

Motorized Outdoor Recreation and Tourism Development within Trailside Communities:

A case study of Cheese Country Trail users &
economic impacts in Southwestern Wisconsin

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Executive Summary

Motorized trail use is an important activity throughout the Lake States and is an important component of outdoor recreation in Wisconsin. As an enjoyable activity for all ages, it represents a particularly important form of outdoor recreation for older adults. The presence of places to ride and trails that connect communities provides these recreationists with a varied and enjoyable landscape within which to enjoy the Wisconsin outdoors. Motorized use trails also provide important assets for the development of tourism within rural communities.

In this report, we raise issues relevant to motorized recreational use of trails and the communities that find themselves affected by these trail users. We do this from a community development context and focus on the developmental attributes of trail user impacts as an externally driven community economic stimulus. As evidence, we support this with case study research of the Cheese Country Trail in Green, Lafayette, and Iowa Counties of southwestern Wisconsin.

In early 2010, Wisconsin & Southern Railroad submitted a proposal to reconstruct rail on the corridor from Monroe to the west for approximately 4 miles on the existing Cheese Country Trail. The Cheese Country Trail has been a multiple-use trail system meandering through 48 miles of rural countryside from Monroe to Belmont and Mineral Point for the past 20 or so years. It is open to all-terrain vehicles (ATVs), utility terrain vehicles (UTVs), snowmobiles, off-road dirt bikes, mopeds, motorcycles, and non-motorized uses (horses and horse-drawn conveyances, bicycles and hikers).

Several locally elected public officials in concert with local stakeholder groups approached UWEX Cooperative Extension for assistance with the development and implementation of a comprehensive, up-to-date economic impact study of the trail. In response, a year-long applied research project was initiated. Results of this effort are described in this report.

Our approach to collect information was multi-faceted. The goal of the case study was to observe use pressure and collect a representative sample of Cheese Country Trail users. Volunteers were trained to observe and conduct interviews in September and October of 2010. Observations began November 1, 2010 with data collected based on randomly selected 2-hour time slots during the 12 month survey period. Eight intercept locations were chosen along the trail in Monroe, Browntown, South Wayne, Gratiot, Darlington, Calamine, Belmont and Mineral Point. In November of 2011, additional information was collected using three focus group interviews. Results of the study are intended to be used to improve recreational experiences for future trail users and to assist local businesses and

units of government in creating economic development strategies related to tourism.

During the 12 month study period, local field staff volunteered over 1400 hours collecting the data summarized in this report. Specifically, they conducted 683 randomly allocated 2 hour trail observations and a total of 730 face-to-face interviews. Results of our work highlight several important implications for outdoor recreation planning and local economic development. Snapshots of these results include the following:

- During the 12 month study period, the Cheese Country Trail experienced roughly 98,000 visitor days of use (one day's use of the trail by an individual trail user).
- Two-thirds of all visitor days were by trail users not from the local three-county region.
- Almost $\frac{3}{4}$ of all visitor days occurred on weekends or holidays.
- The majority of Cheese Country Trail usage occurred between Memorial Day and Labor Day.
- A surprisingly high level of use occurred during the month of October.
- A modest amount of snowmobile usage occurred during the winter of 2010/2011 but was hampered by lack of snow and trail closures.
- The Cheese Country Trail attracts an older crowd of outdoor recreationists; average age of user was in the mid-40's with non-local trail users tending to be older than local trail users.
- Non-local trail users were more apt to be college educated and had significantly higher household incomes when compared to local Cheese Country Trail users.
- The Cheese Country Trail was the primary reason why most non-local visitors were in Green, Lafayette, and/or Iowa Counties.
- The highest concentration of Cheese Country Trail access occurred in either Monroe or Darlington.
- Day-trips accounted for nearly $\frac{3}{4}$ of all Cheese Country Trail usage.
- Non-locals often spent overnights in the area in local campgrounds or hotels and motels.
- Trail users also participated in related activities such as dining and shopping during their trips.
- Overall, trail users were generally satisfied with the important attributes of the trail itself.
- Individual trip expenditure patterns were very different when comparing local trail users with non-local trail users.
- On average, individual non-local trail users spent between \$175 and \$220 per trip, depending on the time of year.

- Total spending of trail users exceeded \$15 million during the 12 month study period
- Non-local trail user spending provided an economic stimulus that infused over \$13 million into the local economy during the 12 month study period
- Non-local trail user spending supported almost 190 local jobs and contributed to almost \$3 million in employee compensation for local residents of Green, Lafayette, and Iowa Counties.
- A host of public policy issues need to be addressed in order to maintain and enhance local development efforts relating to the Cheese Country Trail.

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Table of Contents

Section:	Page:
Executive Summary	ii
Acknowledgements	iv
Author Affiliations	v
Table of Contents	2
1. An Introduction and Review of the Literature	5
1.1 A review of the literature	6
1.2 A case study of motorized recreational trail use	8
1.3 Objectives and problem statement	12
1.4 Outline of the report	13
2. Results	14
2.1 Trail use characteristics throughout the year	14
a. observations	14
b. an annual snapshot of trail use pressure	15
2.2 Survey results	16
a. trail user characteristics	18
b. history of trail use	22
c. trip motivations	23
d. trail use characteristics	24
e. duration of trip and overnight characteristics	26
f. related activities	29
e. user preferences and attitudes	31
2.3 Local economic impact	35
a. trip-related spending by trail users	36
b. translating non-local spending into direct economic impacts	39
c. local annual economic impacts of trail users	41
2.4 Focus Group Interviews	45
a. local business owners	46
b. public policy makers	46
c. trail users	48
3. Summary, Conclusions, and Implications for Public Policy	49
Literature Cited	52
Results Addendum A - Verbatim Suggestions for Improvement	56

Table of Contents (con't)

Section:	Page:
Appendix A. Methods Used for the Cheese Country Trail Case Study	63
A1 The intercept and survey effort	63
A2 Focus group interviews	68
A3 Data analysis techniques	68
A4 Estimating local economic impacts	69
Appendix B Sample Intercept Schedule with Randomly Allocated Time Slots and Locations.	71
Appendix C Sample Survey Instrument	72
Appendix D Sample Observation Report	73
Appendix E. Sample Local Field Staff Crib Sheet	74

List of Tables

Table 1.1 State linear trails in Wisconsin, allowable uses, and mileage.	9
Table 2.1. Summary of survey responses.	17
Table 2.2. Average individual expenditure patterns of Cheese Country Trail users by observation period.	38
Table 2.3. Expanded one-year total spending of Cheese Country trail users.	40
Table 2.4. Local economic impacts on regional OUTPUT associated with non-local trail user spending.	42
Table 2.5. Local economic impacts on regional EMPLOYEE COMPENSATION associated with non-local trail user spending.	44
Table 2.6. Local economic impacts on regional EMPLOYMENT associated with non-local trail user spending.	45
Table A1. Planned observation samples distributed along the Cheese Country Trail	64
Table A2. Planned observation samples distributed throughout the year-long study (November 2010 through October 2011)	65
Table A3. Data upon which expansion procedure was based.	67
Table A4. Actual number of samples by intercept location and reported point of origin on Cheese Country Trail.	67
Table A5. Respective industrial sectors for expenditure patterns used to estimate regional economic impacts.	70

List of Figures

Figure 1.1. The Cheese Country Trail System and the counties that represent the study region.	12
Figure 2.1. Number of visitor-days by month for the Cheese Country Trail in Southern Wisconsin between November 1, 2010 and October 31, 2011.	15
Figure 2.2. Place of origin for users of the Cheese Country Trail encountered between November 2010 and October 2011.	19
Figure 2.3. Age profile of Cheese Country Trail users sampled between November 2010 and October 2011.	20
Figure 2.4 Educational profile of Cheese Country Trail users sampled between November 2010 and October 2011.	21

Figure 2.5.	Annual household income profile of Cheese Country Trail users sampled between November 2010 and October 2011.	22
Figure 2.6	Trail riders and their trail use during the preceding 12 month period.	23
Figure 2.7.	Motivations for individual trips to the Cheese Country Trail.	24
Figure 2.8.	Entry point by place of intercept.	25
Figure 2.9.	Trail use by type of equipment used.	26
Figure 2.10.	The type of lodging used by overnight trail users.	27
Figure 2.11.	The location of lodging by type of lodging for non-local overnight trail users.	28
Figure 2.12.	Average number of nights spent overnight by lodging type.	29
Figure 2.13.	Other trip related activities participated in by immediate travel group.	30
Figure 2.14.	Sources of information used to learn about the local area by respondents to the Cheese Country Trail survey.	31
Figure 2.15.	Level of satisfaction of trail users for the signage present on the Cheese Country Trail.	32
Figure 2.16.	Level of satisfaction of trail users for the grooming of trail surfaces on the Cheese Country Trail.	32
Figure 2.17.	Level of satisfaction of trail users for trail safety on the Cheese Country Trail.	33
Figure 2.18.	Level of satisfaction of trail users for camping facilities on the Cheese Country Trail.	33
Figure 2.19.	Level of satisfaction of trail users for trail access and parking on the Cheese Country Trail.	34
Figure 2.20.	Expenditure patterns of trail users by category of spending.	37
Figure 2.21.	Percentage of total spending in each business type by time of year.	39
Figure A1.	Actual observations of trail use between November 1, 2010 and October 31, 2011.	66

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1. An Introduction and Review of the Literature

Recreation managers, open-space advocates, and local elected officials have become sensitized to the impacts and importance of parks and linked trail corridors that provide access, open space, and quality-of-life continuity within and between communities. Since the 1980s, a significant nationwide effort has helped convert railroad beds to a system of recreational trails that today exists as a network of connecting open spaces acting to build places that enhance the health of America's environment, economy, neighborhoods and people (Rails to Trails Conservancy 1996, 2008). While the vast majority of these cater to non-motorized users (e.g. bicyclists, walkers, runners, and cross-country skiers), there is a growing interest in trails, use areas, and connected open spaces that cater to motorized users. This report is written to develop a better understanding of motorized forms of outdoor recreation, trails catering to motorized users, and the development of communities that find themselves impacted by these types of trails. We used a year-long case study of the Cheese Country Trail in southwestern Wisconsin to explore key issues that pertain to the local impacts of motorized use and the people who partake in this important outdoor recreation activity. Further, we write this with the intent of contributing to the growing literature on the use and development of recreational amenities and their contributions to improving the condition across rural America.

1.1 A review of the literature

Increasingly, natural and built amenities that provide locally available recreational opportunities have been thought to be a central component of rural development (Power 1988; 1996; Green et al. 2005). This is particularly true in amenity-rich regions such as those found across the Lake States of Minnesota, Wisconsin, and Michigan (WDNR 2006; MNDNR 2008; MDNR 2003).

Recreational trails are important local amenities that provide quality-of-life, community economic stimulus, and recreational opportunities for local residents and visitors alike. Carefully planned recreational trails can use existing corridors and local land resources to provide additional economic development to local residents and communities without hurting the environment or other possible economic developments in the area.

There is a continual need to test, interpret, and more fully understand the social and economic consequences of amenity-based activities that affect local communities within which these resources reside. During the past quarter century, there has been significant progress to more fully understand how recreational resources are integrated within community economies with a particular interest in parks, trails, and related publicly provided open spaces (Howe, et al. 1997; Garvin 2001; Crompton 2001).

The academic literature on motorized recreational use is geographically specific but thematically broad. Given the importance of geographic context, it is important to note that most of the available literature to date has focused on motorized use in the Western or Southern States (c.f. Deisenroth et al. 2009; Foulke et al. 2006; Foulke et al. 2008; Fredman 2008; Coupal et al. 2010; Holmes and Englin 2010). From these studies, it is difficult to generalize to the Lake States due to differing trail characteristics, land ownership patterns, and rural condition. We focused our search on literature dealing with economic effects of motorized use, issues associated with demand for motorized outdoor recreation,

and compatibility elements relevant to planning with a specific interest in studies that have relevance to Wisconsin.

In Wisconsin, there has been a continual effort to address issues associated with economic impacts of recreation and tourism at the community level. Examples of these efforts can be found in an initially compiled annotated bibliography by Haines et al. (1998) which was updated in a searchable on-line database.¹ These studies have addressed the variety of specific tourism types that include festivals, events, and attractions and the various types of relevant outdoor recreation pursuits including camping, fishing/hunting, park visitation, and trail use (c.f. Cooper et al. 1979; Olson et al. 1999; Marcouiller et al. 2002; Kazmierski et al 2009). Motorized use literature specific to Wisconsin is limited. Early works looked at off-road vehicles (Robertson and Bishop 1975) and snowmobiling (Moyer and Hansen 1986; Foti et al. 1987; Sumathi et al. 1991; and Loden 1995).

A study from the mid 1990's (Ivanko 1996; Ivanko and Graefe 1996) used an on-site questionnaire of 378 randomly selected Cheese Country Trail users between May and June of 1996 to assess user satisfaction. This thesis and accompanying report do an excellent job of outlining issues associated with use interaction; further, this work provides useful strategies to cope with conflictive recreational behaviors. However, given the thematic and somewhat dated nature of this study combined with rapid changes in technology and demands for outdoor recreation, it has limited usefulness for understanding the local development impacts associated with current motorized outdoor recreation.

More recently, a warm-weather survey effort initiated by Sue Hamilton of the Wisconsin Department of Tourism in 2003 resulted in a statewide economic and demographic profile of all terrain vehicle (ATV) users in Wisconsin (Wisconsin,

¹ Reference to <http://urpl.wisc.edu/people/marcouiller/projects/clearinghouse/> and the literature cited of Scott and Marcouiller (2005).

State of 2004). Based on face-to-face interviews, the dataset was limited to relatively small sample sizes for region-specific detail.

With specific reference to linear trail systems, local economic impacts have taken on increased importance given intensified demands for the development of public open-space corridors and general tendencies for increased community dependence on tourism as a source of income (ibid; Keith, et al. 1996; English et al. 2000; Reeder and Brown 2005). Park and trail systems have been shown to provide tangible economic benefits to the gateway communities in which they exist (Howe et al. 1997; Mules 2005). These tangible economic benefits are wide-ranging and include the positive influence on property values (Crompton 2004) and the stimulation of local retail and service sector activity driven by the inflow of dollars spent by visitors (Tribe 2005; Vanhove 2005). This second element involves the stimulating effect of visitor expenditures on local retail and service sector activity; often referred to as “tourism.” Estimating this expenditure-driven local economic effect was the focus of a recent workshop compilation on trail expenditure studies (Carleyolsen et al 2005) and several recent and closely related reports (Olson et al. 1999; Marcouiller et al. 2002, Kazmierski et al. 2009). Direct expenditure estimation and economic impact assessment are important tools that support development strategies focused on tourism development.

1.2 A case study of motorized recreational trail use

The demands for trails and open space corridors have grown significantly in Wisconsin (Wisconsin, State of 2006, Chapter 2) and across the Lake States while alternative uses that are potentially competitive have become a key public policy issue (ibid, Chapter 4). A summary of state-owned trails in Wisconsin is found in Table 1.1. Note from this table that most state trails are designated to support multiple use; in other words, most trails are open for uses that combine differing activities. This said, motorized uses tend to exhibit asymmetrical competition with non-motorized uses (ibid, Chapter 4; Knopp and Tyger 1973; Vitterso et al.

2004; Marcouiller et al. 2008). Thus when combined, motorized uses tend to dominate and drive off non-motorized uses on the same trail. Of the 1,800 miles of trails owned by the state, over 90 percent are open to both motorized and non-motorized uses; most allowable motorized use is restricted to snowmobile use in the winter which poses limited use interaction between motorized and non-motorized users. Indeed, only 411 miles of state trails are open both ATV and snowmobile use.

Table 1.1 State linear trails in Wisconsin ^a, allowable uses, and mileage (as of September, 2007, Source: WDNR 2007).

Nature of Allowable Use ^b	Metric	Total	Average miles per trail
Strictly Non-motorized:	Number	5	
	Mileage	58	11.6
Multi-purpose and open to both ATV and Snowmobile:	Number	10	
	Mileage	411	41.1
Multi-purpose and open to Snowmobiles only (no ATV):	Number	22	
	Mileage	1,259	57.2
Undecided and/or closed	Number	5	
	Mileage	92	18.4
Total - ALL Linear State Trails:	Number	42	
	Mileage	1,820	43.3

a. Drawn from a complete list of designated state trails comprising the State Trail System (includes all linear trails owned by the WDNR), designated as such under the authority of Administrative Code NR 51.73. Trails not owned by the state may become designated state trails under the terms of NR 51.73

b. Non-motorized allowable uses include walking, biking, rollerblading, and cross country skiing. Horseback riding is also included but often found as a limited use. Motorized uses include ATVs and snowmobiles and are often found as limited allowable uses. Undecided includes trail uses which are yet to be determined through the Master Plan process. Any one use may be limited (allowed for only a portion of the entire length of the trail).

Another interesting aspect of the state trails data relates to average miles per trail by designated use. Note that trails allowing motorized use are typically three to four times longer than trails that are designated as strictly non-motorized. State trails in Wisconsin also vary significantly in the amount of use. For instance, popular bicycle trails such as the Elroy-Sparta in west-central Wisconsin are well-known while many other trails are not well known and used little. Unfortunately, comprehensive statistics on state trail usage system-wide are not widely collected but state efforts are underway to supplement these values.

In an effort to gain a better understanding of trails, their usage, and their ability to contribute to community economic vitality, a multi-year project to assess a motorized use trail in southwestern Wisconsin was initiated in mid-2010. The Cheese Country Trail, given its active set of local stakeholders (e.g. Tri-County Trails Commission, local ATV/ snowmobile clubs), involved local community development educators (e.g. UWEX county faculty), intensive motorized use characteristics, and evolving historical structure, was selected as an interesting case study to examine in greater detail.

