

**THE IMPACTS OF RAIL-TRAILS:
A STUDY OF THE USERS AND PROPERTY OWNERS
FROM THREE TRAILS**

BY

**RIVERS, TRAILS, AND CONSERVATION ASSISTANCE PROGRAM
NATIONAL PARK SERVICE
WASHINGTON, D.C.**

IN COOPERATION WITH

**LEISURE STUDIES PROGRAM
SCHOOL OF HOTEL, RESTAURANT AND RECREATION MANAGEMENT
THE PENNSYLVANIA STATE UNIVERSITY
(COOPERATIVE AGREEMENT #CA-0765-9-8001)**

FEBRUARY 1992

AUTHORS:

**ROGER L. MOORE
ALAN R. GRAEFE
RICHARD J. GITELSON
ELIZABETH PORTER**

EXECUTIVE SUMMARY

Background and Methods

This *Impacts of Rail-Trails* study was the first extensive study to examine the benefits and impacts of rail-trails and the first, to our knowledge, to systematically examine both the trail users and nearby property owners of the same trails. It was a cooperative effort of the National Park Service and Penn State University carried out in 1990 and 1991. Its purpose was to furnish information to assist in the planning, development, and management of rail-trails, public recreation trails constructed on the beds of unused railroads rights-of-way. The study's objectives were to: 1) Explore the benefits of rail-trails to their surrounding communities and measure the total direct economic impact of trail use; 2) Examine what effects rail-trails have on adjacent and nearby property values; 3) Determine the types and extent of trail-related problems, if any, experienced by trail neighbors; and 4) Develop a profile of rail-trail users. This report summarizes the study's methods and findings.

A sample of three diverse rail-trails from across the U.S. was studied: The Heritage Trail, a 26-mile trail surfaced in crushed limestone which traverses rural farmland in eastern Iowa; the St. Marks Trail, a 16-mile paved trail beginning in the outskirts of Tallahassee, Florida and passing through small communities and forests nearly to the Gulf of Mexico; and the Lafayette/Moraga Trail, a 7.6-mile paved trail 25 miles east of San Francisco, California which travels almost exclusively through developed suburban areas. At the time of the study, the Heritage Trail was eight years old, the St. Marks two, and the Lafayette/Moraga was fourteen years old.

Users were systematically surveyed and counted on each trail from March, 1990 through February, 1991 and were then sent follow-up

mail surveys. A sample of residential landowners owning property immediately adjacent to the trails and a sample of those owning property within one-quarter mile of the trails (one-half mile in Iowa) were also surveyed by mail, and real estate professionals in communities along the trails were interviewed by phone. Usable mail surveys were obtained from 1,705 trail users and 663 property owners, and interviews with 71 realtors and appraisers were conducted. Major findings from the analysis of these responses and counts are summarized at the conclusion of this executive summary.

Study Findings

Trail Users and Use

- 1) Demographically, the samples of rail-trail users were much like the populations of the communities through which the trails passed.
- 2) The study trails were quite heavily used, with most users living nearby and visiting frequently. This pattern was most pronounced on the suburban Lafayette/Moraga Trail.
- 3) The study did not find a "typical" mix of activities that might be expected on rail-trails. Although bicycling and walking were the most common activities on all the study trails, they occurred in very different proportions on each.
- 4) Having no motorized vehicles allowed was the most desirable trail characteristic expressed by the users of each trail. Other important characteristics were: natural surroundings, quiet settings, safe road crossings, smooth trail surfaces, and good maintenance.

5) Users reported no serious complaints with any of the trails. Insufficient drinking water and restroom facilities were the biggest concerns overall, with rough trail surfaces and reckless behavior of other users reported as problems on the Lafayette/Moraga Trail.

Economic Benefits of Rail-Trails

1) Use of the sample trails generated significant levels of economic activity. These economic benefits were from two major sources: total trip-related expenditures and additional expenditures made by users on durable goods related to their trail activities.

2) Users spent an average of \$9.21, \$11.02, and \$3.97 per person per day as a result of their trail visits to the Heritage, St. Marks, and Lafayette/Moraga Trails, respectively. This resulted in a total annual economic impact of over \$1.2 million in each case. Expenditures on durable goods generated an additional \$130 to \$250 per user annually depending on the trail.

3) The amount of "new money" brought into the local trail county(s) by trail visitors from outside the county(s) was \$630,000, \$400,000 and \$294,000 annually for the Heritage, St. Marks, and Lafayette/Moraga Trails, respectively.

4) Restaurant and auto-related expenditures were the largest categories of trip-related expenses and visitors that spent at least one night in the local area were the biggest spenders. Equipment (such as bicycles) was the largest category of durable expenditure.

Landowner and Property Characteristics

1) Property size and distance from homes to trail varied from trail to trail as expected with the largest properties and distances between homes and the trail occurring along the rural Heritage

Trail and the smallest properties and those closest to the trail occurring along the suburban Lafayette/Moraga. Relatedly, it was far more likely for a landowner's property to be severed by the Heritage Trail than by the other two.

2) The vast majority of landowners were trail users and visited the trails frequently.

Problems Experienced by Landowners

1) Overall, trail neighbors had experienced relatively few problems as a result of the trails during the past twelve months, but the types and frequencies of these problems varied from trail to trail.

2) The problems reported by the most landowners were: unleashed and roaming pets, illegal motor vehicle use, and litter on or near their property. The problems that were most likely to have increased for adjacent owners since the opening of the trail were: noise from the trail, loss of privacy, and illegal motor vehicle use.

3) The majority of owners reported that there had been no increase in problems since the trails had been established, that living near the trails was better than they had expected it to be, and that living near the trails was better than living near the unused railroad lines before the trails were constructed. Although owners along the Heritage Trail were the least positive and those along the Lafayette/Moraga the most positive, the majority sampled along each trail was satisfied with having the trail as a neighbor.

Rail-Trails' Effects on Property Values

1) Landowners along all three trails reported that their proximity to the trails had not adversely affected the desirability or values of their properties, and along the suburban Lafayette/Moraga Trail, the majority of owners felt the

presence of the trail would make their properties sell more easily and at increased values.

2) Of those who purchased property along the trails after the trails had been constructed, the majority reported that the trails either had no effect on the property's appeal or added to its appeal.

3) The vast majority of real estate professionals interviewed felt the trails had no negative effect on property sales and no effect on property values adjacent to or near the trails. However, those who felt the trails increased property values outnumbered those reporting decreased values. This positive effect was most pronounced on the Lafayette/Moraga Trail and for nearby, as opposed to adjacent, property.

Other Benefits of Rail-Trails

1) Trail users and landowners alike reported that the trails benefited their communities in many ways. Health and fitness and recreation opportunities were considered to be the most important benefits of the trails by the landowners. The trail users felt the trails were most important in providing health and fitness, aesthetic beauty, and undeveloped open space.

Study Conclusions and Implications

1) Rail-trails can provide a wide range of benefits to users, local landowners, and trail communities. They are not single use, single benefit resources. Residents and visitors enjoy the benefits of trail use, aesthetic beauty, protected open space, and in some instances higher property resale values, while local communities enjoy bolstered economies and increased community pride among other benefits. These benefits should be presented as a package when discussing the merits of rail-trails with the diverse constituencies affected by proposed trails.

2) Levels of economic impact varied considerably across the three study trails. This was due principally to the fact that the Lafayette/Moraga Trail was used almost exclusively for short trips by nearby residents while the other two trails attracted more visitors from beyond the local neighborhoods. If economic benefits are an important community objective, marketing efforts should be developed aimed at attracting out-of-town visitors and getting many of them to make overnight stays.

3) The study rail-trails were found to have a dedicated core of users who visited frequently and were committed to "their" trails. This finding represents an opportunity for managers of existing trails and planners of new trails to tap into a potentially rich source of trail supporters and volunteers for assistance on a number of appropriate planning and management activities.

4) Although negative aspects of living adjacent to rail-trails were reported by some landowners, the rates of occurrence and seriousness of problems were relatively low and advantages of living near the trails were reported as well. This finding should be encouraging to trail planners and advocates. While all existing and potential problems need to be identified and addressed quickly, trail planners and advocates should not be timid about presenting the positive impacts of rail-trails to landowners along the proposed trails and putting them in contact with their peers along existing trails.

Summary and Comparison of the Study Trails

	Heritage	St. Mark's	Lafayette/Moraga
Description - Length, miles - Surface - Year established - Nearest Metropolitan Area - Population - Distance from trail - Fee charged - Operating agency - Trail landscape	26 Compacted limestone 1982 Dubuque, IA 62,000 2 miles \$5/year or \$1/visit Dubuque County Conservation Board Open farmland to rocky, wooded river valley	16 Asphalt paved 1988 Tallahassee, FL 82,000 Begins at city outskirts \$0 Florida Department of Natural Resources Small towns and undeveloped forest land	7.6 Asphalt paved 1976 "East Bay" Metropolitan Area 2 million in the metropolitan area \$0 East Bay Regional Park District Developed suburban areas
Trail User Survey - Survey response (%) - Usable surveys - Calculated yearly (visits) - Major uses (%) - Bicycling - Walking - Jogging - Male/Female (%) - Mean age (years) - Income, under \$40,000 (%) - College graduates (%) - Race, white (%) - Reporting a disability (%) - Trail visits in last year (median) - Miles from home (median) % who lived 20 miles or more from trail - Time spent on trail (average minutes)	89 329 135,000 65 29 3 56/44 46 55 40 98 7 7 7 31 150	71 600 170,000 81 9 4 51/49 38 56 66 93 7 10 8 18 141	83 776 400,000 20 63 12 43/57 50 21 68 94 7 100 1.5 4 68
Adjacent/Nearby Landowner Survey - Survey response (%) - Usable surveys - Male/female (%) - Mean age (years) - Average distance from home to trail (feet) - Land owned (average acres) % with properties severed by trail - Trail used by household member in last year (%) - Days used by household in last year (average)	75 107 54/46 50 2434 101 20 88 47	58 226 41/59 53 1822 6 2 76 67	71 330 56/44 54 890 0.5 0 99 141
Trail Benefits - Highest benefits perceived by trail users - Highest benefits perceived by landowners	- Health and fitness - Aesthetic beauty - Preserving open space - Community pride - Health and fitness - Recreational opportunities	- Health and fitness - Aesthetic beauty - Preserving open space - Recreation opportunities - Health and fitness - Recreation opportunities	- Health and fitness - Aesthetic beauty - Preserving open space - Community pride - Health and fitness - Recreation opportunities

Summary and Comparison of the Study Trails (Continued)

	Heritage	St. Mark's	Lafayette/Moraga
<i>Trail User Perceptions</i> • Most important trail characteristics • Trail characteristics perceived as problems	• No motorized vehicles • Good maintenance • Natural surroundings • Lack of drinking water • Lack of restrooms • Rough trail surface	• No motorized vehicles • Good maintenance • Natural surroundings • Lack of drinking water • Lack of restrooms • Lack of services	• No motorized vehicles • Natural surroundings • Quiet settings • Lack of drinking water • Rough trail surface • Reckless behavior of users • Lack of restrooms
<i>Landowner Perceptions</i> • Landowner's personal support for trail when proposed - Very supportive (%) - Very opposed (%) • Attitude about living near trail now compared to initial reaction - Much better (%) - Much worse (%) • Current satisfaction with trail - Very satisfied (%) - Very dissatisfied (%) • Most commonly reported problems (% of all owners reporting) • Most frequently occurring problems (average times in last year for all owners) • Problems that have decreased or not changed since before trail opened (% of adjacent owners reporting improvement or no change) • Problems most likely to have increased since before trail opened (% of adjacent owners reporting more of a problem now)	17 39 27 2 27 15 • Illegal motor vehicle use (39) • Cars parked on/near property (24) • Litter (21) • Illegal motor vehicle use (2.1) • Litter (2.1) • Cars parked on/near property (2.0) • Dog manure (100) • Burglary (94) • Animals harassed (94) • Users ask to use phone, bathroom, etc. (94) • Drainage problems (94) • Loss of privacy (38) • Illegal motor vehicle use (32) • Cars parked on/near property (25) • Noise from trail (24)	47 7 33 5 47 11 • Illegal motor vehicle use (39) • Litter (21) • Loitering on/near property (20) • Cars parked on/near property (5.1) • Loss of privacy (3.9) • Illegal motor vehicle use (3.0) • Vandalism (95) • Burglary (95) • Rude users (94) • Users ask to use phone, bathroom, etc. (93) • Illegal motor vehicle use (35) • Loss of privacy (23) • Noise from trail (21) • Litter (19)	37 7 28 1 54 6 • Unleashed/roaming pets (43) • Noise from trail (27) • Litter (27) • Dog manure on/near property (8.8) • Cars parked on/near property (6.5) • Noise from trail (6.0) • Animals harassed (96) • Burglary (96) • Users ask to use phone, bathroom, etc. (96) • Trespassing (95) • Illegal motor vehicle use (95) • Noise from trail (36) • Loitering on/near property (30) • Loss of privacy (25) • Cars parked on/near property (17)
<i>Economic Impact</i> • Average trip expenditure (\$ per person per day) • Total trips/year • Total annual expenditures by users	\$9.21 135,000 \$1,243,350	\$11.02 170,000 \$1,873,400	\$3.97 400,000 \$1,588,000

Summary and Comparison of the Study Trails (Continued)

	Heritage	St. Mark's	Lafayette/Moraga
Additional Trip Expenditure Information			
• Accommodations used by overnight visitors			
- Hotel/Motel (%)	53	28	0
- Friends/Relatives (%)	24	39	100
- Campground (%)	15	14	0
• Major direct expenditures made by all visitors (average \$/person/day)			
- Restaurants	\$2.99	\$3.94	\$0.78
- Gas and oil	2.08	3.72	1.33
- Lodging	1.46	0.44	0.28
• % of direct expenditures made in county(s) trail is located in	66	42	41
• Major direct expenditures made in county by visitors to county (\$/person/day)			
- Restaurants	\$5.21	\$4.70	\$1.34
- Gas and oil	2.14	2.42	0.82
- Lodging	2.56	1.98	0.00
- Retail purchases	1.36	2.27	3.37
• Average total expenditures made in trail county(s) by visitors to county (\$/person/day)	\$13.22	\$15.18	\$6.86
Expenditures on Durable Goods			
• Average amount spent in last year within the county that was influenced by trail existence (\$)			
- Equipment—bikes, etc.	\$ 68.67	\$127.05	\$41.25
- Accessories	21.88	34.87	19.75
- Clothing	21.25	28.25	48.80
- Other	7.67	5.35	3.69
- Total spent in county	\$119.47	\$195.52	\$113.49
• Total amount spent in last year that was influenced by trail existence (average per person)	\$173.99	\$250.64	\$132.69
Effect on Real Estate			
• Adjacent owner's opinion about effect of trail on resale value			
- No effect (%)	73	74	44
- Increased value (%)	14	16	53
• Real estate professionals surveyed	20	25	26
• Realtors' and appraisers' conclusion about effect of the trail on adjacent residential property			
- No effect (%)	82	80	52
- Increased value (%)	12	20	24

Acknowledgments

This study could not have been completed without the help of many groups and individuals. The East Bay Regional Park District, Florida Department of Natural Resources, Dubuque County Conservation Commission, and the nonprofit Heritage Trail Incorporated provided exceptional support through the entire effort. Their assistance, both on the trails and administratively, made the formidable task of collecting data for an entire year possible. We want to thank our contacts and their superiors in each of these organizations for their willingness to commit their organizations to this study. Thank-you to Steve Fiala and Sharon Saffas of the East Bay Regional Park District; Mary Anne Koos, Mike Diehl, and Cliff Maxwell of the Florida DNR; and Bob Walton and Carol Freund of the Dubuque County Conservation Board, and Doug Cheever and Art Roche of Heritage Trail Incorporated. We are equally grateful to the following individuals who commented on the initial draft of this report: Douglas Cheever, Iowa Rails-to-Trails; Heritage Trail, Inc.; Karen-Lee Ryan, Rails-to-Trails Conservancy; Paul Gobster, U.S. Forest Service; Robert Walton, Dubuque Co. Conservation Board; Stuart Macdonald, Colorado State Parks; Andy Clarke, Bicycle Federation of America; Sharon Saffas, East Bay Regional Park District; Alan Gerrell, Florida Department of Natural Resources; Bill King, Orinda, California; Duane Holmes, National Park Service; Art Roche, Heritage Trail, Inc.; Susan Harris, National Park Service; Attila Baloty, National Park Service; Mary Anne Koos, Florida Department of Natural Resources; Merle Van Horne, National Park Service; David Lange, National Park Service; David Wood, National Park Service; Barbara Baca, National Park Service; and John Cornelison, American Trails. Special thanks go to Doug Cheever who conceived and prepared the summary table included in the Executive Summary. We would also like to thank the Rails-to-Trails Conservancy for use of the maps inset in Figures II-1, II-2, and II-3.

Of course this study could not have taken place without the dedication of those who took on the difficult job of interviewing trail users twice a week for twelve months. Bill King, Robert

Bouska, and Teresa Hall in California, Sandy Madsen and Allen Gerrell in Florida, and Todd Saeugling and John Vontalge in Iowa.

We owe special thanks to those at Penn State who assisted with mailings, data entry, analysis and report preparation. Thank-you Mary Dunkle, Ann Harpster, Lisa May, Rich McGuire, Lori Kieffer, and Kris Rhengert.

And last, and perhaps most important of all, thanks to the 2,169 trails users in California, Florida, and Iowa who interrupted their rail-trail visits and took the time to participate in this

TABLE OF CONTENTS

EXECUTIVE SUMMARY	
ACKNOWLEDGEMENTS	vii
LIST OF TABLES	xii
LIST OF FIGURES	xv
I. INTRODUCTION	I-1
Background	I-1
Study Objectives	I-2
Previous Studies	I-3
Rail-Trail Use	I-3
Benefits of Trails and Trail Use	I-3
Effects on Adjacent and Nearby Property Values	I-5
Summary	I-6
II. STUDY METHODS	
Selection of Sample Trails	
The Heritage Trail	
The St. Marks Trail	
The Lafayette/Moraga Trail	
Trail User Study	
Sample Selection	
Surveys of Users	
User Counts	
Estimating Total Use	
Trail Neighbor (Landowner) Study	
Surveys of Property Owners	
Interviews with Realtors and Appraisers	

III. STUDY RESULTS

Description of Trail Users and Trail Use

User Characteristics

Trail Use Patterns

III-1

User Attitudes and Preferences

Description of Trail Neighbors and their Properties

Neighbor's Experiences of Trail-Related Problems

Neighbors' Attitudes Toward the Trails

Summary

Benefits of Sample Rail-Trails

Trip Expenditures

Expenditures on Durable Items

III-11

Trail Users' Willingness to Pay

III-11

Effects on Property Values

III-11

Landowner Perceptions

III-13

Perceptions of Real Estate Professionals

III-14

Summary

Broader Public Benefits

III-16

IV. CONCLUSIONS AND IMPLICATIONS

Wide Range of Benefits Provided

Differences in Levels of Economic Impact Across the Three Trails

Dedicated Users

Effects on Adjacent and Nearby Landowners

Summary

V. REFERENCES CITED

APPENDICES

- A. Estimation of Total Use Levels on Sample Trails**
- B. Representative Open-Ended Responses from User Survey**
- C. Representative Open-Ended Responses from Landowner Survey**
- D. Summary of What Users and Landowners Liked Best and Least About Trails**
- E. Trail User Survey Instruments and Cover Letters**
- F. Trail Neighbor Survey Instruments and Cover Letters**
- G. Realtor Telephone Survey Instrument**
- H. Contact Persons for More Information**

LIST OF TABLES

Summary and Comparison of the Study Trails

iv

II-1	Summary of Trail Sampling Effort by Month, Day of Week, and Time of Day	II-7
II-2	Sample Size and Response Rates for Trail User Mail Survey	II-8
II-3	Response Rates for Landowner Study	II-10
II-4	Sample of Real Estate Professionals by Trail	II-10
III-1	Gender of Respondents to Trail User Survey	III-17
III-2	Age of Respondents to Trail User Survey	III-17
III-3	Household Income of Respondents to Trail User Survey	III-18
III-4	Highest Education Level Attained by Respondents to Trail User Survey	III-18
III-5	Occupation of Respondents to Trail User Survey	III-19
III-6	Race or Ethnic Group of Respondents to Trail User Survey	III-19
III-7	Percent of Trail User Survey Respondents Reporting Various Disabilities	III-20
III-8	Year of First Visit to Trail	III-20
III-9	Number of Times Respondents Visited Trails in Last Twelve Months	III-21
III-10	Miles from Trail User Survey Respondents' Homes to Trail	III-21
III-11	How Trail User Survey Respondents Traveled to Trail	III-22
III-12	Number of Minutes Spent Getting to Trail	III-22
III-13	Trail Activity of Respondents	III-23
III-14	Age Composition of Trail User Groups	III-23
III-15	Length of Time Spent on Trail	III-24
III-16	Accommodations Used by Overnight Visitors	III-24
III-17	Mean Importance Ratings for Various Trail Characteristics	III-25
III-18	Mean Values for Extent to Which Survey Respondents Perceived Various Items to be Problems	III-26
III-19	Gender of Respondents to trail Neighbor Survey	III-27
III-20	Average Age of Respondents to Trail Neighbor Survey	III-27
III-21	Number of Landowners with a House on their Property	III-27
III-22	How Landowner Uses House	III-28
III-23	Distance From House to Trail	III-28
III-24	Acres of Property Owned	III-29
III-25	How Property is Used	III-29
III-26	Which Part of House Faces Trail	III-30
III-27	Number of Years Respondents Had Owned Property Near the Trail	III-30
III-28	Where Trail Was Located in Terms of Landowner's Properties	III-31
III-29	Number of Trail Neighbor Survey Respondents Reporting that They or a Member of Their Household Used the Trail During the Past Twelve Months	
III-30	Number of Days During Last Twelve Months that Any Member of Owner's Household Used Trail	
III-31	Percent of Trail Neighbors Indicating They Had Experienced Various Problems as a Result of the Trail During the Past Twelve Months and the Average Number of Times the Problems Occurred	

III-32	Percent of Adjacent Landowners Indicating They Had Experienced Various Problems as a Result of the Trail During the Past Twelve Months and the Average Number of Times the Problems Occurred	III-33
III-33	Owners Perceptions of Changes in Problems Since Opening of Trail	III-34
III-34	Percentage of Owners Reporting that Levels of Various Problems Decreased or Have Not Changed Since Opening of Trail	III-35
III-35	Overall Satisfaction With Having the Trail as a Neighbor	III-36
III-36	Landowners' Opinions About How Trail Has Affected the Quality of Their Neighborhood	III-36
	Number of Owners Who Purchased Present Property After Trail Was Opened	III-37
III-38	Landowners' Level of Support for Trail When it Was Proposed	III-37
III-39	Landowners' Attitudes About Living Near the Trail Now Compared to Their Initial Reaction to the Idea of Living Near the Trail	III-38
	Landowner's Attitude About Whether Living Near the Trail is Better or Worse Than Living Near the Railroad Right-of-Way Before it was Converted Into the Trail	III-38
III-41	Average Direct Expenditures Made by Visitors to the Heritage Trail	III-39
III-42	Average Direct Expenditures Made by Visitors to the St. Marks Trail	III-40
III-43	Average Direct Expenditures Made by Visitors to the Lafayette/Moraga Trail	III-41
III-44	Percentage of Trail Users Who Made Specific Types of Expenditure in County Where Trail is Located During Visit	III-42
	Average Direct Expenditures Made Within the County by Visitors Who Live Outside the County Where the Trail is Located	III-43
	Average Amount Spent on Durable Items Influenced by Existence of Heritage Trail	III-44
	Average Amount Spent on Durable Items Influenced by Existence of St. Marks Trail	
	Average Amount Spent on Durable Items Influenced by Existence of Lafayette/Moraga Trail	III-46
	Number and Percentage of Trail Users Reporting They Would be Willing to Pay Selected Amounts for an Annual Trail Use Permit	III-47
III-50	Owners' Opinions About Whether Trail Would Make Their Property Easier or Harder to Sell	III-47
	Owners' Opinion About Whether Trail Would Make Their Property Easier or Harder to Sell When Controlling for Distance From Trail	III-48
III-52	Owners' Opinions About How Presence of Trail Affects the Resale Value of Their Property	III-48
III-53	Adjacent and Nearby Owners' Opinions About How Presence of Trail Affects the Resale Value of Their Property	III-48
III-54	Landowners' Opinions About How Much the Trail has Affected Their Property Values	III-49
III-55	How Trail Affected Decision to Buy Property for Those Purchasing After Trail Was Opened	III-49
III-56	Real Estate Professionals' Opinions About Trail's Effect on How Easily	

	Adjacent Residential Property Sells	III-50
	Real Estate Professionals' Opinions About Trails' Effect on How Quickly Adjacent Residential Property Sells	III-50
	Real Estate Professionals' Opinions About Trails' Effect on Resale Values of Adjacent Residential Properties	III-50
	Real Estate Professionals' Opinions About Trails' Effect on How Easily Nearby Residential Property Sells	III-51
III-60	Real Estate Professionals' Opinions About Trails' Effect on How Quickly Nearby Residential Property Sells	III-51
III-61	Real Estate Professionals' Opinions About Trails' Effect on Resale Values of Nearby Residential Properties	III-51
III-62	Trail Benefits Perceived by Users by Trail	III-52
III-63	Trail Benefits Perceived by Landowners by Trail	III-52

LIST OF FIGURES

I-	The Nationwide System of Rail-Trails in 1991	
II-1	Map of Heritage Trail	II-2
II-2	Map of St. Marks Trail	II-3
II-3	Map of Lafayette/Moraga Trail	II-4
III-1	Percent of Trail Neighbors with Properties Severed by Trail	
III-2	Percent of Trail Neighbor Households Where Someone Used the Trail During the Past Twelve Months	
III-3	Percent of Landowners Reporting that Living Near the Trail Was Better or the Same as They Expected it to Be	III-5
III-4	Where Expenditures Were Made During Visits to Trails	III-7
III-5	Distribution of Trail Users Daily Expenditures	III-8
III-6	Percentage of Trail Users Making Selected Types of Expenditures	III-9
III-7	Summary of Estimated Expenditures Made by Trail Users	III-10
III-8	Distribution of Trail User Expenditures for Durable Goods	III-10
III-9	Distribution of Trail User's Willingness to Pay for an Annual Trail Use Permit	III-12
III-10	Percent of Adjacent Owners Reporting Trail Had No Effect On or Increased Their Property Value	III-13
III-11	Percent of Nearby Owners Reporting Trail Had No Effect On or Increased Their Property Value	III-13
III-12	Percent of Real Estate Professionals Reporting the Trails Had No Effect On or Increased the Resale Value of Adjacent Residential Property	

CHAPTER I. INTRODUCTION

Background

This report documents the results of an extensive study of the use, benefits, and impacts of public recreation trails constructed on the beds of unused railroad rights-of-way (i.e. rail-trails). Data were gathered at three study sites from early 1990 through mid-1991. The study was a cooperative effort of the School of Hotel, Restaurant and Recreation Management of the Pennsylvania State University and the Rivers, Trails, and Conservation Assistance Program of the National Park Service.

The Rivers, Trails, and Conservation Assistance Program of the National Park Service operates a wide range of programs including support for states, local agencies and citizen groups in their efforts to develop and manage trails and trail systems. Rail-trails are an area of emerging importance for the Program and trail planners nationwide. These trails are considered valuable local resources and an important part of any national network of "greenways" and, therefore, are attracting increasing attention from trail planners and the public. Greenways are defined as "linear open space established along either a natural corridor such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route" (Little, 1990). Rail-trails are typically flat, straight, hard-surfaced, and managed to accommodate a wide variety of uses. Some have suggested that rail-trails could become the backbone of a national greenway network since the railroads, in their heyday, connected almost every town and city in the United States.. By mid-1991, there were 415 rail-trails in existence in 42 states totalling 4,551 miles, and numerous efforts were underway to establish new ones (Figure I-1).

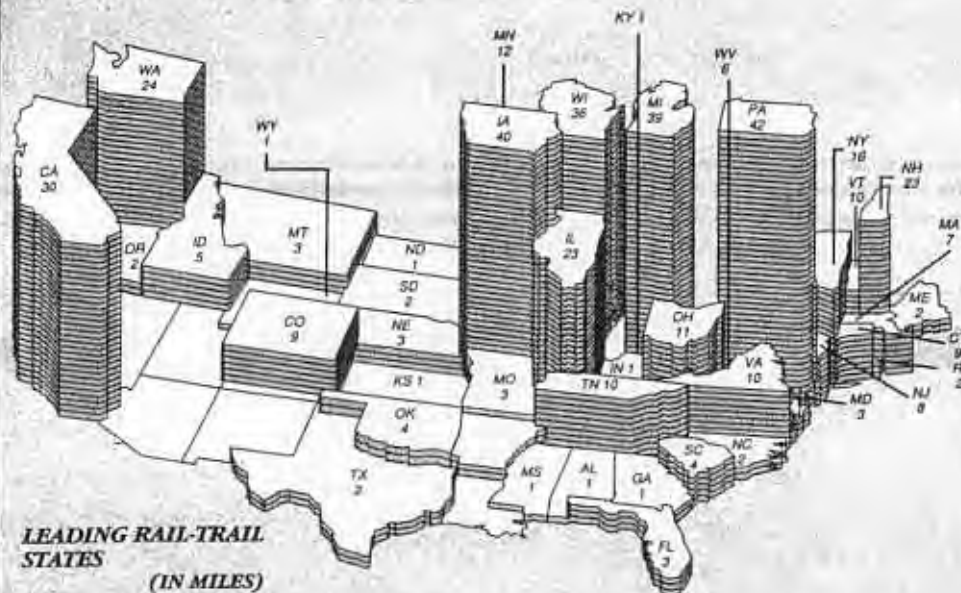
Although the development of rail-trails is considered an opportunity by many, this feeling is not shared by everyone. Some advocate the return of unused railroad property to private ownership, government agencies are faced with competing uses for scarce funds, and adjacent property owners and local officials are often concerned about opening these corridors to public use. Rail-trail proposals are frequently challenged and sometimes meet with bitter opposition. The key issues of debate in these cases generally include: planners' contentions of local economic and other benefits, landowners' concerns of increased problems and decreased property values, and potential users' assertions of the importance of recreation opportunities and greenways. Unfortunately, little reliable data exists regarding the benefits and problems associated with rail-trails, making it difficult to resolve these already emotional issues. Reliable, credible and defensible information is essential in these areas so that proposals for new rail-trails can be evaluated fairly and legitimate concerns can be effectively addressed. This study was undertaken in an attempt to gather information to assist in planning, developing, and managing rail-trails to maximize benefits while minimizing negative impacts.

Study Objectives

In light of the above issues the following four study objectives were established:

1. To explore the benefits of rail-trails to their surrounding communities and measure the total direct economic impact of trail use.
2. To examine what effects rail-trails have on adjacent and nearby property resale values.

415 Trails in 42 States



LEADING RAIL-TRAIL STATES

(IN MILES)

Wisconsin	693
Michigan	622
Iowa	409
Minnesota	372
Washington	363

3. To determine the types and extent of trail-related problems, if any, experienced by trail neighbors and compare these to problems and fears of problems prior to the opening of the trails.

4. To develop a profile of rail-trail users including demographic characteristics, use patterns, and trail-related attitudes.

Previous Studies

Rail-Trail Use

Rail-trails were used for recreation over 27 million times in 1988 (Rails-to-Trails Conservancy, 1989). The managers of fifty-one of the trails listed in *A Sample of America's Rail-Trails* (Rails-to-Trails Conservancy, 1988) estimated that the annual use on their trails ranged from a low of 1,800 user-days/year for a 7.5 mile trail in Illinois to a high of 1,000,000 user days/year on the 44.5 mile Washington and Old Dominion Trail in Northern Virginia. Rail-trail mileage in Minnesota increased from 70 to 156 between 1980 and 1988 with corresponding use increases from 81,000 visits to 217,000 visits during the same period (Regnier, 1989).

Several studies have examined the use of specific rail-trails. For instance, a 1988 study of the Elroy-Sparta trail in Wisconsin found that 49% of users came from out-of-state. The average distance travelled to get to the trail was 228 miles. Thirty-three percent of users were under 18 years of age and almost half of all users were repeat visitors. On average, users were found to spend 1.43 nights in the area and travel in groups of 4.19 people (Schwecke, et al., 1989). A study of the 7.6-mile Lafayette/Moraga Trail in California in 1978 estimated annual use there at 116,000 visits (East Bay Regional Park District, 1978). The most common age category was 31 to 49, the most common travel method to get to the trail was by car, 44% planned to use the trail for less than half an hour, and 84% came from three miles or less to use the trail. A statewide

study of nineteen of thirty-one official bicycle trails in Illinois included several rail-trails (Gobster, 1990). This study found that the trails tended to serve local and regional users who visited frequently (40% visited "virtually every week"). Forty-two percent were female and the largest proportion of users (30%) were in the 25-34 age category. Trail users were found to be well educated and 55% had incomes of \$40,000 or more.

Greenways not constructed on unused railroad corridors are often similar to rail-trails in many ways. A study of Capital Area Greenway system users in Raleigh, North Carolina, found that the typical user was a white female between 16 and 34 years old. Overall, users were well-educated and had above average incomes (Furuseth & Altman, 1991). A related study (Furuseth & Altman, 1990) comparing the Capital Area Greenway system with a neighborhood greenway in Charlotte, North Carolina, found a similar population of users. They also found that the majority of users of each trail had travelled five miles or less to access the trails. Interestingly, while younger users were the most common, those over 55 visited most frequently.

