon - 23%  
Whitetop - 45%  
Damascus - 17%  
Other - 15%

### Primary Activity

#### Locals

Walking - 52%  
Biking - 26%  
Jogging - 13%  
Other - 9%

#### Non-Locals

Biking - 75%  
Walking - 20%  
Jogging - 3%  
Other - 2%

## Creeper Trail Highlights

### Travel Distance to Trail

#### Non-Local

Ave one-way 259.6 miles  
Time to get to trail 4.6 hrs  
Range 13.5 - 2604 miles  
Nights away trip 2.5 (max 35)  
Spending party 4.2 (max 45)



### Time on Trail:

#### Non-Locals

#### Locals

143 min 76 min  
Distance Traveled: 18.5 mi 4.8 mi  
Group Size: 3.63 (1-46) 1.78 (1-20)  
Frequency of visits: 4.8 /year 141 /year

## Creeper Expenditures:

### Non-Local Day Users

	<u>w/i 25 Miles</u>	<u>Total trip</u>
Lodging:	\$ 0.00	\$ 4.39
Food:	7.16	13.35
Transportation:	3.42	5.60
Bike rental/guide	6.27	7.06
Other:	0.26	0.42
 TOTAL:	 \$ 17.16	 \$ 30.90

*N=169, Spending party = 3.34*  
*Per person per trip expenditure*

## Creeper Expenditures: Non-Local Overnight Users

	<u>w/i 25 Miles</u>	<u>Total trip</u>
Lodging:	\$33.16	\$ 53.59
Food:	28.24	39.33
Transportation:	8.52	14.22
Bike rental/guide	8.12	8.74
Other:	3.90	4.07
 TOTAL:	 \$ 82.10	 \$ 119.85

*N=147, Spending party = 4.5*  
*Per person per trip expenditure*

## Economic Impacts of Virginia Creeper Trail

Total Estimated Impact on Washington and Grayson Counties, 2003 dollars

- ♦ Output/Sales \$1,587,627
- ♦ Employment 27.4 jobs

*Economic Modeling: IMPLAN (Impact Analysis for PLANning)*

## Case Study: Washington & Old Dominion Trail

A 45 mile long multi-use trail from Arlington to Purcellville, Virginia



## Case Study: W&OD Trail

### Summary Findings

- Non-Local visits only 5%,  
or 90,000 visits per year
- Non-Local spending:  
\$74/person/trip  
\$ 1.8 million annually,  
which supports 34 jobs
- Local spending by residents:  
\$375 reported by respondent per year  
\$ 5.3 million annually
- Total of over \$7 million in direct spending  
attributed to the trail.



## W&OD Study Methods

- ♦ May 2003-April 2004
- ♦ Representative sampling
- ♦ 2 page survey, on-site
- ♦ Surveys completed: 1426
  - Local: 1351 (95%)
  - Non-Local: 75 (5%)
- ♦ Total visits: 1,707,353
  - 89,807 (5.2%) non-local
  - 1,617,546 (94.8%) local





## W&OD Trail Highlights

### Primary Activity:

Biking - 66%  
Walking - 16%  
Jogging - 16%  
Other - 2%

### Season Usage:

Summer 40%  
Spring 30%  
Fall 30%  
Winter 10%

### The primary reason for visit:

Recreation and fitness (84%)  
Training for an event ( 7%)  
Commuting ( 6%)  
Other ( 3%)



## W&OD Highlights

### Trip Profile

	<u>Non-Locals</u>	<u>Locals</u>
Time on Trail:	3.4 hr	2 hr
Distance Traveled:	32 mi	19mi
Frequency of visits:	6 /year	120/year
Group Size:	1.7 (57% single users)	

### Travel Distance to Trail

	<u>Non-Local</u>	<u>Local</u>
Ave one-way	186 miles	10 miles
Time to trail	3 hrs	14 min

## W&OD Expenditures: Non-Local

	<u>w/i 25 miles</u>	<u>Total trip</u>
Lodging:	\$ 3.90	\$ 20.81
Food:	7.37	38.88
Transportation:	3.40	11.91
Bike Rental	0.61	0.61
Other:	<u>0.12</u>	<u>1.69</u>
<b>TOTAL:</b>	<b>\$ 17.16</b>	<b>\$ 73.90</b>

*N=60, Spending party = 2.69*

*Per person, per trip expenditures*

## Economic Impacts of W&OD

### **Estimated Impact per 1000 Group Trips**

Output/Sales: \$54,000 (output multiplier, 1.55)

Employment: 1.03 jobs (employment multiplier, 1.31)

### **Total Estimated Impact on Arlington, Fairfax, and Loudoun Counties, 2003 dollars**

Output/Sales \$1,800,000

Employment 34 jobs

*Economic Modeling: (Money Generation Model, Version 2 (MGM2))*

## Trail-Based Economic Development Lessons Learned

- ♦ Understand community capacities and desires.
- ♦ Gain consensus on economic development goals and approaches.
- ♦ Cultivate partnerships.
- ♦ Identify assets and protect unique and valued resources.
- ♦ Identify target markets, develop a marketing and outreach plan.



Reference: Implementing Trail-Based Economic Development Programs, A Handbook for Iowa Communities, Iowa DOT, 2002 [www.dot.state.ia.us](http://www.dot.state.ia.us)

*Outdoor recreation and heritage tourism are extremely strong sectors of the travel and tourism market.*



*Communities with trail and bikeway systems attract visitors looking for active vacation alternatives - exploring and learning about an area's natural and cultural history.*



*Trails and bikeways provide critical linkages to area attractions and services.*



*Trails and bike/ped facilities can be a vital component to a community's quality of life, economic vitality, and community health.*



***National Park Service  
Rivers & Trails Program***

***[www.nps.gov/rtca](http://www.nps.gov/rtca)***

***[www.nps.gov/phso/rtca](http://www.nps.gov/phso/rtca)***





*Rivers & Trails...*  
*...supporting community-based  
conservation actions*