Historically, the Cheese Country Trail was used commercially as a railroad corridor for more than one-hundred years.² Originally dating back to 1857, the line from Warren, IL to Mineral Point, WI (through Calamine, Darlington and Gratiot) was termed the “Mineral Point Railroad.” It took two hours for a train to travel between Mineral Point and Warren.

In 1870 a railroad was completed from Platteville to Calamine. Belmont, a station about midway between Calamine and Platteville, was platted by the railroad primarily because the officers of the company thought there should be a village between those two places. (Lanz 1985)

² Those interested in a detailed history of the rail line are referred to a well-researched description by Daniel Lanz (1985).

Then in 1881 a railroad was constructed from Monroe to Shullsburg. This link completed a continuous line of railroad between Milwaukee and Mineral Point.

The railroad brought prosperity to the communities it served, and as they prospered, so did the railroad. It shipped out cheese, cordwood, condensed milk, livestock, grain and many other products and brought in coal and other “items needed for everyday living.” (Lanz 1985) Although the bulk of the railroads’ revenues came from the moving of freight, passenger service was also provided and was extremely important to many towns, especially the smaller ones lacking decent roads. The service became vital in winter with the deep snows and in spring with the rains when the roads were hopelessly snow covered or too muddy for travel. Occasionally the railroad would have to suspend service because of a washout, a soft roadbed, or heavy snow, but rail service still excelled over that of any other type of transportation. (64)

Changing transportation technologies meant a transition away from rail. Passenger service between Janesville and Mineral Point ended in 1950. Despite local interest to maintain rail service, the entire line between Monroe and Mineral Point was abandoned by the mid-1980s.

In 1990 the Pecatonica Rail Transit Commission (the local governing authority) decided to lease part of its corridor to the Tri-County Trail Commission (TCTC) to use as a multi-use recreational trail until such a time that rail once again became a feasible mode of transportation. The Pecatonica Rail Transit Commission reserves the right to revoke the lease (with a six month notice) and return the corridor to rail use.

The Cheese Country Trail along its entire length currently hosts a variety of recreational opportunities including motorized use (ATV, UTV, dirt bikes, and other miscellaneous motorized equipment) in the summer; and snowmobiling in the winter. The trail contains several sections; a map of which is found as Figure 1.1.

The Cheese Country Trail incorporates roughly 60 miles of abandoned railroad bed between Monroe and Belmont/Mineral Point (the western terminals are made up of two spurs that split in Calamine).

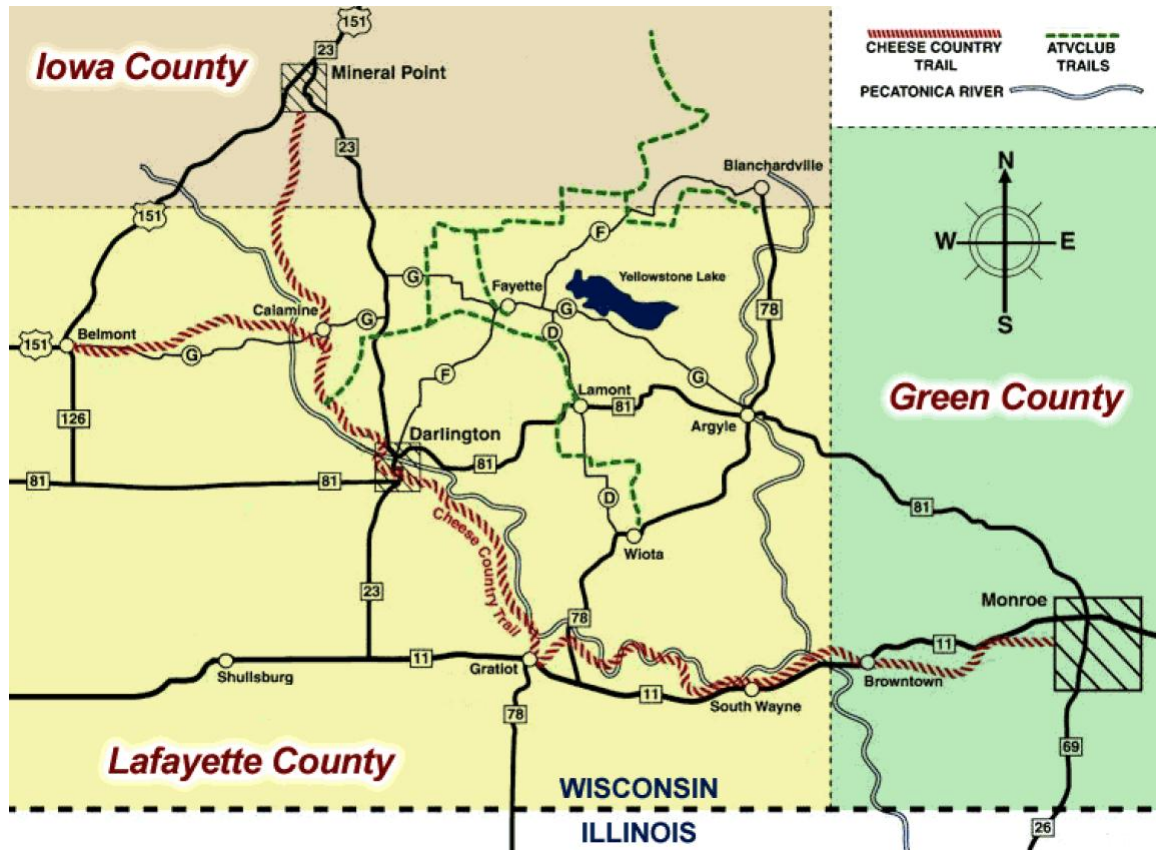


Figure 1.1. The Cheese Country Trail System and the counties that represent the study region (county boundaries extend beyond the figure boundaries).

1.3 Objectives and problem statement

This case study research was undertaken to provide better understanding of trail usage, trip characteristics, and community development impacts. It adds a new dimension to the growing Wisconsin-based literature that helps us understand social and economic linkages between outdoor recreation and local community development. Specifically, our objectives in this case study research included (1) measuring trail use pressure across all seasons for an entire year, (2)

development of a trail user profile, (3) estimating trail user expenditure patterns, (4) determining attributes of the trail that need improvement, and (5) estimation of economic linkages and local community development effects associated with trail usage.

The problems that we are attempting to address are broadly related to recreation management, leisure science, and amenity-driven rural development. Specific questions to which we seek answers are rather focused. Who visits motorized recreational trails? What aspects of the local trail motivate visitation? When during the year do visits occur and how is this related to receipts that flow to local business owners? Where should communities and recreation managers focus decision-making to maximize benefits and ameliorate potential problems? How can use of a recreational trail be better integrated into local economic development efforts? These are the generic questions being asked with specific reference to the Cheese Country Trail and the economic conditions found within the communities of Green, Iowa, and Lafayette Counties affected by recreational trail use.

1.4 Outline of the report

This report is organized into two subsequent sections with several related appendices. The next section provides an overview of key findings obtained from the applied research effort. The final section provides a summary that draws out key policy implications generated by the research findings. The first appendix (A) provides specific detail regarding methods used to evaluate the case study recreational trail including both data collection and analysis. Following this appendix, two further appendices (B and C) are included that contain the intercept stratification and a copy of the instruments used (observation sheets and intercept surveys).

2. Results

This section outlines the descriptive results of the intercept observations, face-to-face surveys, and focus group interviews. These results are presented as descriptive summaries of the data we collected and serve as a basis for further analysis (more fully discussed in the final section on further research needs.) We have made an attempt to comprehensively describe each element of the data collected. Further detail can be obtained from the authors. It is important to point out that the results reflect the quality of our sampling. We have made every attempt to minimize possible sources of bias. Our interpretations of this data attempt to remain objective and allow generalizations to the broader phenomena of trail use and community development impacts where applicable.

2.1 Trail use characteristics throughout the year

Observations. To gain insight into trail usage across all four seasons, we developed a randomized approach to observe the trail for a twelve month period between November 2010 and the end of October 2011. These observation samples included the collection of a variety of data about trail conditions, weather, and trail usage.³ This data collection effort served as the basis for expansion to the total population of trail users throughout the year.

Procedures used to expand observations to a total number of trail users accounted for a stratified random sample of time periods and places described in Appendix A. Further, this expansion accounted for the two way nature of trail use assuming that users entered and exited the trail at the same location. Finally, our expansion accounted for seasonal variation and the uniqueness of the winter season of 2010/2011. There were long portions of February and March in which the trail was essentially closed due to lack of snow and poor trail conditions. It is

³ The specific methods used to observe the trail are described in Appendix A. A sample observation sheet used by trained field staff is found in Appendix D.

important to state the obvious limitation of this; our user counts and estimation procedures are specific to the time period in which we made observations --- November 1, 2010 through October 31, 2011.

An annual snapshot of trail use pressure. A summary of estimated monthly trail use is found in Figure 2.1. We are careful to distinguish monthly usage expanded from monthly observations relative to weekend and weekday usage. Holidays were included with weekends due to similarly high levels of trail usage. Many user characteristics had distinct differences based on the origin (or place of primary residence) of the user. While not shown in this graphic, our survey results suggest that weekdays tended to reflect trail use by local residents while weekends and holidays tended to have higher levels of non-local usage.

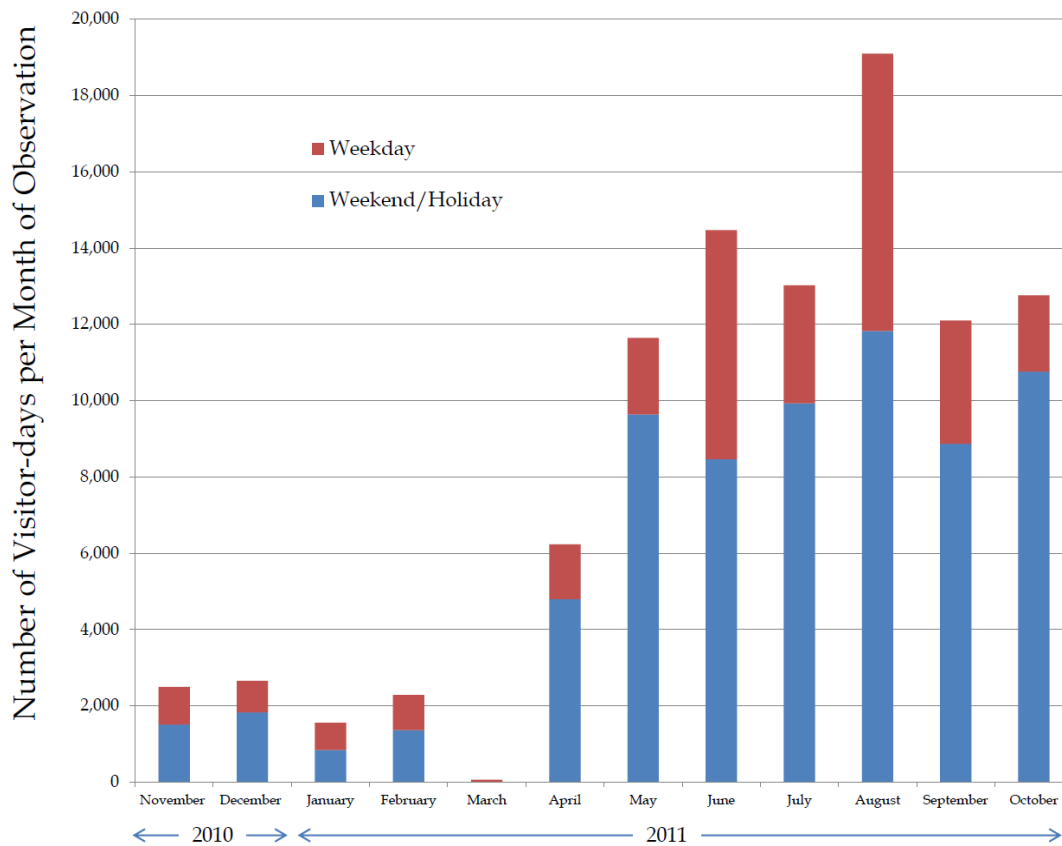


Figure 2.1. Number of visitor-days by month for the Cheese Country Trail in Southern Wisconsin between November 1, 2010 and October 31, 2011.

The seasonal expansion of trail users suggests that during the observation period, the Cheese Country Trail between Monroe, Wisconsin and Belmont/Mineral Point experienced a total of just over 98,000 individual user-days (or visitor-days). While a complete breakdown of usage by season is summarized in Appendix A (Table A3), we note that over 70,000 of these visitor-days occurred on weekends or holidays. Indeed, this translates into roughly 72 percent of total visitor-days occurring on weekends or holidays while only 28 percent occurred during the week (on weekdays).

Note from Figure 2.1 that the highest levels of trail use occurred during the summer months of June, July, and August. Indeed, roughly 57,000 visitor days, or 58 percent of all trail use, occurred between Memorial Day weekend and Labor Day weekend (May 28, 2011 and September 5, 2011). Also interesting, we note that our observations reflected an unseasonably pleasant autumn during the 2011 season with particularly high levels of October trail usage. In general, warm weather usage (using ATVs, UTVs, dirt bikes, etc.) far exceeded cold weather usage (snowmobiles).

The uniqueness of the 2010/2011 winter season is reflected in Figure 2.1 by noting the low levels of January and March trail usage. Indeed, the trail was closed part of January, and the last half of February and all of March due to lack of snow and poor trail conditions. Warm and dry weather allowed a resumption of usage by ATVs and UTVs in April. Certainly, our results represent the weather conditions during 2010 and 2011 but anecdotal evidence by local residents suggests that this was a fairly typical year in southwestern Wisconsin.

2.2 Survey results

A second and matching source of data for this case study research included face-to-face interviews with trail users. These were done during randomly assigned two-hour observation periods throughout the year. During each

observation period, we conducted two intercepts at pre-determined times and locations along the trail. The trained field staff conducted 730 face-to-face interviews.⁴ It is important to note that there were a small number of rejections which occurred for a variety of reasons. A summary of response types is found in Table 2.1. An obvious reason for rejection was if the intercepted user had already been surveyed previously during the preceding year. If rejections occurred, the surveyor thanked the intercepted user, and then attempted another intercept with an individual in the next party. As can be seen from Table 2.1, the large majority (91%) of intercepts were acceptances on the first attempt. There were a small number of attempts that did not generate a valid response.

Table 2.1. Summary of responses to survey (based on 683 randomly allocated observations between November 2010 through October 2011).

	# Surveys	% Surveys Completed
Accepted	712	91.05%
Rejected Once	34	4.35%
Rejected Twice	2	0.26%
Rejected Three or More Times	5	0.64%
Rejected – Already Took Survey	29	3.71%
TOTAL	782	100%

* Note that this does not include null samples where the observer did not encounter an individual to intercept.

It is also important to note that there were 582 valid null samples. These were time periods when the observer did not find anyone to intercept during the pre-determined time period for intercepts to occur. Most often, this occurred during time slots that were scheduled early or late in the day (we conducted observation

⁴ A complete description of methods used in this applied research can be found in Appendix A. A sample survey instrument can be found in Appendix C with a crib sheet that includes a narrative for the face-to-face interview contained in Appendix E.

during randomly selected time periods from sun-up to sun-down). Alternatively, null samples were often observed during inclement weather and/or poor trail conditions. These valid null samples are not represented in Table 2.1.

Trail user characteristics. Given the primary objectives of this study, we had an interest in differentiating Cheese Country Trail users by their place of origin. Using residence zip codes, results of our interviews suggested that the majority of Cheese Country Trail users had primary residences located outside of the three counties used as the local region in this case study (defined as Green, Lafayette, and Iowa Counties in southwestern Wisconsin). Specifically, roughly 2/3 of the respondents (485 of 730) resided outside of this region; these will be henceforth referred to as “non-local” trail users. Just over 1/3 of the respondents (245 of 730) were from the three county area and are henceforth termed “local” trail users. A summary of Cheese Country Trail user place of origin is found in Figure 2.2. Note from this map that the Cheese Country Trail provides a modest draw as a regional destination with the vast majority of users coming to the region from within a 150 mile radius of the trail.