Benefits of Trails and Trail Use

Trails, like other forms of outdoor recreation and tourism, are felt to provide many benefits to individuals and society. Driver and Brown (1986) offer the following as personal benefits of outdoor recreation: personal development (attitudes, values, skills, etc.), social bonding, therapeutic bonding, improved physical health, stimulation and opportunity for curiosity seeking, and nostalgia. West (1986) adds the social benefits of social interaction, mental health, and family cohesiveness. Rolston (1986) presents the following as ecological benefits of outdoor recreation and recreation areas: life support, aesthetics, scientific opportunities, natural history, habitat, and forms of philosophy and religion. Another major benefit of outdoor recreation, and therefore trails, is the economic impact gener-

ated by recreationists while traveling to and from their destinations and while participating in their activities.

The economic impacts of trail use and other recreation activities are assessed by measuring both primary and secondary expenditures. Primary (or direct) expenditures result from transactions related directly to the visit, such as the purchase of food, lodging, etc. Secondary (or indirect) effects result from the direct expenditures. Examples include increased employment, respending of the direct dollars through a local economy, tax revenues generated, etc. (Alward, 1986).

Many studies have attempted to assess the economic impact of outdoor recreation in general and several have directly or indirectly looked at trail-related activities from an economic perspective. According to the President's Commission on Americans Outdoors, for example, American consumers spent \$100 billion on outdoor recreation in 1984 (President's Commission on Americans Outdoors, 1987). In a study of the contribution of outdoor recreation to state economies for the Council of State Planning Agencies, Keiner (1985) discusses three separate state studies. A 1981 study in Pennsylvania (using secondary data) found that state residents spent \$5.6 billion on outdoor recreation that year. Participation at public facilities accounted for \$2.4 billion, while \$3.1 billion was spent at private facilities. Outdoor recreation expenditures represented 44% of Pennsylvanian's total leisure expenditures. The study also projected that by 1990 expenditures would increase by 17% at public facilities and 20% at private facilities. A 1981 study in Utah found that the direct economic impact of outdoor recreation in that state was \$601,704,800. Of this, \$348,648,900 resulted from residents and \$253,055,900 from nonresidents. The Utah study was based on 8,000 resident telephone interviews and 7,600 personal interviews with nonresidents. A 1982 study in Delaware concluded that the total annual economic impact of outdoor

recreation was \$916.1 million in that state. This total included both the direct and indirect impacts of outdoor recreation.

The portion of the total economic impact of outdoor recreation that results from trail use has been examined by a smaller number of studies. A 1984 study conducted in 15 North Dakota state parks found that the direct economic impact of park visitors was \$31,973,825 (Mittleider and Leitch, 1984). Of the 1,302 visitors interviewed, nearly 75% participated in the following trail-related park activities: hiking, nature study, bicycling, horseback riding, cross country skiing, or snowshoeing.

Strauss and Lord (1988) conducted a study of the economic impact of the Pennsylvania State Park system which examined the amount and location of visitors' expenditures associated with six specific activities. They interviewed forty-three hundred boaters, swimmers, fishermen, picnickers, campers and hikers at 24 state parks during the summers of 1985 and 1986. The total direct expenditures at the 24 parks were estimated to be \$138.2 million. These six activities were found to account for 91% of the total expenditures. Hiking accounted for 3.2% of this portion, or just over \$4 million. Hiking expenditures were the lowest of the six activities at \$3.55 per activity day on average. Of the amount associated with hiking, \$1.45 was spent on food, \$.45 on transportation and \$.36 on lodging. The study also found that 46% of the expenditures occurred near the park, 41% near the user's home and 13% in transit. The expenditure estimates for hiking may not be representative of hiking costs outside of Pennsylvania State Parks, however. The authors note that, "Hiking in state parks was largely a peripheral activity, frequently based on relatively short trail systems and usually pursued in the form of leisurely walking." A study of the 75 mile Crow Wing Canoe Trail conducted in 1978 found that the trail's users spent \$3.75 per person for a total annual economic impact estimated to be over \$300,000 annually (Blank, 1987).

Several economic impact studies have examined rail-trails in particular. A study of the Sugar River Trail near New Glarus, Wisconsin concluded that trail users spent nearly \$430,000 in 1985 (Lawton, 1986). The Sugar River Trail is a 23.5 mile bicycle trail managed by a non-profit corporation which offers such services as a user shuttle service and bicycle rentals. In 1985, users spent an average of \$9.04 per person using the Sugar River Trail. In addition, it was determined that out-of-state users spent over twice as much as Wisconsin residents. Expenditure data were gathered through voluntary user surveys conducted from 1979 to 1985 which included the question, "Would you mind telling us approximately how much money you spent along the trail?"

A 1973 study of the Elroy-Sparta bicycle trail in Wisconsin concluded that 72 businesses in five communities realized gross added sales of \$295,100 as a result of trail use (Blank, 1987). A 1988 study of this same trail found that users spent \$14.88 per person per day for trail-related expenses. The total annual economic impact of the Elroy-Sparta Trail was estimated to be \$1,257,000. Economic data was gathered as part of on-site interviews with 1,125 parties using the trail during July and August of 1988. Users were asked to, "Estimate the total amount of money your party will spend on this trip in this area" (Schwecke, et al., 1989).

The Minnesota Department of Natural Resources analyzed survey data gathered on six of its rail-trails from 1980 through 1988 and found that trip-related expenditures varied greatly depending upon which trail was visited and how far visitors travelled to get to the trails (Regnier, 1989). Users who travelled less than 25 miles to get to the trails spent an average of \$.61 to \$2.86 per day depending upon the trail visited. Those travelling 25 miles and farther spent up to \$53.20 per day on average.

In 1989 the U.S. Forest Service conducted a comprehensive study of nineteen Illinois bicycle trails, some of which were rail-trails

(Gobster, 1990). The representative sample of trails ranged in length from .75 to 55 miles and included many urban and suburban settings. Thirty-four hundred users were surveyed during their trips on weekends from April through October. Expenditure data were gathered using a question which asked, "How much money will this trip cost you? Include the money it took to get to the trail, money spent on the trail, and the cost of getting back." On average, users spent \$2.89 per person per trip with 53% having no expenses and 2% spending over \$50.

A 1989 survey in Minnesota (Minnesota Department of Natural Resources, 1990) looked at users of rail-trails. The average amounts users expected to spend on the day they were interviewed was \$7.94, \$10.45, \$1.90 and \$8.38, respectively, on the four trails examined.

Effects on Adjacent and Nearby Property

There are few studies that have examined the effects of trails on nearby private property. One study of two Minnesota rail-trails found that landowner concerns prior to trail development were greater than the subsequent problems actually experienced by the landowners (Mazour, 1988). Although the vast majority of owners had not experienced major problems with the trails, loss of privacy, trespass, litter, and access to their properties were found to be of "some concern" for 25 to 33% of landowners. In terms of how the trails affected their property values, 87% of owners believed that the trails either increased the values of their properties or had not affected them at all. Interviews with ten real estate agents and appraisers indicated that trails were a selling point for suburban residential property, hobby farms, farmland proposed for development and some kinds of small town commercial property, but had no effect or a slightly negative effect on agricultural land and small town residential property. The number of landowners who reported being initially concerned that trail development would lower property values was found to be higher than the

number who still held this view after the trails were established.

In 1987, the Seattle Engineering Department conducted a study of the effects of the Burke-Gilman Trail on nearby property values and crime rates. The Burke-Gilman Trail is a 12.1 mile bicycle and pedestrian route of which 9.9 miles are within the city of Seattle. The results of the study showed that property near but not immediately adjacent to the trail was worth an average of 6% more than comparable property elsewhere, in the opinion of local real estate agents, and that property immediately adjacent to the trail sold for up to one half of one percent more. Homes immediately adjacent to the trail actually had lower rates of burglary and vandalism than the neighborhood average (City of Seattle, 1987).

The Minnesota Department of Natural Resources (1980) conducted surveys of landowner attitudes along two proposed rail-trails and compared them to landowners' attitudes and experiences along two existing trails. They found that landowners along the existing trails were more positive and had experienced fewer problems than the landowners along the proposed trails were anticipating.

The effects of the Lafayette/Moraga Trail on property owners adjacent to it was examined as part of a 1978 study (East Bay Regional Park District, 1978). It found that 92% of adjacent owners used the trail and that 90% were either "very" or "somewhat" satisfied with it. The three things they liked best about living near the trail were "trail is close, convenient," "fun to watch trail users, horses," and "trail is safe place to walk, bike, etc." The three things they enjoyed least were "loss of privacy," "motorcycles, noise from motorcycles," and "unleashed dogs, roaming dogs." Over sixty percent reported having "not experienced the slightest problem" on account of the trail. The most commonly reported problems were trespass (10.8%) and motor vehicle use of the trail (8.1%). The majority of owners felt there were fewer prob-

lems at that time than before there had been a trail and 92% felt the trail had either improved or had no effect on the quality of their neighborhoods. While 48% felt the Lafayette/Moraga Trail had little or no effect on their property values, 36% felt the trail had increased the value of their property. The majority of those surveyed reported that living next to the trail was better than they had expected it to be, and 56% of those who moved to their present homes along the trail after it had been built reported that they had considered the trail a plus when making their decision to buy. Eighty-five percent felt the trail had been a worthwhile expense of park money and the most commonly requested improvement by the adjacent owners was "lengthen trail."

Summary

Trails and their associated use appear to offer a wide range of benefits to individuals and society. Previous studies have shown that trails, like other outdoor recreation resources, can generate significant personal, social, ecological and economic benefits for individuals and communities.

CHAPTER II. STUDY METHODS

This chapter describes the research methods used in this study and is divided into three sections. The first describes the selection of the three trails included in the study, the second describes the selection, surveying and counting of the trail users and the third describes the selection and surveying of the property owners and real estate professionals near each trail.

Selection of Study Trails

At the time this study began, there were over 400 rail-trails in the United States. Three very different ones were selected in an attempt to represent, as much as possible, the diversity of the overall population in the following areas: region of the country, surrounding population density, physical setting, land ownership pattern, trail length, and type of managing authority. The level of cooperation and assistance available from local managers was also considered. Over 100 trails were considered for inclusion in this study. Managers of twenty of these were interviewed and three trails were selected. These were: the Heritage Trail in eastern Iowa; the Tallahassee to St. Marks Historic Railroad State Trail (St. Marks Trail) on the Florida panhandle; and the Lafayette/Moraga Trail near Oakland, California.

The Heritage Trail

The Heritage trail begins just west of Dubuque, Iowa and runs twenty-six miles west to the town of Dyersville (Figure II-1). It is extremely rural throughout its length, passing through wooded rolling hills for nearly two-thirds of its length before emerging onto open farmland. It is surfaced in crushed limestone. The Heritage Trail is managed by the Dubuque County Conservation Board which hires a ranger who, among other duties, periodically patrols

the trail in a small county truck. The Conservation Board enforces a permit system whereby all users aged twelve to sixty-four must purchase either a daily pass for one dollar or an annual pass for five dollars. Motorized vehicles and horses are not permitted on the Heritage Trail, except during winter months when snowmobiles are permitted on much of its length. The Heritage Trail was established in 1982.

The St. Marks Trail

The Tallahassee to St. Marks Historic Railroad State Trail, popularly known as the St. Marks Trail, runs sixteen miles from the southern outskirts of Tallahassee, Florida due south to the small town of St. Marks very near the Gulf of Mexico (Figure II-2). The trail runs through a mix of settings including the town of Woodville, several sections where single family home development is increasing, as well as long sections bordered by large tracts of national forest and private timber company lands. The St. Marks Trail is asphalt paved and patrolled regularly by rangers in a gasoline powered golf cart. There is no permit system or fee for use. All non-motorized trail uses are permitted including horseback riding which most often occurs on a separate narrow path constructed for that purpose five to fifteen feet from the paved trail. The St. Marks Trail was officially dedicated and opened in 1988.

The Lafayette/Moraga Trail

The Lafayette/Moraga Trail is a 7.6 mile trail that connects the cities of Lafayette and Moraga which lie about 25 miles east of San Francisco, California (Figure II-3). It passes through heavily developed, often affluent, suburban areas for most of its length, crossing numerous small and medium-sized roads and residential streets. Long sections are situated

Figure II-1
Heritage Trail
Dubuque County, Iowa

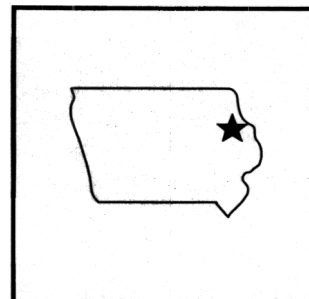
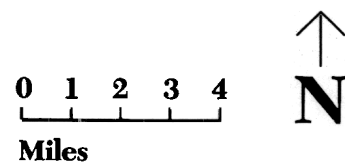
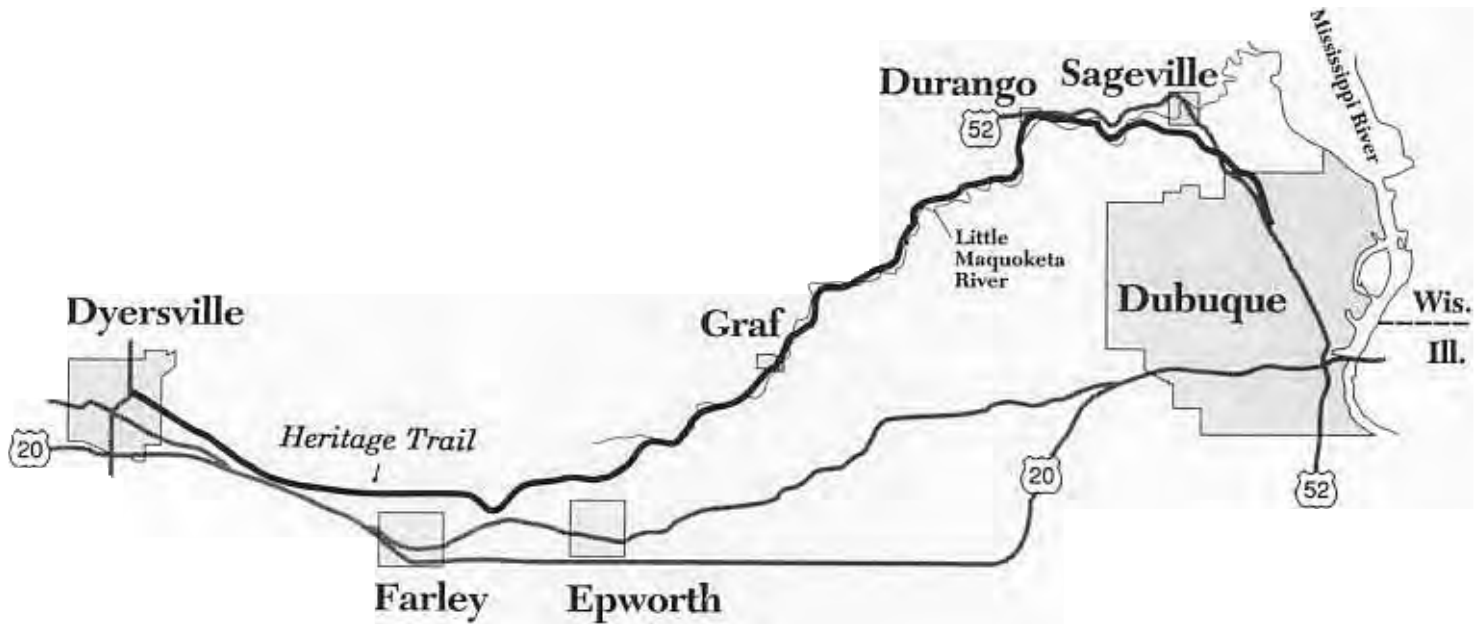


Figure II-2
St. Marks Trail
Tallahassee, Florida

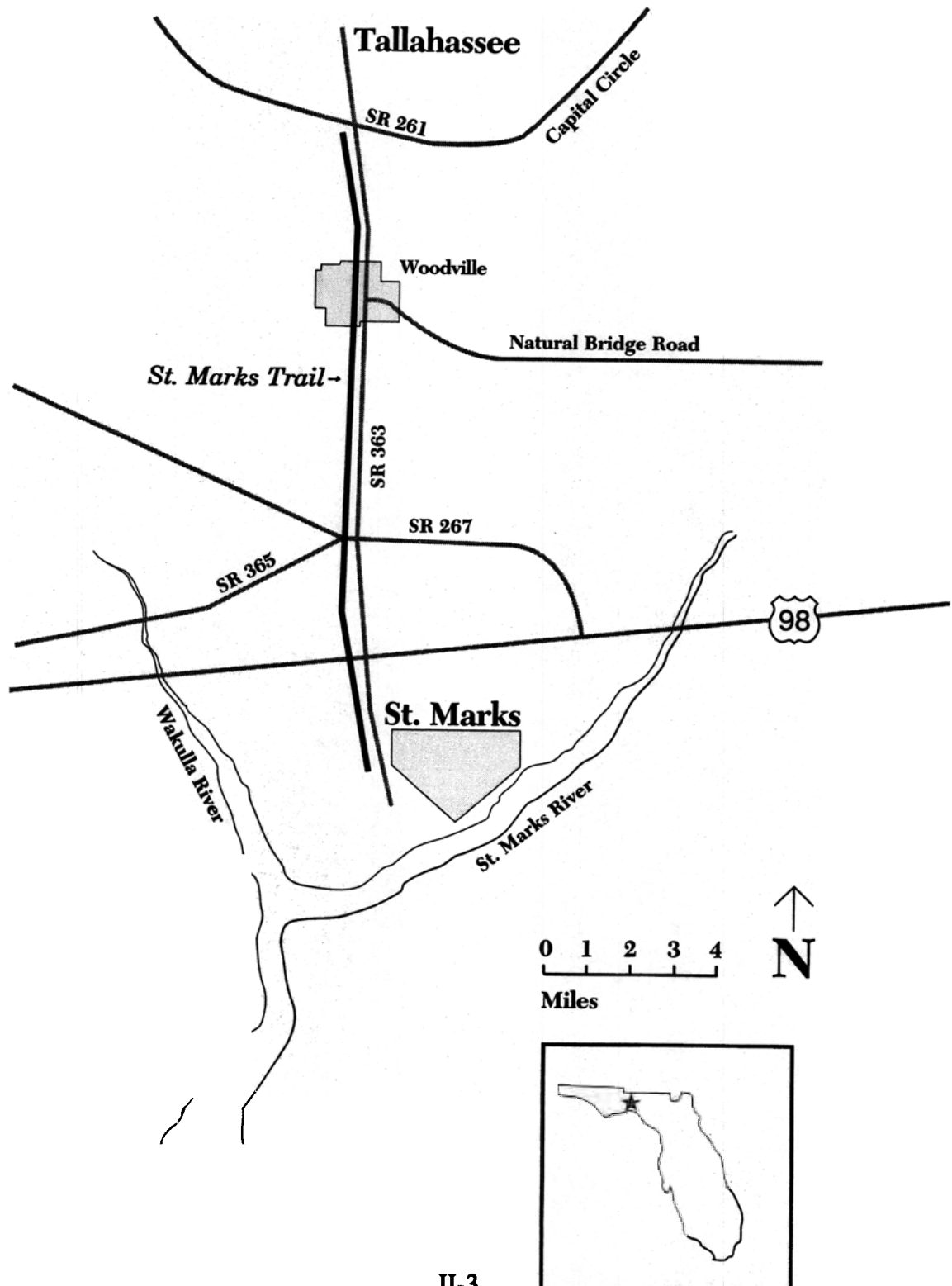
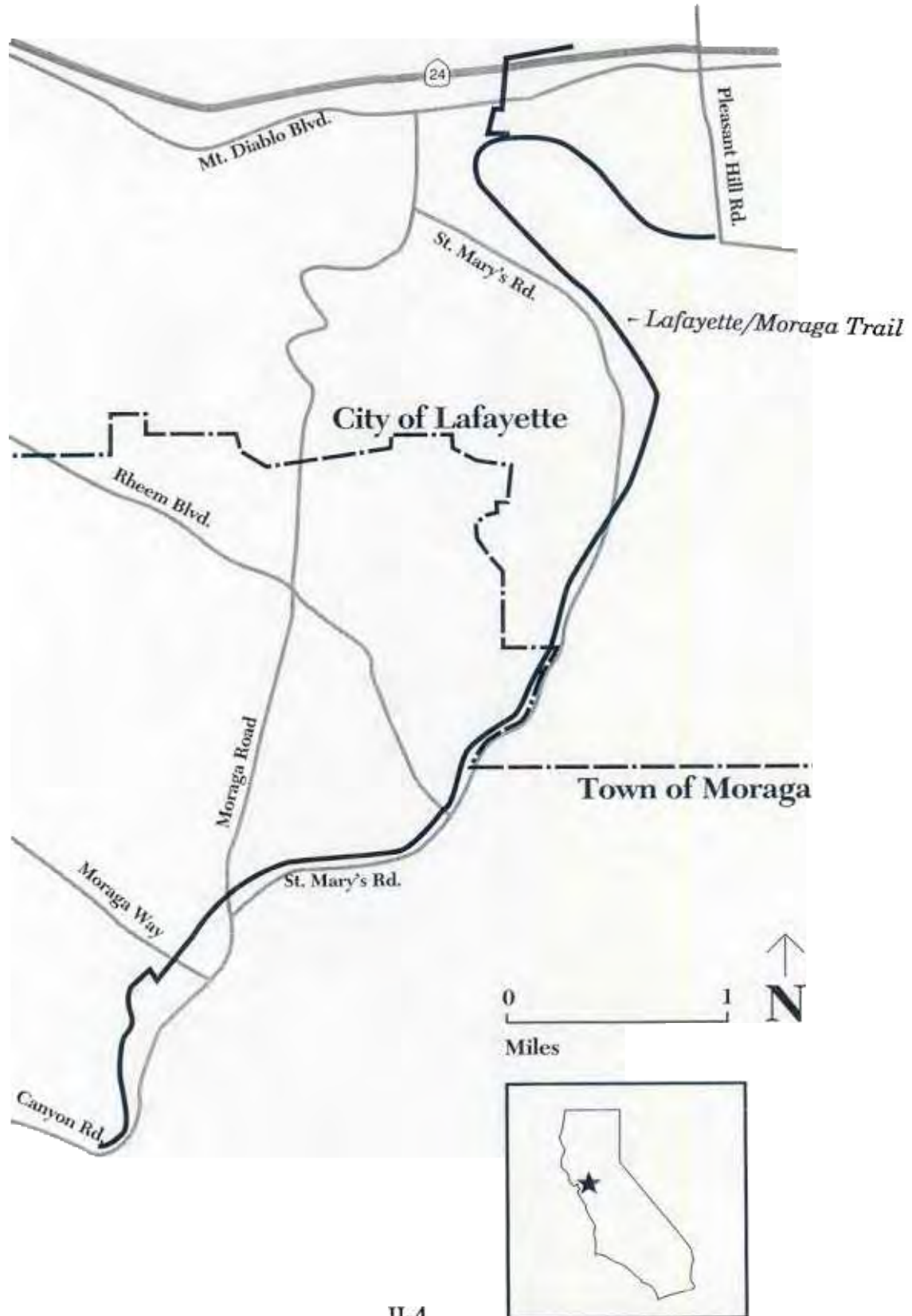


Figure II-3

Lafayette/Moraga Trail

Contra Costa County, California



between the backyards of literally hundreds of private, single family homes. The Lafayette/Moraga Trail is asphalt paved and is managed by the East Bay Regional Park District. Public Safety Officers and volunteers on bicycle do make periodic patrols for educational, maintenance, and enforcement purposes. There is no fee for trail use. All non-motorized trail uses such as walking, running, bicycling, roller skating, etc. are permitted including horseback riding which usually occurs on the grassy shoulders of the trail. The Lafayette/Moraga Trail was opened to the public in 1976.

Trail User Study

Sample Selection

On-site "interviewers" selected and interviewed a sample of users and conducted regular user counts which were used as the basis for estimating the total level of use for each trail. Interviewers selected the sample by contacting users on the trail in a systematic way to reduce bias and to achieve as representative a sample of the users of each trail as possible. These on-site personnel were local trail rangers in the cases of the Iowa and Florida trails and a combination of local rangers and a hired interviewer in California. All interviewers received on-site orientations and training from the principal researchers prior to beginning data collection.

Interviewers attempted to sample users during two round-trips (or "passes") of their trails each week. A stratified sampling design was used to assure that weekdays and weekends/holidays were appropriately represented. In addition, each day was divided into five, three-hour time periods beginning at 6 AM and ending with a 6 to 9 PM period. Times and days-of-week for trail passes were systematically selected for interviewers in advance by the researchers to reduce possible sample selection bias.

To facilitate the systematic sampling of trail users, each trail was divided into five sections of

approximately equal length between landmarks such as access points or mileposts. The interviewers systematically sampled users during the two scheduled passes each week by randomly selecting one person from each of the first two parties encountered in each trail section. Only persons sixteen years old and older were included. If fewer than two parties were encountered in a particular section, additional interviews were conducted in the next sections to attempt to meet a quota of ten interviews per pass per trail.

Data collection began in early March of 1990 and continued through the end of February, 1991 in order to represent users from all seasons of the year.

Surveys of Trail Users

A combination of brief on-site interviews and follow-up mail surveys was employed to gather data from users of each of the three study trails. This combination of approaches was adopted for two primary reasons:

1. Data needed to be gathered after users returned home from their trips so they could report actual rather than anticipated expenditures. Past studies have shown that this is the best methodology under these circumstances (Frechtling, 1987).
2. A significant proportion of the rail-trail users to be studied were using the trails for exercise. To ask these users to interrupt their workouts for more than two minutes would have been a considerable intrusion and burden. Mail surveys sent to users' homes gave them the opportunity to complete them at their convenience.

A stratified random sample of users selected, as described previously, was stopped and asked to participate in the study by providing their names and addresses and the answers to a few short questions. The initial interview took approximately two minutes per respondent. These

same users were then sent a more extensive mail survey within two weeks of their trail visit. A postcard reminder was sent ten days later. Study participants who had not responded during the first two weeks were sent a second copy of the survey. Two weeks after this third mailing, any remaining nonrespondents were sent a final copy of the survey. This methodology followed the Dillman Total Design Method (Dillman, 1978). Copies of all survey instruments and cover letters are provided in Appendix E.

Sampling of trail users took place throughout the study year and at various times of the day as shown in Table II-1. The number of interviews conducted was relatively consistent across months, with the exception that lower numbers were completed during the winter months, primarily because fewer people used the trails during winter. Although sampling effort was evenly divided between weekdays and weekends, 58 percent of the surveys were completed on weekends, again reflecting higher trail use levels. Surveys were fairly evenly distributed throughout the day between 9 AM and 6 PM, with lower numbers completed before and after these times. This distribution reflects the fact that daylight was available for only part of the year for the earlier and later sampling periods.

Of the 2,151 trail users sent follow-up mail surveys, 1,705 were returned in usable form, representing a 79.3 percent response rate (Table II-2). The response rates were slightly higher for the Heritage and Lafayette/Moraga Trails than for the St. Marks trail.

User Counts

In addition to selecting the samples as just described, interviewers conducted regular user counts on each trail. The unit of measure for these counts was a "recreation visit" which is defined by the National Park Service as, "the use by one individual of a recreation area for recreation for any length of time" (Walsh, 1986). Every time the interviewer made a pass of the trail, the number of visits (i.e. users seen) was

recorded by activity, location, and time of use as well as other pertinent information on a "user count form" (see Appendix E). These forms and the circumstances of the counts varied slightly from trail to trail.

Estimating Total Use

In order to establish the total economic impact of trail use on the local economies, average expenditures per visit needed to be multiplied by the total number of visits. Therefore, total use needed to be estimated as accurately as possible. This was not a simple undertaking. Only one trail under investigation enforced a permit system and even an accurate permit system cannot account for noncompliance and the actual number of visits made by annual permit holders. Traditional pneumatic and electronic traffic counters cannot distinguish two people making a one-way trip from a single user making a round trip. Most problematic is the almost unlimited number of trail access points on each trail. In order to compensate for these difficulties, a new method of counting was devised for this study. Total recreation visits were determined in two different ways.

Total use was calculated using the counts generated by the interviewers during their passes of the trails. These individual counts were considered "snapshots" of use during the period of the pass. Total recreation visits were extrapolated from these "snapshots" by correcting for the number of users missed during each pass and the proportion of time the interviewer was not on the trail.

Calibrating count totals to accurately reflect total use involved several steps. Single, one-way passes of each trail took from one to three hours. Since the interviewers could not be everywhere along the trail at once during that time, they inevitably missed counting some users that should have been included in the count for that pass. More elaborate on-site "calibration counts" were conducted periodically to develop a correction factor for the regular counts.

Table II-1
Summary of Trail Sampling Effort by Month, Day of Week, and Time of Day

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<u>Month</u>								
March 1990	42	11	81	10	91	9	214	10
April 1990	49	13	97	11	80	8	226	10
May 1990	36	10	75	9	99	10	210	10
June 1990	49	13	87	10	100	10	236	11
July 1990	1*	0*	91	11	92	9	184	8
August 1990	81	22	71	8	97	10	249	11
September 1990	65	18	109	13	108	11	282	13
October 1990	30	8	80	9	60	6	170	8
November 1990	7	2	46	5	90	9	143	6
December 1990	3	1	62	7	50	5	115	5
January 1991	5	1	17	2	68	7	90	4
February 1991	3	1	34	4	63	6	100	4
	371	99	850	99	998	100	2219	100
<u>Day of Week</u>								
Sunday	103	28	367	44	286	29	756	34
Monday	33	9	20	2	95	10	148	7
Tuesday	27	7	73	9	116	12	216	10
Wednesday	44	12	35	4	113	11	192	9
Thursday	32	9	49	6	111	11	192	9
Friday	45	12	50	6	79	8	174	8
Saturday	86	23	247	29	194	20	527	24
	370	100	841	100	994	101	2205	101
<u>Time of Day</u>								
6-9 AM	20	7	80	10	161	16	267	12
9-12	67	18	198	24	202	20	467	21
12-3	109	30	290	34	247	25	646	29
3-6	137	37	180	21	247	25	564	26
6-9	30	8	93	11	129	13	252	12
	369	100	841	101	986	99	2196	100

* The low number of interviews on the Heritage Trail during July was due to flood damage repairs underway at this time.

Table II-2
Sample Sizes and Response Rates for Trail User Mail Survey

	Heritage (Iowa)	St. Marks (Florida)	Lafayette/Moraga (California)	Combined
Surveys Mailed	371	842	938	2,151
Usable Returns	329	600	776	1,705
Response Rate (%):	88.7	71.3	82.7	79.3

Volunteers were recruited to conduct these stationary counts for several hours while the interviewer made simultaneous passes of the trail. Volunteers were stationed at each of the major access points where they began counting at a predetermined start time for the pass. They only counted users leaving the trail at their access point until the interviewer arrived there. They then began counting users who entered the trail at that access point until the predetermined ending time for that pass. By summing the interviewer's count with the access point counts, an accurate estimate of the total number of users on the trail during the entire pass (the users seen by the interviewer plus those who left the trail before the interviewer passed plus those who entered the trail after he/she passed) was obtained. The results of these "calibration counts" were used to develop a correction factor which was used to adjust the interviewers' count totals upward to account for users missed during each pass.

The next correction involved adjusting the interviewers' counts upward to include users missed during the hours the interviewers were not on the trail counting at all. This was done by multiplying the average users per hour by the number of daylight hours during each season. A final correction was made to account for users whose trips lasted longer than an hour and were in effect counted more than once when users/

hour was multiplied by total daylight hours. Users' average length of stay on the trail for the season was employed for this. The total number of visits as calculated above was divided by the average length of stay to assure that no users were counted more than once.

This procedure for estimating total use was carried out on all three trails. The results obtained in this way for the Heritage Trail were checked against calculations based on the permit system in place there. This method involved correcting the total daily and annual permits sold for the year for estimated noncompliance, and for the average number of times per year annual permit holders reported visiting the trail, to obtain a permit-based count for comparison purposes.

Trail Neighbor (Landowner) Study

The existence of rail-trails has implications for more than just users and potential users. There are also potential positive and negative impacts on trail neighbors - those living adjacent to and near the trails. Therefore, a two-part study of rail-trail neighbors and their properties was included as part of the study of the Heritage, St. Marks, and Lafayette/Moraga Trails. The first part was a survey of the property owners themselves, and the second part was a series of interviews with area realtors and appraisers.

Survey of Property Owners

Mail surveys were sent to the sample of adjacent and nearby property owners on each of the three trails. As in the trail user survey, a postcard reminder and two additional follow-up mailings were sent to nonrespondents. These forms are included in Appendix F.

For the purposes of this study, a trail neighbor was defined as any residential property owner whose property was within .25 miles of the trail. Neighbors were further classified as either living immediately adjacent to the trail or living near, but not adjacent to, the trail. All property owners within 1/4 mile of the three trails were identified using property tax records and trail managers' mailing lists. Samples were then selected for both adjacent and nearby owners for each trail. Because there were relatively few owners adjacent to the Heritage Trail, all were surveyed while a random sample of owners were surveyed on the other two trails. For each trail, approximately equal numbers of adjacent and nearby owners were surveyed. Because of the rural nature of the Heritage Trail it was necessary to survey some owners of property as far away as half a mile in order to obtain a sample size comparable to that for adjacent owners.