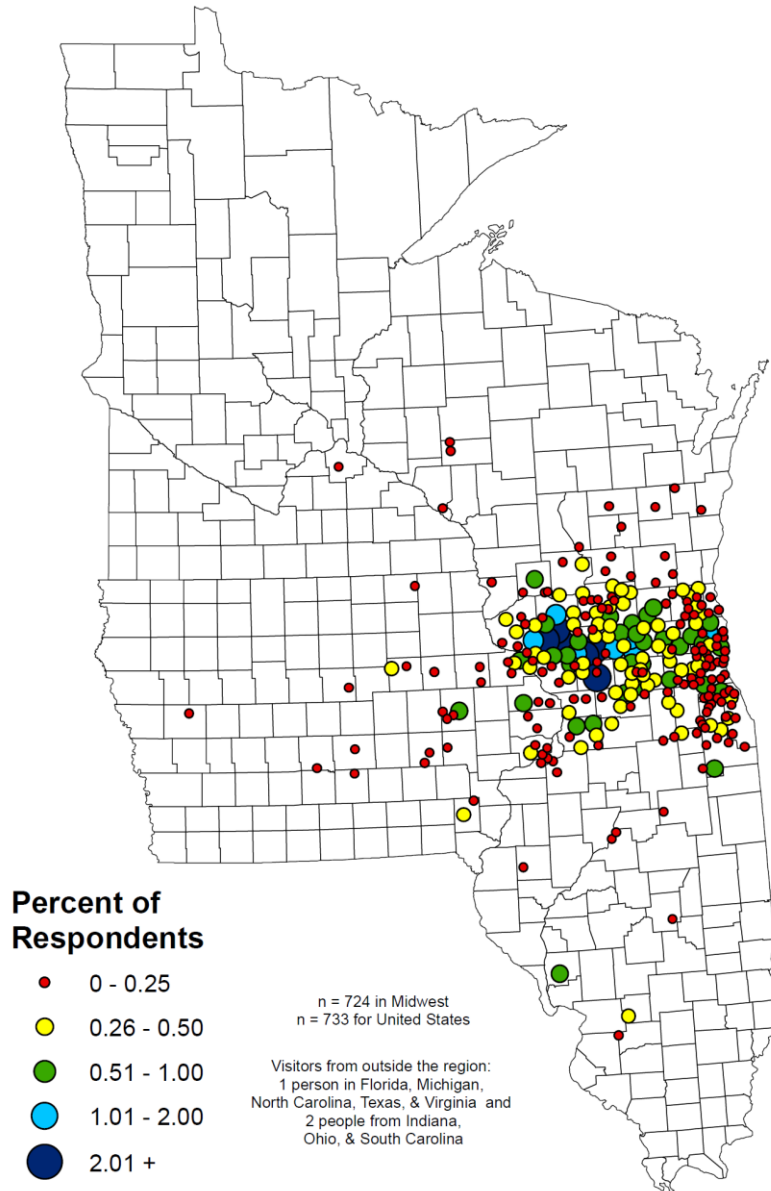


Figure 2.2. Place of origin for users of the Cheese Country Trail encountered between November 2010 and October 2011 (based on zip codes of primary residence, n=730)

The age profile of Cheese Country Trail users encountered by survey volunteers is summarized in Figure 2.3. The mean age of Cheese Country Trail users was 45.6 years old with a minimum of 11 years old. The oldest trail user encountered by our survey team was 84. The age structure for locals and non-

locals were statistically different.⁵ In general, non-locals tended to be older (average age of non-locals = 46.2 years) than local trail users (average age of locals = 44.6 years).

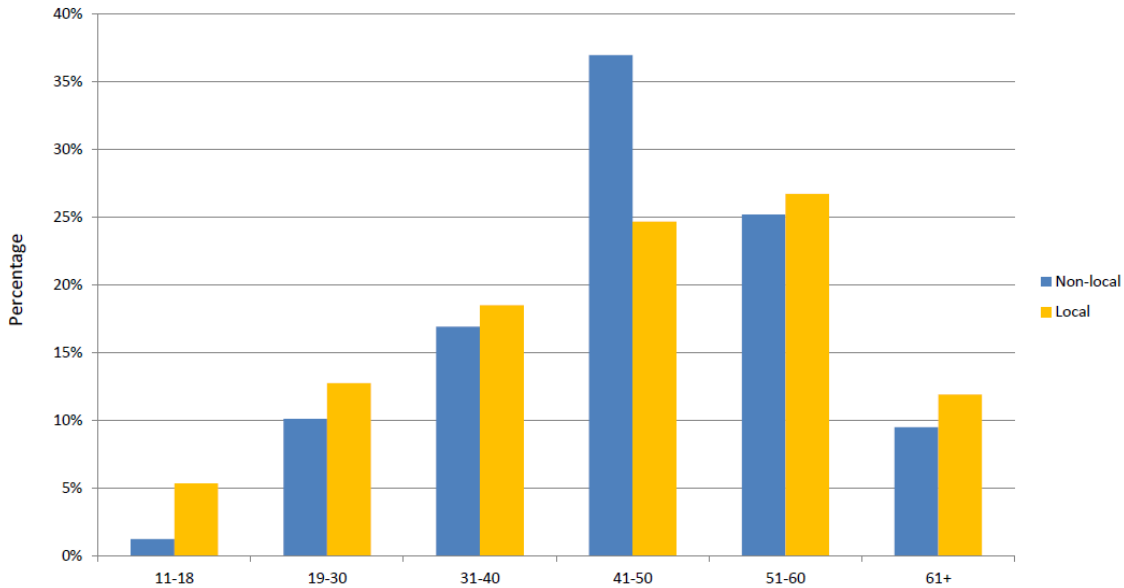


Figure 2.3. Age profile of Cheese Country Trail users sampled between November 2010 and October 2011 ($n_{non-local} = 484$, $n_{local} = 243$; $p = .000$)

The educational profile of trail users encountered in this study is summarized in Figure 2.4. Note from this figure that results of our survey work suggested that non-local trail users were more apt to have college degrees and, in general, had higher levels of educational attainment when compared to local Cheese Country Trail users.

⁵ If shown as separate groups, local and non-local differences were statistically significant from equal distributions and/or means based on appropriate statistical tests at the $p < .05$ level. In all circumstances, the statistical test assessed the hypothesis that the distribution or mean values of local and non-local trail users are equal (p measures the probability that distributions and/or mean values are the same).

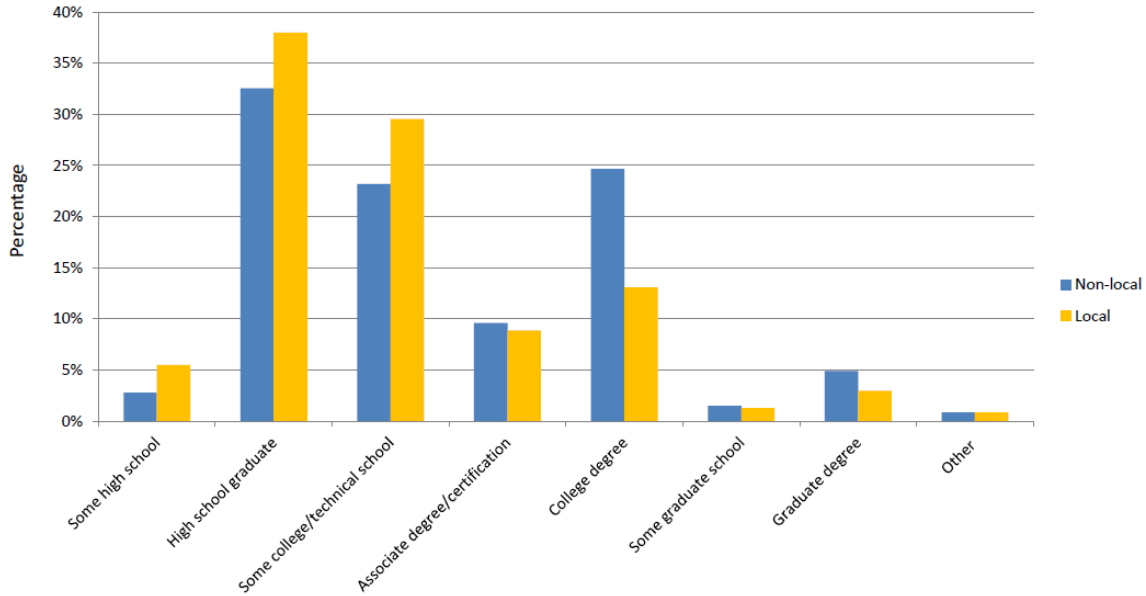


Figure 2.4 Educational profile of Cheese Country Trail users sampled between November 2010 and October 2011; question asked respondents to identify their highest level of educational attainment ($n_{non-local} = 470$, $n_{local} = 237$; $p = .009$)

Given differences in socio-demographic characteristics and differing demands based on distance traveled, it was not surprising that we found significant differences in the income profiles of local and non-local Cheese Country Trail users. The annual household income profile of Cheese Country Trail users encountered in this study is summarized in Figure 2.5. Note from this figure that non-local trail users tended to have higher annual household incomes (average non-local = \$63,250) when compared to local trail users (average local = \$48,750).

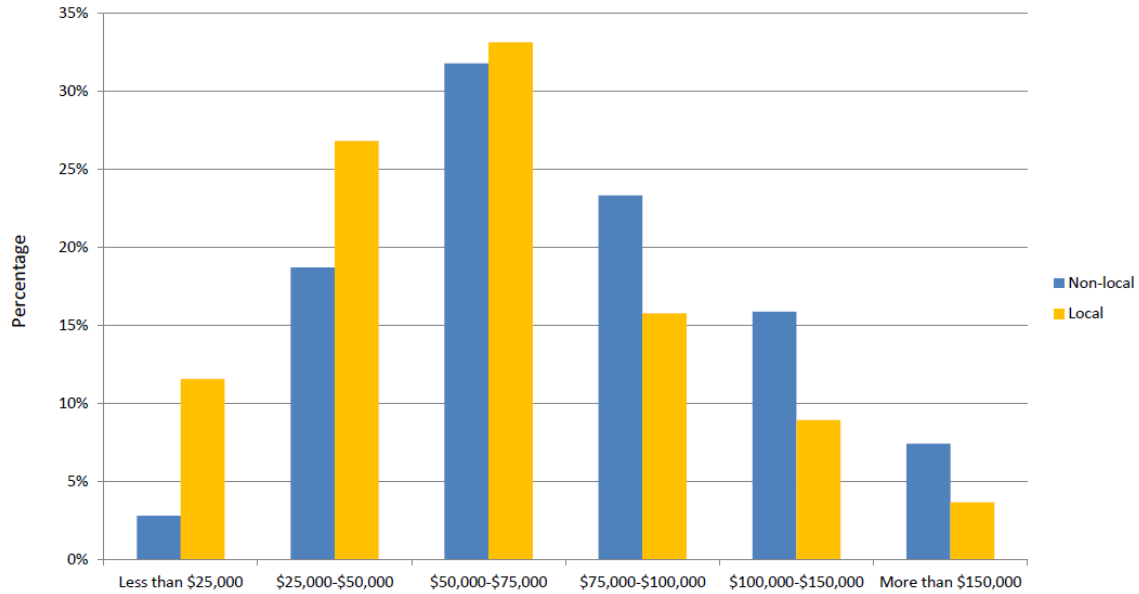


Figure 2.5 Annual household income profile of Cheese Country Trail users sampled between November 2010 and October 2011 ($n_{non-local} = 390$, $n_{local} = 190$; $p = .000$)

While many of the trail users we encountered were by themselves, we also often encountered trail users recreating in groups. The average group size was just over 3 people (3.04 for locals; 3.30 for non-locals). The average number of youths (people under the age of 16) per group was just under .40; another way to look at this would be to say that, on average, roughly 40 percent of all groups included at least one youth.

Characteristics of the trip on which users were encountered were another key element of interest in this study. Several attributes of the trip were measured using the face-to-face interview instrument. User history of riding on the Cheese Country Trail, motivations for the trip, access points along the trail, and overnight stays were of central importance to our interviews.

History of trail use. The majority (roughly 85 percent) of trail users surveyed had ridden the Cheese Country Trail prior to being observed. Of those who had previously ridden the trail, many were regular users. An obvious finding of our survey work was that locals tended to have much more experience with riding

the Cheese Country Trail. A summary of the amount of trail use during the 12 months previous to being surveyed is summarized in Figure 2.6. Note from this Figure that the majority of locals had used the trail on 6 or more occasions during the past 12 months with many using it regularly (more than 30 times). This contrasts with non-locals who were more apt to have either never ridden the trail before or had ridden the Cheese Country Trail less than 6 times during the past 12 months.

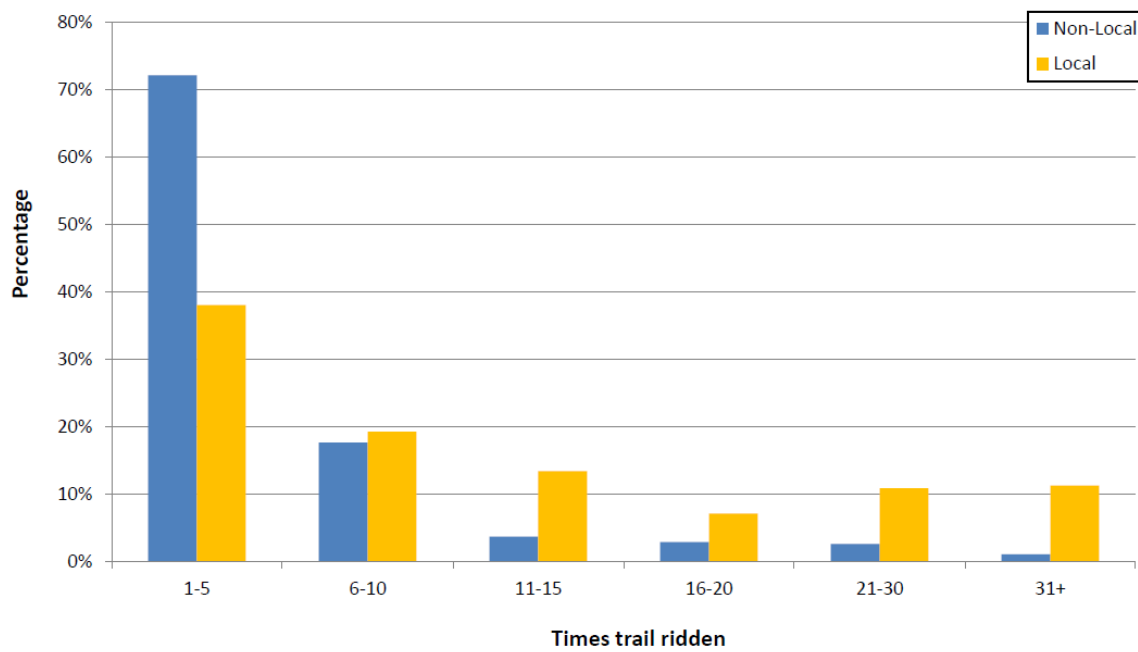


Figure 2.6. Trail riders and their trail use during the preceding 12 month period ($n_{non-local} = 380, n_{local} = 239$)

Trip motivations. Motivations for visiting the area varied widely. This said, the vast majority of non-locals were in the region specifically because of the trail. A summary of trip motivations (primary reason for the trip) are outlined in Figure 2.7. Note from this figure that the trail itself or other local trails and leisure trips are particularly apparent motivations for both local AND non-local riders. Another interesting aspect of use noted from this Figure is that there were a number of local residents who indicated that they use the trail as a mode

of local transportation between communities and/or family and friends in the region.

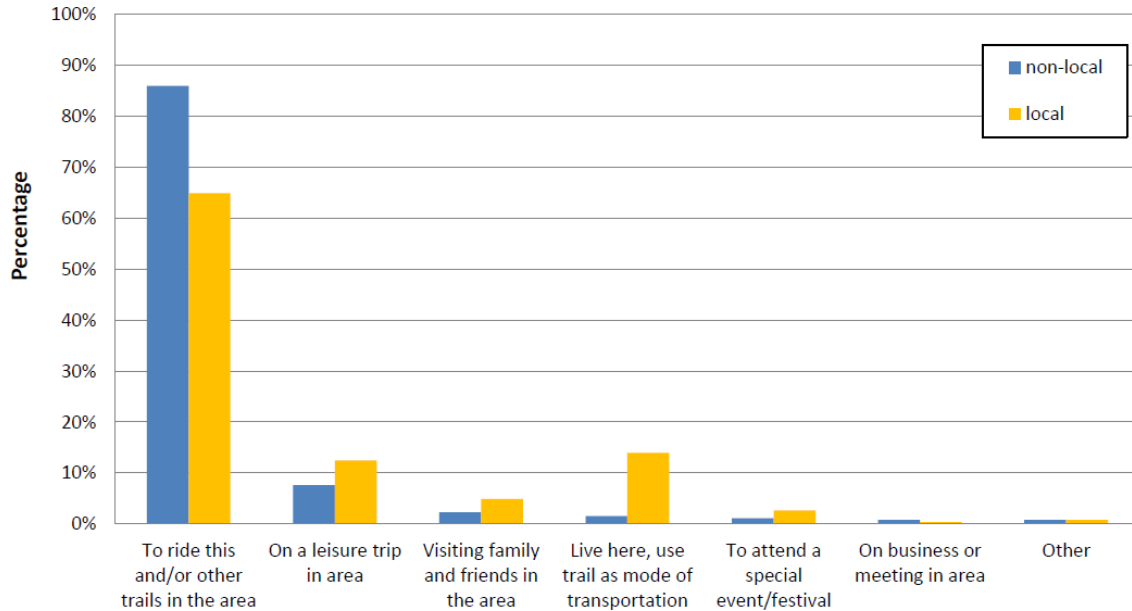


Figure 2.7. Motivations for individual trips to the Cheese Country Trail (multiple responses possible).

Trail use characteristics. Trail users accessed the trail at various locations along its route. Monroe and Darlington were the two most common entry points for access to the Cheese Country Trail. Indeed, these two communities accounted for almost 60 percent of the trip starting points (39 and 19 percent respectively). This is likely due to both availability of parking and the fact that these communities are located at the far eastern end and the mid-point of the trail. Mineral Point and Belmont, as the two western termini accounted for 10 and 8 percent respectively.

While generalizing about actual use of the trail is complex, we do have evidence to suggest that the average mileage of travel for non-locals was slightly more than local riders of the trail. A summary of starting points by where an individual was intercepted is outlined in Figure 2.8. Note from this table that the majority of users began their trail use at either Monroe or Darlington. Many

smaller number of users rode dirt bikes or golf carts with a very small number of bicyclists. Interestingly, locals were more apt to ride UTVs while the higher percentage of locals using snowmobiles (in the winter) reflected underlying patterns of local and non-local use (all users on groomed trails in the winter used snowmobiles).

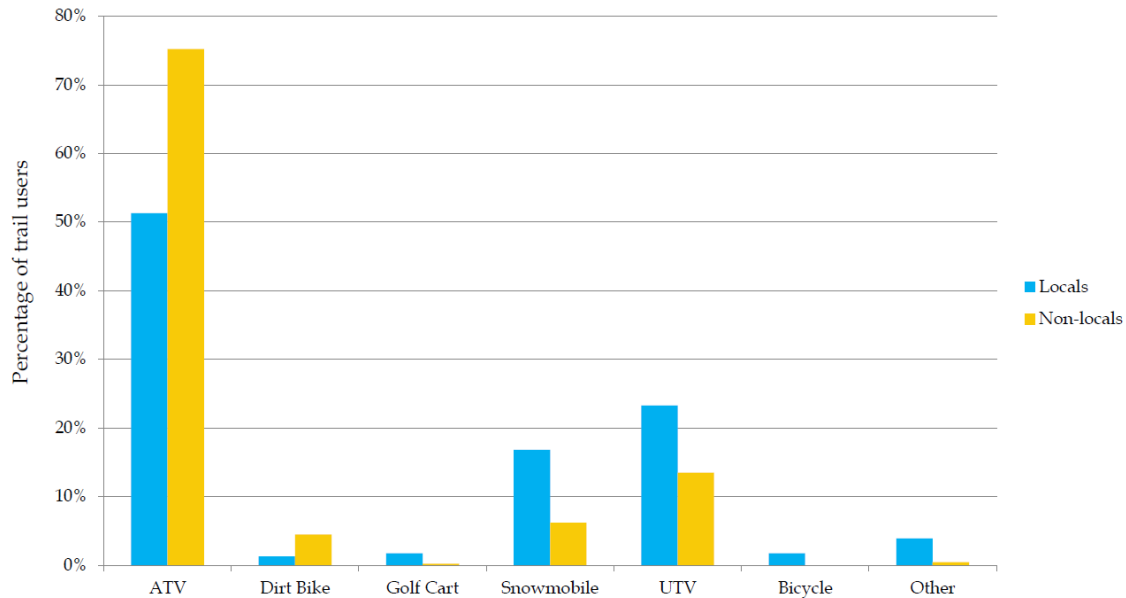


Figure 2.9. Trail use by type of equipment used.

Duration of trip and overnight characteristics. For the majority of trail riders encountered during the year-long study, almost three-quarter (74%) indicated that they were day-trippers (not making an overnight trip from home). Of the 26 percent of users that spent at least one overnight, the vast majority were non-local trail riders. Thus, trip duration in days is assumed to equal the number of nights stayed plus one. For locals, this average duration of trip in days was slightly more than one (1.04). But, for non-locals, the average trip duration was 1.66 for those intercepted on a weekend and 1.77 for those intercepted on a weekday. Somewhat surprising, weekday non-locals spent more nights, on

average, than those intercepted on weekends. Only slight variation in trip duration was evident throughout the various seasons of the year.

For overnight users, we were further interested in their lodging characteristics. Responses to lodging type for those spending an overnight are summarized in Figure 2.10.

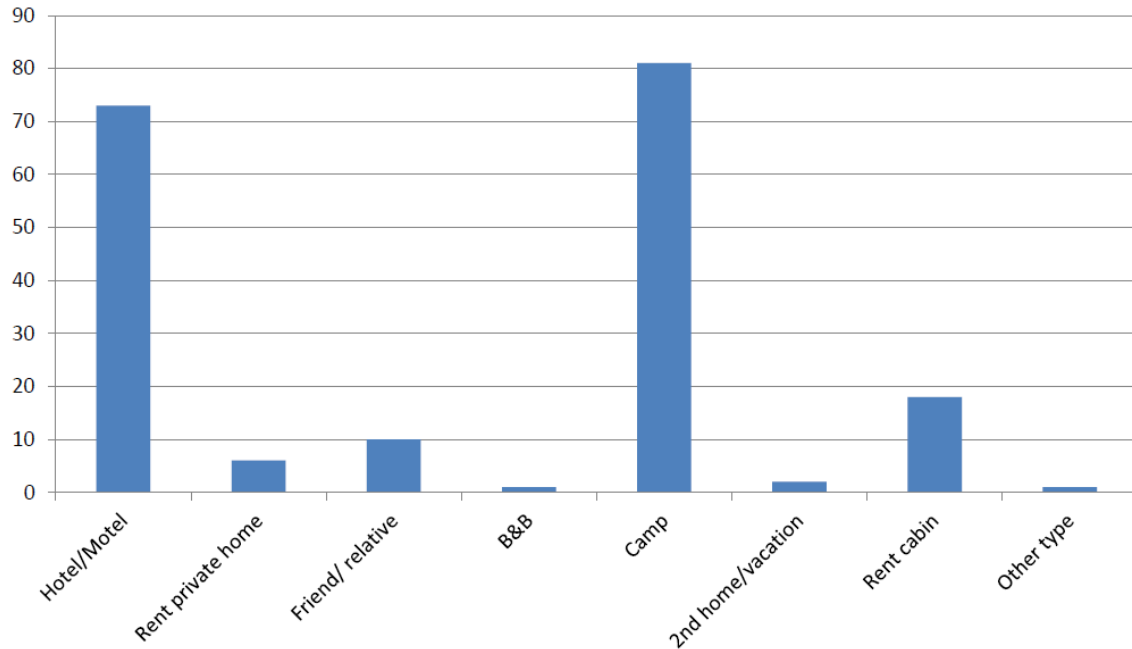


Figure 2.10. The type of lodging used by overnight trail users (vertical axis reflects the number of respondents who indicated that they were on an overnight trip from home; n=190).

Note from this figure that camping had the largest number of responses followed by hotels and motels. It is important to remember that this figure represents the number of respondents and not the total number of overnight trail riders. To get an idea of the impact of overnight guests, we addressed this through an expansion of expenditures for accommodations later in this section.

For those who spent at least one overnight during their trip, we were further interested in where they engaged overnight accommodation. A summary of responses to this question are outlined in Figure 2.11.

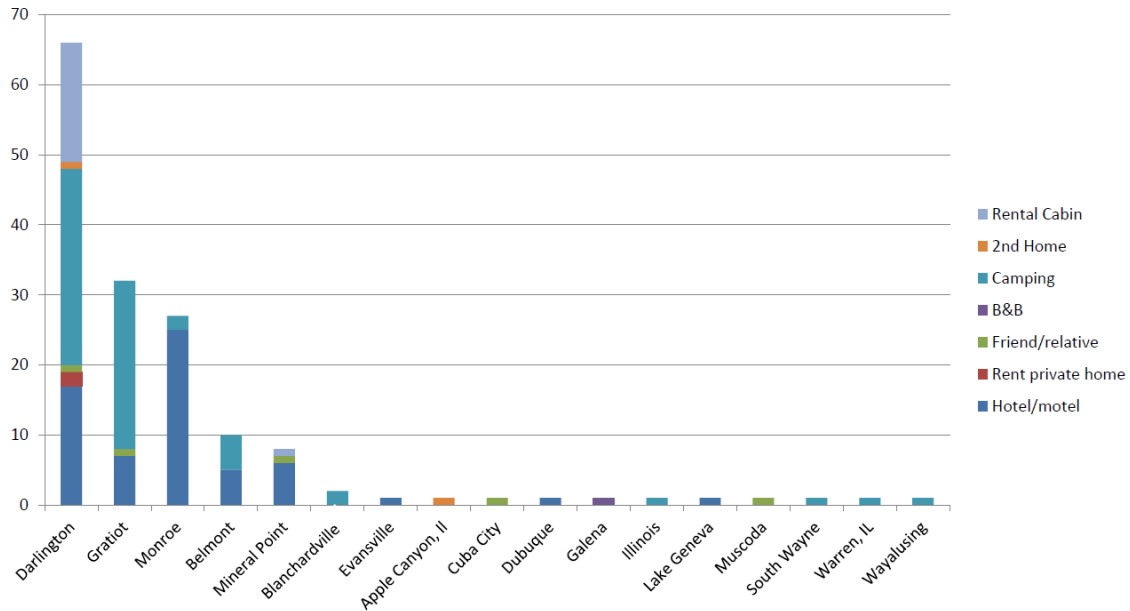


Figure 2.11. The location of lodging by type of lodging for non-local overnight trail users (vertical axis reflects the number of non-local respondents who indicated that they were on an overnight trip from home; n=180).

Note from this figure that vast majority of non-local trail riders who spent at least one night away from home chose to spend those nights in local accommodations. Further, Darlington, Gratiot, and Monroe accounted for the vast majority of these overnight stays. A very small number of local residents who rode the trail spent an overnight away from home (roughly 5 percent). Our survey results suggest that most of these do so for a camping overnight or for a stay with relatives.

Finally, for overnight trail users, we were interested in the number of nights they spent away from their home of residence. A summary of this by lodging type is found in Figure 2.12.

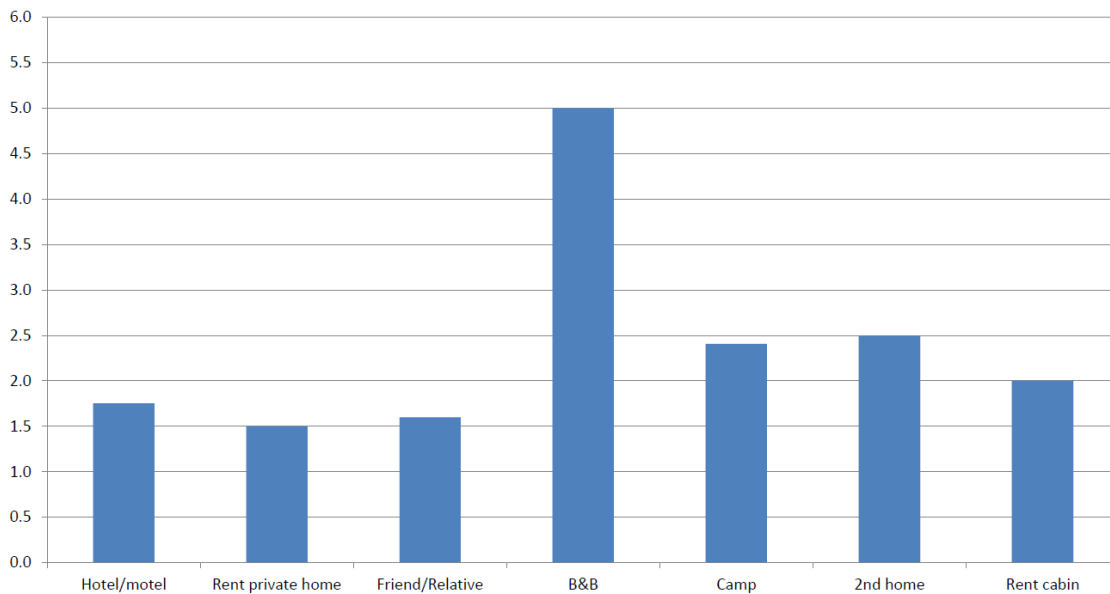


Figure 2.12. Average number of nights spent overnight by lodging type (vertical axis reflects the average number of nights spent away from home for respondents who indicated that they were on an overnight trip from home; n=190).

It is important to recall that most overnight stays occurred in campgrounds or in hotels and motels. Note from this figure that campers tended to spend at least two overnights away from home while hotel/motel guests were slightly less. Interestingly, the one bed and breakfast overnight trail rider indicated a five night stay in Galena, IL.

Related activities. To better understand trip characteristics of those who visited the Cheese Country Trail, we had an interest in learning what other activities the trail users or members of their immediate travel party participated in while on the trip. Responses to this question are summarized in Figure 2.13.

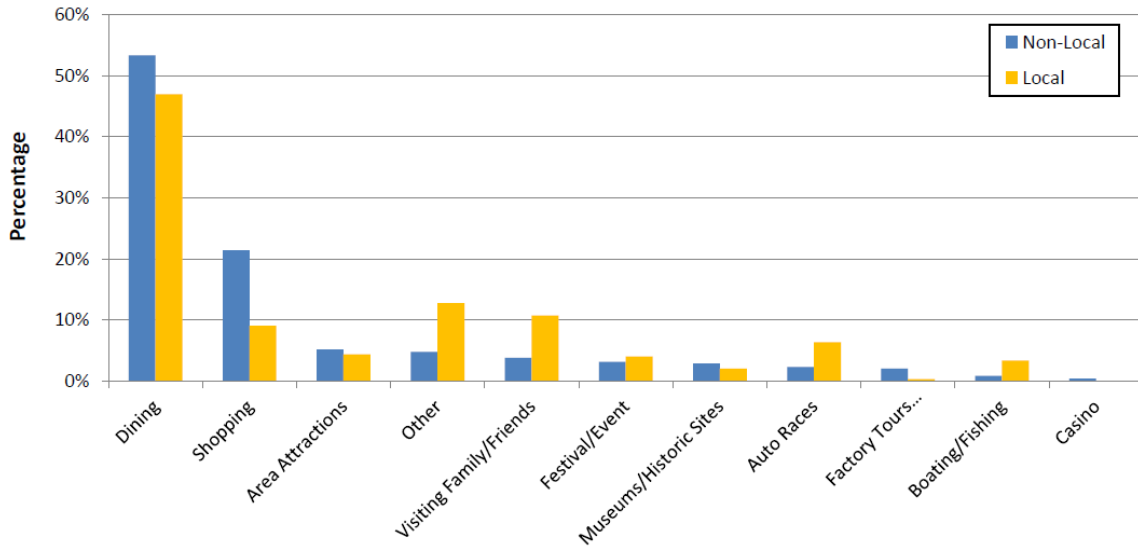


Figure 2.13. Other trip related activities participated in by immediate travel group (vertical axis reflects the percentage of responses, multiple responses possible).

Note from this figure that most trail riders indicated that they also partook of dining and shopping opportunities. A variety of additional activities were identified by smaller numbers of survey respondents.

Marketing of local businesses is a related issue important to developing strategies that serve to attract more visitors. Our survey effort addressed this using a question that elicited responses to how trail users learned about the area. A summary of these responses is outlined in Figure 2.14. While most local trail users obviously knew about this area by the simple fact that they lived there, non-local trail users were mostly tuned into the conversations and experiences of family and friends and/or the internet. Note that very few users learned about this area from state tourism brochures, magazines, newspapers, or television.

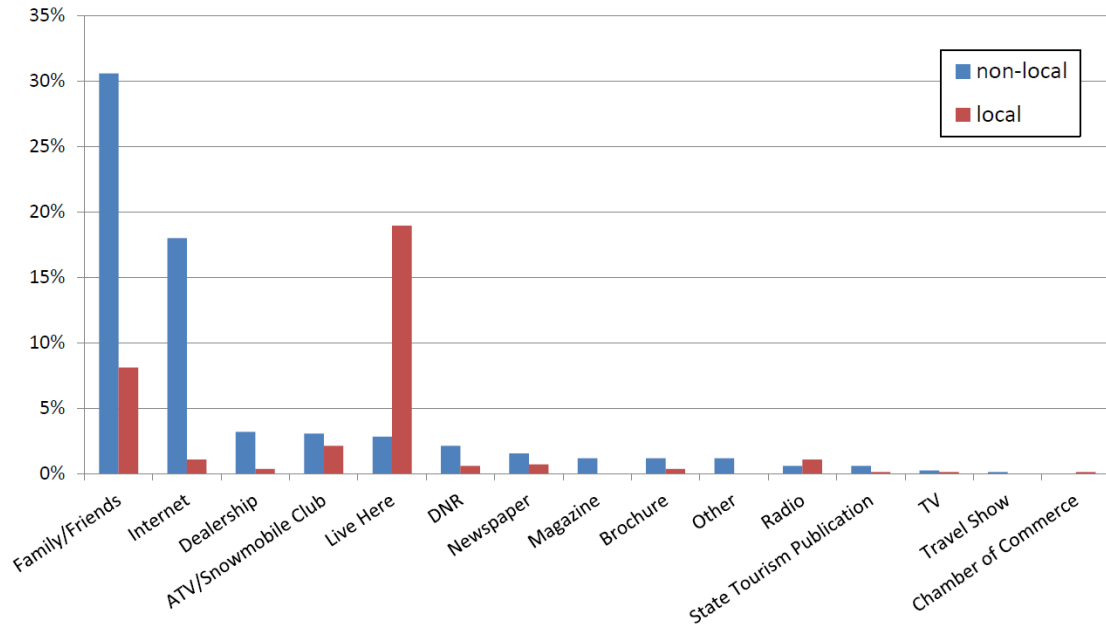


Figure 2.14. Sources of information used to learn about the local area by respondents to the Cheese Country Trail survey (multiple responses possible).

User preferences and attitudes. To better understand user preferences and attitudes, we asked trail users to identify their level of satisfaction with several aspects deemed important to trail use. This was done using a Likert-type scale from 1 (unsatisfied) to 5 (satisfied). A summary of responses by trail users to level of satisfaction with (a) trail signage is shown in Figure 2.15, (b) grooming is shown in Figure 2.16, (c) trail safety in Figure 2.17, (d) camping in Figure 2.18, and trail access and parking in Figure 2.19.