A total of 1,086 property owners were selected and surveyed. All 79 owners of property adjacent to the Heritage Trail and an additional 74 owners of property near, but not immediately adjacent to the trail, were selected and surveyed. Two hundred ten of the 270 owners of property adjacent to the St. Marks Trail and an additional 226 owners of property near (but not immediately adjacent to) the trail were randomly selected and surveyed. Two hundred fifty of the 400 owners of property adjacent to the Lafayette/Moraga Trail and an additional 247 owners of property near that trail (but not immediately adjacent to it) were randomly selected and surveyed.

Table II-3 presents the response rates by trail. The lower response rate for the St. Marks Trail (58%) may be a reflection of the fact that this trail was very new at the time of the survey. Some St. Marks Trail neighbors may not have felt familiar enough with the trail to motivate them to respond.

Interviews with Realtors and Appraisers

In addition to surveying trail neighbors, information was gathered from real estate professionals familiar with the local markets regarding the trails' effects on property sales and values. Telephone interviews lasting up to twenty minutes were carried out with realtors and appraisers active and experienced in the trail communities. The interview form is included in Appendix G. A snowball sampling frame was used where initial names were gathered from trail managers and real estate agency signs along the trails. Following the interviews with these subjects, each was asked to suggest names of their peers familiar with the area. This pattern was followed until twenty-five useable interviews were completed or until all available listings were exhausted. In Iowa, it was necessary to attempt to contact every realtor and appraiser listed in the telephone directory for trail communities. Table II-4 presents the breakdown of real estate professionals by trail and specialty.

Table II-3
Response Rates for Landowner Study

	Heritage	St. Marks	Lafayette/Moraga	Combined
Surveys Mailed	153	436	497	1086
Undeliverable/Unusable	10	49	29	88
Useable Responses	107	226	330	663
Response Rate* (%)	75	58	71	66

*Response rate = Useable Responses divided by (Mailed minus undeliverable/unusable).

Table II-4
Sample of Real Estate Professionals by Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Realtors	13	65	21	84	19	73	53	75
Appraisers	7	35	4	16	7	27	18	25
<i>n</i>	20	100	25	100	26	100	71	100

CHAPTER III. STUDY RESULTS

This chapter presents a detailed description of the results of both the trail user and landowner surveys included in the study. The first section describes the characteristics, use patterns, and attitudes and preferences of trail users. A similar profile of trail neighbors (landowners) is given in the following section. Finally, data from both surveys relative to the economic and other benefits of rail-trails are presented. Because of the volume of data presented, all of the data tables from these sections are provided at the end of the chapter.

Description of Trail Users and Trail Use

User Characteristics

The sample of trail users included nearly equal numbers of males and females (Table III-1). The Heritage Trail sample included a slightly higher proportion of males (56%), while the Lafayette/Moraga sample included more females (57%) and the St. Marks sample was most evenly divided between males (51%) and females (49%). Users of all ages were well represented on all three study trails (Table III-2). The average age of respondents was 45, although this average varied markedly by trail from a low of 38 for the St. Marks Trail to a high of 50 for the Lafayette/Moraga Trail. It is important to remember that the age distribution shown in Table III-2 represents only survey respondents and thus excludes users under 16 years of age. (Children within sampled groups are included in the age distribution presented later and in Table III-14).

Similarly, the sampled rail-trails appear to attract users from all income levels (Table III-3). Nearly one-fourth of the combined sample reported incomes of \$80,000 or higher, while two-fifths reported incomes under \$40,000 annually. The Lafayette/Moraga sample included a much larger proportion of users in the top income

bracket (42% compared to 7% for the Heritage Trail and 11% for the St. Marks Trail).

Trail users tended to be well educated, with the majority reporting that they had completed college or graduate work (Table III-4). In this instance, the Lafayette/Moraga and St. Marks trails were most alike, with about two-thirds reporting completion of at least a college education, compared to only 40% for the Heritage trail.

Trail users came from a wide variety of occupations, with professional fields particularly well represented (Table III-5). Retired individuals made up 14 percent of the overall sample and were most prominent on the Lafayette/Moraga Trail (21%) and least evident on the St. Marks Trail (5%).

There was relatively little ethnic diversity among users sampled on the three study trails (Table III-6). Over ninety percent of the respondents from all three trails were white. However, the demographic characteristics of sampled trail users mirrored the populations of the communities through which the trails passed.

When asked if they had any disabilities or handicaps, seven percent of the trail users said yes (Table III-7). Hearing and visual impairments were the most frequently reported types of disabilities. Only two individuals of the over 1,700 responding to the mail survey reported that they use a wheel chair.

Trail Use Patterns

Study respondents' level of previous experience and trail use tended to reflect the age of the respective trails. Two-thirds of the users of the St. Marks Trail, the newest of the study trails, reported their first trail visit during 1989 or 1990 (Table III-8). In contrast, about half of the Lafayette/Moraga users began using the trail prior to 1985 and only 18% reported their first

visit between 1989 and 1990. These numbers are consistent with the percentages of respondents who were on their first visit to the respective trails when they were interviewed. The proportion reporting they were visiting the trail for the first time ranged from four percent for the Lafayette/Moraga to 16% for the Heritage and 19% for the St. Marks Trail.

The frequency of trail usage also varied markedly across the three study trails (Table III-9). The Lafayette/Moraga users included a much higher proportion of very regular users, with 50% reporting that they used the trail more than 100 times during the previous twelve months. The Heritage and St. Marks Trails also attracted substantial numbers of regular trail users, but about half of their respondents reported ten or fewer visits for the previous twelve months.

These differences in trail use rates probably reflect differences in the distances respondents had to travel to use the respective trails (Table III-10). One-third of the Lafayette/Moraga users lived within a mile of the trail, with another 49% living between one and five miles from the trail. Only about one-fourth to one-third of the St. Marks and Heritage Trail users reported living within five miles of the trail. Conversely, both the Heritage and St. Marks Trails were more likely than the Lafayette/Moraga to attract users from more than ten miles away, and the Heritage in particular showed high numbers traveling distances of 20 miles or more.

The majority of users of all three trails reported using motor vehicles to travel to the trail, although users of the Heritage and St. Marks trails were far more likely to drive to the trail (Table III-11). Nearly one-third of the Lafayette/Moraga users traveled by foot from their homes to the trail, probably reflecting the short distance they had to travel. Roughly one-tenth of the users of all three trails traveled to the trail by bicycle.

Most trail users traveled less than 30 minutes to reach their trail, and the majority of Lafayette/Moraga users reported traveling less

than ten minutes (Table III-12). The most common traveling time required for both Heritage and St. Marks Trail users was between ten and 29 minutes. One-fourth of the Heritage Trail respondents reported traveling an hour or more to reach the trail.

Bicycling was the most popular trail activity on the Heritage and St. Marks Trails, while walking was far more popular on the Lafayette Moraga (Table III-13). The St. Marks Trail was dominated by a single activity (bicycling - 81%) to a greater extent than the other two trails. Jogging was uncommon on all three trails, although it was more common on the Lafayette/Moraga (12%) than the Heritage (3%) or St. Marks (4%).

Overall use levels of each trail were estimated from ranger trail patrols, as described in Chapter II. The estimated total numbers of trail visits for the study year were 135,000, 170,000 and 400,000 for the Heritage, St. Marks, and Lafayette/Moraga Trails, respectively. Trail use levels showed the most seasonal variation on the Heritage Trail, and were most consistent across seasons at the St. Marks Trail. (See Appendix A for a more detailed breakdown of the use estimation calculations.)

The age composition of groups using the trails differed somewhat from the respondents' age (presented earlier in table III-2), because children under the age of 16 were not interviewed. These children represented between 10 and 15% of the groups that were sampled (Table III-14). These percentages probably still underestimate the proportion of children using the trail because they represent only children who were with groups where a group member was sampled.

The length of time people stayed on the trail was directly related to the length of time it took them to travel to the trail (Table III-15). Nearly all Lafayette/Moraga users (85%) stayed on the trail for less than two hours. In contrast, the average visit to the Heritage and St. Marks Trails was more than two hours, with only about one-

third of the users reporting a stay shorter than two hours.

Use of all three trails was heavily dominated by day users, but the proportion of visitors who were on overnight trips did vary, from a low of two percent for the Lafayette/Moraga to nine percent for the St. Marks and 12% for the Heritage Trail. The types of accommodations used by overnight visitors likewise varied by trail (Table III-16). Overnight visitors to the Heritage Trail were most likely to use hotel or motel accommodations, while St. Marks visitors were more likely to stay with friends or relatives. Among the very few Lafayette/Moraga users who were on overnight visits, all were staying with friends or relatives.

User Attitudes and Preferences

Trail users were asked some questions dealing with their attitudes and preferences about trails. Table III-17 summarizes responses to a question asking users to rate the importance of a series of trail characteristics. The "lack of motor vehicles" was rated the most important trail characteristic by users of all three trails. This was closely followed by "natural surroundings" and "quiet settings." Good maintenance also was considered very important by users of all trails. The preference for "lack of motor vehicles" may have been related to concerns for safety and/or desire for quiet, slower-paced environments.

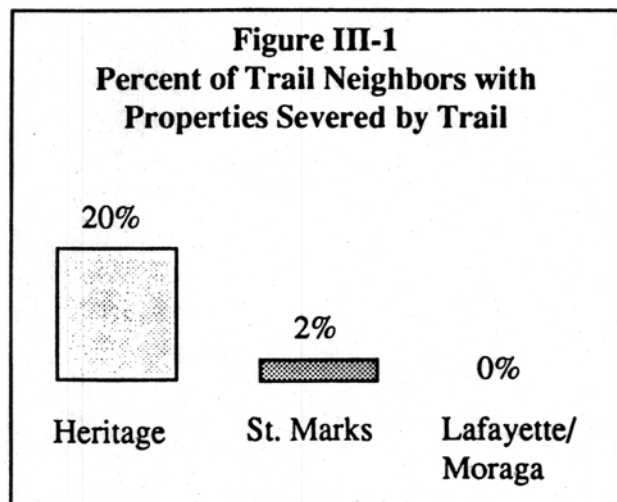
Respondents were also asked the extent to which they believed certain items were problems on their respective trails (Table III-18). Lack of restrooms and drinking water tended to be the greatest problems perceived on all three trails. Crowding and reckless behavior were felt to be more serious problems on the Lafayette/Moraga, but even there the ratings were relatively low on the seven-point scale.

Description of Trail Neighbors and Their Properties

Tables III-19 through III-30 at the end of this chapter present detailed descriptions of trails neighbors, their properties, and their trail use. Major findings are summarized below.

The majority of landowners did report having a house on their properties and that this house was their principal residence (Tables III-21 and III-22). On average, Heritage neighbors lived the farthest from the trail and Lafayette/Moraga neighbors the closest (Table III-23). Some owners reported living farther from the trail than the limits of the sampling frame of 0.25 miles (0.5 for Heritage). Many of these instances were apparently cases where tax records showed the property within 1/4 mile of the trail but the owner's house was on a part of the property farther away. Some cases may have been overestimates of distances to the trail and a few may have been absentee or recently-moved owners.

Heritage neighbors owned the largest properties and farm and residential uses predominated there, while Lafayette/Moraga neighbors owned the smallest properties and their use was almost exclusively residential (Tables III-24 and III-25). These findings are consistent with the rural character of the Heritage, the suburban character of the Lafayette/Moraga and the more



mixed environment of the St. Marks trail. On the Heritage and St. Marks Trails, it was most common for the front of neighbors' houses to face the trail while the trail was most commonly behind houses on the Lafayette/Moraga (Table III-26). Although Lafayette/Moraga owners had owned their properties for the shortest number of years, all the trails were in areas characterized by long-term ownership (Table III-27). Finally, note that it was far more common for Heritage neighbors to have their properties severed by the trail than it was for owners along the other two trails (see Figure III-1 and Table III-28).

The findings regarding trail neighbors' use of the trails were striking. The vast majority of

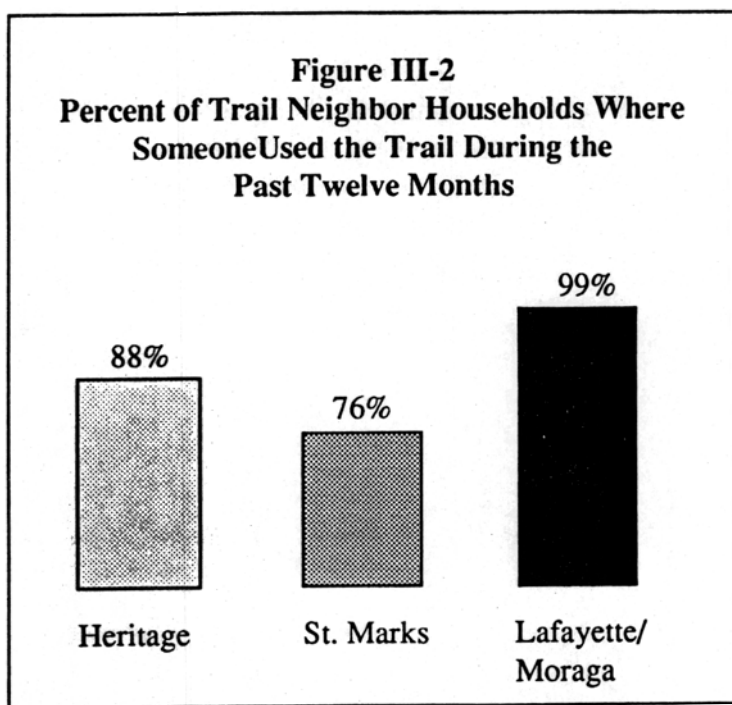
days any household member visited the trail during the last year were 47, 67, and 141 for the Heritage, St. Marks, and Lafayette/Moraga respondents, respectively (Table III-30).

Neighbors' Experiences of Trail-Related Problems

An important objective of the survey of trail neighbors was to determine the types and extents of any problems or annoyances landowners might have experienced as a result of living near a rail-trail. A list of potential problems associated with trails was prepared based on previous research (Mazour, 1988; East Bay Regional Park District, 1978) and discussions with trail managers. Respondents were asked to provide their experiences with these problems in several ways. Tables III-31 through III-34 at the end of this chapter present these results for the entire sample and for adjacent owners separately.

In general, those sampled had experienced very few trail-related problems during the previous twelve months but the types of problems experienced varied considerably by trail. The problem reported by the largest number of Heritage neighbors (39%) was "illegal motor vehicle use." This was also the problem which occurred most frequently there at an average of 2.1 times during the preceding twelve months. On the St. Marks Trail, "illegal motor vehicle use" was again the problem reported by the

largest number (39%) of neighbors. The problem which occurred most frequently there, however, was "cars parked on/near my property" at 5.1 times during the last twelve months. "Unleashed and roaming pets" was the problem reported by the largest number of Lafayette/Moraga neighbors (43%), and the most frequently occurring problem for them was the closely related "dog manure on/near my property" which



households surveyed included trail users and many used the trails frequently. In fact, ninety-nine percent of all Lafayette/Moraga neighbors reported that someone in their household used the trail during the past twelve months (see Figure III-2 and Table III-29). It is interesting to note that the older the trail, the higher the proportion of trail-using neighbors. Neighbors' use levels were also high. The average number of

happened an average of 8.8 times during the last year. This was the highest rate of occurrence of any of the problems examined on any of the trails (Table III-31).

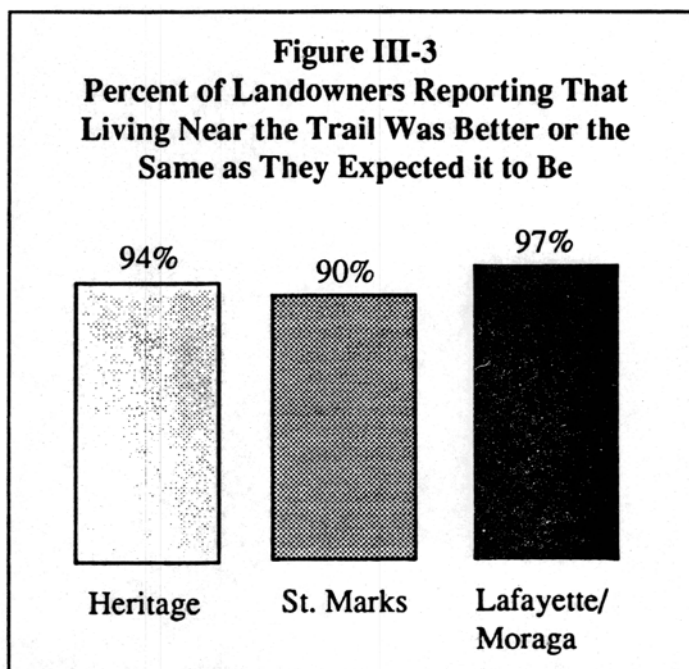
When the responses of landowners living immediately adjacent to the trails were examined separately, the types of problems reported most frequently were very similar to the overall sample. However, in nearly every case, the proportion of neighbors reporting that they had experienced the problem increased and the rates of occurrence for many of the problems were higher as well (Table III-32). This was particularly true of "cars parked on/near property" for adjacent Heritage and St. Marks owners and "loss of privacy" and "noise from trail" for Lafayette/Moraga owners. This is not surprising in that nearby owners are more insulated from these problems, often by their neighbors living adjacent to the trails.

The changes in these same potential problems over time were also examined to help establish the extent to which the trails were the primary causes of the problems. The following question was asked of people who owned property near or adjacent to the trails before the trails were opened, "The (Lafayette/Moraga) Trail was created on the right-of-way of an abandoned railroad line. Compared to before the trail was opened, how has each of the following changed?" The average responses for all owners together and adjacent owners alone indicate that each of the problems is less of a problem now than when the corridor was an unused rail line before the trail was established (Table III-33). Table III-34 shows the percentage of respondents who reported that the various problems either decreased or remained the same after the trails were established. In each case, the majority of respondents reported that there was no increase in the level of problems (Table III-34).

Neighbors' Attitudes Toward the Trails

Overall, the respondents reported that they were satisfied having the trails as neighbors and in nearly every case, the Lafayette/Moraga neighbors were the most positive and the Heritage neighbors the least positive. Table III-35, for example, shows overall satisfaction with the trails using a 7-point scale where 1 indicated "very satisfied" and 7 "very unsatisfied." The average responses for the Lafayette/Moraga (2.3) and St. Marks (2.8) indicate considerably stronger satisfaction with the trail than that of Heritage neighbors, whose average satisfaction of 3.5 is only slightly better than the scale's midpoint, which would indicate indifference. Table III-36 shows a very similar pattern. Overall, respondents reported that the trails had improved the quality of the neighborhoods through which they pass. Again, Lafayette/Moraga neighbors were the most positive and Heritage owners the least positive.

Attitudes about the trails were also examined based on whether the neighbors bought their property before or after the trail was established. Table III-37 shows that just under half of all Lafayette/Moraga neighbors bought their



property after the trail was opened while only 12% of St. Marks owners bought their property knowing that a trail would be built. This is primarily due to the fact that the Lafayette/Moraga was fourteen years old at the time of the survey and the St. Marks only two. Those who had owned property along the Lafayette/Moraga and St. Marks rights-of-way before the trails were established generally reported that they were supportive of the proposed trails while Heritage landowners had been opposed to the trail overall (see Table III-38). However, neighbors along all three trails reported that living near the trails had turned out to be better than they had expected it would be (see Figure III-3 and Table III-39) and better than living near the unused rail-road rights-of-way had been (Table III-40).

Summary

Overall, owners of property near and adjacent to the three study trails reported that they were satisfied with having a rail-trail for a neighbor. The vast majority of trail neighbors were trail users themselves and reported few occurrences of trail-related problems. Those living immediately adjacent to the trails did report having more problems and higher rates of problem occurrence than nearby owners. The most commonly reported problems involved illegal motor vehicle use and parking along the Heritage Trail; illegal motor vehicle use and litter along the St. Marks Trail; and unleashed/roaming pets, litter and noise along the Lafayette/Moraga Trail. However, the majority of owners reported that there had been no increase in problems since the trails were opened. While many Heritage owners had been opposed to the trail when it was proposed, neighbors of all three trails agreed that living near the trails was better than they had expected it to be and better than living near the unused railroad lines before the trails were constructed.

Benefits of Sample Rail-Trails

Trip Expenditures

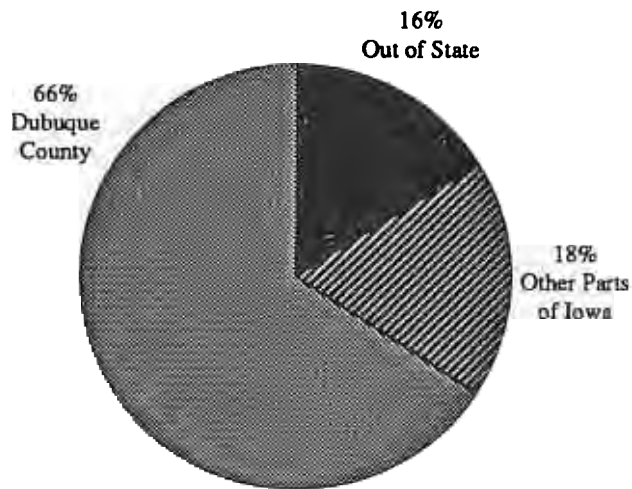
As part of the follow-up mail survey, trail users were asked how much they had spent on selected expenditure categories during their sampled visit to the selected rail trail. The respondents were asked to indicate where these expenditures had been made during the sampled trip, i.e., within the county where the trail was located, outside of the county but within the state, or outside of the state. If an individual was on a trip that lasted more than one day, the total expenditures were divided by the number of days the trip lasted. If expenditures were shared during the trip, then the total expenditures were divided by the number of individuals sharing expenses. This procedure resulted in an average daily expenditure per person for individuals using each of the trails. Tables III-41 through III-48, which contain a detailed breakdown of expenditures for each trail, are located at the end of the chapter.

Figure III-4 shows the average expenditures for each trail, broken down by where the expenditure was made, i.e., within the county where the trail is located, outside of the county but in the rest of the state, and outside of the state. Of the \$9.21, \$11.02, and \$3.97 spent per person per day on the Heritage, St. Marks, and Lafayette/Moraga Trails, respectively, nearly all of the spending (84-94 percent) was done within the state. The largest portion of the expenditures (66 percent) made by users of the Heritage Trail were made in Dubuque County. Only about 40 percent of the expenditures made by the users of the other two trails were made in the counties where the trails are located.

As would be expected (see Figure III-5), the largest expenditures were made for food and auto-related purchases. These two types of purchases accounted for 83 percent of the expenditures made by users of the St. Marks Trail, 72 percent of the Lafayette/Moraga expenditures, and 64 percent of the Heritage Trail expenditures.

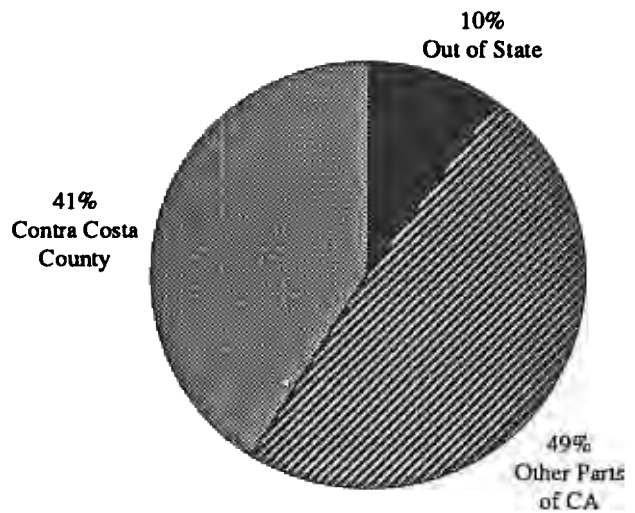
Figure III-4
Where Expenditures Were Made During Visits to Trails

Heritage Trail



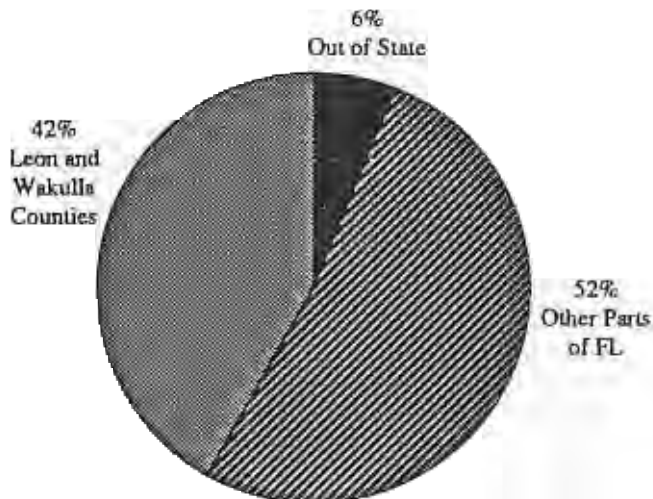
\$9.21 per person per day

Lafayette/Moraga Trail



\$3.97 per person per day

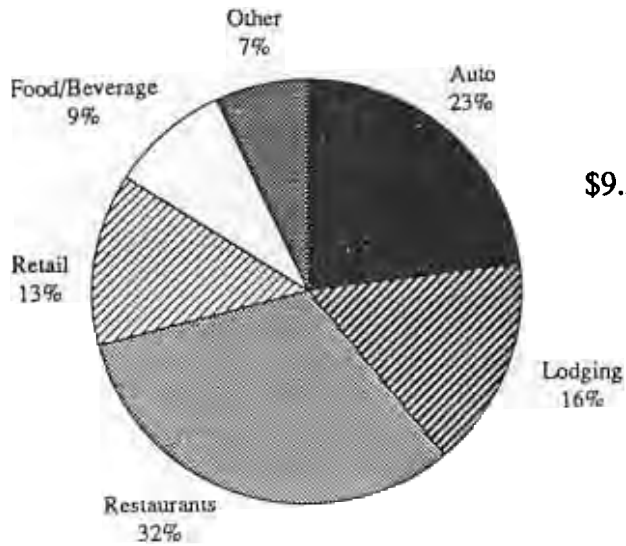
St. Marks Trail



\$11.02 per person per day

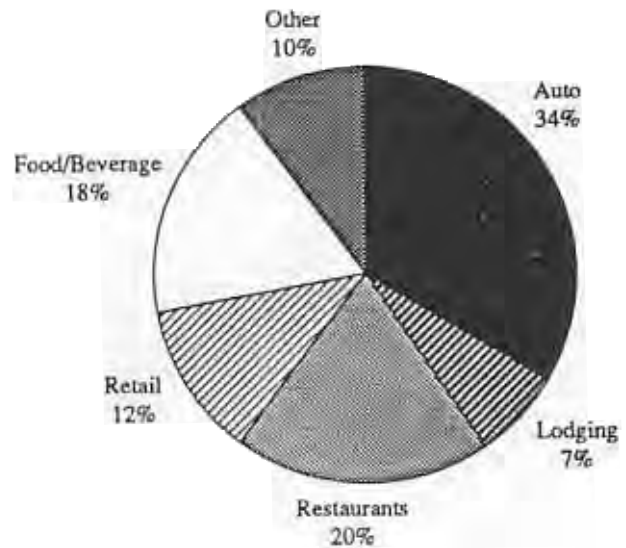
Figure III-5
Distribution of Trail User Daily Expenditures

Heritage Trail



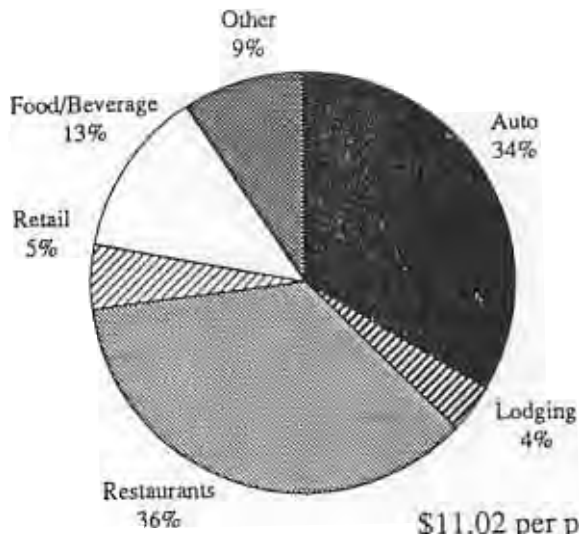
\$9.21 per person per day

Lafayette/Moraga Trail



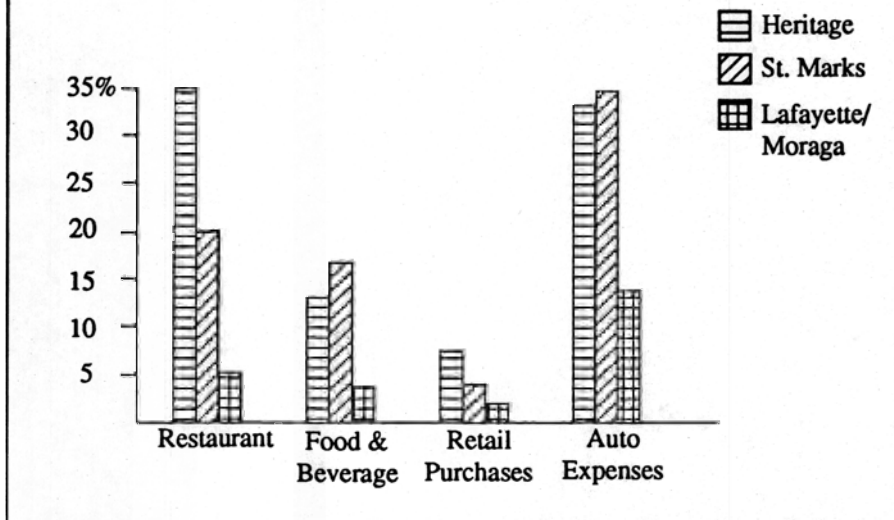
\$3.97 per person per day

St. Marks Trail



\$11.02 per person per day

Figure III-6
Percentage of Trail Users Making
Selected Types of Expenditures



ditures. The averages for lodging reflect the extent to which each trail is attracting individuals from outside the county. At the Heritage Trail, where it was estimated that 35 percent of the trail users were noncounty residents, an average of 16 percent of the total amount spent on the trip went to lodging. Only 11 percent of the Lafayette/Moraga users and 16 percent of the St. Marks users were nonresidents, which accounted for the lower percentages spent on lodging in these two counties.

The information in Figure III-6 shows the percentage of respondents who made a particular type of expenditure within the county in which each trail was located. The results varied widely by trail. Only 5 percent made restaurant expenditures while using the Lafayette/Moraga Trail, while over one-third of the Heritage Trail users made a restaurant purchase. Less than one percent of the St. Marks Trail users and the Lafayette/Moraga Trail users paid for overnight lodging while approximately five percent of the Heritage Trail users did so, which is not surprising considering the profile of trail users for each of the locations.

The total direct economic impact of trail users was determined for each trail by multiplying the estimated average daily expenditure by the estimated total number of daily visits for the past 12 months for each trail. Based on this procedure, the estimated total direct expenditures (see Figure III-7) were \$1,243,350 for the Heritage Trail, of which \$818,000 was spent in Dubuque County, \$1,873,400 for the St. Marks Trail, of which \$789,000 was spent within the two local counties, and

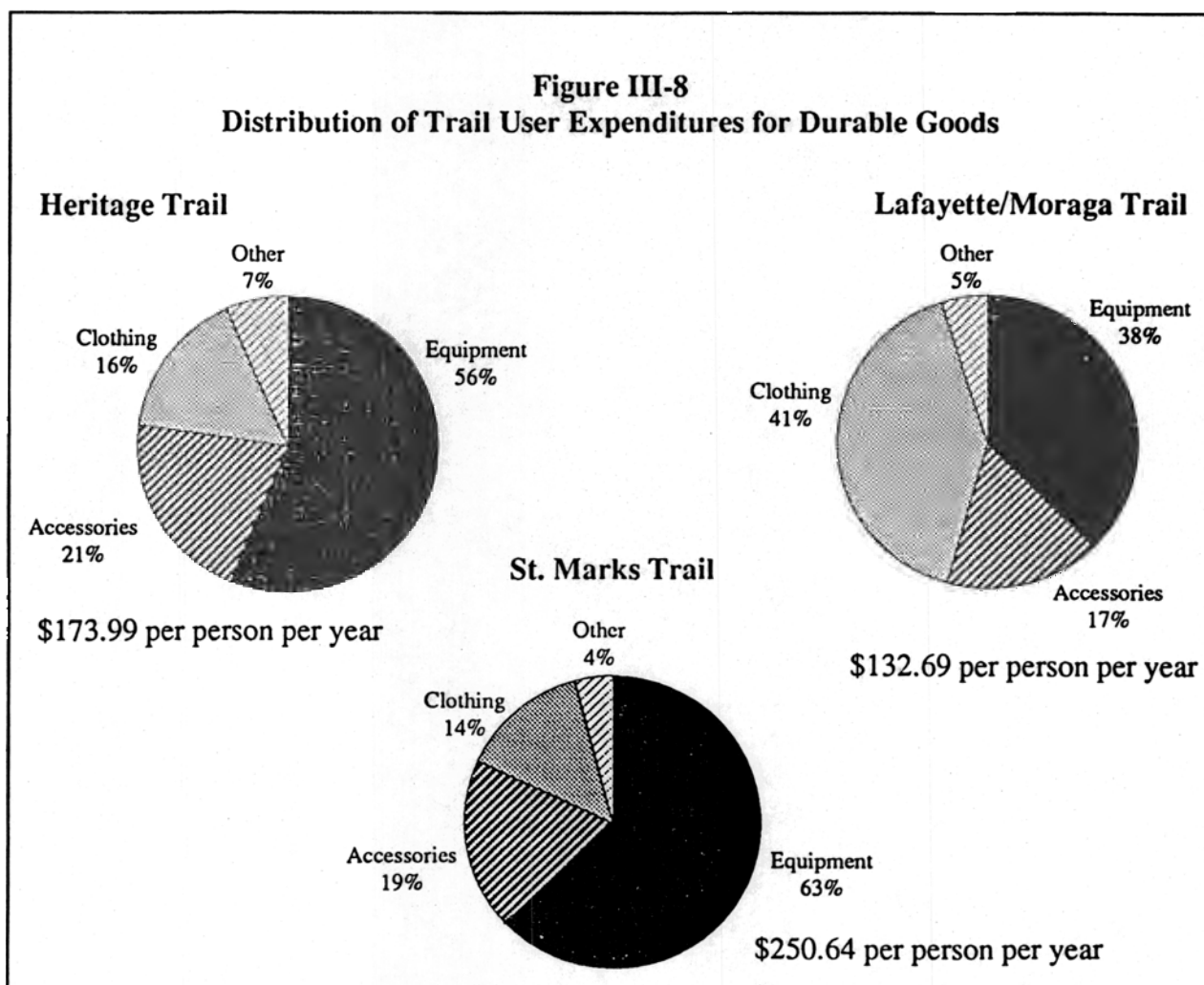
\$1,588,000 for the Lafayette/Moraga Trail, of which \$656,000 was spent within Contra Costa County. Based on the estimated number of noncounty residents using each trail, the amount of "new" monies being generated locally by noncounty residents was \$630,000 for the Heritage Trail, \$400,000 for the St. Marks Trail and \$294,000 for the Lafayette/Moraga Trail. This represents 77 percent of the total estimated county expenditures for the Heritage Trail, 51 percent of the total for the St. Marks Trail and 45 percent for the Lafayette/Moraga Trail.