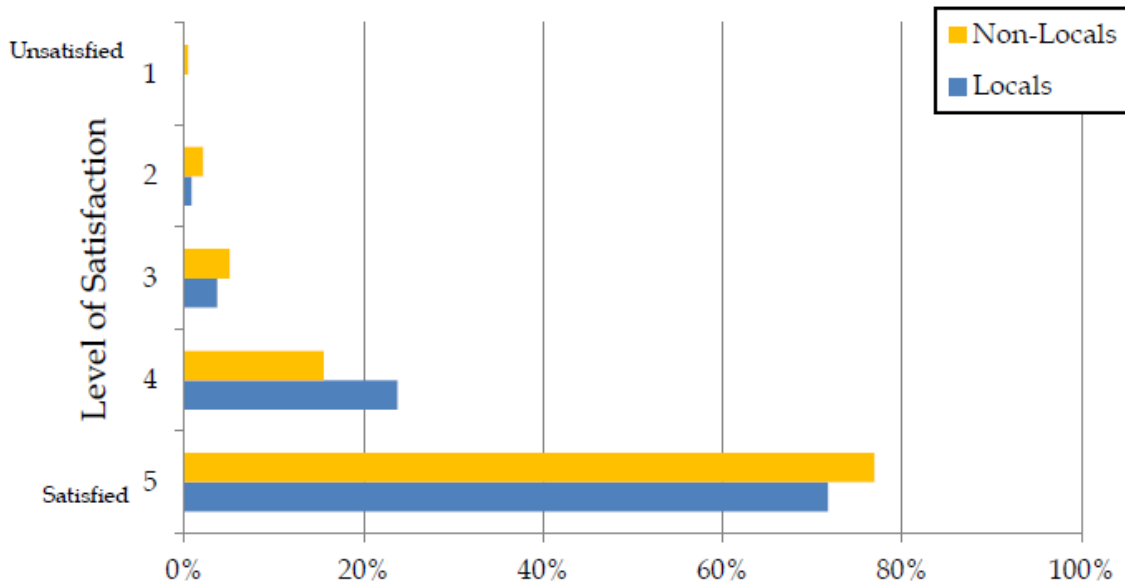


Figure 2.15. Level of satisfaction of trail users for the signage present on the Cheese Country Trail ($n_{non-local} = 476, n_{local} = 244$).

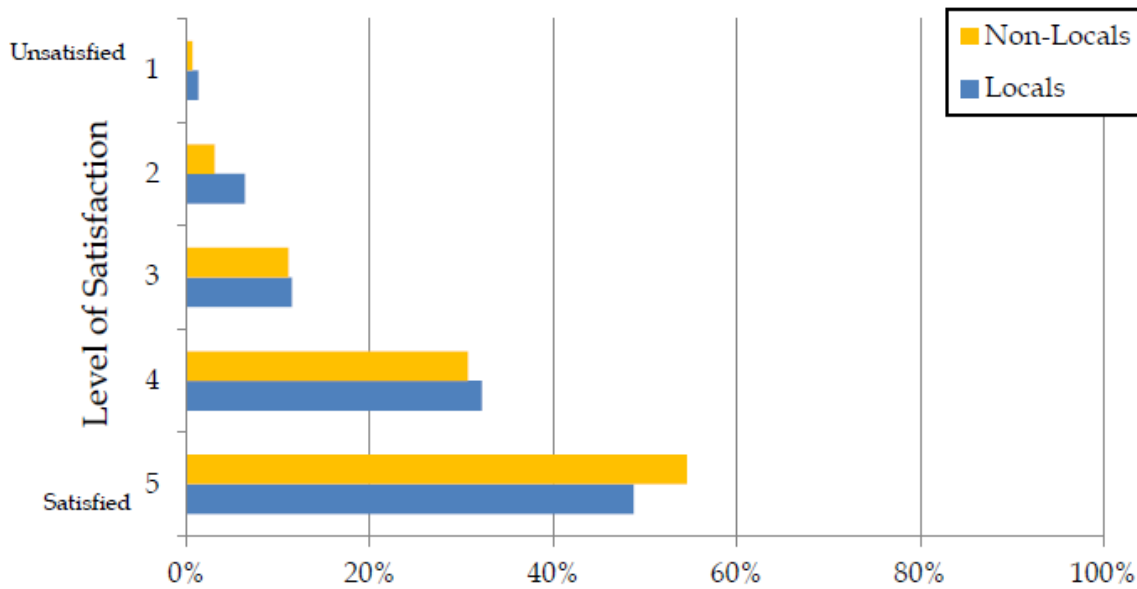


Figure 2.16. Level of satisfaction of trail users for the grooming of trail surfaces on the Cheese Country Trail ($n_{non-local} = 460, n_{local} = 236$).

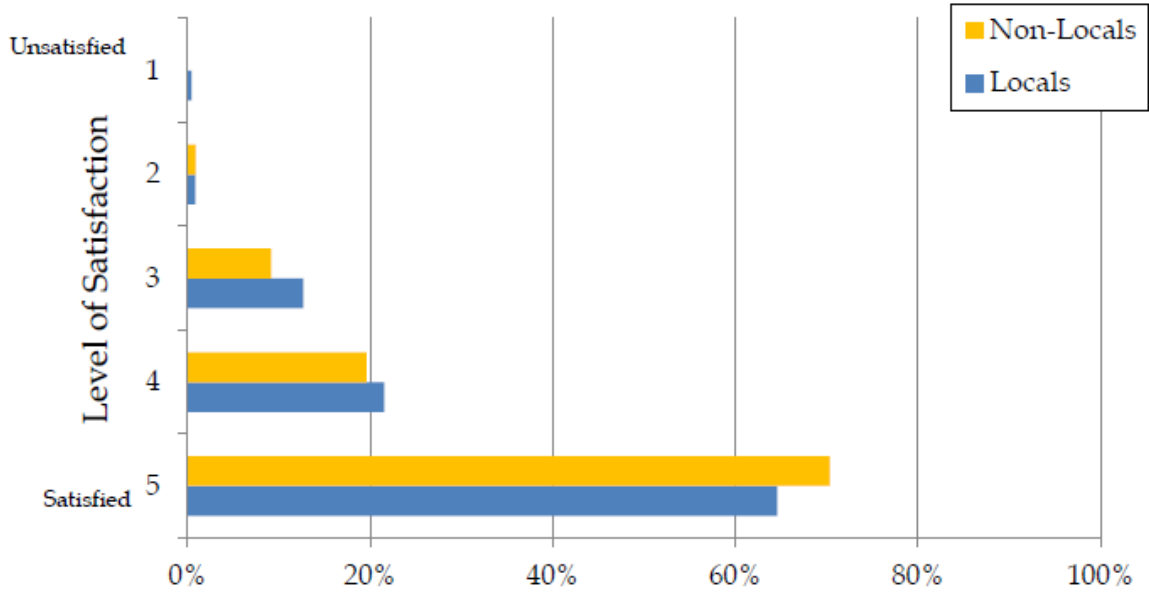


Figure 2.17. Level of satisfaction of trail users for trail safety on the Cheese Country Trail ($n_{non-local} = 459, n_{local} = 237$).

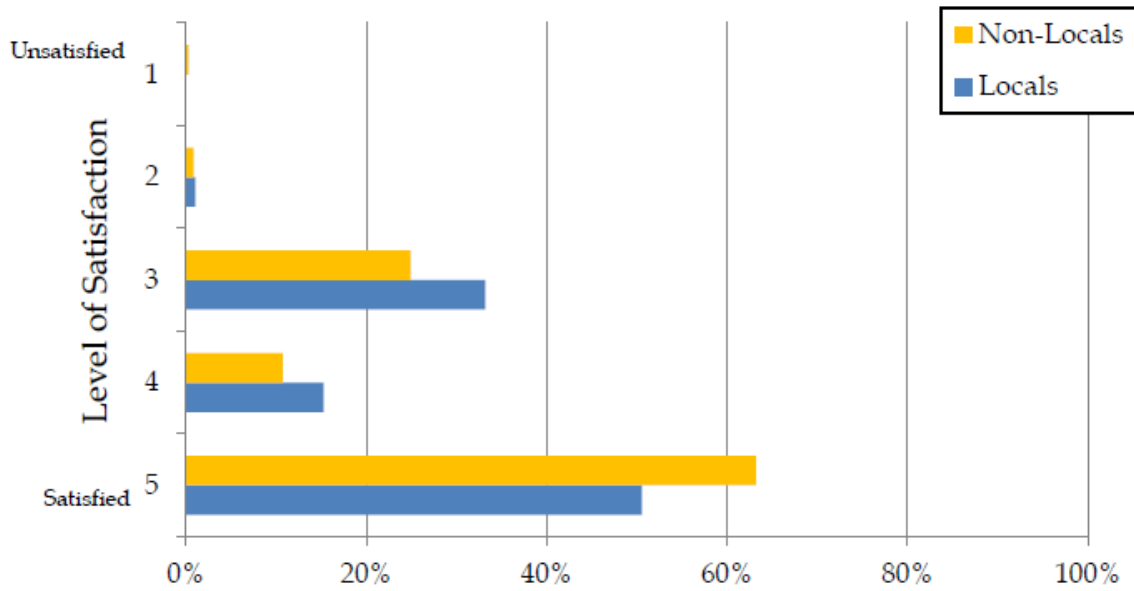


Figure 2.18. Level of satisfaction of trail users for camping facilities on the Cheese Country Trail ($n_{non-local} = 345, n_{local} = 190$).

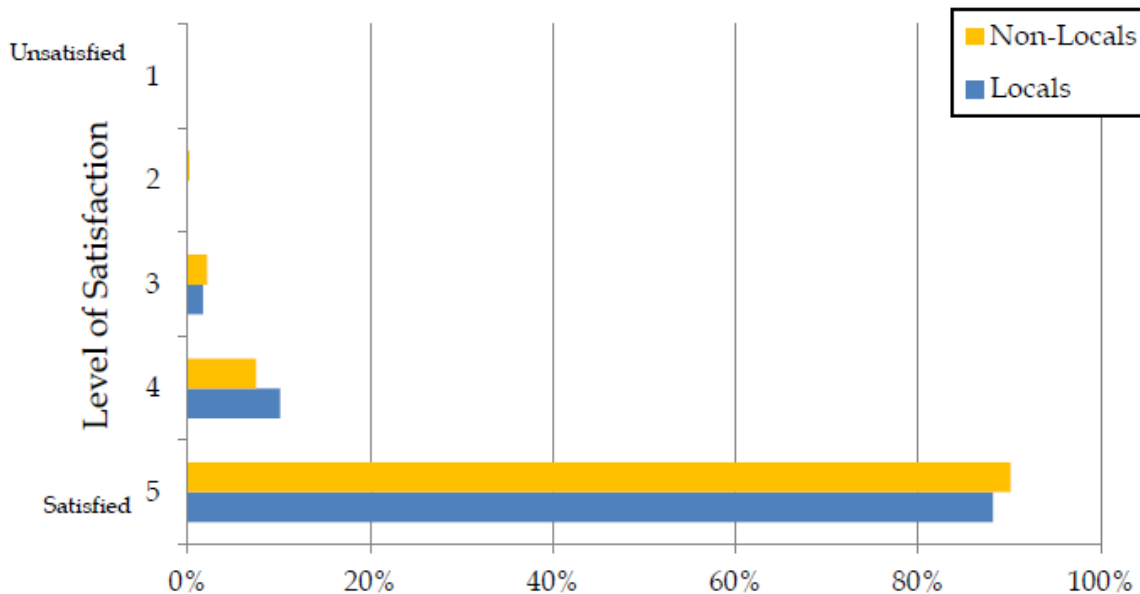


Figure 2.19. Level of satisfaction of trail users for trail access and parking on the Cheese Country Trail ($n_{non-local} = 466$, $n_{local} = 237$).

Note from these figures that trail users reported general satisfaction with the attributes of the trail we included with the face-to-face survey instrument. In general, non-locals were more satisfied with these attributes than were local trail users. While still on the satisfied side of neutral, the two exceptions that exhibited less satisfaction were trail grooming and camping facilities. This said, satisfaction with camping facilities identified as “neutral” could be construed as not-applicable because these trail riders may not have been overnight guests. Trail grooming is a constant maintenance issue given heavy use and the need for volunteer assistance. These issues are discussed in more detail later in this section under the Focus Group heading.

Also, we have included verbatim open ended responses to a question that elicited suggested improvements. Roughly 55 percent of survey respondents provided some suggestion(s). These responses can be found in Results Addendum A. In summary, the most recurring response categories included trail grooming & maintenance (~30%), the need for an intensive use area or more trail mileage (~20%), the need for more camping, access, parking, or rest areas

(~20%), and signage & maps (~15%). Interestingly, roughly 10% responded that everything was fine and that they liked the trail as it was.

2.3 Local economic impact

Trail use and the activities of users have a wide variety of local impacts that include social, environmental, and economic effects. Our specific interest focuses attention on the economic impacts associated with use of the Cheese Country Trail. Economic impacts can likewise be broadly defined to include both market-based and non-market based effects. The latter includes such elements as the values held for the trails' impact on local quality-of-life, environmental quality, and the values we place on our ability to pass on productive resources to the next generation. While important, these are beyond the scope of this study. Our specific interest in local economic impacts focuses on the market-based economic effects associated with trip related expenditures of trail users. This market-based economic impact is important because a portion of these dollars exist as new economic stimulus; money flowing into the region from the outside that would not happen were it not for the trail itself.

We begin this section with a brief overview of the regional economy. Following this, we describe the extent to which trail users spend money and focus on the estimation of new money flowing into the region as a result of non-local trail user expenditures. Once expanded to an annual basis, these inflowing funds are then applied as a shock, or stimulus, to the regional economy to assess how the regional economy reacts to this influx of new dollars. This regional economic change is thus used as a basis upon which to discuss and describe the local economic impact associated with the Cheese Country Trail.

The regional economy of Green, Lafayette and Iowa Counties in southwestern Wisconsin is characteristically rural.⁷ This 1,980 square mile region

⁷ Data for this section is from a regional model of Green, Iowa, and Lafayette Counties constructed using 2009 county-level data from MicroIMPLAN (MIG 2011). A description of the

exists in the rolling hills, farms, and bucolic landscapes of the southwestern Wisconsin driftless area. Demographically, this three-county region has a resident population of 75,345 within 30,972 households (2009). In 2009, total regional employment was slightly less than 42,000 (41,849) generating total personal income of roughly \$2.7 billion. This income was made up of employee compensation (\$1.3 billion), proprietor's income (\$216 million), property-type income (\$882 million), and indirect business taxes (\$352 million). The average household income in the region was just over \$87,000.⁸ The top employment sectors of the 2009 regional economy included agriculture (including grain farming, dairy cattle and milk production, and cheese manufacturing), retail non-stores (direct and electronic sales), state and local government, food services and drinking places, wholesale trade, private hospitals, and construction of non-residential buildings.

Trip-related spending by trail users. Our survey of trail users elicited responses for their actual out-of-pocket expenses on an individual trip basis. While this can be a confusing piece of information to recollect and estimate, we were careful to make this as simple as possible and to focus only on spending of the individual being surveyed. Furthermore, we were careful to allow respondents to recall and estimate only spending for the trip in which they were intercepted; thus the information on spending could be assumed to have been fresh in their minds. This said, we admit to the possibility of bias (recall, strategic, and other types). At best, the expenditure information presented here represents our most diligent attempt to capture the reality of spending taking place as a result of trips to the

specific methods used to estimate local economic impacts in this region is found in Appendix A, Section A4. Further, more detailed, information about regional impact modeling can be obtained from the authors of this report.

⁸ This value reflects a broad variety of income types that include employee compensation, propiretor's income, and other property type income. Also, it reflects the average (or mean) household income which differs and is higher than the median household income (or mid-point of a ranked list of household incomes). Median household incomes ranged from \$48,144 for Lafayette County to \$54,737 for Iowa County (Green County median was \$53,088). The discrepancy between average and median is due to household income inequality.

Cheese Country Trail. It should be viewed as a fairly gross approximation of actual spending based on responses of trail users intercepted while recreating.

A summary of expenditure patterns of the more than 700 people we intercepted is outlined in Figure 2.20. Note from this figure that we take care to separate expenditure patterns of local and non-local trail riders. Indeed, this is important for the simple fact that these two groups have statistically significant differences in patterns of local expenditure ... VERY different. It is also important to separate these user groups for estimation of local economic impact given the interest in estimating the stimulating effect of new money flowing into the region that would not flow in were it not for the trail itself. From the Figure, note the relatively larger amounts of average individual trail user trip spending taking place for food and drink, gas, and lodging. Also, note that average individual non-local trail users spent more than twice as much as did local users.

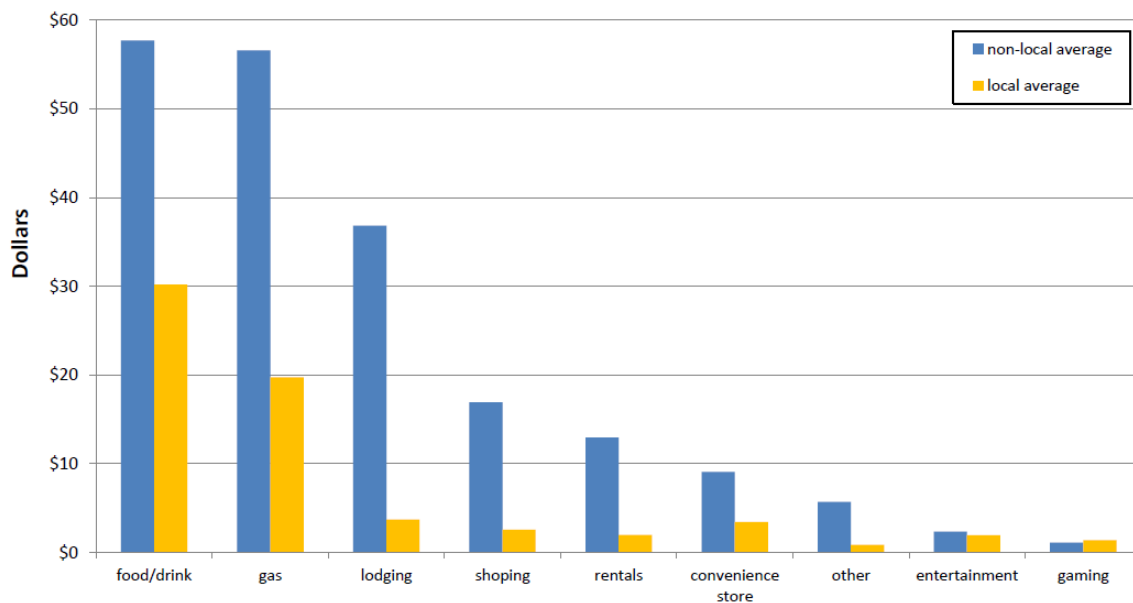


Figure 2.20. Expenditure patterns of trail users by category of spending (in 2010 and 2011 USD; question specifically requested an estimate of individual trip spending; $n_{non-local} = 380$, $n_{local} = 239$; $p = .000$).

Given the manner in which we stratified our random sample of trail observations, it was important to separate these expenditure patterns by various times of the year. Once done, it became apparent that expenditure patterns of trail users did indeed vary by season. A summary of expenditure patterns by the various observation periods is shown in Table 2.2.

Table 2.2. Average individual expenditure pattern of Cheese Country Trail users by observation period (individual spending per trip, in 2010 and 2011 dollars; $n_{non-local} = 380$, $n_{local} = 239$)

Category of Spending	Observation Periods							
	11/1/10 - 3/30/11		3/31/11 - 5/27/11		5/28/11 - 9/5/11		9/6/11 - 10/31/11	
	Non-local	Local	Non-local	Local	Non-local	Local	Non-local	Local
Food & Drink	\$56.40	\$27.80	\$57.43	\$24.24	\$61.03	\$33.62	\$49.57	\$27.27
Gas	\$36.43	\$31.22	\$52.38	\$13.89	\$67.05	\$17.50	\$45.36	\$19.51
Lodging	\$44.53	\$0.73	\$26.85	\$8.34	\$38.06	\$4.17	\$35.22	\$0.27
Shopping	\$13.30	\$2.73	\$15.31	\$3.52	\$16.69	\$1.45	\$21.43	\$6.97
Convenience	\$15.91	\$1.41	\$7.90	\$2.98	\$9.53	\$4.60	\$3.95	\$1.52
Rental	\$13.58	\$0.00	\$2.61	\$0.00	\$16.54	\$3.62	\$10.21	\$0.00
Other	\$5.52	\$0.68	\$3.60	\$0.00	\$5.78	\$1.30	\$7.09	\$0.00
Entertainment	\$0.75	\$0.00	\$8.09	\$1.32	\$1.58	\$3.14	\$1.33	\$0.00
Gaming	\$0.22	\$6.36	\$2.94	\$0.00	\$1.27	\$0.00	\$0.00	\$0.00
Total	\$186.64	\$70.93	\$177.11	\$54.29	\$217.53	\$69.40	\$174.16	\$55.54

Note from this table that survey results suggested variations in expenditure patterns by season. While total individual spending by non-local visitors was highest during the Memorial Day through Labor Day period, local trail users had the highest levels of individual spending during the November through March period. Further, the expenditures within each business type (category of spending) also varied. The percent of total spending by category is summarized in Figure 2.21. Spending on lodging food and drink, shopping, and gas remained fairly stable across seasons. This is in contrast to spending on gaming

(while low) which tended to occur between November and March; conversely, spending on entertainment (again low) tended to occur between Memorial Day and Labor Day.

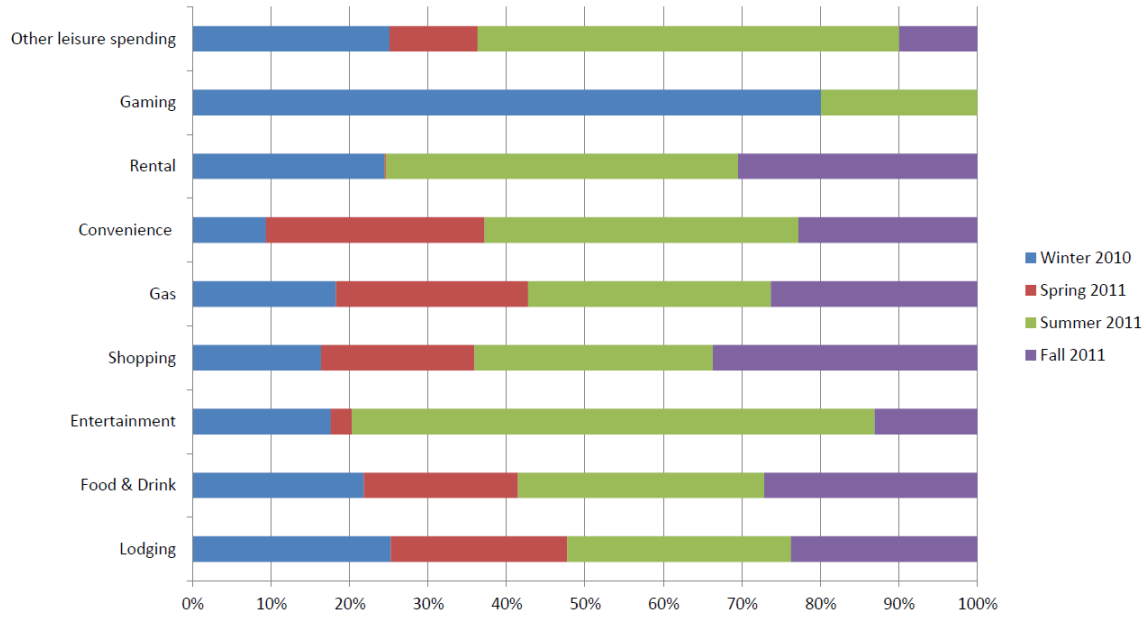


Figure 2.21. Percentage of total spending in each business type by time of year (horizontal axis reflects percent of total trail user spending by observation period; note seasonal labels have been added that correspond to the dates listed in Table 2.3; n=719).

Translating non-local trail user spending into direct economic impacts. Expansion of individual expenditure patterns to total levels of trail use was done from a disaggregated data summary that accounted for the four observation periods identified in Table 2.2. This expansion accounted for local and non-local trail use estimates by weekend/holiday and weekday and is summarized in Table 2.3. This procedure for expansion matched the stratified random sampling scheme outlined in Appendix A.

Table 2.3. Expanded one-year total spending of Cheese Country Trail users (total annual spending levels between November 1, 2010 and October 31, 2011; in nominal USD).

Category of Spending	Non-local ^a Trail Users	Local ^b Trail Users	All Users
Food & Drink	\$3,813,501	\$980,850	\$4,794,350
Gas	\$3,820,084	\$603,798	\$4,423,882
Lodging	\$2,428,122	\$124,149	\$2,552,271
Shopping	\$1,152,515	\$79,177	\$1,231,692
Convenience	\$566,639	\$115,346	\$681,985
Rental	\$871,667	\$71,540	\$943,207
Other	\$385,646	\$28,524	\$414,170
Entertainment	\$147,201	\$68,037	\$215,238
Gaming	<u>\$71,404</u>	<u>\$26,499</u>	<u>\$97,903</u>
Total	\$13,256,779	\$2,097,920	\$15,354,699

- a. defined as users with zip codes of primary residences located outside of Green, Lafayette, and Iowa Counties, Wisconsin
- b. defined as users with zip codes of a primary residence located in Green, Lafayette, or Iowa Counties, Wisconsin.

While trip duration for local trail users matched the predominantly day-use of this user category, non-locals exhibited average trip durations of between 1.2 and 1.9 days, depending on the season. Since the average individual expenditure patterns summarized in Table 2.2 were elicited on a per trip basis, there could be a need to adjust total visitor days for the amount of multiple trail visits made by non-locals on each trip. Anecdotal evidence suggests that while multiple day use of the trail does exist, most overnight visitors are single day users of the trail.

The estimation of economic impacts resulting from trail users focuses on the infusion of dollars into the communities of this three county region; thus, for economic impact modeling, we use only non-local trail user spending (roughly \$13 million) as the externally driven annual stimulus to the regional economy. While local trail users spent a significant amount of money annually (over \$2 million), this can be viewed as a simple recirculation of already local money and

does not reflect externally driven economic stimulus. However, it must be remembered that our study did not include specific questions to determine the amount of money local users would spend at area equipment retailers (ATVs, UTVs, snowmobiles, dirt bikes, etc.) and businesses that sell related durable goods (trailers), accessories or repairs. We believe the spending totals cited in this study are a conservative lower bound estimate of total spending resulting from trail use.

Local economic impacts of trail user spending. The economic structure of a region is a key determinant in the extent to which economic impacts are felt locally. The Cheese Country Trail runs through the middle of these three rural counties and past a number of small-sized trailside communities. These small rural communities tend to have relatively few local retail and service businesses in which trail users can spend their money when compared to larger community economies like Platteville or Madison, Wisconsin and Dubuque, Iowa. While specific community impacts and their relative differences are important, the ability to estimate regional economic impacts remains at the combined three county region (for this case study – Green, Lafayette, and Iowa Counties). It is important to further point out that these three counties, when compared throughout the upper Midwest, exist as fairly rural in their economic characteristics. Rural counties tend to have fewer local linkages for intermediate purchased inputs, or those items needed to produce the items that are sold locally. Micropolitan and metropolitan regions such as Madison, Wisconsin, Dubuque, Iowa, or Chicago, Illinois tend to have considerably more robust and diverse economies with a much broader array of local retail and service businesses and a commensurately higher amount of locally available intermediate purchased inputs. In general, smaller and less diverse regional economies are relatively more dependent on the outside for the items sold by local retail and service businesses. Conversely, larger, more diverse regional

economies tend to be more self-contained. Hence, multiplier impacts tend to be larger as the economic structure of a regional economy grows.

When we apply these dollars to an input-output model of Green, Lafayette, and Iowa Counties, the multiplier effect of inter-industry purchases generates indirect impacts and the increased income of households drives induced impacts. These impacts are summarized for output in Table 2.4.

Table 2.4. Local economic impacts on regional OUTPUT associated with non-local trail user spending (MicroIMPLAN model results in 2012 dollars).

Industry Sector ^a	Direct Impact	Indirect Impact	Induced Impact	Total Economic Impact ^b
Agriculture	\$0	\$9,000	\$11,000	\$20,000
Mining	\$0	\$0	\$0	\$0
Construction	\$0	\$48,000	\$22,000	\$70,000
Manufacturing	\$0	\$88,000	\$24,000	\$113,000
TIPU	\$0	\$123,000	\$44,000	\$167,000
Trade	\$1,287,000	\$153,000	\$298,000	\$1,738,000
Service	\$7,528,000	\$777,000	\$1,200,000	\$9,505,000
Government	\$0	\$143,000	\$57,000	\$200,000
Total ^b	\$8,815,000	\$1,340,803	\$1,655,000	\$11,811,000

a. 2 digit NAICS codes representing an aggregation of related individual business categories.

b. may not sum to totals due to rounding

It is interesting to note from Table 2.4 that the amount of local money spent by trail users had broader impacts on the economic structure of the regional economy. This money had the effect of generating a wide array of business activity within the region. Indirect impacts result from the initial spending being re-spent by local businesses to purchase intermediate inputs and labor resources while induced impacts result from an increase in local household income and the spending of this increased household income on consumption items.

Also, it is important to note that the stimulating effects of non-local trail user spending (roughly \$13 million) were only partially felt within the region. This is due to retail margining that takes place in businesses in which trail users spend money. In essence a significant portion of gross receipts taken in by local retailers goes to pay for the wholesale costs of goods and services purchased by trail users. For instance, gas stations (an important recipient of non-local trail user spending) have relatively low retail margins; often roughly 6 percent on gasoline. Except for this retail margin, the remainder often flows back out of the region being assessed; particularly if that region does not contain suppliers of the good or service being sold (e.g. oil producers, refiners of oil into gas, and wholesalers/distributors of gasoline). Thus, the regional model created for this project used the initial \$13 million of nonlocal spending to retail and service sector businesses, applied appropriate retail margins to those sectors affected by such margining, and accounted for a net total local direct effect of roughly \$8.8 million. In essence, roughly \$4.2 million of the initial spending of non-local trail users went straight back out of the region as the wholesale cost of providing the goods and services purchased.

Overall, the region-specific output multiplier represented by these results (reported in Table 2.4) was 1.34 which is modest and reflects the region's more rural economic structure. To reiterate, the extent of multiplier impacts result from the relative diversity of each regions' economic structure. These results are reasonable given the relative size of the regional economy and the simple fact that there exists a significant amount of regional leakage given the lack of regional economic diversity.

A quick note on the difference between output and income (in aggregate, also known as value added). Output is the total result of all economic activity and is analogous to gross regional product, gross state product, and gross national product. In other words, it is the total accounting for all regional production; a portion of which can be considered "income." Income, or value added, is

defined as the value of the region’s business output minus the value of all inputs purchased from other firms. It is therefore analogous to the “profit” or income generated locally. Value added includes a combination of employee compensation, proprietor’s income (“business profit”), other property type income, and indirect business taxes paid to governments. The local economic impact of non-local trail user spending on employee compensation is outlined in Table 2.5. Impact reports for other forms of income can be obtained from the authors.

Table 2.5. Local economic impact on regional EMPLOYEE COMPENSATION associated with non-local trail user spending (MicroIMPLAN model results in 2012 dollars).

Industry Sector ^a	Direct Impact	Indirect Impact	Induced Impact	Total Economic Impact ^b
Agriculture	\$0	\$1,064	\$1,885	\$2,949
Mining	\$0	\$5	\$3	\$8
Construction	\$0	\$12,204	\$4,508	\$16,711
Manufacturing	\$0	\$11,344	\$2,000	\$13,344
TIPU	\$0	\$28,400	\$10,478	\$38,878
Trade	\$485,442	\$55,922	\$130,359	\$671,723
Service	\$1,632,892	\$181,472	\$293,673	\$2,108,038
Government	<u>\$0</u>	<u>\$77,314</u>	<u>\$17,197</u>	<u>\$94,511</u>
Total ^b	\$2,118,334	\$367,725	\$460,102	\$2,946,161

a. 2 digit NAICS codes representing an aggregation of related individual business categories.

b. may not sum to totals due to rounding

Employee compensation results from jobs created; themselves resulting from the demands on businesses presented by non-local trail users and their spending patterns. An outline of jobs created due to non-local trail user spending is summarized in Table 2.6. Note from this table that over 160 jobs can be attributed to the direct spending of non-local trail users. These are retail and personal service jobs that are relatively low wage and seasonal in nature. The

average amount of employee compensation for these types of jobs is just over \$13,000 per year. Indirect and induced employment is more broadly felt with different income characteristics. Note that indirect and induced jobs created as a result of non-local trail user spending had average employee compensation per job of over \$28,000 per year. The regional employee compensation multiplier was 1.39 while the regional employment multiplier was 1.18; again modest and reflective of the unique rural economy of Green, Lafayette, and Iowa Counties.

Table 2.6. Local economic impact on regional EMPLOYMENT associated with non-local trail user spending (MicroIMPLAN models results in total number of jobs including part-time, full-time, and seasonal employment).

Industry Sector ^a	Direct Impact	Indirect Impact	Induced Impact	Total Impact ^b
Agriculture	0.0	0.1	0.1	0.2
Mining	0.0	0.0	0.0	0.0
Construction	0.0	0.5	0.2	0.7
Manufacturing	0.0	0.3	0.1	0.4
TIPU	0.0	0.7	0.3	1.0
Trade	27.5	1.3	4.3	33.0
Service	133.2	9.1	10.9	153.2
Government	<u>0.0</u>	<u>1.1</u>	<u>0.3</u>	<u>1.4</u>
Total ^b	160.6	13.1	16.2	189.9

a. 2 digit NAICS codes representing an aggregation of related individual business categories.

b. may not sum to totals due to rounding

2.4 Focus Group Interviews

To assist in understanding the observation and survey data on trail use and to provide context related to local development issues associated with the Cheese Country Trail, we collected information from several stakeholder groups who were locally active and important to decision-making. Three focus group interviews were conducted with individuals representing (1) local tourism

business owners, (2) local public policy makers, and (3) motorized trail users. Results of each of these will be discussed in turn.

Local business owners. Business representatives agreed that trail users represented a good portion of their sales. Depending on the time of year, business owners suggested 25 to 75 percent of their receipts were from trail users. Business was reported to be especially good on weekends.

It was generally concluded that businesses on and near the trail worked well together. Examples were provided of convenience stores, restaurants and campgrounds working together to increase business through advertised and word-of-mouth promotions.

Businesses continue to expand their amenities to cater to needs of trail users. They agreed that they would prefer that additional toilet facilities or water not be provided on the trail, to draw more people to their businesses.

The primary facility and services issue discussed was signage, particularly signs that let people know distances to towns and businesses. Signs directing trail users to businesses need to be updated. Business representatives also felt that parking options should be expanded. They discussed the need for additional information on the website. In some communities, there was a reported need for in-town routes so trail users can legally drive to local businesses.

Potential business opportunities suggested included: an ATV/UTV wash (similar to a car wash), intensive use areas (a managed area with sand, hills, mud, water and jumps) and additional rentals.

Public policy makers. Public policy representatives felt that people typically thought of northern Wisconsin as the destination for motorized recreational vehicles. The Cheese Country Trail was reported to be often overlooked because of this, although it is the only area for ATV usage in the southern part of the state.

They felt some of the area chambers of commerce and the Tri-County Trail Commission have not supported the marketing or economic development aspects of the Cheese Country Trail in the past. However, they did believe this situation has improved.

Policy makers suggested the permitting process for using the trail be as simple as possible. A recommendation was made to make the facts about permits clearer, suggesting a “one-size-fits-all” program for all vehicle types and a more uniform trail permit for out of state users.

Policy makers were concerned that the trail user demographic keeps getting older. They felt younger users need to be encouraged in order to sustain trail usage levels.