The previous information shows the impact from direct expenditures made by trail users during their visits to the study trails. However, there is an additional economic impact created by these direct expenditures, as the dollars circulate through the local economy. This secondary impact is called the multiplier effect and usually ranges between 1.0 and 2.0 times the direct expenditures, depending on the characteristics of the local economy. The more self-contained an economy, i.e., the needed goods and services are produced locally and there is an ample local labor supply, the larger the multiplier.

Figure III-7
Summary of Estimated Expenditures Made by Trail Users*

	<i>Heritage Trail</i>	<i>St. Marks Trail</i>	<i>Lafayette/Moraga Trail</i>
Average Daily Visit Expenditures	\$9.21	\$11.02	\$3.97
Total Visits	135,000	170,000	400,000
Total Visit Expenditures	\$1,243,350	\$1,873,400	\$1,588,000
Total Spent Within County	\$818,000	\$789,000	\$656,000
Total New Money Spent Within County by Noncounty Residents	\$630,000	\$400,000	\$294,000

*Represents direct expenditures only. See the discussion in this chapter on the effect of secondary economic impacts which would raise these figures by a factor between 1.0 and 2.0



Expenditures on Durable Items

Respondents were also asked to estimate the expenditures they made for durable items during the past 12 months that were influenced by the existence of the trail. Figure III-8 and Tables III-46 to III-48 show the breakdown of these expenditures for various categories of durable items by trail. Users of the St. Marks Trail spent the most, spending an estimated \$251 on durable goods during the past 12 months. Nearly 78 percent of this total was spent in the county. The total estimated expenditures for durable items by Heritage Trail users was \$174, while Lafayette/Moraga Trail users spent an average of \$133.

As would be expected, the largest expenditures were for equipment, although this ranged from 38 percent of the total expenditures for Lafayette/Moraga Trail users to 63 percent of the total amount spent on durable items by St. Marks Trail users. While Lafayette/Moraga Trail users spent, on average, considerably less than users of the other two trails, much larger percentages of their total expenditures went to clothing. Notice that equipment was the most important category on the two trails where bicycling was the most popular activity, and clothing was most important on the trail where walking was most common. These figures represent a considerable amount of retail sales that are not picked up by traditional analyses that only look at expenditures made during an individual's visit to a particular trail. It is also important to note that the majority of all expenditures on durable goods were made in the local counties.

Trail Users' Willingness to Pay

To get a better idea of the value users placed on the study trails, the survey questionnaire also included a question asking respondents whether or not they would be willing to pay varying amounts for an annual trail use pass. This hypothetical question asked the respondents to imagine that the only way to use the trail was by buying an annual use pass and that pass holders

could use the trail as many times as they wish during the year. Each individual was asked, "Would you be willing to pay \$_____ for an annual pass for next year?" The range of values specified in the question varied slightly for each trail and were assigned to respondents within the sample at random.

At the Heritage Trail, the only study trail that actually charged user fees and offered an annual pass (which cost \$5.00), more than four-fifths of the respondents said they would pay five or six dollars for an annual pass (Table III-49 and Figure III-9). The proportion dropped to less than half willing to pay seven dollars and only one-third willing to pay as much as \$12.00. About one-fourth to one-fifth of the Heritage Trail users were willing to pay between \$14.00 and \$18.00, but less than fifteen percent reported that they would pay any amounts greater than \$20.00.

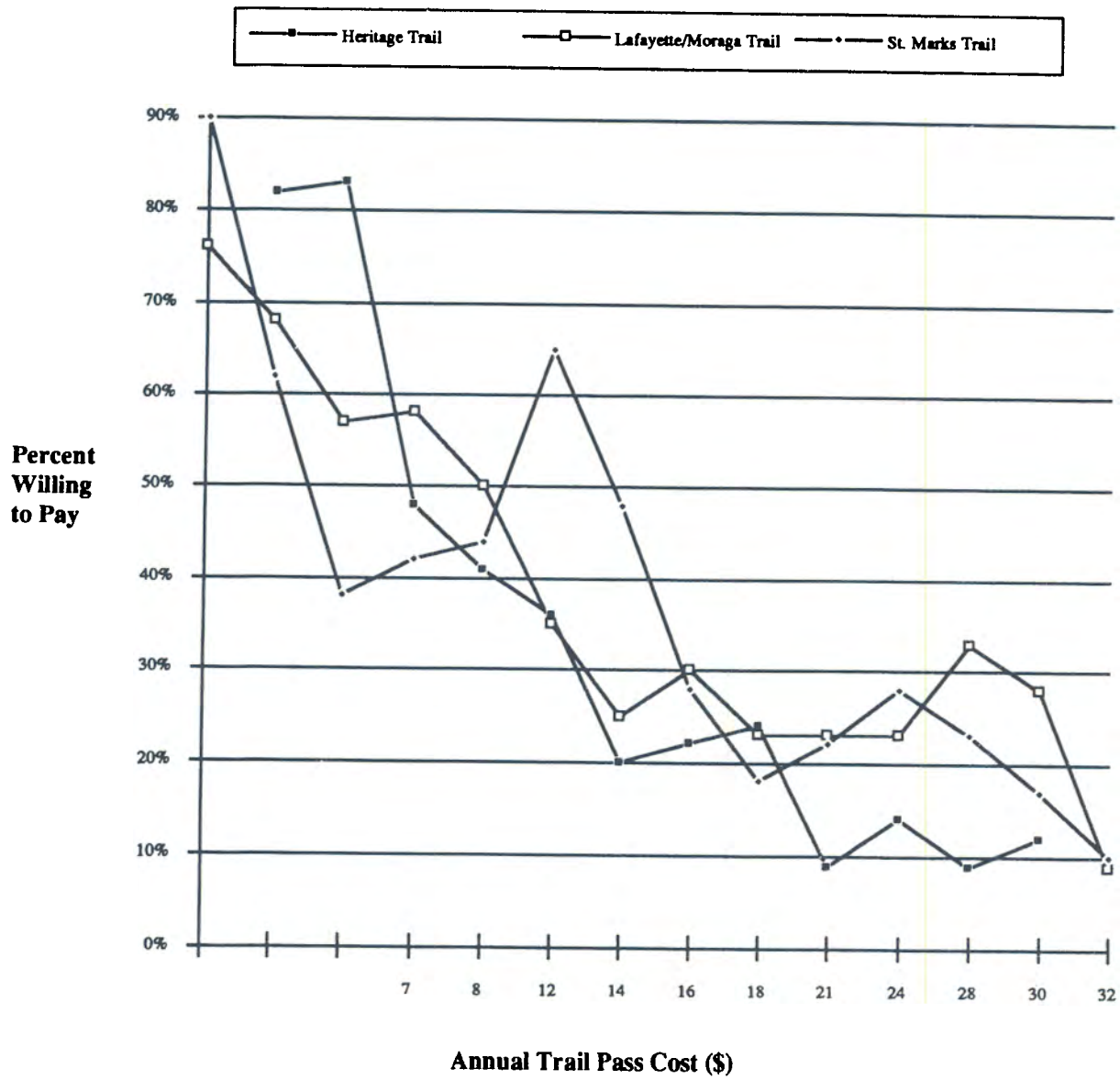
Results at the St. Marks Trail were more erratic. Nearly all (89%) respondents asked if they would pay one dollar indicated they would do so, but less than half were willing to pay six dollars (38%) or eight dollars (45%). Surprisingly, nearly two-thirds of those asked if they would pay \$12.00 for an annual pass for the St. Marks Trail indicated they would. The proportion willing to pay any amounts ranging from \$16.00 to \$32.00 ranged from 10 to 28 percent.

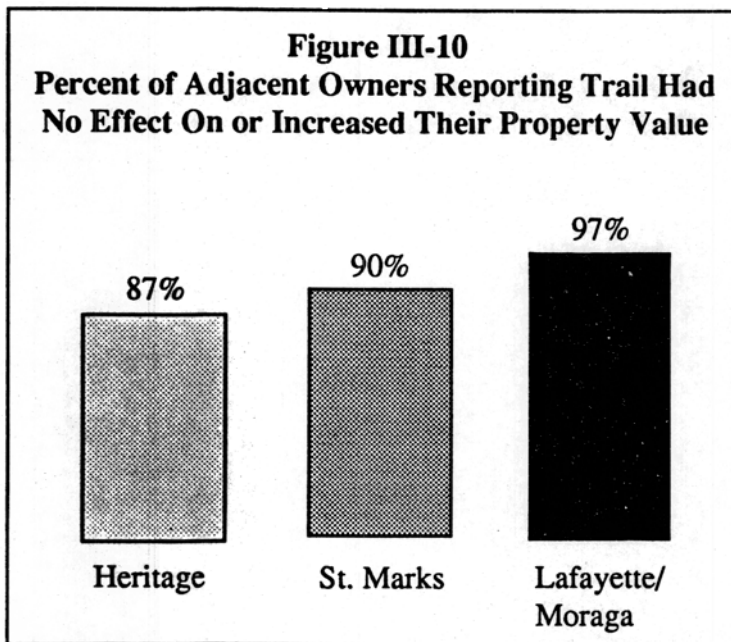
At the Lafayette/Moraga Trail, three fourths of the respondents asked if they would pay one dollar for an annual pass said yes. About half of those asked to pay amounts ranging from six to eight dollars were willing to pay those amounts. The proportion willing to pay amounts between \$12.00 and \$30.00 dropped to between one-fourth and one-third. Willingness to pay more than \$30.00 dropped off sharply, with only eight percent indicating that they would pay \$32.00, the highest value included in the question.

Effects on Property Values

One benefit of rail-trail development frequently cited by trail proponents is increased

Figure III-9
Distribution of Trail Users' Willingness to Pay for an Annual Trail Use Permit





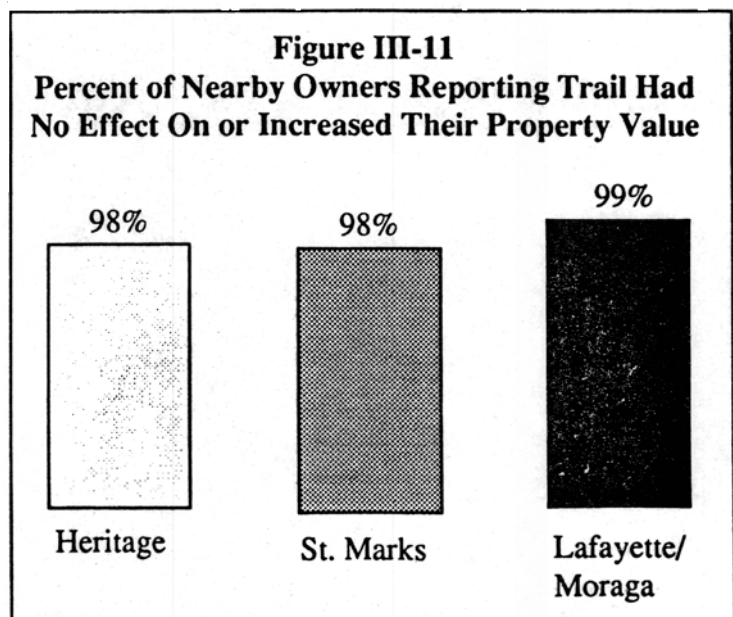
property values for adjacent and nearby landowners. This position has been supported by one study (City of Seattle, 1987) and partially supported by another (Mazour, 1988). However, fears of decreased property values are commonly expressed by property owners adjacent to proposed trails. One objective of this study was to examine how the three study trails affected the value of nearby property. This was accomplished by asking the opinions of the property owners themselves and interviewing real estate professionals in the communities through which the trails pass. Detailed findings are presented in Tables III-50 through III-61 at the end of this chapter. Major findings are summarized below.

Landowner Perceptions. Trail neighbors both adjacent to and living near the study trails were asked their opinions about how the trails had affected their property values and ability to sell their properties. The results varied both by trail and by how close the properties were to the trail. On average, owners at each of the trails felt that the trails would

make their properties easier to sell (Tables III-50 and III-51). This feeling that the trail was an asset in terms of property resale was strongest on the Lafayette/Moraga and weakest on the Heritage. When analyzed in terms of how far the trail was from the owner's property, those living near the trail but not immediately adjacent to it consistently felt the trail would make their property easier to sell than did adjacent owners. However, both groups still tended to feel that the trail would help them sell their property.

Owners were next asked their opinions about what effect they felt the trails had on the resale value of their properties (Tables III-52 through III-

54). The majority of Heritage and St. Marks owners (81% and 75%, respectively) felt the trail had no effect on their property values. However, 50% of Lafayette/Moraga owners reported that they felt the trail increased the value of their properties. Only 8%, 6.5%, and 2.2% of all owners in Iowa, Florida, and California, respectively, felt that the trails had caused their property values to decrease.



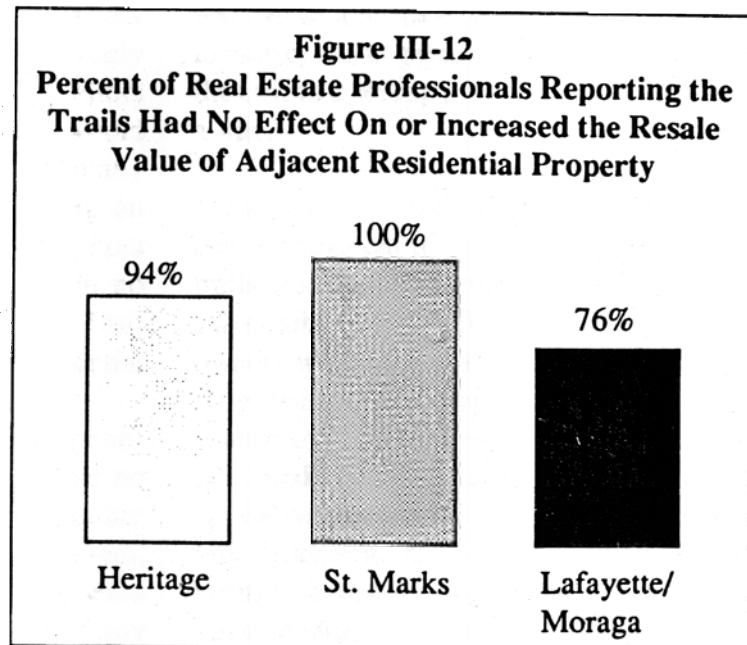
Property owners' opinions about how the trails affected their property resale values changed very little when the adjacent and nearby owners were looked at separately (Table III-53). For those owning property immediately adjacent to the Heritage and St. Marks Trails, the majority still felt that the trails did not affect their property values. However, of adjacent owners, nearly 14% and 11%, respectively, felt the trails lowered their property values (Figure III-10). The majority of adjacent owners (53%) on the Lafayette/Moraga still felt the trail increased their property values. Those owning property nearby but not adjacent to the trails were somewhat more optimistic than their adjacent counterparts. Less than 2.5% on each trail thought the trails resulted in decreased values and the majority still felt there was no effect (Figure III-11).

When the owners who felt the trails did affect their property values were asked how great they felt the effect was, their responses varied greatly; from 100% increases and decreases to fractions of a percent (Table III-54). It must be noted that the low sample sizes for some of the groups (particularly on the Heritage Trail) make it unreasonable to generalize these percentages.

Finally, those property owners who purchased their properties after the trails were established were asked how the presence of the trail affected their decisions to purchase that particular property (see Table III-55). The trail was considered an amenity that added to the property's appeal for each sample. Once again, this positive effect was strongest for the Lafayette/Moraga and quite weak for the Heritage Trail.

Perceptions of Real Estate Professionals. Overall, realtors and appraisers felt the trails would have little effect on property sales or resale values for residential property along the trails. How-

ever, the findings did vary depending upon the trails and whether the property was adjacent to or simply near the trail. Tables III-56 through III-58 summarize these findings. Most professionals along the Heritage and St. Marks Trails felt there was no effect on the ease of sales, speed of sales, or resale values of residential properties adjacent to those trails. No one interviewed felt these two trails made properties sell slower or with greater difficulty and a few considered it a selling point. The findings for the Lafayette/Moraga were more mixed. Thirty-two percent felt residential property immediately adjacent to the trail was harder to sell and sold more slowly than similar property elsewhere and 24% felt property values were lower there as a result of the trail. Buyers' concerns about possible loss of privacy was given most frequently as the reason for this effect. This may be more of an issue on the Lafayette/Moraga because it is much more heavily used than the other two study trails. On the other hand, 24% felt the Lafayette/Moraga trail made it easier to sell adjacent property, 20% felt these properties were easier to sell and 19% felt the trail increased the resale value of homes along the trail. Even on the Lafayette/Moraga, however, the most common response was that



outnumbered those reporting decreased values. This positive effect was most pronounced for nearby, as opposed to adjacent, properties especially on the suburban Lafayette/Moraga Trail. However, many realtors emphasized that the impact of a trail on any particular property depends greatly on the particular situation and can vary.

Broader Public Benefits

The overall impression of both landowners and trail users is that the trails have a positive impact on their surrounding communities (Tables III-62 and III-63. Both groups felt that the trails were very important in providing health and fitness benefits and in providing recreation opportunities. Providing tourism and business development opportunities for the surrounding communities was considered the least important benefit by both users and neighbors, although the Heritage respondents were somewhat more positive in this regard. Also, neither group felt the trails did much in the way of reducing traffic or providing transportation alternatives. This probably has more to do with the nature of the three study trails than with rail-trails in general. Other trails that better connect residential areas with the places where people work and shop are used extensively for transportation.

In all cases, the trail users perceived greater benefits being provided by trails than did the landowners. There were few differences, however, between the users of the three trails. Heritage trail users perceived greater tourism and business development benefits than did their counterparts on the Lafayette/Moraga trail. This was also the case with public and environmental education. These differences among the trails were also reflected in the landowner responses and may reflect the more urban nature of this California trail.

Table III-1
Gender of Respondents to Trail User Survey

Gender	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Male	182	56	302	51	329	43	813	48
Female	142	44	288	49	436	57	866	52
	324	100	590	100	765	100	1679	100

Table III-2
Age of Respondents to Trail User Survey

Age	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
16-19	4	1	11	2	19	3	34	2
20-29	36	11	125	21	40	5	201	12
30-39	81	25	211	36	124	16	416	25
40-49	82	25	151	26	191	25	424	25
50-59	64	20	58	10	136	18	258	15
60-69	43	13	22	4	188	25	253	15
70 and over	14	4	9	2	61	8	84	5
	324	99	587	101	759	100	1670	99
Mean	45.7		38.3		50.2		45.2	
Standard Deviation	13.7		11.6		14.1		14.4	

Table III-3
Household Income of Respondents to Trail User Survey

Income Level	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<\$20,000	58	19	112	20	40	6	210	13
\$20,000-\$39,999	111	36	203	36	109	15	423	27
\$40,000-\$59,999	92	30	127	22	151	21	370	23
\$60,000-\$79,999	28	9	64	11	113	16	205	13
\$80,000 and over	21	7	60	11	295	42	376	24
	310	101	566	100	708	100	1584	100

Table III-4
Highest Education Level Attained by Respondents to Trail User Survey

Education Level	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Grade or Elementary	8	2	3	1	1	0	12	1
Some High School	9	3	11	2	9	1	29	2
High School Diploma	79	24	52	9	43	6	174	10
Business or Technical	27	8	31	5	21	3	79	5
Some College	69	21	108	18	171	22	348	21
Graduate of College	50	15	143	24	194	25	387	23
Some Graduate Work	24	7	75	13	115	15	214	13
Master's Degree	36	11	93	16	122	16	251	15
Ph.D. or Professional Degree	21	7	78	13	91	12	190	11
	323	98	594	101	767	100	1684	101

Table III--5
Occupation of Respondents to Trail User Survey

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Professional	32	10	82	14	87	12	201	12
Law	0	0	20	3	12	2	32	2
Medical	23	7	41	7	41	6	105	6
Scientist	15	5	32	6	30	4	77	5
Manager	26	8	61	11	51	7	138	8
Business	11	3	33	6	59	8	103	6
Technical	14	4	40	7	19	3	73	4
Social Services	3	1	5	1	3	0	11	1
Sales	13	4	12	2	34	5	59	4
Military/Government	4	1	45	8	6	1	55	3
Teacher	28	9	27	5	46	6	101	6
Clerical	17	5	42	7	29	4	88	5
Laborer	51	16	33	6	13	2	97	6
Human Services	7	2	13	2	11	1	31	2
Housewife	28	9	14	2	113	15	155	9
Student	10	3	48	8	32	4	90	6
Retired	40	12	31	5	159	21	230	14
Unemployed	1	0	0	0	0	0	1	0
	323	99	579	100	745	101	1647	101

Table III-6
Race or Ethnic Group of Respondents to Trail User Survey

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
American Indian or Alaskan Native	1	0	5	1	6	1	12	1
Asian or Pacific Islander	0	0	1	0	17	2	18	1
Black, not of Hispanic origin	1	0	15	3	3	0	19	1
Hispanic	3	1	10	2	10	1	23	1
White, not of Hispanic origin	318	98	545	93	718	94	1581	95
Other	1	0	7	1	6	1	14	1
	324	99	583	100	760	99	1667	100

Table III-7
Percent of Trail User Survey Respondents Reporting Various Disabilities

Type of Disability	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Hearing Impaired	7	2	9	2	13	2	29	2
Visually Impaired	7	2	4	1	4	1	15	1
Mobility Impaired	2	1	3	1	9	1	14	1
Use a Wheelchair	0	0	0	0	2	0	2	0
Mentally or Learning Impaired	0	0	5	1	2	0	7	0
Other	5	2	12	2	23	3	40	2

Table III-8
Year of First Visit to Trail

Year	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Prior to 1985	58	18	3	1	377	51	438	27
1985-1986	58	18	3	1	107	14	168	10
1987-1988	71	22	179	32	122	17	372	23
1989-1990	126	42	377	67	133	18	636	39
	313	100	562	101	739	100	1614	99

Table III-9
Number of Times Respondents Visited Trails in Last Twelve Months

Frequency of Visits	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1	90	25	163	19	53	6	206	14
2-10	115	32	263	31	104	11	482	23
11-25	63	17	140	17	74	8	277	13
26-100	72	20	153	18	240	26	465	22
>100	25	7	118	14	467	50	610	28
		101	837	99	938	101	2140	100
Mean	31.0		45.8		132.2		81.1	
Standard Deviation	56.8		82.6		110.3		103.0	
Median	7		10		100		26	

Table III-10
Miles from Trail User Survey Respondents' Homes to Trail

Miles From Home	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<1	15	4	73	9	310	33	398	19
1-4.9	96	26	125	15	459	49	680	32
5-9.9	97	26	269	32	75	8	441	20
10-19.9	48	13	219	26	61	7	328	15
20-99.9	87	23	79	9	25	3	191	9
100 or more	28	8	75	9	7	1	110	5
		100	840	100	937	101	2148	100
Mean	34.2		30.8		5.2		20.2	
Standard Deviation	69.1		86.0		31.6		65.7	
Median	7		8		1.5		4.5	

Table III-11
How Trail User Survey Respondents Traveled to Trail

Type of Transportation	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Car	329	88.2	707	83.6	528	56.3	1564	72.5
Bicycle	28	7.5	88	10.4	119	12.7	235	10.9
Run, Jog or Walk	11	2.9	35	4.1	279	29.7	325	15.1
Other	5	1.3	16	1.9	12	1.3	33	1.5
	373	99.9	846	100	938	100	2157	100

Table III-12
Number of Minutes Spent Getting to Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<10	71	19.3	151	18.1	556	59.3	778	36.4
10-29	168	45.8	491	58.9	328	35.0	987	46.2
30-59	29	7.9	98	11.8	37	3.9	164	7.7
60-119	52	14.2	30	3.6	9	1.0	91	4.3
>120	47	12.8	64	7.7	7	1.0	118	5.5
	367	100.0	834	100.1	937	100.2	2138	100.1

Table III-13
Trail Activity of Respondents

Activity	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%		%	<i>n</i>	%	<i>n</i>	%
Walking	94	29	51	9	486	63	631	37
Jogging	11	3	21	4	96	12	128	8
Bicycling	214	65	486	81	155	20	855	50
Horseback Riding	4	0	23	4	2	0	29	2
X-Country Skiing	3	1	0	0	0	0	3	<1
Snowmobiling	0	1	0	0	0	0	1	<1
Other	1	0	17	3	32	4	49	3
	327	99	598	101	771	99	1696	100

Table III-14
Age Composition of Trail User Groups*

Age	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
15 and under	57	15	114	14	98	10	269	13
16-25	45	12	138	16	76	8	259	12
26-35	98	26	336	40	137	15	571	27
36-45	118	32	276	33	258	28	652	30
46-55	102	27	121	14	234	25	457	21
56-65	70	19	48	6	203	22	321	15
Over 65	25	7	24	3	152	16	201	9

*Percentages do not sum to 100 because groups could include members from more than one age category. The figures shown represent the proportion of sampled groups that included at least one person from each age bracket.

Table III-15
Length of Time Spent on Trail (in Minutes)

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
15 minutes or less	3	1	4	1	12	2	19	1
16-59	17	5	37	6	278	36	332	20
60-119	95	29	163	27	360	47	618	37
120-179	82	25	177	30	86	11	345	20
180-239	54	17	127	21	20	3	201	12
240 or more	73	23	87	15	8	1	168	10
	324	100	595	100	764	100	1683	100
Mean	150.0		140.5		67.8		109.3	
Standard Deviation	92.6		74.5		41.8		76.5	

Table III-16
Accommodations Used by Overnight Visitors

	Heritage (n=42)		St. Marks (n=68)		Lafayette/Moraga (n=17)		Combined	
	% <i>Using</i>	<i>Mean</i> <i># Nights</i>	% <i>Using</i>	<i>Mean</i> <i># Nights</i>	% <i>Using</i>	<i>Mean</i> <i># Nights</i>	% <i>Using</i>	<i>Mean</i> <i># Nights</i>
Hotel/Motel	53	1.4	28	1.6	0	0	32	1.3
Public Campground	5	0.4	4	0.4	0	0	4	0.3
Private Campground	10	0.1	10	0.3	0	0	7	0.2
Rental Home	0	0	7	0.2	0	0	4	0.1
Friends/Relatives	24	0.7	39	1.8	100	6	38	1.8
Miscellaneous	2	0.02	1	0.1	0	0	1	0.05

Table III-17
Mean Importance Ratings for Various Trail Characteristics*

	Heritage	St. Marks	Lafayette/Moraga	Combined
No motorized vehicles	6.6	6.7	6.7	6.7
Natural surroundings	6.4	6.3	6.3	6.4
Good maintenance	6.5	6.3	6.0	6.2
Quiet settings	6.3	6.1	6.1	6.1
Smooth trail surfaces	6.3	5.9	5.6	5.9
Safe crossings at roads, streams, etc.	5.8	6.2	5.6	5.9
Wildlife and birds	5.9	5.7	5.3	5.6
Wide enough to travel beside others	5.8	5.6	5.5	5.6
Conveniently located	5.5	5.2	5.8	5.5
Trees for shade	5.8	5.6	5.1	5.4
Varied surroundings	5.5	5.1	5.4	5.3
Drinking water and toilet facilities	5.8	5.5	4.9	5.3
No crowds	5.2	4.9	4.9	5.0
Parking facilities	5.4	5.1	4.3	4.8
Ranger/safety patrols	5.2	5.0	4.2	4.7
Maps, directional signs, and trail information	5.0	4.5	3.9	4.3
Benches for resting	4.9	3.7	4.2	4.2
Signs and information on historic and natural features	4.7	4.3	3.6	4.1
Challenging settings	4.1	4.5	3.8	4.1
Level grades	4.8	3.8	3.8	4.0
Occasional curves	4.1	4.2	3.9	4.0
Access to places I want to travel or commute to	3.9	4.3	3.5	3.9
Historic interest	4.4	4.3	3.1	3.8
Points of interest	4.3	4.0	3.3	3.7
Many different activities allowed	3.8	3.8	3.4	3.6
Long straight sections	3.6	3.8	3.2	3.5
Places to buy food and drink	4.8	3.8	1.9	3.2

*Characteristics were rated on a 7-point scale with 1 being "not at all important" and 7 being "extremely important."

Table III-18
Mean Values for Extent to Which Survey Respondents Perceived
Various Items to be Problems*

	Heritage	St. Marks	Lafayette/Moraga	Combined
Lack of drinking water	3.4	4.6	3.0	3.6
Lack of restrooms	3.2	4.4	2.8	3.4
Dangerous road intersections	1.8	2.8	2.2	2.3
Reckless behavior of trail users	1.5	1.9	2.8	2.2
Pets off leashes	1.8	1.9	2.6	2.2
Rough trail surface	2.4	1.5	2.8	2.2
Lack of services (food, drink, bike repair, etc.)	2.3	2.9	1.6	2.2
Inadequate ranger/safety patrols	1.5	2.1	2.1	2.0
Narrow trail width	1.7	2.1	2.1	2.0
Traffic barriers	1.3	2.1	1.9	1.9
Too crowded	1.5	1.9	2.2	1.9
Litter and glass	1.4	2.2	1.9	1.9
Not enough parking at access points	1.7	2.0	1.8	1.8
Lack of trail direction signs	1.7	1.7	1.7	1.7
Trail vandalism	1.6	1.9	1.5	1.7
Personal safety	1.4	1.9	1.7	1.7
Conflicts with other activities	1.5	1.6	1.8	1.6
Lack of information to plan visits	1.5	1.7	1.5	1.6
Not enough access points	1.4	1.7	1.4	1.5

* Problems were measured on a 7-point scale with 1 being "not a problem" and 7 being "a major problem."

Table III-19
Gender of Respondents to Trail Neighbor Survey

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Male	56	54.4	87	41.2	181	56.4	324	51.0
Female	47	45.6	124	58.8	140	43.6	311	49.0
	103	100.0	211	100.0	321	100.0	635	100.0

Table III-20
Average Age of Respondents to Trail Neighbor Survey

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<30	5	5	10	5	2	1	17	3
30-39	19	19	39	19	52	17	111	18
40-49	31	31	42	20	76	24	148	24
50-59	19	19	41	20	70	22	130	21
60-69	16	16	38	18	75	24	129	21
70 and over	11	11	36	17	40	13	87	14
Total	101	101	206	99	315	101	622	101
Mean		50.4		53.3		53.5		53.0
Standard Deviation		14.4		16.0		13.6		14.6

Table III-21
Number of Landowners with a House on their Property

Heritage		St. Marks		Lafayette/Moraga		Combined	
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
74	73.3	182	83.5	313	95.7	569	

Table III-22
How Landowner Uses House

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Principal Residence	70	93.3	143	76.9	306	97.1	519	90.1
Second Home	0	0.0	4	2.2	1	0.3	5	0.9
Rental	3	4.0	25	13.4	7	2.2	35	6.1
Unoccupied	1	1.3	9	4.8	0	0.0	10	1.7
Other	1	1.3	5	2.7	1	0.3	7	1.2
<i>n</i>	75	99.9	186	100.0	315	99.9	576	100.0

Table III-23
Distance From House to Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<100 ft.	4	5.6	42	25.3	84	27.6	130	23.9
100-499 ft.	18	25.0	62	37.3	131	43.1	211	38.8
500-1,319 ft.	17	23.6	39	23.5	45	14.8	101	18.6
1/4 mile-5,279 ft.	25	34.7	16	9.6	41	13.5	82	15.1
1 mile or greater	8	11.1	7	4.2	3	1.0	20	3.7
<i>n</i>	72	100.0	166	99.9	304	100.0	544	100.1
Average distance from trail (in feet)		2,434		1,822		889		1,401

Table III-24
Acres of Property Owned

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<0.5	5	4.9	27	13.0	195	62.1	227	36.3
0.5-0.9	5	4.9	40	19.2	90	28.7	135	21.6
1.0-4.9	12	11.7	99	47.6	26	8.3	137	21.9
5.0 or more	81	78.6	42	20.2	3	1.0	126	20.2
<i>n</i>	103	100.1	208	100.0	314	100.1	625	
Mean	100.9		6.2		.48		18.9	
Median	66		1.5		.3		.5	

Table III-25
How Property Is Used*

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Residential	52	50.0	182	80.9	328	99.7	562	
Commercial	8	7.7	20	8.9	1	0.3	29	4.4
Cropland	60	57.7	3	1.3	1	0.3	63	9.6
Pasture	53	51.0	9	4.0	1	0.3	62	9.4
Undeveloped	9	8.7	37	16.4	6	1.8	52	7.9
Other	10	9.6	9	4.0	1	0.3	20	3.0
<i>n</i>	104		225		329		658	

* Percentages do not sum to 100 because each respondent could indicate multiple land uses.

Table III-26
Which Part of House Faces Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Front	34	47.2	76	41.8	68	22.4	178	32.0
Back	14	19.4	52	28.6	132	43.6	198	35.5
Side	24	33.3	53	29.1	97	32.0	174	31.2
Corner	0	0.0	1	0.5	6	2.0	7	1.3
<i>n</i>	72	99.9	182	100.0	303	100.0	557	100.0

Table III-27
Number of Years Respondents Had Owned Property Near the Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
< 5 years	15	14.9	31	15.2	61	18.8	107	17.0
5 - 9 years	15	14.9	44	21.6	55	16.9	114	18.1
10 - 24 years	40	39.6	72	35.3	149	45.8	261	41.4
25 or more years	31	30.7	57	27.9	60	18.5	148	23.5
<i>n</i>	101	100.1	204	100.0	325	100.0	630	100.0
Mean	19.9		18.6		15.6		17.3	

Table III-28
Where Trail Was Located in Terms of Landowners' Properties

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Through Property	21	20.2	4	1.8	0	0.0	25	3.8
Along Edge of Property	32	30.8	70	31.4	102	31.1	204	31.1
Near but not Bordering	50	48.1	137	61.4	222	67.7	409	62.4
Across Street	0	0.0	7	3.1	1	.3	8	1.2
Don't Know	1	1.0	5	2.2	3	.9	9	1.4
<i>n</i>	104	100.1	223	99.9	328	100.0	655	99.9

Table III-29
Number of Trail Neighbor Survey Respondents Reporting that They or a Member of Their Household Used the Trail During the Past Twelve Months

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	all owners	adjacent owners	all owners	adjacent owners	all owners	adjacent owners	all owners	adjacent owners
Frequency	77	41	135	71	302	165	514	277
%	87.5	87.2	75.8	76.3	99.0	98.8	90.0	90.2

Table III-30
Number of Days During Last Twelve Months that Any Member of Owner's Household Used Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
0	11	13	43	24	3	1	57	10
1-24	45	51	47	26	56	18	148	26
25-49	10	11	23	13	36	12	69	12
50-99	4	5	22	12	36	12	62	11
100-199	11	13	16	9	68	22	95	17
200-365	7	8	27	15	106	35	140	25
Total	88	101	178	99	305	100	571	101
Mean	47.3		66.7		140.8		103.3	
Standard Deviation	78.2		98.3		116.8		113.4	

Table III-31
Percent of Trail Neighbors Indicating They Had Experienced Various Problems
as a Result of the Trail During the Past Twelve Months
and the Average Number of Times the Problems Occurred

	Heritage (n=92)		St. Marks (n=187)		Lafayette/Moraga (n=303)		Combined (n=582)	
	% reporting problem	average annual times*	% reporting problem	average annual times*	% reporting problem	average annual times*	% reporting problem	average annual times*
Cars parked on/near property	24	2.0	12	5.1	16	6.5	16	5.4
Dog manure on/near property	3	1.3	7	0.7	25	8.8	16	5.0
Noise from trail	18	1.4	13	2.8	27	6.0	21	4.2
Loss of privacy	13	0.6	6	3.9	17	5.1	13	4.0
Litter on/near property	21	2.1	21	2.4	27	3.9	24	3.1
Unleashed and roaming pets	18	1.6	16	2.1	43	3.7	31	2.9
Discourteous/rude users	14	0.6	13	0.8	20	2.8	17	1.9
Illegal motor vehicle use	39	2.1	39	3.0	14	0.8	26	1.7
Trespassing	17	1.7	12	2.5	10	0.6	12	1.4
Loitering on/near property	18	0.9	20	1.9	20	1.0	20	1.3
Animals harrassed	7	0.3	5	0.4	5	1.6	5	1.0
Vandalism	8	0.3	6	2.0	7	0.2	7	0.8
Drainage problems	3	0.1	5	2.1	3	0.1	4	0.7
Fruit, vegetable, crops picked or damaged	4	0.7	2	0.2	5	0.9	4	0.6
Users ask to use phone, bathroom, etc.	15	0.6	6	0.2	7	0.6	8	0.5
Lack of trail maintenance	9	0.4	11	0.3	20	0.6	15	0.5
Burglary of propery	2	0.1	5	0.1	2	0.0	3	0.0

*Responses which indicated experience with the problem but did not give a specific number of occurrences could not be included in calculations of averages. Averages are for all respondents.

Table III-32
Percent of Adjacent Landowners Indicating They Had Experienced Various Problems
as a Result of the Trail During the Past Twelve Months
and the Average Number of Times the Problems Occurred

	Heritage (n=44)		St. Marks (n=100)		Lafayette/Moraga (n=168)		Combined (n=312)	
	% reporting problem	average annual times*	% reporting problem	average annual times	% reporting problem	average annual times	% reporting problem	average annual times
Cars parked on/near property	30	3.7	18	9.4	20	9.1	21	8.4
Loss of privacy	23	1.1	10	7.7	24	9.8	19	7.8
Noise from trail	20	2.4	22	5.3	42	10.0	32	7.3
Dog manure on/near property	2	0.3	12	1.3	30	12.1	21	6.9
Litter on/near property	27	1.8	31	3.9	36	4.5	33	3.9
Unleashed and roaming pets	27	1.9	18	3.4	40	3.8	29	3.4
Illegal motor vehicle use	39	2.9	52	5.2	19	1.0	32	2.6
Trespassing	30	3.4	20	4.7	16	1.1	19	2.6
Discourteous/rude users	20	1.1	13	0.8	18	3.2	17	2.2
Loitering on/near property	25	1.6	25	2.7	23	1.6	24	2.0
Animals harrassed	9	0.5	8	0.7	8	2.8	8	1.8
Vandalism	14	0.6	8	3.8	10	0.2	10	1.4
Drainage problems	7	0.2	6	3.9	4	0.1	5	1.3
Fruit, vegetable, crops picked or damaged	7	1.4	4	0.3	8	1.6	7	1.1
Users ask to use phone, bathroom, etc.	20	0.9	9	0.4	10	1.0	11	0.8
Lack of trail maintenance	5	0.4	13	0.4	21	0.7	16	0.5
Burglary of propery	5	0.2	8	0.1	2	0.0	4	0.1

*Responses which indicated experience with the problem but did not give a specific number of occurrences could not be included in calculations of averages. Averages are for all respondents.

Table III-33
Owners Perceptions of Changes in Problems Since Opening of Trail¹

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>all Owners</i>	<i>adjacent Owners</i>	<i>all Owners</i>	<i>adjacent Owners</i>	<i>all Owners</i>	<i>adjacent Owners</i>	<i>all Owners</i>	<i>adjacent Owners</i>
Noise from trail	3.4	3.5	3.4	3.5	3.6	3.9	3.5	3.7
Loss of privacy	3.5	3.7	3.4	3.5	3.6	3.8	3.5	3.7
Cars parked on/near property	3.6	3.6	3.2	3.3	3.5	3.5	3.4	3.4
Unleashed and roaming pets	3.2	3.1	3.3	3.3	3.6	3.7	3.4	3.4
Trespassing	3.6	3.5	3.2	3.2	3.2	3.2	3.2	3.3
Litter on/near property	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.3
Loitering on/near property	3.3	3.3	3.4	3.5	3.3	3.1	3.3	3.3
Dog manure on/near property	3.0	2.9	3.1	3.1	3.5	3.6	3.2	3.3
Illegal motor vehicle use	3.6*	3.5	3.4	3.5	2.8	2.7	3.2	3.2
Fruit, vegetable, crops picked or damaged	3.0	3.0	3.0	3.0	3.3	3.4	3.1	3.2
Drainage problems	3.1	3.1	3.2	3.1	3.2	3.4	3.2	3.2
Animals harrassed	3.2	3.0	3.1	3.1	3.1	3.1	3.1	3.1
Discourteous/rude users	3.1	2.9	3.1	3.0	3.3	3.3	3.2	3.1
Vandalism	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.0
Burglary of propery	3.0	2.8	3.1	3.0	3.2	3.2	3.1	3.0
Users ask to use phone, bathroom, etc.	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.0
Lack of trail maintenance	2.7	2.5	2.7	2.7	3.0	3.1	2.8	2.8
<i>Average n</i>	70	34	150	71	149	81	369	194

*Means calculated on a 7-point scale with 1 being "Much Less of a Problem Now" and 7 being "Much More of a Problem Now."

¹Question asked only of landowners who had owned property near or adjacent to the trail before trails were established.

Table III-34
Percentage of Owners Reporting that Levels of Various Problems Decreased
or Have Not Changed Since Opening of Trail¹

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>all owners</i>	<i>adjacent owners</i>	<i>all owners</i>	<i>adjacent owners</i>	<i>all owners</i>	<i>adjacent owners</i>	<i>all owners</i>	<i>adjacent owners</i>
Noise from trail	85	76	86	79	77	64	82	72
Loss of privacy	79	62	83	77	83	75	83	73
Illegal motor vehicle use	73%	68%	82%	65%	95%	95%	85%	82%
Loitering on/near property	89	79	85	82	86	70	86	83
Unleashed and roaming pets	90	81	91	86	86	84	89	84
Cars parked on/near property	81	75	91	89	85	83	87	84
Litter on/near property	91	82	87	81	92	90	90	85
Trespassing	88	81	90	87	97	95	92	89
Dog manure on/near property	100	100	94	90	90	85	93	90
Fruit, vegetable, crops picked or damaged	96	91	94	91	94	90	94	90
Lack of trail maintenance	96	91	93	91	93	91	94	91
Discourteous/rude users	94	91	92	94	91	88	92	91
Drainage problems	97	94	92	91	95	91	94	92
Animals harrassed	97	94	93	91	97	96	96	94
Vandalism	94	91	97	95	95	94	96	94
Users ask to use phone, bathroom, etc.	96	94	95	93	97	96	96	95
Burglary of property	97	94	96	95	98	96	97	95
<i>Average n</i>	70	34	150	71	149	81	369	194

¹Question asked only of landowners who had owned property near or adjacent to the trail before trails were established.

Table III-35
Overall Satisfaction With Having the Trail as a Neighbor

<i>Satisfaction Rating</i>	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 ("Very Satisfied")	28	27	100	47	176	54	304	47
2	14	14	18	9	44	14	76	12
3	12	12	11	5	37	11	60	9
4	18	18	42	20	28	9	88	13
5	9	9	16	8	7	2	32	5
6	7	7	3	1	15	5	25	4
7 ("Very Unsatisfied")	15	15	23	11	19	6	57	9
	103	102	213	101	326	101	642	99
		3.5		2.8		2.3		2.6
Standard Deviation		2.1		2.1		1.8		2.0

Table III-36
**Landowners' Opinions About How Trail Has Affected
the Quality of their Neighborhood**

<i>Attitude Rating</i>	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 ("Improved Quality")	10	10	64	32	94	29	168	27
2	14	15	25	12	63	20	102	17
3	21	22	32	16	69	22	122	20
4	41	43	66	33	87	28	194	31
5	6	6	5	3	4	1	15	2
6	2	2	2	1	3	1	7	1
7 ("Worsened Quality")	2	2	7	4	1	0	10	2
	96	100	201	101	321	101	618	100
Mean		3.3		2.8		2.6		2.8
Standard Deviation		1.3		1.6		1.3		1.4

Table III-37
Number of Owners Who Purchased Present Property
After Trail Was Opened*

Heritage		St. Marks		Lafayette/Moraga		Combined	
<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
24	22.9	27	12.2	162	49.8	213	32.7

*Heritage Trail opened in 1982, St. Marks in 1988, and Lafayette/Moraga in 1976.

Table III-38
Landowners' Level of Support for Trail When it Was Proposed

<i>Attitude Rating</i>	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 ("Very Supportive")	14	17	92	47	65	37	171	38
2	7	9	20	10	20	12	47	10
3	4	5	18	9	22	13	44	10
4	15	18	37	19	32	18	84	19
5	5	6	9	5	16	9	30	7
6	5	6	4	2	7	4	16	4
7 ("Very Opposed")	32	39	14	7	12	7	58	13
	82	100	194	99	174	100	450	101
	4.6		2.6		2.9		3.1	
Standard Deviation	2.3		1.9		1.9		2.1	

Table III-39
Landowners' Attitudes About Living Near the Trail Now Compared to
Their Initial Reaction to the Idea of Living Near the Trail

<i>Attitude Rating</i>	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 ("Much Better")	27	27	65	33	88	28	180	29
2	17	17	27	14	59	18	103	17
3	17	17	31	16	63	20	111	18
4	33	33	58	29	99	31	190	31
5	4	4	8	4	4	1	16	3
6	0	0	1	1	4	1	5	1
7 ("Much Worse")	2	2	9	5	3	1	14	2
Total	100	100	199	102	320	100	619	101
Mean	2.8		2.8		2.7		2.7	
Standard Deviation	1.4		1.6		1.3		1.5	

Table III-40
Landowner's Attitude About Whether Living Near the Trail is Better or Worse
Than Living Near the Railroad Right-of-Way Before it was Converted Into the Trail

<i>Attitude Rating</i>	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
1 ("Much Better")	15	19	81	43	70	40	166	37
2	21	27	23	12	31	18	75	17
3	8	10	20	11	24	14	52	12
4	20	25	51	27	36	21	107	24
5	3	4	4	2	8	5	15	3
6	2	3	2	1	4	2	8	2
7 ("Much Worse")	10	13	9	5	3	2	22	5
Total	79	101	190	101	176	102	445	100
Mean	3.3		2.6		2.5		2.6	
Standard Deviation	1.9		1.7		1.5		1.7	

Table III-41
Average Direct Expenditures Made by Visitors to the Heritage Trail
(Ns range from 306 to 316)

Type of Expenditure	Dubuque County	Other parts of Iowa	Outside of Iowa
Restaurants (including fast food, sit down, etc.)	\$2.32	\$0.47	\$0.20
Food and beverage in retail stores	.64	.13	.05
Lodging expenses:			
hotel/motel	.79	.23	.25
camping	.03	.14	.02
other	.00	.00	.00
Retail purchases made during trip (personal items, souvenirs etc.) excluding durable items such as equipment	.46	.01	.71
Auto expenses:			
gas and oil	1.33	.60	.15
repairs and service	.00	.01	.02
parking and tolls	.01	.00	.00
Other transportation costs:			
airfare and busfare	.00	.00	.00
public transit, taxis, etc.	.00	.00	.00
Film and developing	.04	.03	.03
Fees for other attractions/entertainment	.04	.05	.05
All other expenses for this trip (program fees, licenses, rental fees for bikes, skis, etc.)	.40	.00	.00
Totals	\$6.06 66%	\$1.67 18%	\$1.48 16%

Table III-42
Average Direct Expenditures Made by
Visitors to the St. Marks Trails
(Ns range from 569 to 578)

Type of Expenditure	Leon and Wakulla Counties	Other parts of Florida	Outside of Florida
Restaurants (including fast food, sit down, etc.)	\$1.36	\$2.55	\$0.03
Food and beverage in retail stores	.75	.34	.30
Lodging expenses:			
hotel/motel	.27	.00	.00
camping	.03	.10	.02
other	.02	.00	.00
Retail purchases made during trip (personal items, souvenirs etc.) excluding durable items such as equipment	.36	.07	.11
Auto expenses:			
gas and oil	1.18	2.44	.10
repairs and service	.01	.00	.01
parking and tolls	.01	.00	.00
Other transportation costs:			
airfare and busfare	.00	.00	.00
public transit, taxis, etc.	.00	.00	.02
Film and developing	.08	.06	.01
Fees for other attractions/entertainment	.06	.17	.05
All other expenses for this trip (program fees, licenses, rental fees for bikes, skis, etc.)	.51	.00	.00
Totals	\$4.64 42%	\$5.73 52%	\$0.65 6%

Table III-43
Average Direct Expenditures Made by Visitors
to the Lafayette/Moraga Trail
(Ns range from 723 to 742)

Type of Expenditure	Contra Costa County	Other parts of CA	Outside of CA
Restaurants (including fast food, sit down, etc.)	\$.33	\$.45	\$.00
Food and beverage in retail stores	.58	.05	.10
Lodging expenses:			
hotel/motel	.03	.20	.00
camping	.00	.00	.00
other	.00	.00	.05
Retail purchases made during trip (personal items, souvenirs etc.) excluding durable items such as equipment	.36	.11	.00
Auto expenses:			
gas and oil	.27	1.04	.02
repairs and service	.00	.00	.00
parking and tolls	.00	.00	.00
Other transportation costs:			
airfare and busfare	.02	.02	.20
public transit, taxis, etc.	.00	.00	.00
Film and developing	.03	.04	.02
Fees for other attractions/entertainment	.00	.03	.00
All other expenses for this trip (program fees, licenses, rental fees for bikes, skis, etc.)	.02	.00	.00
Totals	\$1.64 41%	\$1.94 49%	\$0.39 10%

Table III-44
Percentage Of Trail Users Who Made Specific
Types Of Expenditure In County Where Trail Is Located During Visit

Type of Expenditure	Heritage Trail	St. Marks Trail	Lafayette/Moraga Trail
Restaurants (including fast food, sit down, etc.)	35%	21%	5%
Food and beverage in retail stores	14%	18%	3%
Lodging expenses:			
hotel/motel	4%	<1%	<1%
camping	1%	1%	0%
other	0%	<1%	0%
Retail purchases made during trip (personal items, souvenirs etc.) excluding durable items such as equipment	6%	3%	1%
Auto expenses:			
gas and oil	31%	33%	14%
repairs and service	0%	<1%	<1%
parking and tolls	1%	<1%	0%
Other transportation costs:			
airfare and busfare	0%	<1%	.4%
public transit, taxis, etc.	0%	<1%	<1%
Film and developing	1%	1%	<1%
Fees for other attractions/entertainment	2%	<1%	0%
All other expenses for this trip (program fees, licenses, rental fees for bikes, skis, etc.)	3%	6%	<1%

Table III-45
Average Direct Expenditures Made Within The County
By Visitors Who Live Outside The County Where The Trail Is Located

Type of Expenditure	Heritage Trail	St. Marks Trail	Lafayette/Moraga Trail
Restaurants (including fast food, sit down, etc.)	\$5.21	\$4.70	\$1.34
Food and beverage in retail stores	.78	1.89	1.05
Lodging expenses:			
hotel/motel	2.48	1.68	.00
camping	.08	.20	.00
other	.00	.10	.00
Retail purchases made during trip (personal items, souvenirs etc.) excluding durable items such as equipment	1.36	2.27	3.37
Auto expenses:			
gas and oil	2.14	2.42	.82
repairs and service	.00	.00	.00
parking and tolls	.04	.01	.00
Other transportation costs:			
airfare and busfare	.00	.00	.02
public transit, taxis, etc.	.00	.00	.01
Film and developing	.03	.47	.01
Fees for other attractions/entertainment	.12	.18	.00
All other expenses for this trip (program fees, licenses, rental fees for bikes, skis, etc.)	.98	1.26	.24
totals	\$13.22 37%	\$15.18 43%	\$6.86 20%

Table III-46
Average Amount Spent On Durable Items
Influenced By Existence Of Heritage Trail

Type of Expenditure	Dubuque County	Other parts of Iowa	Outside of Iowa
Clothing (clothing, shoes, boots, hats, etc.)	\$21.25	\$2.63	\$4.77
Equipment (bikes, snowmobiles, trailers, skis, etc.)	68.67	19.18	9.25
Accessories (bike racks, water bottles, helmets, radios, spare parts, cameras, etc.)	21.88	8.44	6.25
Books, guides, maps, etc.	1.80	.30	.56
Memberships/subscriptions, program fees, etc.	5.80	2.37	.77
Other expenditures for durables	.07	.00	.00
	totals \$119.47	\$32.92	\$21.60

Table III-47
Average Amount Spent On Durable Items Influenced
By Existence Of St. Marks Trail

Type of Expenditure	Leon and Wakulla Counties	Other parts of Florida	Outside of Florida
Clothing (clothing, shoes, boots, hats, etc.)	\$28.25	\$3.48	\$4.19
Equipment (bikes, snowmobiles, trailers, skis, etc.)	127.05	16.85	14.11
Accessories (bike racks, water bottles, helmets, radios, spare parts, cameras, etc.)	34.87	7.45	4.15
Books, guides, maps, etc.	.88	.23	.25
Memberships/subscriptions, program fees, etc.	1.86	.44	.63
Other expenditures for durables	2.61	1.49	1.85
Totals	\$195.52	\$29.94	\$25.18

Table III-48
Average Amount Spent On Durable Items Influenced By
Existence Of Lafayette/Moraga Trail

Type of Expenditure	Contra Costa County	Other parts of CA	Outside of CA
Clothing (clothing, shoes, boots, hats, etc.)	\$48.80	\$3.37	\$1.67
Equipment (bikes, snowmobiles, trailers, skis, etc.)	41.25	7.28	1.30
Accessories (bike racks, water bottles, helmets, radios, spare parts, cameras, etc.)	19.75	2.02	.25
Books, guides, maps, etc.	1.20	.35	.07
Memberships/subscriptions, program fees, etc.	1.51	.90	.03
Other expenditures for durables	.98	.46	1.50
totals	\$113.49	\$14.38	\$4.82

Table III-49
Number and Percentage of Trail Users Reporting They Would be Willing to Pay
Selected Amounts for an Annual Trail Use Permit

Amount Specified	Heritage		St. Marks		Lafayette/Moraga	
	n	% yes	n	% yes	n	% yes
1.00			75	89	101	76
5.00	45	82				
6.00	40	83	21	38	36	56
7.00	19	47			35	57
8.00			93	45	82	49
12.00	49	35	23	65	41	34
14.00	35	20			28	25
16.00			108	28	93	31
18.00	37	24	23	17	25	24
21.00	30	7			34	24
24.00	21	14	97	28	100	24
28.00	15	7			33	33
30.00	19	11	63	16	46	28
32.00			72	10	74	8

Table III-50
Owners' Opinions About Whether Trail Would Make
Their Property Easier or Harder to Sell

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	n	%	n	%	n	%	n	%
1 ("Much Easier to Sell")	9	10	37	19	100	32	146	23
2	8	9	8	4	60	19	76	13
3	15	16	28	15	73	23	116	19
4	46	50	95	50	71	23	212	35
5	6	7	9	5	5	2	20	3
6	3	3	4	2	5	2	12	2
7 ("Much Harder to Sell")	6	7	10	5	2	1	18	3
Total	93	102	191	100	316	102	600	98
Mean	3.7		3.4		2.5		3.0	
Standard Deviation	1.4		1.5		1.3		1.5	

Table III-51
Owners' Opinion About Whether Trail Would Make Their Property Easier
or Harder to Sell When Controlling for Distance From Trail

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>Adjacent</i>	<i>Near</i>	<i>Adjacent</i>	<i>Near</i>	<i>Adjacent</i>	<i>Near</i>	<i>Adjacent</i>	<i>Near</i>
Mean opinion score*	3.8	3.6	3.6	3.3	2.5	2.5	3.0	2.9
<i>n</i>	45	48	101	90	172	144	318	282

* Means based on 7-point scale with 1 being "Much Easier to Sell" and 7 being "Much Harder to Sell."

Table III-52
Owners' Opinions About How Presence of Trail Affects
the Resale Value of Their Property

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Lowered Value	8	8.0	13	6.5	7	2.2	28	4.6
Increased Value	11	11.0	36	18.1	157	50.0	204	33.3
No Effect	81	81.0	150	75.4	150	47.8	381	62.2
<i>n</i>	100	100.0	199	100.0	314	100.0	613	100.1

Table III-53
Adjacent and Nearby Owners' Opinions About How Presence of Trail Affects
the Resale Value of Their Property

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	adjacent (n=51)	nearby (n=49)	adjacent (n=107)	nearby (n=92)	adjacent (n=172)	nearby (n=142)	adjacent (n=330)	nearby (n=283)
Lowered Value	14%	2%	11%	2%	3%	1%	7%	2%
Increased Value	14	8	16	21	53	47	35	31
No Effect	73	90	74	77	44	52	58	67
Total	101	100	101	100	100	100	100	100

Table III-54
Landowners' Opinions About How Much the Trail
has Affected the Resale Value of Their Property

	Heritage		St. Marks		Lafayette/Moraga	
	adjacent	nearby	adjacent	nearby	adjacent	nearby
Lowered Value	17.5*(4)	0.0 (0)	25.0 (8)	30.0 (1)	10.0 (5)	15.0 (2)
Increased Value	29.0 (6)	25.0 (3)	18.4 (16)	9.4 (18)	11.8 (78)	10.1 (51)

*This is the average percent change reported by those responding (indicated in parentheses).

Table III-55
How Trail Affected Decision to Buy Property for Those
Purchasing After Trail Was Opened¹

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	n	%	n	%	n	%	n	%
1 ("Added to Property's	3	13	4	31	34	23	41	22
2 Appeal")	2	8	2	15	39	27	43	23
3	3	13	1	8	30	21	34	19
4	12	50	5	38	40	27	57	31
5	2	8	0	0	3	2	5	3
6	0	0	0	0	0	0	0	0
7 ("Detracted from	2	8	1	8	0	0	3	2
Property's Appeal")								
Total	24	100	13	100	146	100	183	100
Mean		3.7		2.9		2.6		2.7

¹ Question asked only of landowners who purchased property after the trail was established.

Table III-56
Real Estate Professionals' Opinions About Trail's Effect on
How Easily Adjacent Residential Property Sells

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Home Easier to Sell	1	6	5	20	6	24	12	18
Home Harder to Sell	0	0	0	0	8	32	8	12
No Effect on Sales	16	94	20	80	11	44	47	70
<i>n</i>	17	100	25	100	25	100	67	100

Table III-57
Real Estate Professionals' Opinions About Trails' Effect on
How Quickly Adjacent Residential Property Sells

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Home Sells Faster	1	6	5	20	5	20	11	16
Home Sells Slower	0	0	0	0	8	32	8	12
No Effect on Sales	16	94	20	80	12	48	48	72
<i>n</i>	17	100	25	100	25	100	67	100

Table III-58
Real Estate Professionals' Opinions About Trails' Effect on
Resale Values of Adjacent Residential Properties

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increases Value	2	12	5	20	6	24	13	19
Decreases Value	1	6	0	0	6	24	7	10
No Effect	14	82	20	80	13	52	47	70
<i>n</i>	17	100	25	100	25	100	67	99

Table III-59
Real Estate Professionals' Opinions About Trails' Effect on
How Easily Nearby Residential Property Sells

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Home Easier to Sell	3	18	6	24	16	64	25	37
Home Harder to Sell	0	0	0	0	0	0	0	0
No Effect on Sales	14	82	19	76	9	36	42	63
<i>n</i>	17	100	25	100	25	100	67	

Table III-60
Real Estate Professionals' Opinions About Trails' Effect on
How Quickly Nearby Residential Property Sells

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Home Sells Faster	2	12	6	24	14	56	22	33
Home Sells Slower	0	0	0	0	0	0	0	0
No Effect on Sales	15	88	19	76	11	44	45	67
<i>n</i>	17	100	25	100	25	100	67	

Table III-61
Real Estate Professionals' Opinions About Trails' Effect on
Resale Values of Nearby Residential Properties

	Heritage		St. Marks		Lafayette/Moraga		Combined	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Increases Value	2	12	5	20	12	48	19	28
Decreases Value	0	0	0	0	0	0	0	0
No Effect	15	88	20	80	13	52	48	72
<i>n</i>	17	100	25	100	25	100	67	100

Table III-62
Trail Benefits Perceived by Users

Benefit	Heritage	St. Marks	Lafayette/ Moraga	Combined
Preserving undeveloped open space	6.1	6.0	6.3	6.1
Aesthetic beauty	6.3	6.0	6.2	6.1
Community pride	5.9	5.7	5.9	5.8
Tourism and business development	5.4	4.2	2.5	3.7
Traffic reduction/transportation alternative	4.1	4.6	3.7	4.1
Health and fitness	6.4	6.5	6.5	6.5
Access for disabled persons	5.3	5.4	5.5	5.5
Recreation opportunities	5.8	6.0	5.8	5.9
Public education about nature/environment	5.3	5.2	4.5	5.0
Number of responses	91	184	312	594

Means calculated on 7-point scales with 1 being "not at all important" and 7 being "extremely important"

Table III-63
Trail Benefits Perceived by Landowners

Benefit	Heritage	St. Marks	Lafayette/ Moraga	Combined
Preserving undeveloped open space	4.6	4.9	5.8	5.3
Aesthetic beauty	5.1	4.9	5.6	5.3
Community pride	4.8	5.0	5.5	5.3
Tourism and business development	4.8	3.9	2.0	3.0
Traffic reduction/transportation alternative	2.9	3.7	3.5	3.5
Health and fitness	5.5	6.0	6.4	6.1
Access for disabled persons	4.9	5.1	5.0	5.0
Recreation opportunities	5.5	5.7	5.9	5.8
Public education about nature/environment	5.2	4.9	4.4	4.7
Number of responses	91	184	312	594

Means calculated on 7-point scales with 1 being "not at all important" and 7 being "extremely important"

CHAPTER IV. CONCLUSIONS AND IMPLICATIONS

The purpose of this chapter is to highlight and discuss the most important findings of this study and to draw implications from those findings. It is divided into four sections which address the wide array of benefits provided by these rail-trails, the differences in the levels of economic impacts across the three trails, the dedication of the users, and the effects on adjacent and nearby landowners.

Wide Range of Benefits Provided

The rail-trails studied, like many recreation resources, were found to provide a wide range of benefits to users, nearby landowners, and local communities. When asked why they had visited the trails and what they liked best about them, users emphasized benefits related to exercise, safe/automobile-free recreation, peace and quiet, health, social interaction, family togetherness, transportation for adults and children, nature, and wildlife appreciation. The majority of trail landowners presumably benefit in similar ways since ninety percent of all the landowners surveyed reported that they too were trail users. Many landowners also felt the trails would benefit them economically if they chose to sell their properties. The majority felt the trails would make their properties easier to sell and a third predicted that the trails would make their properties more valuable.

In addition to the trails' benefits to users and nearby property owners, this study found that local communities also benefitted in important ways from the presence of the trails. The local economies through which the trails pass each realized well over half a million dollars in annual direct expenditures made by trail users during their visits as well as significant additional expenditures made on durable goods related to trail use. Trail landowners reported, on average, that

the trails had improved the quality of their neighborhoods and trail users and landowners alike also felt that the trails were important in providing the following benefits to the surrounding communities: health and fitness, recreation opportunities, undeveloped open space, aesthetic beauty, community pride, and access for persons with disabilities.

The finding that users and nearby landowners felt rail-trails provide a wide range of benefits to both individuals and the community as a whole has implications for how new and existing rail-trails are presented to and discussed with their various constituencies. Rail-trails do more than provide a single type of benefit to a particular special interest group. Rather, they have the potential to satisfy many needs and provide many benefits. When attempting to build support for a new trail proposal or an existing trail, there are potential benefits that even very diverse groups would find appealing: recreation opportunities for potential users, safe play and transportation for families with children, economic development for local businesses, increased property values and a strengthened sense of community for nearby residents, transportation networks for regional planners, protected open space for conservationists and nature lovers, and so on. Rail-trails are much more than tourist attractions or wildlife habitat and the entire spectrum of potential benefits should be emphasized when promoting and building support for them.

Differences in Levels of Economic Impact Across the Three Trails

Average trip-related expenditures per person and new money generated for the local counties were higher for the Heritage and St. Marks Trails than for the Lafayette/Moraga Trail.

This is due primarily to the fact that the Lafayette/Moraga draws far fewer visitors from outside the local county than do the other two trails and its visitors stay for shorter periods of time. Because these longer travel distances and longer trail stays involve higher costs (particularly when an overnight stay is involved), the higher expenditures of these "tourist" visitors increase the expenditure averages on the Heritage and St. Marks Trails and the amounts of new money generated for the host counties.