The trail has unique challenges due to its ties to the railroad. Most representatives stated that they did not think the “rails with trails” approach would be possible if the railroad wanted to redevelop the corridor. This conclusion was based on an engineering study done by Fehr-Graham for the Tri-County Trails Commission. There appeared to be consensus among those in the group that there was no room for a train and a trail in the same corridor, but existing roads are not of sufficient quality to haul corn, which is one of the proposed purposes of the return of rail. There is genuine concern that the trail will be eliminated if rail becomes operational again in the area. In light of this, local governments will need data to make well-informed decisions as well as understand how important the trail is to the region’s economy.

In general, representatives felt there is a need for additional signage on the trail.

Policymakers stated there is demand for intensive use areas just off trail for ATVs and dirt bikes, especially by the younger users. A couple of intensive use areas have been proposed in southwestern Wisconsin but have been rejected by local officials.

There was general agreement that expanding the trail to form a loop would also be an opportunity for expanded usage.

Attendees praised recent pilot programs to provide access to the fairgrounds in both Darlington and Monroe, as well as the downtown area and other nearby businesses in Monroe.

Trail users. Those who were frequent users of the trail agreed that trail facility issues centered around four points: parking, shelter, loading and unloading recreation vehicles, and the lack of an intensive use area.

On weekends and during holidays, parking lots were reported to be full and additional capacity is needed. Users also felt a shelter somewhere along the trail was needed in case of storms. Loading and unloading recreational vehicles into a flat-bed truck was also a concern. Users would like a ramp in each parking facility to easily remove their vehicles from their trucks.

The issue of an intensive use area was brought up many times. Many riders, especially the younger ones, would like an area to “play in the mud” and the group felt this would help retain and encourage more visitors.

Users felt that many of the problems and issues with the trail are driven by lack of money. Much more trimming, mowing, and dust management is necessary to keep the trail safe for users. The trail needs to always be wide enough for two vehicles to pass each other. During summer the months, however, weeds and brush overhang the trail, shrinking it to a single lane.

Signage was also reported to be an issue. The group would like to see more signage for the trail to help direct visiting users on the trail as well as to nearby off trail attractions and amenities. However, signs are often stolen or punctured with bullet holes, making them illegible.

Key issues with public safety and enforcement of regulations include issues arising from alcohol consumption on or near the trail. The greatest concern was drinking while driving. The challenge of enforcing regulations against drunk driving is that it is difficult to identify users when they are wearing full face

helmets and identifying vehicles. Other safety issues included speed, knowledge of right of ways, and proper use of lights. Some users reported being unaware of trail rules.

One of the major concerns discussed with users is that the trail is occasionally near capacity, mostly Friday through Sunday mornings as well as during holidays. Solutions to this problem include creating more trails, a trail loop, and an intensive use area.

Representatives agreed that trail use during the study period was down from the past 5 years.

3. Summary, Conclusions, and Implications for Public Policy

In this report, we raise issues relevant to motorized recreational use of trails and the communities that find themselves affected by these trail users. We do this from a community development context and focus on the developmental attributes of trail user impacts as an externally driven community economic stimulus. We do this using case study research of the Cheese Country Trail in Green, Lafayette, and Iowa Counties of southwestern Wisconsin.

Our approach to collect information was multi-faceted. The goal of the case study was to observe use pressure and collect a representative sample of Cheese Country Trail users. Observations began November 1, 2010 with data collected based on randomly selected 2-hour time slots during the 12 month survey period. Eight intercept locations were chosen along the trail in Monroe, Browntown, South Wayne, Gratiot, Darlington, Calamine, Belmont and Mineral Point. During the 12 month study period, local field staff volunteered over 1400 hours collecting the data summarized in this report. Specifically, they conducted 683 randomly allocated 2 hour trail observations and a total of 730 face-to-face interviews. In November of 2011, additional information was collected using

three focus group interviews. Results of our work highlight several important implications for outdoor recreation planning and local economic development.

The following points have been concluded from the yearlong study and its subsequent focus group meetings:

- The Cheese Country Trail is a valuable economic, cultural and recreational asset for the region and the state. It brings thousands of people into the area and injects millions of dollars into our local economies. It has even greater potential with additional promotion and development.
- To promote and develop the economic, cultural and recreational assets of the trail, there needs to be a private/public partnership among the wide array of its stakeholders. This partnership should include: the Tri-County Trail Commission; local businesses; chambers of commerce; county, regional and state tourism and economic development agencies; local and state natural resource agencies; and local and state ATV and snowmobile associations. The expertise of each of these groups is needed.
- Currently, the Tri-County Trails Commission (TCTC) is not organized or staffed to develop and carry out all the suggestions concluded from this study. Leadership for the development and promotion of the trail and the assets of its surrounding communities needs to be assumed by a partnership of agencies with full time, professionally trained staff members from throughout the three county region.
- Additional revenue and help from both state and local sources are needed to enhance the trail experience for its users. This additional revenue would greatly help in the grooming and maintenance of the trail as well as provide additional signage for safety on the trail as well as directions to nearby community attractions and businesses off the trail.

- The trail use permit policy for both in-state and out-of-state users needs to be less confusing including the uniform licensing of ATVs, UTVs and snowmobiles.
- During some weekends and holidays, the trail nears capacity. To relieve this congestion and to attract other motorized recreational users to the area, intensive use areas should be developed. These areas would be especially attractive to the younger than average segment of motorized recreational users. The intensive use areas could be developed on either public or private land close to the trail.
- Safety on the trail was an important topic that came up during the study. Both speed and intoxicated operations of machines were major concerns expressed both in the surveys and focus groups. Especially during times of heavy use, typically holidays and weekends, additional patrols are needed on the trail. Additional signage is needed on both the trail and access points regarding the speed limit and the prohibition of the intoxicated use of a motorized vehicle. Another suggestion to increase safety on the trail would be the required use of headlights.

Long term viability of the Cheese Country Trail

Based on the federal “rails to trails” legislation, the Cheese Country Trail is affected by any future plans of the Wisconsin and Southern Railroad to rebuild tracks on the corridor currently leased by the Tri-County Trail Commission for the Cheese Country Trail from the Pecos Rail Transit Commission. If the railroad gives notice to rebuild tracks west of Monroe, the TCTC will have 6 months to vacate the segment to be rebuilt.

Four trail options are then possible. The first option is that the trail will be shorter and a new trailhead would have to be developed outside of Monroe. A second option would be to use road routes to bypass the segment reverting back to rails. This would be impractical and not safe because of the hills and widths of

the roads. This alternative would also not allow some trail users on the routes because of age restrictions on the roads. A third option for the TCTC would be to purchase or lease land for an alternative route into Monroe. This would be expensive and difficult to do with the many property owners along the trail. As a fourth option, the TCTC could establish a “rails with trails” solution with the cooperation of the railroad. However, because of the topography of the area surrounding the corridor, this solution would be physically difficult and very expensive to do. If the trail reverts to rail west of Monroe, the Cheese Country Trail will likely not end in Monroe, greatly affecting the city and its economy.

Literature Cited

- Carleyolsen, S, T..Meyer, J. Rude, I. Scott. 2006. *Measuring the Economic Impact and Value of Parks, Trails and Open Space in Jefferson County Accounting for Current and Future Scenarios*. Planning Workshop report available online at <http://www.urpl.wisc.edu/academics/workshop/jefferson%20county/team1/JCEconfinal.pdf>
- Cooper, R., S. Sadowske, M. Kantor. 1979. *Winter Recreation Visitor Study Wisconsin 1979*. Upper Great Lakes Regional Commission.
- Coupal, R.H., C. Bastian, J. May, and D.T. Taylor (2001), The Economic Benefits of Snowmobiling in Wyoming: A Travel Cost Approach with Market Segmentation. *Journal of Leisure Research* 33(4): 492-510.
- Crompton, J. 2001. *Parks and Economic Development*. Planning Advisory Service Report Number 502. Chicago, IL: American Planning Association.
- _____. 2004. *The Proximate Principle: The Impact of Parks, Open Space and Water Features on Residential Property Values and the Property Tax Base – Second Edition*. Ashburn, VA: National Recreation and Park Association.
- Deisenroth, Daniel, John Loomis, and Craig Bond. 2009. Non-market valuation of off-highway vehicle recreation in Larimer County, Colorado: Implications of trail closures. *Journal of Environmental Management* 90(11): 3490-3497.
- English, D.B.K., D.W. Marcouiller, and H.K. Cordell. 2000. Tourism dependence in rural America: Estimates and effects. *Society and Natural Resources* 13(3): 185-202.
- Foti, P. E., A. Doll, H. Moyer, R. Cooper and L. Freiding. 1987. *SCORP: Wisconsin Snowmobile Study*. Madison, WI: Wisconsin Department of Natural Resources.
- Foulke, T., C.T. Bastian, D.T. Taylor, R.H. Coupal, R.H., and D. Olson. 2008. *Off-Road Vehicle Recreation in the West: Implications of a Wyoming Analysis*. Western Economics Forum.

- Foulke, Thomas, Desiree Olson, David T. Taylor, Chris T. Bastian and Roger H. Coupal. 2006. *A Survey and Economic Assessment of Off-Road Vehicle Use in Wyoming*. Prepared for the Wyoming Department of State Parks and Cultural Resources, Division of State Parks and Historic Sites, State Trails Program. Cheyenne: Wyoming. Available from <http://agecon.uwyo.edu/EconDev/PubStorage/ORVRptFinal10Aug06>. Pdf
- Fredman, P. 2008. Determinants of visitor expenditures in mountain tourism. *Tourism Economics* 14(2): 297-311.
- Garvin, A. 2001. *Parks, Recreation, and Open Space: A 21st Century Agenda*. Planning Advisory Service Report. Chicago, IL: American Planning Association.
- Green, G.P., S.C. Deller, and D.W. Marcouiller (eds.). 2005. *Amenities and Rural Development: Theory, Methods, and Public Policy*. New York: Edward Elgar Publishing.
- Haines, A., D.W. Marcouiller, N.R. Sumathi, and A. Anderson. 1997. *Regional Economic Impact Assessments: An Annotated Bibliography of Selected Wisconsin Studies*. Staff Paper Number 97.3; Center for Community Economic Analysis, UW-Extension, Madison, WI.
- Holmes, T.P, and J.E. Englin. 2010. Preference heterogeneity in a count data model of demand for off-highway vehicle recreation. *Agricultural and Resource Economics Review* 39(1): 75-88.
- Howe, J., McMahan, E., and L. Propst. 1997. *Balancing Nature and Commerce in Gateway Communities*. Washington, D.C.: Island Press.
- Ivanko, John D. 1996. *User Experiences and Social Interactions on a Multiple-Use Recreation Trail*. Master of Science Thesis, Graduate Program in Leisure Studies. University Park, PN: The Pennsylvania State University.
- Ivanko, John D. and Alan R. Graefe. 1996. *Tools for the Trail: Based on the Study of the Cheese Country Multiple-use Recreation Trail*. University Park, PN: The Pennsylvania State University.
- Kazmierski, Bob, Mike Kornmann, D.W. Marcouiller, and Jeff Prey. 2009. *Trails and Their Gateway Communities: A Case Study of Recreational Use Compatibility and Economic Impacts*. Extension Monograph 3880, Board of Regents of the University of Wisconsin System, Madison, WI.
- Keith, J., C. Fawson, and T. Chang. 1996. Recreation as an economic development strategy: Some evidence from Utah. *Journal of Leisure Research* 28(2): 96-107.
- Knopp T.B. and J.B. Tyger 1973. A study of conflict in recreational land use: Snowmobiling versus ski-touring. *Journal of Leisure Research* 5(3): 6-17.
- Krueger, R.A. 1994. *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, CA: Sage Publications.
- Lanz, Daniel J. 1985. *Railroads of Southern & Southwestern Wisconsin*. Madison, WI: Wells, Print Digital Services, Inc.
- Loden, C. 1995. *2-Minute Snowmobile Survey Results, Iron County*. Madison, WI: University of Wisconsin-Extension, Iron County Development Zone.

- Marcouiller, D., E. Olson, and J. Prey. 2002. *State Parks and their Gateway Communities: Development and Recreation Planning Issues in Wisconsin*. Monograph G3987, Board of Regents of the University of Wisconsin System, Madison, WI.
- Marcouiller, D.W., I. Scott and J. Prey. 2008. Outdoor recreation planning: A comprehensive approach to understanding use interaction. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 3, 90: 1-12.
- MicroIMPLAN. 2011. County dataset and combined Green/Lafayette/Iowa County model (available from the authors)
- MDNR. 2003. 2003 – 2007 Michigan Comprehensive Outdoor Recreation Plan. East Lansing, MI: Michigan Department of Natural Resources
- MNDNR. 2008. *Adapting to Change: Minnesota's 2008-2012 State Comprehensive Outdoor Recreation Plan*. St. Paul, MN: Minnesota Department of Natural Resources.
- Morgan, D.L. 1988. *Focus Groups as Qualitative Research*. Newbury Park, CA: Sage Publications.
- Moyer, H. and K. Hansen. 1986. *Snowmobiling in Wisconsin*. Madison, WI: Recreation Resources Center. Madison, WI: University of Wisconsin-Extension.
- Mules, T. 2005. Economic impacts of national park tourism on gateway communities: The case of Kosciuszko National Park. *Tourism Economics* 11(2): 247-259
- Olson, E., D.W. Marcouiller, and J. Prey. 1999. *Recreational user groups and their leisure characteristics: Analysis for the Statewide Comprehensive Outdoor Recreation Planning (SCORP) process*. PR447 - WDNR, Madison, WI and Staff Paper 98.4 - Center for Community Economic Development, University of Wisconsin - Extension, Madison, WI. 74 pages.
- Power, T. 1996. *Lost Landscapes and Failed Economies*. Washington, DC: Island Press.
- _____. 1988. *The Economic Pursuit of Quality*. Armonk, NY: M.E. Sharpe, Inc.
- Rails to Trails Conservancy. 1996. *Economic Benefits of Trails and Greenways. Trails and Greenways Clearinghouse*. Rails to Trails Conservancy: Washington, D.C. [www.trailsandrails.org].
- _____. 2008. *Creating a Nationwide Network* available online at <http://www.railtrails.org/index.html>
- Reeder, R.J. and D.M. Brown. 2005. *Recreation, Tourism, and Rural Well-Being*. ERS Economic Research Report #7. Washington, DC: U.S. Department of Agriculture. Washington, DC: Economic Research Service.
- Robertson, M. D. and R. C. Bishop. 1975. *Off-Road Recreation Vehicles in the Upper Great Lakes States: User Characteristics and Economic Impacts*. Madison, WI: Center for Resource Policy Studies and Programs, College of Agricultural and Life Sciences, University of Wisconsin-Madison.

- Scott, I. and D. Marcouiller. 2005. *Tourism and Community Development: Resources and Applied Research Clearinghouse*. Available online at:
<http://www.wisc.edu/urpl/people/marcouiller/projects/clearinghouse>
- Stewart, D.W. and P.N. Shamdasani. 1990. *Focus Groups: Theory and Practice*. Newbury Park, CA: Sage Publications.
- Sumathi, N. R., J. Hembd, T. Huray and C. Siver. 1991. *A Study of Northwest Wisconsin Snowmobilers*. Superior, WI: Center for Economic Development, University of Wisconsin-Extension.
- Tribe, J. 2005. *The Economics of Recreation, Leisure, and Tourism*. Oxford, UK: Elsevier.
- Templeton, J.F. 1987. *Focus Groups: A Guide for Marketing & Advertising Professionals*. Chicago, IL: Probus Pub. Co.
- Vanhove, N. 2005. *The Economics of Tourism Destinations*. Oxford, UK: Elsevier.
- Vitterso, J., R. Chipeniuk, M. Skar and O. Vistad. 2004. Recreational conflict is affective: The case of cross-country skiers and snowmobiles. *Leisure Sciences* 26, 3: 227-243.
- Wisconsin, State of. 2004. *Economic and Demographic Profile of Wisconsin's ATV Users*. Cooperative Research Program Report, Wisconsin Department of Tourism (March). 25 pp.
- Wisconsin, State of. 2006. *Outdoor Recreation in Wisconsin: The 2005-2010 Wisconsin Statewide Comprehensive Outdoor Recreation Plan*. PR-026-2006, WDNR Bureau of Parks and Recreation: Madison, WI.
- Wisconsin, State of. 2007. Dataset of state trails. Available from WDNR Bureau of Parks and Recreation. Madison, WI.

Results Addendum A.

Verbatim responses to the question “If there is anything that could be done to enhance your experience in this area, please explain.” (note: some cleaning up was done for spelling and punctuation).