The finding that the Heritage and St. Marks Trails generate more visits from out-of-county users and that these tourists spend more than their local counterparts has several implications for trail planners and managers. If increasing or maximizing a trail's economic impact is an objective, the trail must be designed, managed and marketed to attract visitors from outside the local area and to convince them to spend at least one night in the area and return often. Several things can help in this regard. The trail should be long enough and scenic enough to entice out-of-town visitors to travel there. Although this study's sample of trails was not large, it is significant that the Heritage Trail was the longest and perhaps most scenic of the three and also attracted the highest proportion of out-of-county visitors, while the Lafayette/Moraga was the shortest and most urban of the three. There should be amenities such as restaurants, camping areas, motels, and food stores available and conveniently located for trail users. Trails which can be marketed in conjunction with other area trails, attractions, and points of interest have the potential of being a bigger draw for visitors and may entice others to extend their stays in the area. The community must also be supportive of trail tourism and economic development objectives. A positive "host" attitude on the part of local businesses and residents can be instrumental in a visitor's decision to return or not. And, finally, the trail and its nearby support facilities need to be marketed. At a minimum, potential users need to be aware of the existence of the trail

and the facilities that are available to make their trips convenient. These factors are all present in the case of Wisconsin's Elroy-Sparta Trail and its economic benefits to its surrounding communities have been found to be substantial. It should also be noted that there is nothing in this study which indicates that the factors leading to the greater economic impact realized on the Heritage and St. Marks Trails have had any negative impact on the other benefits the trails produce.

Dedicated Users

One of the most striking findings from the surveys of the trail users was how frequently they visited the trails, particularly in the case of the Lafayette/Moraga. Half of the users there reported visiting the trail on over 100 different days during the past twelve months for an average of 132 days annually. Although considerably less than that found for the Lafayette/Moraga, the average trail use of 31 and 46 days annually for the Heritage and St. Marks trail users was still remarkably high. Each trail appears to have a core of very dedicated regular users. In the case of the Lafayette/Moraga, many users reported using the trail twice daily, for "fresh air" or walking their dogs. Not surprisingly, these regular users were attached to the trails both as favorite places to participate in their activities and because they liked the trails themselves.

The finding that there is a core of dedicated users that visit the trails frequently has several implications for trail planners and managers. Where it has not already occurred, trail managers should consider involving these dedicated users in trail management. Many could be recruited as trail volunteers or partners in advising management about needed changes and improvements. At a minimum, the informed opinions of these trail experts should be sought before major trail or management changes are undertaken. Similarly, input from residents near

proposed trail projects should be sought since these are the people most likely to become the trail's most frequent users.

Related to the high frequency of use found for the users of the three sample trails was the fact that most users lived close to the trails. Thus, the demographic characteristics of users mirrored the local population. This study did not indicate that rail-trails attract any particular ethnic or socio-demographic group.

Effects on Adjacent and Nearby Landowners

The survey of property owners living adjacent to and near the study trails produced several important results that have implications for planners and managers. While acknowledging that there are disadvantages experienced by some adjacent owners, most reported advantages and relatively low rates of occurrence for trail-related problems. Overall, neighboring landowners were satisfied with having the trails as neighbors. Landowners generally felt that the trails had improved the quality of their neighborhoods, would make their properties sell easier and would either increase or have no effect on their property values.

The findings regarding how neighboring landowners' attitudes and experiences with the trails changed over time were also significant. Overall, landowners reported that there was either no change or a decrease in the number of problems they experienced once the trail was established and, on average, landowners at all three trails reported that the trail was a more desirable neighbor than the unused railroad line had been before it.

These findings should be encouraging for trail advocates and landowners living along proposed trails. Certainly, the effect on any particular property will depend on the specifics of the situation; however, landowners' fears of increased crime and other problems and decreased property values were not supported by this study. These findings imply that trail advocates and

planners should be proactive when addressing landowner concerns. Landowners' concerns are legitimate but their fears may be overblown. Facts from studies like this should be available at the first contact with landowners along proposed trails. Better yet, landowners near proposed trails should be put in contact with owners along existing trails to hear first-hand about what they can really expect if a new rail-trail is established near them.

Summary

The results of this study indicate that rail-trails are valuable recreation resources that provide a wide array of benefits to users, neighboring landowners, and local communities. They attract and keep a core of very dedicated users, and in many instances, attract visitors from outside the local communities. These non-local visitors are the most important source of economic benefits generated by the trails. And, while there can be disadvantages to living adjacent to a rail-trail and these legitimate concerns need to be addressed, most landowners were satisfied with living near the rail-trails examined in this study.

REFERENCES CITED

- Alward, Gregory S. (1986). In *The President's Commission on Americans Outdoors, A Literature Review*. ("Values and Benefits," pp. 47-57). Washington, D.C.: U.S. Government Printing Office.
- Blank, Uel. (1987). The Economic Impact of the Proposed Missouri River Trail. Unpublished Manuscript.
- City of Seattle. (1987). Evaluation of the Burke-Gilman Trail's Effect on Property Values and Crime. Seattle, Washington: Seattle Engineering Department, Office of Planning.
- Dillman, Don A. (1978). *Main and Telephone Surveys - The Total Design Method*. New York: John Wiley and Sons, pp. 180-190.
- Driver, B. L. and Brown, P. J. (1986). In *The President's Commission on Americans Outdoors, A Literature Review*. (pp. Values, 63-70). Washington, D.C.: U.S. Government Printing Office.
- East Bay Regional Park District (1978). A Trails Study: Neighbor and User Viewpoints/Maintenance Summary. East Bay Regional Park District, Oakland, CA.
- Furuseth, Owen J. and Altman, Robert E. (1991). Who's on the greenway: socioeconomic, demographic, and locational characteristics of greenway users. *Environmental Management*. 15(3), 329-336.
- Furuseth, Owen J. and Altman, Robert E. (1990). Greenway use and users: An examination of Raleigh and Charlotte greenways. *Carolina Planning*. 16(2), 37-42.
- Frechtling, Douglas C. (1987). Assessing the impacts of travel and tourism - Measuring economic benefits. In J. R. Brent & Charles R. Goeldner (eds.), *Travel, Tourism, and Hospitality Research*. New York: John Woley and Sons, pp. 333-352.
- Gobster, Paul (1990). The Illinois Statewide Trail User Study. USDA Forest Service, North Central Forest Experiment Station: Chicago. Available from: Rails-To-Trails Conservancy, Illinois Chapter, 313 W. Cook Street, Springfield, IL.
- Keiner, Suellen T. (1985). *The Contribution of Outdoor Recreation to State Economic Development*. (pp. 73) Washington, D.C.: Council of State Planning Agencies.
- Lawton, Kate. (1986). The Economic Impact of Bike Trails: A Case Study of the Sugar River Trail. Unpublished Manuscript. New Glarus, WI: Sugar Hill State Trail Corp.
- Little, Charles. (1990). *Greenways for America*. Baltimore: The Johns Hopkins University Press.
- Mazour, Leonard (1988). Converted Railroad Trails: The Impact on Adjacent Property. Unpublished Master's Thesis. Kansas State University, Manhattan.
- Mettleider, John F. and Leitch, Jay A. (1984). Economic Contribution of State Parks to the North Dakota Economy. (Agricultural Report No 194). Fargo, ND: North Dakota State University.

- Minnesota Department of Natural Resources (1980). State Trail Survey Results Summary (Heartland, Root River, Douglas, and Munger State Trails). Unpublished paper: Minnesota DNR, Trails and Waterways Unit, Saint Paul, MN.
- Minnesota Department of Natural Resources (1980). Living Along Trails: What People Expect and Find. Unpublished paper: Minnesota DNR, Trails and Waterways Unit, Saint Paul, MN.
- President's Commission On Americans Outdoors. (1987). *Americans Outdoors: The Legacy, The Challenge*. Washington, D. C. : Island Press.
- Rails-to-Trails Fever Sweeps Nation! (January-March, 1989). *Rails-to-Trails Conservancy Trailblazer*, pp. 1, 4.
- Trail Leaders Meet in Baltimore. (July-September, 1991). *Rails-to-Trails Conservancy Trailblazer*, Vol. 6, Number 3, pp. 1, 12.
- Rails-to-Trails Conservancy, (1988). *A Guide to America's Rail-Trails*. Washington, D.C.: Rails-to-Trails Conservancy.
- Regnier, Charles (1989). Minnesota Off-Road Bike Trail Use: 1980-1988. Unpublished paper: Minnesota Department of Natural Resources, Trails and Waterways Unit, Saint Paul, MN.
- Rolston, Holmes III. (1986). In *The President's Commission on Americans Outdoors, A Literature Review*. (pp. Values, 103-113). Washington, D.C.: U.S. Government Printing Office.
- Schwecke, Tim, Dave Sprehn, and Sue Hamilton (1989). A look at the visitors on Wisconsin's Elroy-Sparta Bike Trail. University of Wisconsin Cooperative Extension Service, Madison, Wisconsin.
- Strauss, Charles H. and Lord, Bruce E. (1988, February). Structure and Location of User expenditures Originating from Pennsylvania State Parks. Paper presented at The Southeastern Recreation Research Symposium, Asheville, NC.
- Walsh, Richard G. (1986). *Recreation Economic Decisions: Comparing Benefits and Costs*. State College, PA: Venture Publishing, pp.70-71.
- West, Patrick. (1986). In *The President's Commission on Americans Outdoors, A Literature Review*. (pp. Values, 93-102). Washington, D.C.: U.S. Government Printing Office.

APPENDICES

Appendix A

Estimation of Total Use Levels on Sample Trails

Appendix A

Estimation of Total Use Levels on Sample Trails

As discussed in detail in chapter 2, the total numbers of people using the three trails included in the study were estimated through a complicated procedure involving several variables. Basically, the numbers of users counted by rangers on periodic trail patrols were: 1) expanded to compensate for users not seen by the ranger on his or her trail pass (determined through periodic calibration counts), and 2) to avoid double counting any users, corrected for users' length of stay on the trail. These corrections resulted in an adjusted estimate of the number of users on the trail during each trail patrol. This estimate was then expanded into an estimate of total number of users per day by incorporating the time required per patrol and the number of daylight hours available each season. This daily use estimate was extrapolated to the number of days in each season to provide the total seasonal use estimates (Table A-1).

For the Heritage Trail, calibration counts showed that the rangers counted 42.5% of the total trail users during an average pass. Trail users stayed on the trail an average of 150 minutes, while the trail patrol took an average of 108.6 minutes, yielding a length of stay correction factor of .724. The number of passes possible per day ranged from 4.97 in winter (based on 9 hours of daylight) to 6.63 (12 hours) for spring and fall and 8.28 for summer (15 hours). Higher counts of users, coupled with more available daylight hours, resulted in much higher use levels in summer on the Heritage Trail. Use levels remained relatively high during the fall but were quite low during the spring and winter months.

On the St. Marks Trail, rangers' trail counts represented 37.6% of all trail users during trail passes. Trail users' length of stay on the trail was 140.5 minutes, compared to a trail patrol time of 126.1 minutes, resulting in a length of stay correction factor of .897. The number of possible passes per day ranged from 4.3 in winter to 5.7 for fall/spring and 7.1 for summer. Use levels on the St. Marks trail were quite consistent across seasons.

On the Lafayette/Moraga Trail, the patrol counts represented 52.9% of the trail users. It was not necessary to adjust for length of stay because users' time spent on the trail (67.7 minutes) was less than the length of the patrol (115.1 minutes), and therefore double counting of users would not occur. For extrapolation purposes, the number of patrols possible per day ranged from 4.7 in winter to 6.3 for fall/spring and 7.8 for summer. Total use levels on the Lafayette/Moraga trail were highest in spring and summer (nearly 1,500 users per day), and dropped considerably during the fall and winter months.

Table A-1
Summary of Trail User Counts

	Number Counted by Ranger	Correction For Users Not Counted	Correction For Length of Stay	Estimated Total Users Per Day	Estimated Total Users Per Season
Heritage Trail					
Spring	12.1	28.5	20.6	136.6	12,468
Summer	56.4	132.7	96.1	795.5	72,593
Fall	40.2	94.6	68.5	454.0	41,429
Winter	11.0	25.9	18.7	93.1	8,496
Total	28.3				134,986
Rounded to					135,000
St. Marks Trail					
Spring	42.6	113.3	101.6	580.3	52,953
Summer	24.3	64.6	58.0	413.9	37,769
Fall	32.9	87.5	78.5	448.2	40,896
Winter	43.1	114.6	102.8	440.1	40,156
Total	34.7				171,774
Rounded to					170,000
Lafayette/Moraga Trail					
Spring	121.8	230.2	230.2	1441.4	131,525
Summer	98.0	185.3	185.3	1448.7	132,197
Fall	81.6	154.3	154.3	965.6	88,112
Winter	70.6	133.5	133.5	625.9	57,116
Total	93.5				408,950
Rounded to					400,000

Appendix B

Representative Open-Ended Responses from User Survey

Heritage Trail User Comments

I use the trail in all seasons and, of course, sometimes it is ice-packed and dangerous for walking. That is the only time I don't use it. I would like better publicized information as to the condition of the trail before I set out to travel the 10 miles by car to get to an access point. Maybe a phone number to call to ask about the condition, which sections are allowed for snow mobiles, etc. I would like more information along the trail as to the kinds of nature and history of the area and where I could find out information, where to pay my fees, etc.

I have been an avid supporter of the Heritage since the very beginning. I enjoy many quiet moments on the trail, and consider it the most valuable, and readily accessible outlet for me to exercise my body and get away from the pressures of my job — in nature! It's great, perhaps the best thing to happen to Dubuque since I moved here 11 years ago.

The utilization of railroad rights-of-way is extremely important for future recreation. The preservation of the natural surroundings that has been accomplished has benefited the wildlife immensely. I hope in the future that more facilities of this type will also be developed the same way as the Heritage trail.

Heritage Trail is a home away from home! Sometimes I use it for pure aerobic exercising, other times it serves as social function when I walk/bike with friends. It's a great place to get away from everything late Autumn through early Spring when use decreases and the wildlife that don't migrate (deer, wild turkey, etc.) re-populate the trail surroundings.

Trail parking lot safety is important to me—my car was shot up as a friend and I came back to the car from a walk. The car was parked in the Twin Spring lot. One bullet went through the driver side door and another shattered the two front door windows; another dented the frame at the base. No one was ever caught - we heard shots and saw a car speeding away.

I don't know if this is the place to express this concern: I have a friend who has farm land on both sides of Heritage Trail. The area across the trail from his farm is wooded pasture (east of Budd Crossing) but has not water. He cannot utilize this land because there is no underpass. So, he pays taxes on this approx 15 acres. The neighbors may use it, but he would like to have access for his cattle. Public relations (image) would be helped if this expenditure could be made.

I'm very impressed with the way the trail is managed and maintained. More restrooms and drinking water would be nice. Also, I live in Dubuque and usually use the Twin Springs access point. I would like to use some other access points to see different areas of the trail, but I can find no detailed maps of the roads to these points that also have parking. We pass some of these spots on the trail, but have no idea how to get to them by car. The maps we have of the trail are adequate for the trail itself, but not for county roads or highways that may parallel the trail or bisect it.

In early July of this year, a group of friends and I rode the trail (and bicycled) for the first time in our adult lives. Of the 9 people in our group that day, 4 of us have made a ritual of riding the trail each Sunday morning. Two others of that group have become bi-weekly riders. One other member of the group is a jogger and now uses the trail for jogging several times weekly. Bicycling has become a very enjoyable past-time for me and has given me much needed exercise along with the joy of experiencing the solitude and natural beauty of the trail.

I use the trail 2-3 days a week — weekdays and weekends at various times of day. Usual trip is 12-18 miles. Longest ride was 50 miles - Sageville to Dyersville and back this summer. In my opinion, the \$5.00 annual fee is the best bargain in town. The trail is well maintained (especially the section from Sageville to Graf). This trail is used by young and old. The only suggestions I would have is to have more frequent ranger patrols. It's a great trail, and a great asset to the Dubuque community.

Heritage (Trail) is a great addition to the recreational resources of our area. It is developing nicely. It is not overcrowded yet. Having to travel a bit for access helps limit the amount of frivolous use and cuts down on the prankish damage. I'm grateful to have it.

St. Marks Trail User Comments

I would like to see the trail expanded into a series of bike/hike (and other uses) ways throughout the city and surrounding counties - not just Leon and Wakulla. In the few years it has been open, usage has soared and any time, day or night, that I have been on it, it has been in use. I would like to see it connecting with or passing near some of our local and other state parks. Rest rooms and water facilities would be nice (restrooms at each end would be wonderful!). Because of our use and enjoyment of this trail, we've traveled to 12 or 14 states such as Ohio, Wisconsin, Michigan, Maryland, West Virginia, and other states I haven't named to ride their rail-trails. Each is different and unique - and each was enjoyed. It is one of the most efficient and productive ways to create new parks for both city and country dwellers. We can only benefit from these wonderful greenways. I also think it's important that trails are patrolled regularly, either by vehicle or by a cycle-patrol. It is good public relations for the park services and helps keep vandalism and littering at a minimum level.

I think it's a great place; it gets a lot of use by people of all ages. I really don't think I would ride as often as I do now were it not for the Trail. Since my first visit in mid-December, I have returned every weekend and will continue to do so after my Physical Therapy has been completed. The formation of the Trail was a great idea. Thanks!

The rangers were extremely friendly and seemed very willing to lend assistance. It appeared that they had a genuine interest in their job and I appreciated their attitude and professionalism. The trip was a positive experience for me and I am looking forward to bicycling again soon and more often. I would like to see restrooms made available since I bicycle with my daughter who is a pre-schooler.

The trail has made my life happier and more fulfilling than any other aspect of Tallahassee/Leon/Wakulla Counties. There is no other way for my husband and I and our 5 year old girl (who rides in a seat on his bike) to spend a day than on this healthful and happy and natural trail. I wish the State of Florida would make them all over the state to promote a healthy, outdoor appreciation of Florida. I wish there was one on the north end of town going up from Lake Jackson to Havana. That's the part of town we live in.

Wish it could be extended both into town so I could actually use it as a way to get into town without driving and that there were more bike routes or trails off of it like to Wakulla Springs and St. Marks Wildlife Refuge and Natural Bridge. It's a great idea and I'd like to see more of them — would be willing to pay a fee to use and maintain them.

The St. Marks trail should be used as the backbone of a trail network through southern and central Wakulla Counties. Connector spur trails should be signed to all other adjacent state and federal facilities: Natural Bridge, Wakulla Springs, St. Marks NWR, San Marcos, Apalachicola National Forest. The trail must be continued into Tallahassee and connected to city bikeway system and city recreational centers. Reforestation should be conducted along barren strips of right-of-way; wild flowers should be encouraged by attention to mowing schedules.

I strongly promote fitness. The trail has been wonderful for hundreds of people. I see and talk to folks constantly that tell me that the reason they ride is because the trail is available. I find the trail rather boring and too full of dirt which causes me to have to slow down too much. But for kids and non-athletes, the Trail is the best! I would pay an annual fee, no so much because I would use it, but because I strongly believe in the concept. I must say that I enjoy riding on the trail during the winter months when it gets dark early and I often get caught in the dark. I don't feel it is unsafe to travel on the path as dusk sets in. I feel very uncomfortable on the road at dusk, however. MORE trails need to be created! They're wonderful and a much needed concept.

The Rail Trail was supposed to be for horses as well as other uses. Until the Jefferson Co. Horseshows Association started working on it, there was no place for horse people. Supposedly there wasn't enough money left for the project. If it hadn't been for ICHA, there wouldn't be a horse trail today. Approximately 425 man hours of time was donated or volunteered to make it happen. I feel like horse people got a raw deal. I never saw one hiker or biker doing any work on the trail. Any future improvements should include horse people who support the local economy much, much more in feed and expenses than any other user.

The ants are tunneling up under the trail, and that is causing some pot holes. Horses with shoes shouldn't be allowed on the trail as it makes an indentation in the asphalt. Kids shouldn't be able to loiter on the trail in Woodville. Mr. Tooke shouldn't be able to ride his golf cart on the trail. The two officers that patrol the trail have been told not to say anything to him from their boss. Who is liable if someone gets hurt on the trail by this man that can't see well enough to drive but is allowed to drive a golf cart on the trail?

Any green space we manage to keep is of major benefit to everyone and everything. It is nice to have a healthy alternative to group activities. I am very proud of the state of Florida for making this commitment and hope to see this continued in many, many areas.

The St. Marks trail is a beautiful recreational area and a great asset to the Tallahassee and Big Bend areas. However, the past 3 years, I have lived here, I've noticed a consistent pattern of land clearing and development along the margins of the trail. This concerns me very much since it threatens the integrity of the trail. The continued development of the land (especially the slash and burn tactics employed by the St. Joe Paper Co., et al.) will surely detract from the beauty of the trail and reduce its wide appeal.

We feel very fortunate in having this special resource nearby. My husband and I look forward to having our children get a little older so they can cycle with us.

It is very important that the trail be maintained in its natural, quiet and safe condition. It should be free to those who choose to use it and if manpower is needed to clean it up or make repairs, volunteers would readily be available. Efforts should be made to keep people aware of how they can participate in the maintenance of the trail rather than creating an annual pass for a fee.

Because my husband and I are retired and are not travellers, the St. Marks Trail is very important to us. We probably will never use any other trail for this reason, but I hope that trails are being made available all over the country. If I were younger, I would love to do that sort of vacationing. Because of the danger of traffic, the trail is the only place we would dare ride or walk. We appreciate it very much.

I enjoyed riding the St. Marks Trail very much. My wife and I and two children go to Florida to the beach about twice a year. Sometimes we stay for three or four days, sometimes a week. This was the first time I visited the trail because I wasn't sure where it was until I asked a few bicycle shops. All of our future vacations will be planned around this area now. We can go to the beach, stay at the beach and travel just a few miles to go biking. I'm trying to teach my 7-year-old daughter to ride safely so she can ride with me. The trail is ideal for this due to no hills and no traffic. Wish I lived closer so I could use it more.

The trail is great—I've enjoyed it tremendously. I've ridden on it almost exclusively since purchasing my bike 3 or 4 months ago. The nature trail loops off to the side are a good addition to the trail. It was the perfect setting to learn about off-road biking. Now that I'm more comfortable riding off-road, I may decrease time spent on the trail and replace it with riding the other nature trails in the area that are not paved in the local national forests and parks. I'm sure I'll continue to enjoy the St. Marks trail as well.

I cycle for exercise, and the St. Marks Trail is the only available cycling path in the area. I don't like to cycle on the road due to the danger from traffic. (Actually, I started cycling because of the availability of the trail; otherwise, I would probably do something else to exercise.)

I was very pleased when I was approached to contribute to this study, especially since I recently joined Rails-to-Trails and am very interested in promoting trails. This trail has helped make some important changes in my life—mainly the 30 pounds I've lost.

A few years ago when the St. Marks trail was developed, I thought to myself what a waste of money, but now with a family, I look at the St. Marks Trail as one activity the whole family can participate in and enjoy. Although when surveyed by the Park Ranger, we were doing only part of the trail, we have since returned and went the entire length. My wife, daughter, and I look forward to many years of enjoyment, exercise, and family togetherness on the St. Marks Trail and applaud any efforts to improve or even tie into the trail with a sister trail maybe to Wakulla Springs Park.

Lafayette/Moraga Trail Users Comments

The only thing that keeps me from using the trail more is the length of the day. In the summer, I use it more because there is obviously more light—longer days. I generally use the trail in the afternoon and evenings on weekdays. Perhaps some lighted areas along the trail would be useful to more people like myself. I agree that pets should be on leashes along the trail, and the vast majority of dog owners comply with this rule. It would be very helpful, however, to have open areas designated for off-leash pets. I greatly enjoy walking with my dog, but it isn't always fun for us if he is on a leash. The only area nearby that is legal to have him loose is in Briones Park at the opposite end of my tour. I have lived in the Bay Area for 17 years, in various locations. This trail makes this area my favorite of them all, as I can walk safely in a natural area close to my home. This is very important to me.

Part V, Question 5 upset me. I try to imagine what would happen if the trail required a pass to use it. I think the beauty of the trail is that it is like "a little bit of heaven" right in my neighborhood and anyone at all is free to use this trail. The community should care for and take care of its trail — I don't mind donating money to these ends, but I do not like the idea of requiring passes.

It doesn't matter to me if the paths were in a semi-natural state, but once they were paved, it is the expectation the paths will be safe for those of all ages and abilities. Pot holes and hazards would be dangerous for fast bicycling or roller skating or those pushing children in strollers, etc. I truly love the trail and the convenience to my home. It's what makes our community special. However, in the light of costs for maintenance, a more natural trail might be appropriate.

I wish there were more trails. There are better trails in Minneapolis and Lexington, MA. I would do this activity better there! All I really use is a small section of the trail — a favorite—the undeveloped part towards the staging area.

Every time the natural vegetation fills in and makes the trail more lovely, they come through with saws and destroy the beauty and the birds leave for long periods. Quite unnecessary. Many bike riders bike fast and carelessly. I'm handicapped, so I'm very slow. They have frightened me many times. I haven't had an accident yet, but it seems unavoidable. They need to enforce the biking rules.

As noted in Question 5, part V, the trail is just right as it is. I have grown up and gone to school in the Lafayette/Moraga area and have been using the trail continuously since its construction (circa 1975). Over the years, I have used this trail quite often for either practical purposes, exercise, or whatever. My 9 and 10 year old son and daughter are now frequent users of this trail and my wife and I feel very comfortable in allowing them to go off with friends or each other on the trail without adult supervision. I hope that this trail doesn't become commercialized. It's just right. Thank you.

It is tremendous having this trail facility. We owe much appreciation to those who fought

for it and exerted leadership to preserve it for us. It is truly an outstanding community asset and is one of the significant reasons why Moraga is such a fine place to live in. Management is fine and maintenance is satisfactory. The only improvement I see is controlling the bikers by giving them restricted hours on certain days only. This is to protect children and seniors. Use same plan as at Lafayette Reservoir. Thanks for this opportunity.

The best part of my day is walking at lunch time on the trail.

I object to questions about money. It is obvious that the point is that trails may generate additional local revenue, particularly from outside visitors. I appreciate that local agencies may be motivated by the greed factor. However, this should be a footnote at best. In addition, I do not want any encouragement for "outsiders" to come and use "our" trail. Locals treat "their" trail with great respect. My extensive experience with trails that are used by non-locals is that non-locals have far less respect for the trails and other people using them. The Lafayette/Moraga trail has a highly conscientious and courteous group of users. We do not need or want disrespectful and abusive "transients" frequenting the trail, encouraged by those who seek "revenue" which largely goes into the pockets of businessmen.

It would be extremely nice if there were snack stands somewhere so people could buy drinks. It also needs more water fountains. But, besides these two factors, I love the trail. I'm not sure if it would be fair to charge people for use of the trail, but I would definitely be willing to pay anyways.

The major problem with the Lafayette/Moraga Trail is the unsafe conditions created by bicyclists: (1) they go too fast for trail conditions and pedestrians; (2) they show too little consideration for safety of pedestrians; (3) they seldom comply with present signs requiring speed reduction and calling out when passing pedestrians; (4) they fail to observe stop signs; (5) they fail to slow down and/or stop when there is pedestrian congestion on the trail. It is only a matter of time until there is a serious accident on the trail. The condition is growing worse as time goes on.

As our nation grows older, it is very important that our local, state, and federal government give serious attention to providing parks and trails as we have in the Lafayette/Moraga area to encourage our youth and Senior citizens to stay active and healthy by this type of recreation. I am disturbed, as well as my family and friends, that our various governments do not see or understand that long term investment in this recreation area would help reduce crime, increase the health of our nation, thereby reducing the amount of money now being spent and wasted because of dishonesty on the aforementioned subjects. As for improving the trail or management of it, I think it is fine "as is." Local citizen participation keeps it "fine tuned" and will let the local officials know when something needs attention.

My husband insisted on living in Moraga so he could jog on the easy grades of the trail. My children enjoy hiking on the trail although I do worry about the dangerous intersection for access at Moraga Road and Corliss. Some sections may be too isolated for children or women to travel alone. My son had one incident where he had to fight an older boy from stealing his bike

at a water fountain. Overall, the trail is a valuable asset to the community which favorably impacts real estate values and makes exercising convenient and enjoyable.

It's a great place to enjoy walking, riding, or running. I appreciate that it is maintained but don't have loyalty to it or identify with it. I would like to see it continued to be provided and maintained.

I enjoy both the Lafayette Reservoir, where I do pay \$60 for an annual pass, as much as Lafayette/Moraga Trail. Together, the 2 trails are of extreme importance in my lifestyle.

The Lafayette/Moraga trail is a very valuable resource for this community. I use the trail 2-3 times a week for walking/jogging and get a great deal of pleasure and benefit (both mental and physical) from doing so. The trail has become an important and valuable part of my routine. Trails like this are very important community assets.

Since it is paved, I think it should be carefully reviewed and holes filled in when needed (that is not the case presently). The Lafayette-Moraga Trail is very special to me and it was a decisive factor in choosing this area for my permanent residence. I walked and rode the trail long before it was paved and in many ways I preferred it (undeveloped) because far fewer people used it. However, I think it is wonderful that many people avail themselves to walks and bicycle rides as it is healthier for them. I am very grateful for this lovely setting and feel very lucky that I may go for walks and rides (even at dusk) and feel perfectly safe. It's a constant battle fighting developers and real estate tycoons who want to build on open space and hopefully we will be able to keep this area as is for a long time. Thank you for your interest and for your part in keeping trails like ours alive and well.

The trail has been a definite plus to our community and has provided a safe and convenient avenue for many activities. I've personally used it for running, walking, biking, and horse back riding. The trail also adds a strong sense of community and friendliness to our town of Moraga. It's fun to go out and be able to say "hi" to so many people, and I'd say 99.9% of them respond back.

Appendix C

Representative Open-Ended Responses from Landowner Survey

Heritage Trail Landowner Comments

We are a small town and most everyone uses the trail at one time or another. The city of Durango has no bad comments to make of the trail; they all like it very much.

My biggest problem is just in the way *this* trail was acquired.

I like living by the Heritage Trail. To watch people. Plus, for my own family purposes.

There should never have been a Heritage Trail. By rights, the land should have gone back to the landowners first. Then, if they wanted to sell the ground for a trail, they could.

We receive two free passes a year, as a landowner along the trail. We could afford to buy these passes, but the gesture of thanks means a lot. Keep up the good work.

I don't like the way the trail was taken from the original owners of the land. It was theirs to begin with; I think it should have been given back.

It's a great asset to the community. I feel it's much safer for people to bike on a trail than on streets and highways. Be willing to share the beauty of the trail with others. We have never had any problems with the people who use the trail. The trail is well managed. Most bikers do not see the real beauty of the trail. When you walk it, you really notice your surroundings. Keep up the good work.

People that use the trail are good people and friendly. Good sports. Bad people don't use the trail because they don't have enough ambition to get out to use it.

We were on the committee opposing the trail—but for a different purpose. Our land is not split—we were in support of our neighbors who had land on both sides—they wanted one piece again, but we are not ready to give up the beauty and serenity of the quiet place to escape. There was a lot of garbage—beer parties and such from teenagers (15-25) in this road by our farm, so we just wanted land back to fence it off to try to arrest this problem. Since the trail, the problem has almost stopped. Once a year a huge party goes on—the management and us get along great. No problem.

St. Marks Trail Landowner Comments

The trail was a good idea and is used much more than I thought it would be . We use it, but because it is unsafe to ride on U.S. 98 between the Wakulla River and the trail. We don't use it often (not near as much as we would like to). The impact on St. Marks can be helped by the state and federal governments and as soon as the short term problems are solved, the trail will be a great asset, now and for many generations to come.

The trail has been utilized by many more individuals on a regular basis than I anticipated. Its use and operation has been a pleasant surprise to many of us.

As far as I am personally concerned, the trail is the most beneficial contribution the state of Florida has made.

One of its best uses is by teenagers, providing them affordable, outdoor recreation. In the areas along the trail, other such wholesome activities are desperately lacking.

I think the trail is good for the people that choose to use it. It has not bothered us in any way. It also keeps bikes off the road. The road is not in sight of our house.

I am sure that some people enjoy the trail, but as I don't use it and it's not adjacent to my property, it really doesn't affect me at all.

I think the bike trail has excellent management and would encourage any public or private people/organization to pursue purchasing additional land for additional bike trails or an extension of the present ones.

I was very opposed to the idea at first, fearing that it would be used by motorcyclists, but I am very pleased with the trail—it provides a safe alternative to riding on highways for joggers and bicyclists, and gives me a safe and comfortable place for my walks. I think the trail concept is excellent and am glad it is "catching on" in other places.

Best investment government money could be used for.

My wife was born in and grew up in the house adjoining what is now the St. Marks Trail. We both enjoy the trail and consider it an improvement to the communities through which it passes. We enjoy watching the bicyclists, joggers, and hikers using the trail, especially families with young children. We feel this is an outstanding example of good use of public land for enjoyment of all citizens. P.S., we especially enjoy the wildflowers on our walks.

I see no advantages or disadvantages to the trail.

Horses. The horse trail is not clearly marked. We were not aware of a horse trail until recently. The horses harass our dogs. Riders do not stay on the trail.

The Trail is a haven for child molesters (young and old), female attackers, and robbers. Relatives of mine who live near the trail (property adjoining) cannot let their kids ride their bikes on the trail without an accompanying adult. Older teenagers and adults harass and threaten them. We have heard of many bad experiences.

I appreciate having the trail adjacent to my property. The trail provides a means of exercise for the adults and recreation for my tenants. Also, it insures cleanliness across the front of my property because it is very well maintained.

The trail is good for families. And kids have a place to ride their bikes.

I really think that a lot of tax payers money is wasted on the upkeep of this trail. The users should help with this cost.

I resent a state agency taking property from private owners without compensation. The small property owner does not have the money to go to court to fight big government with all of its resources, even though the deeds of many adjoining property owners indicated that they owned part of the former railroad bed. This includes me among many others.

I went to all notified meetings in our town about this trail and voiced my opinion for the trail from the very first. I was very excited for the prospect of having a wonderful trail in our area. It lets all people have a good place to walk and ride away from concrete and traffic.

I think the county commissioners should force land owners along the trail to keep this property clean and free of "junk" cars and trash, etc. I think a comfort station would help too.

Woodville Jaycees would like to help beautify the trail by planting along the strip between the trail and the road which runs parallel.

I have been extremely pleased with the upkeep and improvements to the trail. Just keep up the good work. Thank you.

Lafayette/Moraga Trail Landowner Comments

If the trail is forced upon us, let's maintain it in terms of litter control, landscaping, and drainage control. Provide police protection. Limit speed of bikers. Some go by children walking at 25 mph plus.

It has been well designed and managed from the beginning. A great improvement over a noisy electric Railroad.

There is nothing but praise. The trail is well-maintained and warnings given of any difficulties. Most cyclists are courteous. The animals, and there are many, generally use the area between the trail and adjacent homes to take care of their needs. There's an immense amount of pleasure in a friendly "HI" to strangers or simply conversing with old and young alike, whether you do or don't know them. Parents with babies and young children are secure in the knowledge that they are safe, not only from traffic, but from the fact that the trail is so well used. Many hundreds of other communities would be well-blessed with a trail such as ours.

The trail would be a wonderful addition to any area.

It's very popular here. Many, many people enjoy and use it. A good investment.

It is a definite asset for the community and a value added for the nearby properties.

We wouldn't want to be right next to the trail. Our house is one property plus a street away from the trail, so we get its benefits without any of its problems.

We are pleased to have the trail in our community. It is well-used and for the most part, respected by all who use it.

For any adjacent landowner, the desirability of a trail is the result of a trade-off between some loss of privacy and ease of access. How these attributes are weighted will be uniquely determined by the specific configuration of the property and the owners' taste for trail-supported activities.

Despite initial concerns of robbery, lack of privacy, noise, unleashed pets, traffic, etc., after one month here, we developed a sense of small town America. Although we don't know everyone's names, we meet people constantly. Trail has developed a community sense in town. People refer to it as "our trail"—stops isolation of the big city.

I think we are very lucky to have such a trail. It is used by many with increasing numbers each year. It would be nice if it were interconnected to other public use areas.

I believe the trail is successful because the neighbors in general have a value for health, environment, and community. Without that, the trail would be a negative element for adjacent homes.

Vandalism, robbery, and safety concerns I originally had were unfounded.

In Lafayette, this trail is very successful. Other communities with higher crime rates may not have the same advantages. The trail could be a source of trouble. Each community should be evaluated separately for a trail.

We are extremely pleased with the cleanliness and quality of the Lafayette/Moraga trail. It helps to make our community a special place to live.

I have enjoyed the trail. I'd like to think users respect the privacy of bordering homes, as I do. Perhaps planners can offer some landscaping/screening type plants/fence construction to help ensure privacy.

We are glad that our property is at least 150 feet from the trail. I wouldn't want to be any closer. Privacy and noise could become a problem.

I hope many places copy the concept. It is ideal for relieving the stress of city life.

It is a collection point for all kinds of weirdos.

My only concern is the occasional feeling of being watched since the trail is elevated above most lot levels. If it could have been lower, it would have prevented this problem. It's a minor point, though. The trail seems to work out great.

Love the trail. Love the trail. Love the trail. Wish there were more funds so that the mowing and other grooming along our section was not so stingy.

From my experience with this one, trails are great and community benefit is extremely high.

We enjoy seeing all the pleasure users derive from the trail—family usage is very encouraging. We have formed friendships with (former) complete strangers.

Appendix D

Summary of What Users and Landowners Liked Best and Least About Trails

The following four tables summarize the responses to four open-ended questions which asked trail users and landowners what they liked best and least about the trails. Notice that some of the landowners responded based on their experiences as trail users and others from their perspective as owners of property along the trail.

Table D-1

Users' Top Three "Things Liked Best About Trail"

Response	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
SETTING (Scenic Area/Rural Atmosphere)								
Scenery/Scenic area/Scenic beauty	129	18.4%	71	6.1%	200	12.3%	400	11.5%
Attractive setting-place/Pleasant setting	8	1.1%	12	1.0%	38	2.3%	58	1.7%
Country setting/Rural atmosphere/Undeveloped	5	0.7%	8	0.7%	43	2.6%	56	1.6%
Interesting surroundings/Variety	5	0.7%			20	1.2%	25	0.7%
Varied scenery/sections	3	0.4%	2	0.2%	12	0.7%	17	0.5%
Pleasant atmosphere	1	0.1%	2	0.2%	9	0.6%	12	0.3%
Limestone walls/Bluffs/Rocks	9	1.3%					9	0.3%
No commercialism/No food concessions			3	0.3%	3	0.2%	6	0.2%
Historic value			2	0.2%			2	0.1%
SETTING (Nature)								
Natural/Natural beauty/Nature surroundings	48	6.9%	48	4.1%	49	3.0%	145	4.2%
Trees/Woods/Woodsy	13	1.9%	30	2.6%	23	1.4%	66	1.9%
Shade	15	2.1%	18	1.5%	10	0.6%	43	1.2%
Wildlife/Birds	20	2.9%	11	0.9%	11	0.7%	42	1.2%
Being outdoors/Open spaces	6	0.9%	1	0.1%	16	1.0%	23	0.7%
Flowers/Flora	7	1.0%	3	0.3%	3	0.2%	13	0.4%
Unpolluted/Fresh air	4	0.6%	2	0.2%	6	0.4%	12	0.3%
River/Creek	9	1.3%			1	0.1%	10	0.3%
Hills					6	0.4%	6	0.2%
Caves	2	0.3%					2	0.1%
Fall colors/Seasons changing	2	0.3%					2	0.1%
Blueberries/Fruit			1	0.1%			1	0.0%
Good wind cover	1	0.1%					1	0.0%
SETTING (Secluded)								
Quiet	44	6.3%	31	2.7%	66	4.1%	141	4.0%
Peace and tranquility	34	4.9%	22	1.9%	37	2.3%	93	2.7%
Remoteness/Wilderness/Secluded	8	1.1%	17	1.5%	10	0.6%	35	1.0%
Private/Privacy	3	0.4%	1	0.1%	3	0.2%	7	0.2%
SETTING (Nearby Amenities)								
Stores/Restaurants/Poseys/Museums/Trailside cafe	2	0.3%	8	0.7%	2	0.1%	12	0.3%
Smitty's	8	1.1%					8	0.2%
Par course					7	0.4%	7	0.2%
Small towns	4	0.6%					4	0.1%
Kids park					1	0.1%	1	0.0%
TRAIL (Safety)								
Protected from traffic	44	6.3%	198	17.0%	124	7.6%	366	10.5%
Safe/Safety	10	1.4%	86	7.4%	91	5.6%	187	5.4%
Cross walks					1	0.1%	1	0.0%
TRAIL (Design/Characteristics)								
Level/Flat	39	5.6%	75	6.4%	69	4.2%	183	5.2%
Good surface	36	5.1%	36	3.1%	22	1.4%	94	2.7%
Long/Good length	4	0.6%	40	3.4%	31	1.9%	75	2.1%
Paved			41	3.5%	34	2.1%	75	2.1%
Mile markers/Well marked	7	1.0%	20	1.7%	19	1.2%	46	1.3%
Good trail lay-out/construction/condition	4		2		9	0.6%	15	0.4%
Wide			6	0.5%	8	0.5%	14	0.4%
Straight			7	0.6%	6	0.4%	13	0.4%
It exists/Its there			4	0.3%	3	0.2%	7	0.2%
No curbs	1	0.1%			1	0.1%	2	0.1%
Bridges nice	2	0.3%					2	0.1%
No dust or mud					2	0.1%	2	0.1%
Familiar	1	0.1%					1	0.0%
Made on old rail line	1	0.1%					1	0.0%
TRAIL (Access/Transportation)								
Conveniently located/Easy access	19	2.7%	74	6.4%	236	14.5%	329	9.4%
Commute/Where it goes			7	0.6%	16	1.0%	23	0.7%
Good parking			13	1.1%	4	0.2%	17	0.5%
Access/Connections to other bike areas			4	0.3%			4	0.1%
Access to forest				0.1%			1	0.0%
MANAGEMENT								
Well maintained/Clean/No litter	31	4.4%	95	8.2%	102	6.3%	228	6.5%
All weather/Open all the time	1	0.1%	4	0.3%	10	0.6%	15	0.4%
Drinking fountains/Restrooms/Facilities	4	0.6%			10	0.6%	14	0.4%
Dedicated rangers/Good patrols	2	0.3%	7	0.6%			9	0.3%
Free to use			8	0.7%	1	0.1%	9	0.3%
Bollards wide enough now			1	0.1%	5	0.3%	6	0.2%
Landscaped					6	0.4%	6	0.2%
Benches/Place to sit and think	2	0.3%					2	0.1%
Not overmanaged					1	0.1%	1	0.0%
"I like everything about the trail"	48	6.9%	46	4.0%	76	4.7%	170	4.9%

Table D-1

Users' Top Three "Things Liked Best About Trail" (Cont'd)

Response	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
SOCIAL								
Not crowded (at times)	10	1.4%	20	1.7%	33	2.0%	63	1.8%
Nice/Friendly people	7	1.0%	10	0.9%	45	2.8%	62	1.8%
Good neighborhood/Enough people to feel safe			1	0.1%	17	1.0%	18	0.5%
Meeting people	1	0.1%	1	0.1%	5	0.3%	7	0.2%
Others	1	0.1%	4	0.3%	2	0.1%	7	0.2%
Promote family togetherness & health			3	0.3%	1	0.1%	4	0.1%
Only few bikers					1	0.1%	1	0.0%
ACTIVITIES								
Nice/Good place to walk,run,bike,ride	26	3.7%	34	2.9%	31	1.9%	91	2.6%
Variety of uses			3	0.3%	9	0.6%	12	0.3%
Outdoor exercise	4	0.6%	3	0.3%	5	0.3%	12	0.3%
Safe place to walk, run, bike			7	0.6%	5	0.3%	12	0.3%
Satisfying/Enjoyable/Relaxing	1	0.1%	3	0.3%	2	0.1%	6	0.2%
Chance to get out of town			1	0.1%			1	0.0%
ANIMALS								
Dogs allowed/Nice dogs	1	0.1%			5	0.3%	6	0.2%
No dogs	2	0.3%	1	0.1%			3	0.1%
Horses allowed			1	0.1%	2	0.1%	3	0.1%
The horse trail			3	0.3%			3	0.1%
Dogs on leashes					1	0.1%	1	0.0%
No horses	1	0.1%					1	0.0%
Totals	700	100.0%	1163	100.0%	1627	100.0%	3490	100.0%

FACILITIES

RESPONSE	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
	32	9.4%	7	0.9%	117	11.6%	156	7.3%
	34	10.0%					34	1.6%
	2	0.6%	3	0.4%	9	0.9%	14	0.7%
	5	1.5%	6	0.8%	1	0.1%	12	0.6%
	4	1.2%	1	0.1%	1	0.1%	5	0.2%
					2	0.2%	3	0.1%
					2	0.2%	2	0.1%
		1.5%	19	2.4%	22	2.2%	46	2.2%
		0.6%	20	2.6%	20	2.0%	42	2.0%
		1.2%	22	2.8%	4	0.4%	30	1.4%
			17	2.2%			17	0.8%
					4	0.4%	4	0.2%
					1	0.1%	1	0.0%
			10	1.3%		1.9%	29	1.4%
	4	1.2%	9	1.2%		0.3%	16	0.8%
			3	0.4%		0.5%	8	0.4%
						0.4%	4	0.2%
			2	0.3%		0.1%	3	0.1%
			1	0.1%			1	0.0%
FACILITIES								
Number of restrooms inadequate	26	7.6%	92	11.8%	37	3.7%	155	7.3%
Number of drinking water stops inadequate	15	4.4%	96	12.3%	33	3.3%	144	6.8%
Need more benches	8	2.4%	4	0.5%	9	0.9%	21	1.0%
Need more picnic & rest areas, rain & shade shelters	2	0.6%	16	2.1%	1	0.1%	19	0.9%
Lack of facilities	4	1.2%	14	1.8%			18	0.8%
Inadequate parking/Need more parking areas			12	1.5%	5	0.5%	17	0.8%
No drink machines/food concessions/restaurants	1	0.3%	1	0.1%			11	0.5%
No emergency facilities or phones	2	0.6%	2	0.3%	1	0.1%	8	0.4%
Need one or more trash cans			2	0.3%	5	0.5%	7	0.3%
Need more or better par courses					5	0.5%	5	0.2%
Disappointing end: no tables or parks			3	0.4%	1	0.1%	4	0.2%
No repair facilities for bikes	1	0.3%	2	0.3%			3	0.1%
Rest stop in wrong place			2	0.3%			2	0.1%
Smitty's store closed on Mondays/Need more Smitty's	2	0.6%					2	0.1%
		2.4%	11	1.4%	85	8.4%	104	4.9%
			7	0.9%	81	8.0%	88	4.1%
		0.3%	3	0.4%	43	4.3%	47	2.2%
		0.3%			1	0.1%	2	0.1%
			2	0.3%			2	0.1%
			1	0.1%			1	0.0%
			1	0.1%			1	0.0%
			1	0.1%			1	0.0%
			15		52	5.1%	72	
			6		9	0.9%	19	
			2		15	1.5%	18	
			6		3	0.3%	11	
							6	
			1		2	0.2%	3	
							3	
			1		1	0.1%	3	
					3	0.3%	3	
			1		1	0.1%	2	
					2	0.2%	2	
	1	0.3%			117	11.6%	118	5.5%
	2	0.6%	7	0.9%	37	3.7%	46	2.2%
	3	0.9%	8	1.0%	9	0.9%	20	0.9%
					6	0.6%	6	0.3%
	2	0.6%			1	0.1%	2	0.1%
							1	0.0%
	33		1	0.1%	1	0.1%	34	1.6%
			5	0.1%	14	1.4%	15	0.7%
	5		5	0.6%	1	0.1%	11	0.5%
			4	0.5%	4	0.4%	8	0.4%
							2	0.1%
							1	0.0%

Table D-2

Users' Top Three "Things Liked Least About Trail" (Cont'd)

RESPONSE	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
SETTING (Nature)								
Tall bushes, grass and weeds/Brush needs trimming	3	0.9%	2	0.3%	20	2.0%	25	1.2%
Not enough shade	3	0.9%	7	0.9%	10	1.0%	20	0.9%
Poison oak					6	0.6%	6	0.3%
Rainy days/Areas washed out after rain	6	1.8%					6	0.3%
Not enough nature/wildlife/flowers			3	0.4%	2	0.2%	5	0.2%
Weather	1	0.3%			3	0.3%	4	0.2%
Too many/wrong kind of trees			1	0.1%	2	0.2%	3	0.1%
Allergies in spring			1	0.1%	1	0.1%	2	0.1%
SETTING (Location)								
Too far from home/Hard to get there	14	4.1%	15	1.9%	5	0.5%	34	1.6%
Extend it to other destinations and other trails	3	0.9%	12	1.5%	2	0.2%	17	0.8%
Woodville			8	1.0%			8	0.4%
Too close to houses, backyards, farms	1	0.3%	3	0.4%	1	0.1%	5	0.2%
Access to camping	1	0.3%					1	0.0%
SETTING (Scenery)								
Rather dull after a few visits/Boring scenery sections	4	1.2%	17	2.2%	6	0.6%	27	1.3%
Developed/Unnatural areas	1	0.3%	8	1.0%	2	0.2%	11	0.5%
West end (Dyersville to Graf)	5	1.5%					5	0.2%
Took out neat bridge above Graf		0.3%						0.0%
SETTING (Miscellaneous)								
Adjacent road	2	0.6%	21	2.7%	5	0.5%	28	1.3%
Dust/Noise from adjacent road	2	0.6%	13	1.7%	4	0.4%	19	0.9%
Odor from sewage vent pipes					1	0.1%	1	0.0%
SAFETY (Roads)								
Too many road crossings/driveways	2	0.6%	37	4.8%	25	2.5%	64	3.0%
Dangerous crossings/Intersection traffic	2	0.6%	25	3.2%	9	0.9%	36	1.7%
No safe streets to get there/Inconsiderate drivers			4	0.5%			4	0.2%
SAFETY (Setting)								
Not safe enough to use alone/Unsafe areas/Brushy areas	1	0.3%	12	1.5%	6	0.6%	19	0.9%
Cat calls from locals/Undesirable locals			2	0.3%			2	0.1%
SAFETY (Miscellaneous)								
No lights at night/Unsafe in evenings			3	0.4%	10	1.0%	13	0.6%
Not enough security/Patrol inadequate			6	0.8%	1	0.1%	7	0.3%
Not enough others/Feel isolated sometimes/Too secluded	2	0.6%	1	0.1%	3	0.3%	6	0.3%
Drop off between Budd & Twin Springs/Need more safety rails	2	0.6%					2	0.1%
MANAGEMENT								
Poor maintenance of trail, shoulder, and parallel trail	4	1.2%		0.1%	20	2.0%	25	1.2%
Stopping at crossings/Stop signs			20	2.6%	4	0.4%	24	1.1%
Glass on trail			23	3.0%			23	1.1%
Trash, garbage, litter on trail	1	0.3%	11	1.4%	3	0.3%	15	0.7%
Horse trail inadequate			12	1.5%	2	0.2%	14	0.7%
No information stands/directions/maps			4	0.5%	4	0.4%	8	0.4%
Need more signs (about rules & courtesy)			3	0.4%	3	0.3%	6	0.3%
No interpretation of nature or history	2	0.6%	1	0.1%			3	0.1%
Some bridges need repair	2	0.6%			1	0.1%	3	0.1%
Fee	2	0.6%					2	0.1%
Road part not well-marked					2	0.2%	2	0.1%
Rangers/Overbearing rangers	1	0.3%			1	0.1%	2	0.1%
Management uncooperative (with landowners and horse people)	1	0.3%	1	0.1%			2	0.1%
Speed limits			1	0.1%			1	0.0%
Not plowed in winter	1	0.3%					1	0.0%
Chemical spraying					1	0.1%	1	0.0%
Rocks in path					1	0.1%	1	0.0%
New pine trees planted along trail				0.1%	1	0.1%	1	0.0%
Too expensive to maintain							1	0.0%
Need more limestone past Durango	1	0.3%					1	0.0%
"I do not dislike anything about the trail"	32	9.4%	32	4.1%	40	4.0%	104	4.9%
ILLEGAL ACTIVITIES -								
Motorcycles, dirt bikes, go carts, motorized vehicles	2	0.6%	5	0.6%			7	0.3%
Worried about crime/fire					2	0.2%	2	0.1%
Sabotage (thumbtacks on trail)					1	0.1%	1	0.0%
Vandalism			1	0.1%			1	0.0%
Someone with a gun	1	0.3%					1	0.0%
Totals	340	100.0%	778	100.0%	1010	100.0%	2128	100.0%

Table D-3

Owners' Top Three "Things Liked Best About Trail"

Response	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
ACTIVITY								
Easy recreational/exercise access	34	27.6%	89	41.6%	222	47.5%	345	42.9%
I exercise more/Health			2	0.9%	16	3.4%	18	2.2%
Family outings	3	2.4%	4	1.9%	10	2.1%	17	2.1%
Good place to walk dog	1	0.8%			4	0.9%	5	0.6%
SETTING (Access)								
Easy trail access	19	15.4%	12	5.6%	38	8.1%	69	8.6%
Transportation/Commuting route				0.5%	40	8.6%	41	5.1%
SETTING (Nature)								
Natural beauty/Open space	2	1.6%	3	1.4%	46	9.9%	51	6.3%
Seeing wildlife/Wildlife habitat	2	1.6%	2	0.9%	3	0.6%	7	0.9%
Buffers development			1	0.5%	5	1.1%	6	0.7%
"There are no advantages"	41	33.3%	56	26.2%	17	3.6%	114	14.2%
TRAIL (Safety)								
Safe recreation area (esp. for kids)	6	4.9%	11	5.1%	34	7.3%	51	6.3%
TRAIL (Improved Area)								
Increased property values			3	1.4%	8	1.7%	11	1.4%
Trail construction cleaned area up	2	1.6%	4	1.9%			6	0.7%
Attracts good people to the area			2	0.9%			2	0.2%
Quieter than trains			1	0.5%			1	0.1%
They keep roads better now	1	0.8%					1	0.1%
Stopped motorized use			1	0.5%			1	0.1%
Gets bikers off road			1	0.5%			1	0.1%
TRAIL (Management)								
Area well kept	1	0.8%	2	0.9%	1	0.2%	4	0.5%
Free annual passes	2	1.6%					2	0.2%
They maintain my fences	2	1.6%					2	0.2%
It's their responsibility now, not mine				0.5%			1	0.1%
SOCIAL								
Seeing friendly users	1	0.8%	10	4.7%	10	2.1%	21	2.6%
Meeting friends there	2	1.6%	2	0.9%	12	2.6%	16	2.0%
Adds sense of community/Community pride			5	2.3%			5	0.6%
Nice for visitors	1	0.8%					1	0.1%
MISCELLANEOUS								
Tourism/Business development	2	1.6%	1	0.5%			3	0.4%
Preserves for future rail use	1	0.8%					1	0.1%
Easier to find my house					1	0.2%		0.1%
Totals	123	100.0%	214	100.0%	467	100.0%	804	100.0%

Table D-4
Owners' Top Three "Things Liked Least About Trail"

Response	Heritage		St. Marks		Laf/Moraga		Combined	
	n	%	n	%	n	%	n	%
"There are no disadvantages"	70	60.3%	113	66.9%	194	59.7%	377	61.8%
USERS (Noise)								
Noise	4	3.4%	3	1.8%	31	9.5%	38	6.2%
Noise wakes us up			2	1.2%	6	1.8%	8	1.3%
Loud snowmobiles	3	2.6%					3	0.5%
Night loitering/"Parties"					3	0.9%	3	0.5%
USERS (Congestion)								
More traffic on local road	8	6.9%	3	1.8%	7	2.2%	18	3.0%
Trail crowded/Trail traffic			4	2.4%	4	1.2%	8	1.3%
Parking along road congests it	2	1.7%			3	0.9%	5	0.8%
Attracts too many people			1	0.6%	1	0.3%	2	0.3%
USERS (Inconsiderate)								
Litter	1	0.9%	2	1.2%	4	1.2%	7	1.1%
Parking on my land/in front of house	1	0.9%			1	0.3%	2	0.3%
Rude/Fast bike riders					2	0.6%	2	0.3%
Some disrespectful people					1	0.3%		0.2%
USERS (Danger From/To Users)								
Danger of hitting users/They don't yield			3	1.8%			3	0.5%
Watching for users at crossings			1	0.6%	1	0.3%	2	0.3%
Use more care driving near it	1	0.9%					1	0.2%
Danger from car traffic (crossings)			1	0.6%			1	0.2%
Some bikers still use road			1	0.6%			1	0.2%
Unsafe bikers			1	0.6%			1	0.2%
Unsafe crossings					1	0.3%	1	0.2%
USERS (Miscellaneous)								
Loss of privacy	8	6.9%	10	5.9%	27	8.3%	45	7.4%
Loitering			6	3.6%			6	1.0%
Hunters	3	2.6%					3	0.5%
Tourists/Non-residents come			1	0.6%	1	0.3%	2	0.3%
Seeing trail users	1	0.9%						0.2%
FEAR OF CRIME								
Fear of burglary/vandalism/crime	2	1.7%	4	2.4%	13	4.0%	19	3.1%
Trespassers	1	0.9%	1	0.6%	2	0.6%	4	0.7%
Heard of crime problems					3	0.9%	3	0.5%
Drug sales					1	0.3%	1	0.2%
Concern about "strangers"					1	0.3%	1	0.2%
Feel less safe					1	0.3%	1	0.2%
ANIMALS								
My/neighbor's dog barks at users	1	0.9%	2	1.2%	2	0.6%	5	0.8%
Animals harassed			3	1.8%	2	0.6%	5	0.8%
Dogs off leashes					4	1.2%	4	0.7%
Dog manure					1	0.3%	1	0.2%
Horses trespassing			1	0.6%			1	0.2%
TRAIL (Affects My Land)								
Can't drive on it anymore to get cows	1	0.9%					1	0.2%
Sharing my driveway			1	0.6%			1	0.2%
Harder to access backyard now					1	0.3%	1	0.2%
Inconvenient to get to other field now	1	0.9%					1	0.2%
Loss of crop ground	1	0.9%					1	0.2%
Cuts field in two	1	0.9%					1	0.2%
Took more of my property than necessary			1	0.6%			1	0.2%
Took my land			1	0.6%			1	0.2%
TRAIL (Management)								
Needs better maintenance					2	0.6%	2	0.3%
Park police sometimes too zealous on trail					1	0.3%	1	0.2%
Costs our town some money	1	0.9%					1	0.2%
TRAIL (Safety)								
Fear of fire					1	0.3%		0.2%
Legal bills	1	0.9%						0.2%
Had to purchase more insurance	1	0.9%						0.2%
MISCELLANEOUS								
I miss the trains			2	1.2%			2	0.3%
Many	1	0.9%					1	0.2%
Need to keep my yard clean						0.3%	1	0.2%
Hard for me to access the trail						0.3%	1	0.2%
Dust from adjacent road			1	0.6%			1	0.2%
No hunting allowed	1	0.9%					1	0.2%
Drives wildlife away	1	0.9%					1	0.2%
Visual impact					1	0.3%	1	0.2%
Totals	116	100.0%	169	100.0%	325	100.0%	610	100.0%

Appendix E

Trail User Survey Instruments and Cover Letters

ON-SITE INTERVIEW FORM LAFAYETTE/MORAGA TRAIL

The managers of the Lafayette/Moraga Trail are interested in how people use this trail and what they think about it. Please take a few minutes and answer the following questions.

1. About how many miles is it from your home to where you got on the trail today? One-way miles

2. *How long* did it take you to travel from your home to where you got on the trail today?

3. How did you travel from your home to where you got on the trail today? (Please check one)

- ☐ Car, truck, van, motorcycle, etc.
☐ Bicycle
☐ Run, jog, or walk
☐ Other (Please specify _____)

4. How long do you plan to be *on the trail* today?

IF ALONE, GO TO #7

5. *How many* people from each of the following age categories are in your group *on the trail* today? (Please include yourself and write *the numbers* in the spaces provided)

- | | |
|---------------------------------------|--------------------------------------|
| ☐ 15 and under | ☐ 46 to 55 |
| ☐ 16 to 25 | ☐ 56 to 65 |
| ☐ 26 to 35 | ☐ 66 and over |
| ☐ 36 to 45 | |

6. How many people in your group (*excluding yourself*) are members of your immediate family? _____ People

7. Is your visit to this trail part of an overnight trip away from home? ☐ Yes ☐ No (IF "NO", GO TO #8)

a. How many days will you be away from home during this trip? _____ Days

b. During your stay, *how many nights* will you be using each of the following types of accommodations *in this area*? (Please write *number* in space provided.)

- ☐ Hotel/motel
☐ State campground
☐ Private campground
☐ Rented home or cottage
☐ With friends or relatives
☐ Other (Please specify _____)

c. Was visiting the Lafayette/Moraga Trail one of the reasons for your trip to this area?

- ☐ yes (If "yes", was it the *primary* reason? ☐ Yes ☐ No)
☐ no (If "no", what was the *primary* reason for this visit? _____)

8. On about how many different days did you visit the Lafayette/Moraga Trail during the *past twelve months*?n
 _____ Days

9. What is your age? _____ Years

10. Trail managers and planners can better serve your interests if they understand your entire trail visit and experience. Therefore, we would very much like to send you a follow-up survey to complete at your convenience. Would you be willing to give us your name and address so we can mail you a follow-up survey?

NAME _____

ADDRESS _____

ZIP CODE _____

TO BE COMPLETED BY INTERVIEWER

OBSERVE AND RECORD THE FOLLOWING FOR *EACH* USER SELECTED (EVEN REFUSALS):

Sex: Male Female

Type of use: ☐ Walking
☐ Running/Jogging
☐ Bicycling
☐ Horseback riding
☐ Other (Specify _____)

Date	Day-of-week (Circle one)	SU	M	T	W	TR	F	ST
------	--------------------------	----	---	---	---	----	---	----

Time period when interview took place (Circle one):

6-9	9-NOON	NOON-3	3-6	6-9 PM
1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____	1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____

	East End				West End
Trail section (Circle one):	1	2	3	4	5

Weather (Circle one): **Sunny** **Partly Sunny** **Cloudy** **Rain**

Approximate temperature _____

Interviewer name _____

Interviewer comments:



Dear Lafayette/Moraga Trail user,

Recently you visited the Lafayette/Moraga Trail. At that time we contacted you and a small number of other randomly-selected trail users and asked for details about your trip. The information you provided is presently being analyzed for inclusion in a report to the East Bay Regional Park District and the National Park Service. The National Park Service is sponsoring this study and ones like it on two other trails across the country. The purpose of these studies is to determine what makes trails successful and to gain a better understanding of how and why people use them. This part of the study is being conducted by Pennsylvania State University in cooperation with the East Bay Regional Park District.

Enclosed is the follow-up survey to the short form you completed on the trail. Thank you for agreeing to receive it. Your participation is voluntary. In order that the results will truly represent the thinking of all Lafayette/Moraga Trail users, however, it is important that each survey be completed and returned to us. Please take the time to answer the questions. We have provided a stamped, addressed envelope for your convenience.

All your responses are confidential, only statistical totals of answers will ever be published. Each survey has an identification number for mailing purposes only. When you return your survey to us, we will use the number to remove your name from our mailing list so that you do not receive any follow-up mailings.

The results of this survey, like the information you already gave us in the field, will be used by the East Bay Regional Park District and the National Park Service to help trail managers and planners to better serve trail users and to plan for future trail developments.

We would be happy to answer any questions you might have. Please write or call. The telephone number is (814) 865-1851.

Thank you for your assistance.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

OMB# 10240053; Expires 2/28/91 The estimated time required to complete this survey is twelve minutes.

1990 LAFAYETTE/MORAGA TRAIL SURVEY

Thank you very much for agreeing to participate in this follow-up survey about the Lafayette/Moraga Trail and the people who use it. The results of this study will help trail managers and planners to better serve trail users and to plan for future trail developments.

Your participation in this survey is voluntary. There are no penalties for not answering some or all of the questions, but since each randomly selected person will represent many other trail users who were not surveyed, your cooperation is extremely important. All your responses are confidential and when the mailing procedures are completed, all files containing names and addresses will be destroyed.

Since this is a follow-up to the short survey you completed on the trail, several questions refer to the *particular trip you took that day*. Other questions relate to your trail use in general and your trail and activity preferences. Please read the instructions at the beginning of each section.

PLEASE NOTE: It is very important that the person who is listed on the address label fill out this survey.

PART I. In this section we would like to learn more about YOUR LAFAYETTE/MORAGA TRAIL VISIT on the *day you were interviewed*. Please answer these questions in terms of that trip only.

1. What activity were you engaged in while on the trail? (Check one)

- ☐ Walking
- ☐ Running/jogging
- ☐ Bicycling
- ☐ Horseback riding
- ☐ Other (please specify _____)

2. Approximately how long were you on the trail that day?

3. Was this your *first* visit to the trail? ☐ Yes ☐ No

4. Please describe *why* you decided to visit the Lafayette/Moraga Trail that day.

5. If the Lafayette/Moraga Trail had not been available on the day you were interviewed, what would you have done? (Check *one*)

Participated in the same activity somewhere else

Done something different

If so, where? (Check one)

- ☐ Another trail (which one? _____)
- ☐ Sidewalks or public roads
- ☐ Other (Please specify _____)

If so what? _____

Where? _____

6. On this trip, which of the following best describes how you handled your expenses from the time you left home until you returned there? (check one)

I paid all of my *own expenses* and no one else's.

My group *shared* some or all expenses (members made some purchases *for one another*)

(*how many* in the group were 16 years old or older? ☐)

(*how many* in the group were under 16 years old? ☐)

Someone else paid all my expenses (if so, go to Part II).

My group had *no* expenses associated with this trip at all (if so, go to Part II).

(INSERT MAP OF LOCAL COUNTIES)

7. In the spaces below, please list the estimated expenditures made as a result of your entire trip to the Lafayette/Moraga Trail. If you paid all of your *own expenses* and no one else's, report only the amounts *you* actually spent in each category. If your group *shared* some or all expenses (members made some purchases *for one another*), please report your estimates of the amounts spent by the *entire group* in each category.

Please include *all* the expenses associated *with that particular trip* from your preparations before leaving home until your return home. Please indicate where the expenditures took place by recording the amounts in the appropriate columns. Refer to the map on the facing page to help determine what is included in the local county.

	AMOUNT SPENT IN:		
	Contra Costa County	Other Parts of California	Outside of California
ESTIMATED AMOUNT SPENT FOR:			
a. Restaurants (including fast food, sit down, etc.)			
b. Food and beverage in retail stores			
c. Lodging expenses:			
hotel/motel	_____	_____	
camping			
other			
d. Retail purchases <i>during</i> trip (personal items, souvenirs, etc.) <i>excluding</i> durable purchases such as equipment			
e. Auto expenses:			
gas and oil	_____	_____	
repairs and service		_____	
parking and tolls			_____
f. Other Transportation Costs:			
airfare and busfare			
public transit, taxis, etc.		_____	_____
g. Film and Developing			
h. Fees for other attractions/entertainment			
All other expenses <i>for this trip</i> (program fees, licenses, rental fees for bikes, horses, etc.) please specify			
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	
_____	_____	_____	

PART II. In this section we would like to know about your opinions of the LAFAYETTE/MORAGA TRAIL and its management.

1. Please estimate when you *first visited* the Lafayette/Moraga Trail. _____ Month _____ Year

2. How did you find out about the Lafayette/Moraga Trail? (check one)

- ☐ Word-of-mouth (from friends or others)
☐ Newspaper article
☐ Magazine article
☐ I just happened to see it
☐ Other (please specify) _____

3. Overall, how satisfied are you with the Lafayette/Moraga Trail? (Circle *one* number)

VERY UNSATISFIED							VERY SATISFIED
1	2	3	4	5	6	7	

4. What things do you like *best* about the Lafayette/Moraga Trail?

5. What things do you like *least* about the Lafayette/Moraga Trail?

6. To what extent do you feel the following items are problems on the Lafayette/Moraga Trail? (Circle one number for *each* item)

	NOT A PROBLEM						MAJOR PROBLEM	
	1	2	3	4	5	6	7	
a. Too crowded	1	2	3	4	5	6	7	
b. Conflicts with other activities	1	2	3	4	5	6	7	
c. Reckless behavior of trail users	1	2	3	4	5	6	7	
d. Inadequate ranger/safety patrols	1	2	3	4	5	6	7	
e. Rough trail surface	1	2	3	4	5	6	7	
f. Narrow trail width	1	2	3	4	5	6	7	
g. Traffic barriers	1	2	3	4	5	6	7	
h. Pets off leashes	1	2	3	4	5	6	7	
i. Litter and glass	1	2	3	4	5	6	7	
j. Dangerous road intersections	1	2	3	4	5	6	7	
k. Trail vandalism	1	2	3	4	5	6	7	
l. Personal safety	1	2	3	4	5	6	7	
m. Lack of restrooms	1	2	3	4	5	6	7	
n. Lack of drinking water	1	2	3	4	5	6	7	
o. Lack of trail direction signs	1	2	3	4	5	6	7	
p. Not enough access points	1	2	3	4	5	6	7	
q. Not enough parking at access points	1	2	3	4	5	6	7	
r. Lack of information to plan visits	1	2	3	4	5	6	7	
s. Lack of services (food and drink, bike repair, etc)	1	2	3	4	5	6	7	
t. other? (please specify)	1	2	3	4	5	6	7	
_____	1	2	3	4	5	6	7	

7. Which *one* item listed above do you feel is the most important problem on the Lafayette/Moraga Trail? Letter _____

PART III. In this section we are interested in YOUR TRAIL PREFERENCES.

Listed below are some of the characteristics that many people consider desirable for trails like the Lafayette/Moraga. Please consider each characteristic and **circle the number** that best indicates how important it is to you.

	NOT AT ALL IMPORTANT				EXTREMELY IMPORTANT		
Characteristic:							
1. level grades	1	2	3	4	5	6	7
2. natural surroundings	1	2	3	4	5	6	7
3. quiet settings	1	2	3	4	5	6	7
4. historic interest	1	2	3	4	5	6	7
5. trees for shade	1	2	3	4	5	6	7
6. wildlife and birds	1	2	3	4	5	6	7
7. long straight sections	1	2	3	4	5	6	7
8. points of interest	1	2	3	4	5	6	7
9. occasional curves	1	2	3	4	5	6	7
10. safe crossings at roads, streams, etc.	1	2	3	4	5	6	7
11. no motorized vehicles	1	2	3	4	5	6	7
12. smooth trail surfaces	1	2	3	4	5	6	7
13. good maintenance	1	2	3	4	5	6	7
14. places to buy food and drink	1	2	3	4	5	6	7
15. parking facilities	1	2	3	4	5	6	7
16. no crowds	1	2	3	4	5	6	7
17. many different activities allowed	1	2	3	4	5	6	7
18. wide enough to travel beside others	1	2	3	4	5	6	7
19. ranger/safety patrols	1	2	3	4	5	6	7
20. maps, directional signs and trail information	1	2	3	4	5	6	7
21. conveniently located	1	2	3	4	5	6	7
22. varied surroundings	1	2	3	4	5	6	7
23. drinking water and toilet facilities	1	2	3	4	5	6	7
24. signs and information on historic and natural features	1	2	3	4	5	6	7
25. benches for resting	1	2	3	4	5	6	7
26. challenging settings	1	2	3	4	5	6	7
27. access to places I want to travel or commute to	1	2	3	4	5	6	7
28. other? (please specify)	1	2	3	4	5	6	7

Which three items listed above are the *most important* things you consider when you are deciding which trail to visit?

- a. *Most* important # _____
 b. *Second* most important # _____
 c. *Third* most important # _____

PART IV. In this section we would like to know, more about **YOUR TRAIL ACTIVITIES**. Please answer these questions in terms of the *activity* (for example, walking, running, bicycling, etc.) you were engaged in at the *time you were interviewed*.

1. On about how many different days during the last *twelve months* did you participate in this *activity*? _____ Days

2. How would you *rate yourself* as a participant in this activity? (*circle one*)

NOVICE						EXPERT
1	2	3	4	5	6	7

3. How important is this *activity* to you? (*circle one*)

NOT AT ALL IMPORTANT						EXTREMELY IMPORTANT
1	2	3	4	5	6	7

4. How important is the Lafayette/Moraga Trail to your participation *in this activity*?

NOT AT ALL IMPORTANT						EXTREMELY IMPORTANT
1	2	3	4	5	6	7

5. During the last twelve months, what **PERCENTAGE OF THE TOTAL DAYS** you participated in each of the following activities took place *on the Lafayette/Moraga Trail*? (if you did not participate in a particular activity, please mark an "X")

_____ % Walking
 _____ % Running
 _____ % Bicycling
 _____ % Horseback riding
 _____ % Other activity (please Specify _____)

6. Please list any expenditures you made related to this activity during the *last twelve months* if the decision to buy the item was *influenced* by the existence of the Lafayette/Moraga Trail. Only include expenditures for *durable items* that are used for more than one trip and *do not include* items you already accounted for in Part One related to your specific trip.

AMOUNT YOU SPENT IN:

ESTIMATED AMOUNT SPENT FOR:

	Contra Costa County	Other Parts of California	Outside of California
a. Clothing (clothing, shoes, boots, hats, etc.)	_____	_____	_____
b. Equipment (bikes, horse trailers, horses, etc.)	_____	_____	_____
c. Accessories (bike racks, water bottles, helmets, radios, spare parts, cameras, saddles, etc.)	_____	_____	_____
d. Books, guides, maps, etc.	_____	_____	_____
e. Memberships/subscriptions, program fees, etc.	_____	_____	_____
f. Other expenditures for durables (Please specify):	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PART V. We are now interested in your feelings about the OVERALL IMPORTANCE AND VALUE OF THE LAFAYETTE/MORAGA TRAIL.

1. Please *circle one number* for each of the following statements that best describes your feelings about the Lafayette/Moraga Trail.

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
a. I would prefer to spend more time here if I could	1	2	3	4	5
b. I wouldn't substitute any other area for doing the type of things I do here	1	2	3	4	5
c. The time I spend here could just as easily be spent somewhere else	1	2	3	4	5
d. I get more satisfaction out of visiting this trail than from visiting any other	1	2	3	4	5
e. The things I do here I would enjoy just as much at another site	1	2	3	4	5
f. One of the major reasons I now live where I do is that this trail is nearby	1	2	3	4	5
g. I identify strongly with this trail	1	2	3	4	5
h. This trail is the best place for what I like to do	1	2	3	4	5
i. I am very attached to this trail	1	2	3	4	5
I find that a lot of my life is organized around this trail	1	2	3	4	5
k. I enjoy doing the type of things I do here more than in any other area	1	2	3	4	5
l. This trail means a lot to me	1	2	3	4	5
m. No other trail can compare to this one	1	2	3	4	5
n. I feel no commitment to this trail	1	2	3	4	5
o. Doing what I do here is more important to me than doing it in any other place	1	2	3	4	5

2. Here is a list of broader public benefits the Lafayette/Moraga Trail might have *for its surrounding community*. Please circle the number that best indicates how important you feel the Lafayette/Moraga Trail is in providing *each* benefit listed.

	NOT AT ALL IMPORTANT				EXTREMELY IMPORTANT			
Benefit:								
a. Preserving undeveloped open space	1	2	3	4	5	6	7	
b. Aesthetic beauty	1	2	3	4	5	6	7	
c. Community pride	1	2	3	4	5	6	7	
d. Tourism and business development	1	2	3	4	5	6	7	
e. Traffic reduction and transportation alternatives	1	2	3	4	5	6	7	
f. Health and fitness	1	2	3	4	5	6	7	
g. Access for disabled persons	1	2	3	4	5	6	7	
h. Public recreation opportunities	1	2	3	4	5	6	7	
i. Public education about nature and the environment	1	2	3	4	5	6	7	
j. Other (please specify _____)	1	2	3	4	5	6	7	

3. Imagine that the *only* way to use the Lafayette/Moraga Trail is to buy an annual pass. Imagine that passes are *required* for every individual twelve years old and older and that pass holders may use the trail as many times as they wish during the year.

Would you be *willing to pay* \$_____ for an annual pass for next year?

No (Go to Question #4)

Yes (Go to Part VI)

4. Would you be *willing to pay* \$_____ for an annual pass for next year?

No (Go to Question #5)

Yes (Go to Part VI)

5. Why wouldn't you buy a pass at that price? (Check one)

☐ I don't use the trail enough to justify buying a pass

☐ There are many other trails to use besides this one

☐ I can't afford to buy a pass

☐ It is unfair to ask people to pay for a pass

☐ Other (Please specify _____)

PART VI. In this section we are interested in VISITOR INFORMATION that will help us to better understand the characteristics of the users of the Lafayette/Moraga Trail and to make predictions about future trail use. All answers will be reported only as overall averages.

1. Do you have a disability or handicap? No Yes (If "Yes", please check all that apply)

- ☐ Hearing impaired
- ☐ Visually impaired
- ☐ Mobility impaired (Do you use a wheelchair? No Yes)
- ☐ Mentally or learning impaired
- ☐ Other (Please specify _____)

2. To what race or ethnic group do you belong? (Check one)

- ☐ American Indian or Alaskan Native
- ☐ Asian or Pacific Islander
- ☐ Black, not of Hispanic origin
- ☐ Hispanic
- ☐ White, not of Hispanic origin
- ☐ Other (Please specify _____)

3. What is the highest educational level *you* have attained? (Check one)

- ☐ Grade or elementary
- ☐ Some high school
- ☐ high school diploma
- ☐ Some business or technical
- ☐ Some college
- ☐ Graduate of college
- ☐ Some graduate work
- ☐ Master's degree
- ☐ Doctoral or professional degree

4. What is your present or most recent *occupation*? (Include retired and homemaker if applicable)

5. Which of the following best describes your total *household* income in 1989?

- ☐ under \$20,000
- ☐ \$20,000 to \$39,999
- ☐ \$40,000 to \$59,999
- ☐ \$60,000 to \$79,999
- ☐ \$80,000 or above

6. What is your age? Years

7. What is your sex? (Check one) ☐ Female ☐ Male

Please use this space for any *additional comments* about the Lafayette/Moraga Trail, your trail experience or for any suggestions you might have for improving the trail or its management.

Thank you for your help!

Please send us this completed questionnaire in the self-addressed envelope provided. No stamp is needed. Just drop it in any convenient mailbox.

Reminder #1 (Post Card)

Dear Lafayette/Moraga Trail user,

Last week a survey related to your experience on the Lafayette/Moraga Trail was mailed to you. If you have already completed and returned it to us, please accept our sincere thanks. If not, please do so right away. The survey has been sent to only a small number of Lafayette/Moraga Trail users. If the results are to accurately represent the experiences of trail users, it is extremely important that yours be included in the study.

Thanks again for your help and cooperation.

Sincerely,

**Alan R. Graefe
Associate Professor**

**Roger L. Moore
Project Coordinator**

Reminder #2

PENNSSTATE



Department of Leisure Studies
College of Health and Human Development

(814) 865-1851

203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802

Dear Lafayette/Moraga Trail user,

About three weeks ago, we sent you a survey about your visit to the Lafayette/Moraga Trail. If you have already completed the survey, we thank you for your prompt response. If you have not, would you please take the time to do so today? It should only take you about 12 minutes.

The purpose of the study is to gather user opinions and trail use information to help managers to better serve trail users. The information you provide will be used by the East Bay Regional Park District and the National Park Service.

We are writing to you again because of the significance each survey has to the usefulness of the study. Your answers are very important because they represent many trail users who were not included in the study. Remember, all responses will be summarized and reported as overall averages and your answers will be confidential.

A copy of the survey and reply envelope are enclosed in case you did not receive or have misplaced the original materials we sent you. Once you have completed the survey, use the envelope provided and drop it in any mailbox; you need not add any postage.

Your cooperation is greatly appreciated.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

Reminder #3

PENNSTATE



Department of Leisure Studies
College of Health and Human Development

(814) 865-1851

203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802

Dear Lafayette/Moraga Trail user,

Several weeks ago we wrote to you seeking your opinions about the Lafayette/Moraga Trail and its management. As of today, we have not received your completed survey.

The large number of surveys returned is encouraging. But, whether we will be able to accurately describe how trail users feel about the trail and its management depends upon you and the others who have not yet responded.

This is the first study of this type that has been conducted on the Lafayette/Moraga Trail. Therefore, the results are particularly important to the many citizens and planners who are currently working on improving the Lafayette/Moraga Trail and developing others like it across the state.

In case our original correspondence did not reach you or was misplaced, a replacement survey and reply envelope are enclosed. May we urge you to complete and return it to us as quickly as possible.

Thank you again for your contribution to the success of this study.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

LAFAYETTE-MORAGA TRAIL USER COUNT SHEET

Date _____ Day Of Week (circle one): SU M T W TR F ST

Weather (circle one): Sunny Partly Sunny Cloudy Rain

Temperature _____

Patroller Name _____

OLYMPIC STAGING EAST

Time _____

In-state cars _____

Out-of-state cars (specify state and count) _____

OLYMPIC STAGING WEST

In-state cars _____

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					
<i>Kids in strollers, seats, etc.</i> _____					

GLENSIDE DRIVE
(at Arroyo Court)

Time _____

In-state cars _____

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					
<i>Kids in strollers, seats, etc.</i> _____					

SOUTH LUCILLE LANE

Time

In-state cars

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					
<i>Kids in strollers, seats, etc.</i> _____					

ST. MARYS

Time

In-state cars

Out-of-state cars (specify state and count) _____)

	Bike	Walk	Run	Horseback	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					
<i>Kids in strollers, seats, etc.</i> _____					

MORAGA COMMONS EAST

Time

In-state cars

Out-of-state cars (specify state and count) _____

MORAGA COMMONS WEST

In-state cars

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					
<i>Kids in strollers, seats, etc.</i> _____					

VALLE VISTA

Time

In-state cars

Out-of-state cars (specify state and count) _____

HERITAGE TRAIL USER COUNT SHEET

Date _____ Day Of Week (Circle one): SU M T W TR F ST

Weather: Sunny___ Partly Sunny___ Cloudy___ Rain___ Snow___

Temperature___

Patroller Name_____

*Daily permits **sold** to noncompliers during this pass.*

Users with no pass but no money with them to buy one.

SAGEVILLE Time _____ Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Ski	Snow Mobile	Other (Specify)
<i>Annual Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Daily Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Seniors (65 and up)</i> _____						
<i>Children (under 12)</i> _____						

DURANGO Time _____ Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

(BUDD ROAD: In-County cars _____ Other Iowa cars _____ Out-of-state _____)

	Bike	Walk	Run	Ski	Snow Mobile	Other (Specify)
<i>Annual Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Daily Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Seniors (65 and up)</i> _____						
<i>Children (under 12)</i> _____						

TWIN SPRINGS Time

Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Ski	Snow Mobile	Other (Specify)
<i>Annual Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Daily Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
Seniors (65 and up) _____						
Children (under 12) _____						

GRAF

Time

Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Ski	Snow Mobile	Other (Specify)
<i>Annual Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Daily Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
Seniors (65 and up) _____						
Children (under 12) _____						

KIDDER

Time

Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

(FARLEY: In-County cars _____ Other Iowa cars _____ Out-of-state _____)

	Bike	Walk	Run	Ski	Snow Mobile	Other (Specify)
<i>Annual Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
<i>Daily Permits:</i>						
Adults (16 and over) _____						
12 to 15 year-olds _____						
Seniors (65 and up) _____						
Children (under 12) _____						

DYERSVILLE

Time

Dubuque County cars _____ Other Iowa cars _____
Out-of-state cars (specify state and count) _____

**TALLAHASSEE TO ST MARKS TRAIL
USER COUNT SHEET**

Date _____ Day Of Week (circle one) SU M T W TR F ST

Weather (circle one): Sunny Partly Sunny Cloudy Rain Snow

Temperature _____

Patroller Name _____

NORTH END ACCESS Time _____ Leon and Wakulla County cars _____

Florida cars (other counties) _____ FL (county unknown) _____

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback*	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					

LUTTERLOH ROAD Time _____
(MILE POST 3)

OAK RIDGE ROAD Leon and Wakulla County cars _____

Florida cars (other counties) _____ FL (county unknown) _____

Out-of-state cars (specify state and count) _____

	Bike	Walk	Run	Horseback*	Other (Specify)
<i>Adults</i> (16 and over) _____					
<i>Seniors</i> (65 and up) _____					
<i>Minors</i> (15 and under) _____					

Mark a "T" for each horse on designated horse trail.
Mark an "S" for each horse on shoulder of paved trail.
Mark a "P" for each horse on the paved trail.
Mark an "R" for each horse on the road parallel to the trail.

BERT THOMAS ROAD Time
(MILE POST 6)

	Bike	Walk	Run	Horseback*	Other (Specify)
<i>Adults (16 and over)</i>					
<i>Seniors (65 and up)</i>					
<i>Minors (15 and under)</i>					

ROUTE 267

Time Leon and Wakulla County cars

Florida cars (other counties) FL (county unknown)

Out-of-state cars (specify state and count)

	Bike	Walk	Run	Horseback*	Other (Specify)
<i>Adults (16 and over)</i>					
<i>Seniors (65 and up)</i>					
<i>Minors (15 and under)</i>					

U.S. ROUTE 98
(OLIN PLANT)

Time Leon and Wakulla County cars

Florida cars (other counties) FL (county unknown)

Out-of-state cars (specify state and count)

	Bike	Walk	Run	Horseback*	Other (Specify)
<i>Adults (16 and over)</i>					
<i>Seniors (65 and up)</i>					
<i>Minors (15 and under)</i>					

POSEY'S (South End)

Time

Bikes at Posey's

Horses at Posey's

Appendix F

Trail Neighbor Survey Instruments and Cover Letters



December, 1990

Dear Neighbor of the Lafayette/Moraga Trail,

Your opinions about the Lafayette/Moraga Trail are of nationwide importance. The National Park Service and Penn State University are conducting a study of how public trails affect nearby residents and their property. The study is being carried out in cooperation with the East Bay Regional Park District and involves three trails across the country. The results will be used to improve the Lafayette Moraga Trail and to make future trails in California and across the nation better neighbors. Your name was selected at random from all property owners near the Lafayette/Moraga Trail to participate in this important study.

Enclosed is a short survey about your feelings toward the Lafayette/Moraga Trail. Your participation is voluntary. In order that the results will truly represent the thinking of all Lafayette/Moraga Trail neighbors, however, it is important that each survey be completed and returned to us. Please take the time to answer the questions. We have provided a stamped, addressed envelope for your convenience.

All your responses are confidential and only statistical totals of answers will ever be published. Each survey has an identification number for mailing purposes only. When you return your survey to us, we will use the number to remove your name from our mailing list so that you do not receive any follow-up mailings.

We would be happy to answer any questions you might have. Please write or call. The telephone number is (814) 865-1851.

Thank you for your assistance.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

OMB# 10240066; Expires 3/30/91

1990/91 LAFAYETTE/MORAGA TRAIL TRAIL NEIGHBOR SURVEY

This is a study of how the Lafayette/Moraga Trail affects nearby residents and their property. The results will be used to help make the Lafayette/Moraga Trail a better neighbor and to better represent landowner concerns in planning future trails nationwide.

Your participation in this survey is voluntary, but since each randomly selected property owner will be representing others who were not surveyed, your cooperation is extremely important. All your responses are confidential and all files containing names and addresses will be destroyed when the mailing procedures are completed.

Please refer to your property near or adjacent to the Lafayette/Moraga Trail when answering the following questions.

PART I YOUR PROPERTY AND THE LAFAYETTE/MORAGA TRAIL

1. Is there a house or other dwelling on the property you own near the Lafayette/Moraga Trail?

- ☐ Yes
☐ No (If "No", go to question #5)

2. Which of the following most accurately describes how you use this house? (Check one)

- ☐ It is my principal residence
☐ It is my second home (If "Yes, when do you reside there? _____)
☐ I rent it to a tenant
☐ It is unoccupied
☐ Other (Please describe _____)

3. About how *far* is the *house* from the nearest part of the Lafayette/Moraga Trail?

Feet OR Miles

4. Which part of the house *faces* the trail?

- ☐ Front
☐ Back
☐ Side

5. About how large is your property?

Acres OR Square Feet

6. How is your property used? (Check *all* that apply)

- ☐ Residential
☐ Commercial
☐ Cropland
☐ Pasture
☐ Undeveloped
☐ Other (please specify _____)

7. During *what year* did you buy this property?

8. Where is the Lafayette/Moraga Trail in relation to your property? (Check *one*)

- ☐ The trail runs *through* my property
☐ The trail runs *along the edge* of my property
☐ The trail is near my property but not touching it
☐ Don't know

PART II YOUR OPINIONS ABOUT THE LAFAYETTE/MORAGA TRAIL

1. Here is a list of broader public benefits the Lafayette/Moraga Trail might have *for its surrounding community*. Please circle the number that best indicates how important you feel the Lafayette/Moraga Trail is in providing *each* benefit listed.

Benefit:	NOT AT ALL IMPORTANT					EXTREMELY IMPORTANT	
Preserving undeveloped open space	1	2	3	4	5	6	7
Aesthetic beauty	1	2	3	4	5	6	7
Community pride	1	2	3	4	5	6	7
Tourism and business development	1	2	3	4	5	6	7
Traffic reduction/transportation alternatives	1	2	3	4	5	6	7
Health and fitness	1	2	3	4	5	6	7
Access for disabled persons	1	2	3	4	5	6	7
Public recreation opportunities	1	2	3	4	5	6	7
Public education about nature/environment	1	2	3	4	5	6	7
Other (please specify _____)	1	2	3	4	5	6	7

2. How many times have you experienced each of the following problems as a result of the Lafayette/Moraga Trail and its users during the *past twelve months*? (Please indicate the number of times after each statement. If no such problem in last twelve months use a "0".)

	Times during past 12 months				
Illegal motor vehicles/motorcycles use	"	"	"	"	"
Litter on/near my property	"	"	"	"	"
Loitering on/near the trail	"	"	"	"	"
Trespassing onto my property	_____	"	"	"	"
Users harass my animals	_____	"	"	"	"
Vandalism of my property	_____	"	"	"	"
Cars parking on/near my property	"	"	"	"	"
Trail affects drainage on/near my property	"	"	"	"	"
Dog manure on/near my property	"	"	"	"	"
Fruit/vegetables/crops get picked or damaged	"	"	"	"	"
Users ask to use phone, bathroom, etc.	"	"	"	"	"
Unleashed and roaming pets	"	"	"	"	"
Noise from trail	"	"	"	"	"
Burglary of my property	"	"	"	"	"
Discourteous, rude users	"	"	"	"	"
Lack of trail maintenance	_____	"	"	"	"
Loss of privacy	_____	"	"	"	"
Other (Specify _____)	_____	"	"	"	"
Other (Specify _____)	_____	"	"	"	"

3. What are the advantages to you of living near the Lafayette/Moraga Trail?

4. What are the disadvantages to you of living near the Lafayette/Moraga Trail?

5. If you were to try to sell this property, do you think being near the trail would make it *harder* or *easier* to sell?

Much
Easier
to Sell

Much
Harder
to Sell

1

2

3

4

5

6

7

6. How do you think being located near the Lafayette/Moraga Trail has affected the *resale value* of this property? (Check *one*)

The trail has *lowered* the resale value of my property.

The trail has *increased* the resale value of my property.

The trail has had *no effect* on the resale value of my property. (If so, GO TO #10)

7. By *how many percent* do you think being near the trail has raised or lowered the value of this property?

____%

8. How confident are you of the accuracy of this estimate?

Very
Confident

Not at all
Confident

1

2

3

4

5

6

7

9. What experience or evidence makes you feel the property value has been affected in this way?

10. Overall, how satisfied are you with having the Lafayette/Moraga Trail as a neighbor?

Very Satisfied							Very Unsatisfied
1	2	3	4	5	6	7	

11. Compare your *initial reaction* to the idea of living near the Lafayette/Moraga Trail to how you feel about living near the trail today. Would you say that living near the trail is better or worse than you *expected* it to be?

Much Better Than I Expected							Much Worse Than I Expected
1	2	3	4	5	6	7	

12. How do you feel the trail has affected the quality of your neighborhood?

Improved Quality of Neighborhood							Worsened Quality of Neighborhood
1	2	3	4	5	6	7	

PART III CHANGES SINCE THE LAFAYETTE/MORAGA TRAIL WAS OPENED

1. Did you buy this property *before* the Lafayette/Moraga Trail was opened?

No How did the presence of the trail affect your decision to buy the property?

Added to Property's Appeal							Detracted from Property's Appeal
1	2	3	4	5	6	7	

GO TO PART IV

Yes

2. The Lafayette/Moraga Trail was created on the right-of-way (R.O.W.) of an abandoned railroad line. *Compared to before the trail was opened*, how has each of the following changed? (Circle one number for *each* statement)

	Much Less of a Problem Now					Much More of a Problem Now	
Illegal motor vehicle/motorcycles use	1	2	3	4	5	6	7
Litter on/near my property	1	2	3	4	5	6	7
Loitering on/near the trail	1	2	3	4	5	6	7
Trespassing onto my property	1	2	3	4	5	6	7
Users harass my animals	1	2	3	4	5	6	7
Vandalism of my property	1	2	3	4	5	6	7
Cars parking on/near my property	1	2	3	4	5	6	7
Trail affects drainage on/near my property	1	2	3	4	5	6	7
Dog manure on/near my property	1	2	3	4	5	6	7
Fruit/vegetables/crops get picked or damaged	1	2	3	4	5	6	7
Users ask to use phone, bathroom, etc.	1	2	3	4	5	6	7
Unleashed and roaming pets	1	2	3	4	5	6	7
Noise from trail	1	2	3	4	5	6	7
Burglary of my property	1	2	3	4	5	6	7
Discourteous, rude users	1	2	3	4	5	6	7
Lack of trail maintenance	1	2	3	4	5	6	7
Loss of privacy	1	2	3	4	5	6	7
Other (Specify _____)	1	2	3	4	5	6	7
Other (Specify _____)	1	2	3	4	5	6	7

3. When you first found out there was going to be a trail near your property, how did you feel about the idea?

Very Supportive of New Trail					Very Opposed to New Trail	
1	2	3	4	5	6	7

4. Overall, would you say living near the Lafayette/Moraga Trail is better or worse than living near the right-of-way before it was converted into a trail?

Much Better Than Before					Much Worse Than Before	
1	2	3	4	5	6	7

PART IV ABOUT YOU AND YOUR HOUSEHOLD

1. *How many* people from each of the following age categories are there in your household? (Please *include yourself* and write the *numbers* in the spaces provided)

___ 15 and under
___ 16 to 65
___ 66 and over

2. How many members of your household from each of the following age categories have used the Lafayette/Moraga Trail during the last twelve months? (Please *include yourself* and write the *numbers* in the spaces provided)

___ 15 and under
___ 16 to 65
___ 66 and over

(If no one used the trail, GO TO #4)

3. On about how many *different days during the last twelve months* did any member of your household use the Lafayette/Moraga Trail?

Days (Out of the last 365 days)

4. What is your sex?

Male ___ Female

5. What is your age? ___ Years

PART V YOUR RECOMMENDATIONS AND COMMENTS

1. What recommendations do you have for improving the management of the Lafayette/Moraga Trail that would make it a better neighbor for you?

Reminder #2

PENNSSTATE



Department of Leisure Studies
College of Health and Human Development

(814) 865-1851

203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802

February, 1991

Dear Neighbor of the Lafayette/Moraga Trail,

About three weeks ago, we sent you a survey about what it is like living near the Lafayette/Moraga Trail. If you have already completed the survey, we thank you for your prompt response. If you have not, would you please take the time to do so today? It should take you less than ten minutes.

The purpose of the study is to better understand landowner concerns and opinions about nearby trails. The information you provide will be used by the East Bay Regional Park District and the National Park Service to make the Lafayette/Moraga Trail a better neighbor and to improve trail planning nationwide.

We are writing to you again because of the significance each survey has to the usefulness of the study. Your answers are very important because they represent other landowners who were not included in the study. Remember, all responses will be summarized and reported as overall averages and your answers will be confidential.

A copy of the survey and reply envelope are enclosed in case you did not receive or have misplaced the original materials we sent you. Once you have completed the survey, use the envelope provided and drop it in any mailbox; you need not add any postage.

Your cooperation is greatly appreciated.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

Reminder #3

PENNSSTATE



Department of Leisure Studies
College of Health and Human Development

(814) 865-1851

203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802

March 1, 1991

Dear Neighbor of the Lafayette/Moraga Trail,

Several weeks ago we wrote to you seeking your opinions about the Lafayette/Moraga Trail and your experiences living near it. As of today, we have not received your completed survey.

The large number of surveys returned is encouraging. But, whether we will be able to accurately describe how nearby landowners feel about the trail and its management depends upon you and the others who have not yet responded.

The results of this study are particularly important to the many citizens and planners who are currently working on improving the Lafayette/Moraga Trail. They are also vital for assuring that future trails nationwide are responsive to landowner concerns.

In case our original correspondence did not reach you or was misplaced, a replacement survey and reply envelope are enclosed. May we urge you to complete and return it to us as quickly as possible.

Thank you again for your contribution to the success of this study.

Sincerely,

Alan R. Graefe
Associate Professor

Roger L. Moore
Project Coordinator

Appendix G

Realtor Telephone Survey Instrument

PART III RESIDENTIAL PROPERTY NEAR (BUT NOT IMMEDIATELY ADJACENT TO) THE TRAIL

1. If a home is *within two blocks (.2 miles)* of the _____ Trail, but not immediately adjacent to the trail, will the trail:

- ___ make the home easier to sell
- ___ make the home harder to sell
- ___ have no effect on selling the home

2. If a home is *within two blocks (.2 miles)* of the _____ Trail, but not immediately adjacent to the trail, will the trail:

- ___ make the home sell faster
- ___ make the home sell slower
- ___ have no effect on how fast the home sells

3. If a home is *within two blocks (.2 miles)* of the _____ Trail, but not immediately adjacent to the trail, will the trail:

- ___ make the home sell for more (How much more? _____ %)
- ___ make the home sell for less (How much less? _____ %)
- ___ have no effect on the selling price of the home

PART IV OTHER TYPES OF PROPERTY

1. The questions above refer to residential property only. In your experience, does the trail affect farmland or commercial property differently?

___ Yes ___ No (If "Yes", please explain)

Farmland: ___ make the property sell for more (How much more? _____ %)
 ___ make the property sell for less (How much less? _____ %)
 ___ have no effect on the selling price of the property

Commercial: ☐ make the property sell for more (How much more? %)
☐ make the property sell for less (How much less? %)
☐ have no effect on the selling price of the property

PART V OTHER COMMENTS

1. Do you have any other comments about how the _____ Trail affects nearby property values?

2. Can you suggest any other real estate agents who are familiar with property near the trail.

THANK YOU FOR YOUR HELP!

Persons to Contact for More Information

Roger L. Moore
Department of Parks, Recreation and
Tourism Management
North Carolina State University
Raleigh, NC 27695
(919) 515-3698

Alan R. Graefe
School of Hotel, Restaurant and
Recreation Management
203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802
(814) 865-1851

Richard J. Gitelson
School of Hotel, Restaurant and
Recreation Management
203 Henderson Building South
The Pennsylvania State University
University Park, PA 16802
(814) 865-1851

Elizabeth Porter
Rivers, Trails, and Conservation Program
National Park Service 765
1100 L Street, Room 2321
Washington, D.C. 20005
(202) 343-3766

Heritage Trail:

Robert Walton, Executive Director
Dubuque County Conservation Board
13768 Swiss Valley Road
Peosta, IA 52068
(319) 556-6745

St. Marks Trail:

Mary Anne Koos, State Trails Coordinator
Division of Recreation and Parks
Bureau of Local Recreation Services
3900 Commonwealth Boulevard
Mail Station 585
Tallahassee, FL 32399-3000
(904) 487-4784

Lafayette/Moraga Trail:

Steve Fiala, Trails Coordinator Specialist
East Bay Regional Parks District
2950 Peralta Oaks Court
P.O. Box 5381
Oakland, CA 94605-0381
(510) 635-0135, x2602