10 mph is too slow - 15-20 mph, more patrol
40 acre trail with more technical riding course
A bar in Calamine, vending machines in Calamine
A dirt mound/pile at the parking area so you can back a pick up to it to unload the machine
Add camping area in Monroe; weeds need to be cut in Lafayette; club signage missing
Add intense use area off trail
Add intense use area off trail, road routes to cheese factories in Monroe with directions to them
Add more trails, more off road trails
After Gratiot, rough trail
All ATVs and dirt bikes should have lights and have them on
All good
All good- left trailer at motel and drove UTV to trail that was perfect
Allow dirt bikes on club trails, add camping in Monroe, add intense use area off trail
ATV abandoned in middle of trail
ATV park, intensive use area off of trail
ATV play area; internet trail map needs updating
Bathrooms, more maps
Better dust control
Better grooming after Gratiot to South Wayne, trail is not groomed, tractor on trail with blade working on the mess
BETTER GROOMING Gratiot to South Wayne, trail from Belmont to just past Gratiot very good, then very very bad, really sucks
Better grooming, clearing brush
Better grooming, clearing brush
Better marked parking in Mineral Point
Better pedestrian signage/bike signage at Main street crossing
Better signage on side trails, it's hard to find your way back
Better signage on side trails, more advertisements for restaurants, hotels, gas stations
Better signage, weed control, more off-road trails
Better signs
Better signs on side trails, brush/weeds should be controlled near signs
Better signs, maps and directions for Monroe businesses
Better trail maps, confusion
Big gravel not safe; more off-road and route to Twin Grove/Juda
Big rocks sticking through snow, hard on snowmobile and body. Better grooming in Green City not so good around South Wayne to Gratiot
Bigger parking lot in Monroe
Bigger parking lot, more off road trails that connect so do not have to go back same way you came, play area with mud
Bigger parking lot, more off trail or play area with mud
Bigger signs, arrows yellow
Black top really bad in Gratiot and weeds and brush to far into trail in Lafayette Cty. More picnic areas, more off-trails play area with mud
Browntown to Gratiot in Bad Shape
Bumpy in Lafayette
Calamine to Mineral Point is a rough trail, Belmont to Calamine is perfect
Calcium chloride / dust limit, increase speed limit
Campground needed in Monroe
Camping
Camping in Monroe, access to Monroe
Camping in Monroe, access to Monroe
Camping in Monroe, access to more of Monroe on ATV (Balloon Rally)
Camping in Monroe, rough spots in Lafayette
Camping needed in Monroe!!
Camping needed in Monroe, would use it to visit friends
Can't cross bridge in Darlington to get to Motels
Casino
Change law to make access easier while on my ATV to the trail
Checked wolf creek, were not open spot
Club trails rough, esp. Fayette
Confusion on trail stickers

Connect county trails with Lafayette, Iowa, and Richland counties
Control the dust
Could be wider for UTVs
Course with hills and water and mud
Culvert ripped up by stop sign
Cut down the side weeds, grass and trees. Washboards in places
Cut weeds around signs to see. Use recycled asphalt to cut dust
Cut weeds, trees- stop ahead signs were not visible
Detailed maps for Green Cty w/ sponsor
Directional sign down at Calamine
Dislikes fresh groomed trails. Would like access to all ATV trails
Distance markers needed N of Darlington, need markers in M.P- went up hill instead of straight ahead to get to Tony's Tap
Do not like large rocks- not good for bikes
Doing a great job
Don't take trail away
Dust control
Dusty
Dusty
Extend routes
Extend the trail more miles, can we go to Platteville
Extend to East Monroe
Extend to Orfordville
Extend trail to power sports
Extension at Fayette is great more technical of a ride
Extension would like to see trail get to Wisconsin River like snow mobile trail does
Extreme use area, need off of trail jumps and mud. Green County is great, Lafayette is rough
Fayette club trail not groomed, rocks and sticks after grooming in middle of trail
Fayette not marked well. Belmont grooming had ridge in middle
Fayette trail open more
Fayette Trail rough
Fayette trail was washed out
Few places to park in MP
Fine
Fix potholes by Belmont
Fix ruts
Fix the trail between South Wayne and Gratiot, last weekend. Green County great- Lafayette sucks! Why the big rocks on the trail, hard on tracks on snowmobiles
Fox broken up blacktop in Gratiot
From Gratiot west, better signs for trails
Get access to fair ground for fair races
Good
Good
Good grooming in Green Co. but rough elsewhere
Good shape
Good shape
Good trail
Good trail for kids to ride
Good, More Camping Access
Grade more often in summer, more camping facilities, rough in Lafayette Co but better than last year
Grading from Gratiot to Belmont
Gratiot
Gravel too large, difficult to control front wheels on the stones (Monroe to Browntown)
Great trail and close to home
Green County does a great job
Green County good
Groom Gratiot west clean trail
Groom Trails
Groom Trails
Groom trails better and wider
Grooming mineral point
Grooming trails
Grooming: East- Good, West- not good
Guard rails needed by river - UTVs make it narrow in spots
Haven't been on trail before
Holes to fill in as well as weeds/grass need mowing in Lafayette County; ATV drivers too fast; keep trails open to UTVs

Hope trail doesn't go to rail- this is important mode of transportation
 In good shape
 Intense use area off trail, maps for city routes and attractions
 Intense use area off trail, trail does not mix horses and ATVs well
 Intensive use area off of trail
 It's great
 It's great, signs-maps confusing on Fayette Trail
 Just like the trail
 Just starting, don't know
 Just walking
 Keep it open; access to Monroe
 Keep the railroad out
 Keep trails in good conditions, trim branches that go over trail
 Lack of snow in years past so grooming was bad. Make snow?
 Lafayette co. large rocks in one area- don't like
 Larger signs, would like more off-road trails
 Larger unloading area in Monroe; more portapotties
 Leave it alone for people to enjoy
 Less dust
 Less dust
 Less dust
 Less dust
 Less dust and pot holes
 Less dust! More off road trails, play area
 Less law enforcement, garbage collection
 Less stops, more miles
 Letting residence access from house to trail in Darlington
 Level particular high spots/mounds between Darlington and Grant
 Like camping area, would be nice if could camp in Monroe
 Like the playgrounds and restrooms along trail
 Little rough, better than other trails ridden
 Longer trail system
 Longer, railing repairs on bridges, could be more signs
 Loop maps, loop possible? See different scenery , not same
 Lost cowboy hat and flip flops
 Lost trail in Darlington
 Love campgrounds at Gratiot, especially showers; find routes confusing - not enough signs
 Love it
 Love the trail
 Love the trail usually get on in S. Wayne and 90 to Mineral Point or Belmont- everyone so friendly along the way
 Lower price gases
 Make a loop trail
 Make it longer
 Maps available in Monroe, Green county
 Marking off-road trail
 Mineral Point to Calamine better than it was. Need to keep up between Darlington and Gratiot
 More "off road" trails
 More access to Monroe, more off road trails
 More aggressive trails
 More camp grounds
 More camping
 More camping areas in Monroe
 More camping in Monroe; mow areas in Lafayette
 More camping/reservable sites
 More camping; full hook up with direct access
 More campsite and/or lodging
 More club trails thru woods
 More detailed map
 More direct trail access from MP Quality Inn
 More directions/intersection signs
 More electric at camp sites
 More grooming
 More grooming in Darlington + beyond, rests
 More Grooming in Lafayette City
 More grooming, more signage

More grooming. Don't leave the humps in middle of trail. Pick up big rocks and fix pot holes in front of bridges
 More hills and club trails open
 More hills, intense use area off trail
 More information signs (just water)
 More loops, hills, less straight trail
 More lunch/picnic areas
 More miles
 More miles in Iowa county, more event ads in Iowa county
 More mudholes; water at campsite
 More obstacles for him, less obstacle for her
 More off loops, trail maps at beginning or at stop signs - free
 More off rail trails
 More off rail trails
 More off road trails like Fayette
 More off road
 More off road like Fayette trail, other side of Gratiot gravel just dumped on rail 6" to 2' really different depths-very dangerous- bobcat sitting but no one in it. Trail sucks, is unsafe, why would you do that?
 More off road trails
 More off road trails and downtown Monroe
 More off road trails and play area with mud
 More off road trails, a play area with mud needs gravel by bridges - no big rocks, please!
 More off road trails, does not like road routes
 More off road trails, more access to Monroe
 More off road trails, trail rough after Gratiot signage not good to Shullsburg on route- got lost on route to Shullsburg and ended up back in Darlington
 More off trail
 More off trail riding
 More off trail riding
 More off trail riding and a trail to Brodhead, better bridge signs in places
 More off trail, but mainly uses trail to shop, see friends and/or get around don't have a license (too young) so this is how I roll
 More off-road play areas, camping in Monroe
 More off-road cross country
 More off road trails and off trail play area
 More open roads, blinkers on new machines needed, only like blacktop - don't use cheese trail much
 More padded table tops/picnic tables
 More parking at Browntown. More side trails to ride
 More park-like areas, really enjoy Calamine
 More patrol
 More patrol
 More picnic tables
 More places to stop along the way
 More porta pots (over by Darlington)
 More portable toilets
 More rest areas, more miles
 More rest areas/ramps for unloading ATV/UTV from trucks or trailers
 More rest stops
 More routes
 More side trails or loops w/ hills
 More side trails that are open
 More side trails w/mud, hills
 More side trails, dirt trails, longer trail system
 More signs at bridges, ATVs should have lights on, larger yield signs
 More signs on other trails to get on cheese trail
 More signs on trail to Fayette
 More Snow
 More speed limit signs
 More street access in Monroe
 More trail
 More Trail Sign, Better Maps
 More trail system
 More trails
 More trails
 More trails
 More trails
 More trails
 More trails

More trails
More trails in southern WI
More trails off CCT
More trails off main trail, there is too much grass around the signs in Lafayette Cty.
More trails Platteville to Belmont
More trails; tree down just west of Monroe
More trails (Fayette trail ex), circuits (not just straight and level)
More trees and off trail play area
More trails
More work on the trail surface
Mow along trail
Mow the trail
Mow trail
Mowing needs to be done
Much better than Illinois trails
Need better grooming
Need bigger parking lot in Monroe
Need camping in Monroe, more extreme riding circuit; hills, mud
Need grooming
Need larger and marked parking area; also would like dancing girls
Need larger and more signs on side trails
Need more distance signs
Need more parking space in Monroe
Need to cut weeds or trees near stop ahead
Need to mow ahead of signs, can't see them
Need to trim before signs, distance signs further from stop, etc.
Needs grading
Needs grooming
Needs grooming, trim weeds and trees
Needs more signs in places to Fayette. Needs more grooming. Put ads in Dirt Wheels Mag. 1st timers in group love the trail
Needs to be groomed
Nice Trail
Nice trail more snow
No
No
No ATVs, unsafe on narrow trails
No good
No more big rocks; more off road trails; play area with mud trail; too dusty
None
None
None
None/happy
Not enough signage
Not so many potholes
Nothing
NOTHING
NOTHING
Off road riding but this is better than nothing
Off road signage could be better
Off trail intensive use area, obstacle course for ATVs
Off trails
Offside trails
OK
Only things you cannot control- too many bugs and cooler weather- cannot get to the motel in Monroe by the trail
Open other towns to Janesville
Overgrowth needs to be cut back
Parking signs in Mineral Point
Perfect
Pickup horse droppings
Places on trail that had more challenging riding. If possible with a rail bed
Play ground
Play Ground For Kids
Play in mud areas
Playground for 4-wheelers
Porta pots mid trail between cities/bars

Pot holes are fun
 Potholes, more rest areas
 Prefer dirt to gravel
 Promote the club, more info on the map - trail hours, rules, etc.
 Rain
 Really hard to handle dirt bikes on that big rock - need to use road gravel
 Really nice to go slow and see the scenery
 Reduce bumps by bridges
 Removing stop signs (west past Dill Rd) farm entrance-use yield instead
 Restaurant/bar signs with miles to go, large group of ATV riders ask me at stop sign if there was a place to eat/drink near by
 River is to close by roller coaster
 Road crossing better
 Road routes to/from hotel, *need to cut sides in places, mow and trim
 Route hard to follow, need better signage
 Rough trails
 Rough west of Gratiot. Make it longer. Needs to be graded
 Routes are hard to follow - easy to get lost
 Routes confusing; need more parking space; want to get downtown Monroe
 Routes lack signage, lost numerous times
 Shelter house in Monroe
 Shelter house in Monroe
 Shelter out of rain
 Sign cleaned, weeds cut
 Sign for parking
 Signage
 Signage on roads off of trail-need move
 Signage to Fayette, need more
 Signs covered by weeds and brush. Don't like fresh gravel
 Small area needs mowing
 Small tree down east of Gratiot
 Smooth it out
 Smoother and better base for bikes, no sand and stones
 Smoother trail
 Some areas rough for bicycle
 Some holes need filling
 Some mowing so signs can be read
 Speed limit enforced
 Speed limit increased
 Speed limit too slow on bridges + 35 on trail would be great! See sheet for more
 Spray down trail to keep dust down
 Spray trail during dry season for dust
 Stop ahead signs to close to stop signs
 Surface rough by Mineral Point
 This is great
 This year good in Lafayette Co.
 Too many weeds by signs and into trail from Darlington to just past South Wayne, Browntown really good, love showers at campground, no quarters or pulling a chain-super!
 Too much dirt dust
 Trail bad in Lafayette
 Trail bad south Wayne to Gratiot
 Trail bad west of So. Wayne
 Trail from Monroe is excellent but really rough South Wayne and Gratiot area- mile markers would be nice
 Trail in good shape
 Trail in good shape
 Trail is in good shape
 Trail not good for bike, better gravel for bikes
 Trail ok
 Trail quality only fair to Darlington - holes
 Trail- Searling to MP and Belmont needs work. Darlington east is good
 Trail sign missing, yield sig missing
 Trail south Wayne to Gratiot very bad and narrow
 Trail was good
 Trail washout between South Wayne and Gratiot needs to be flagged
 Trails all over, more of them
 Tree down 1 mile south

Tree limbs, grading center high rocks
Trim around signs, more mileage signs, camping needed at Monroe
Trim back weeds from trail
Trim back weeds from trail
Trim brush & weeds back
Trim the weeds
Trim weeds along trail, narrow
Trim weeds/grass ahead of signs, less or finer gravel
Unloading
Uses trail to get to town, visit friends
Very Good, Prefer a sand base to the trail
Very nice trail
Wants trail to Orangeville
Washboarding N of Darlington. Sinkhole close to trail
Water for drinking
Water hook up @ Darlington campground
Water hook up in campground
Water in camp ground
Wayside with portable toilets
We need hills, mud holes
Weed and trim around signs
Weed grooming is ok
Weeds around signs after South Wayne on west; Monroe parking lot more organized
Wider parking lot, more trail patrol, play area w/ mud and more off road trails
Wish there was riding in Iowa
Would like a dog par off the trail in mineral point
Would like ATV access to the races in Darlington, would camp at Darlington
Would like circles for trail from point A to point B
Would like ramps to unload ATV
Would like to go through water
Would like trail to connect to Dodgeville
Would not own dirt bike if not for this trail. Fresh/loose gravel outside of Min Pt. Would like to ride dirt bikes on side trails
Yield ahead just before stop signs
Yield stop down, fewer big rock

Appendix A.

Methods Used for the Cheese Country Trail Case Study

A1. The Intercept and Survey Effort

This evaluation of the Cheese Country Trail case study relied upon a three phase approach to gathering data. To elicit user characteristics and use pressure, an randomly allocated intercept and face-to-face interview survey strategy were developed. In addition, we gathered qualitative contextual evidence and information from a series of three focus group interviews with unique local stakeholder groups. This approach was chosen to allow triangulation of evidence which allowed a contextual understanding of different data sources. Each of these phases will be discussed in turn.

Users of the Cheese Country Trail were intercepted along the 48+ mile route from Monroe, WI to Belmont/Mineral Point, WI. Beginning November 1, 2010 and continuing through October 31, 2011, 1,000 stratified and randomly allocated two hour time slots were identified to collect information on trail conditions, use pressure, and user characteristics according to the schedule outlined in Tables A1 and A2. Allocation of specific days, times, and locations was done randomly. Given our understanding of trail use, we stratified the selection of time slots by month of year. Periods of heavier use during warm weather (Memorial Day through Labor Day weekends) were sampled twice as heavily as fall, winter, and spring time periods (November 1, 2010 through May 27, 2011 and September 6 through October 31, 2011).

Trail conditions and use pressure were recorded using a standardized Observation Report and reflected activities taking place during each two hour time slot. User characteristics were collected by two intercept attempts conducted during the two hour time slot (selected as the first user to pass at the bottom of each hour). Users who are intercepted were interviewed (face-to-face) using a standardized survey instrument (titled "Survey Sheet") developed to elicit information on trail use, marketing, trip expenditures, and demographic information. The survey instrument administered with each user was conducted by a trained volunteer interviewer (to last no longer than 5 minutes and be administered in an unbiased fashion). This approach could yield a maximum of 2,000 sampled users. However, during times of low trail use, we anticipated there to be null samples (sample times when there are no users present). Using this approach, our initial hope was to obtain 600 to 1,500 total usable intercepts.

Given a general lack of specific trail usage data, we sampled segments in equal proportion at pre-determined locations near each of the eight communities along the trail using the set of specific intercept locations found in Table A1. Thus, at each location, we planned for an average of 125 sampled time slots. The exact number was dependent on a random allocation process using a random

number generator.⁹ Time slots were randomly allocated by day of week and time of day. Given our understanding of typical trail usage, weekends and holidays were sampled twice as heavily as regular weekdays. Also, two hour time slots began and ended based on our understanding of typical trail usage and volunteer safety. Generally, these corresponded to the daylight hours in which the trail experiences use pressure. Certainly, summer months had earlier and later start/end time slots when compared to winter months but the total number of time slots per month was pre-determined as specified in Tables A1 and A2.

Table A1. Planned observation samples distributed along the Cheese Country Trail

Intercept Location	Sample Length (miles)	Approx. # of Time Slots*	Exact Sampling Location
Monroe	-	125	1
Browntown	7.2	125	2
South Wayne	4.6	125	3
Gratiot	9.5	125	4
Darlington	9.8	125	5
Calamine	6.0	125	6
Belmont	10.0	125	7
Mineral Point	9.1	125	8
Total	56.2	1,000	

1. Trail head parking lot outside of Monroe
2. Campground parking lot in Browntown
3. Parking lot on Cty N, in South Wayne
4. Campground parking lot by depot in Gratiot
5. Campground parking lot in Darlington
6. Grassy parking lot at trail crossing Cty Hwy G
7. Far end of town along street parking area in Belmont
8. Parking area by depot in Mineral Point

* Specific number determined through random allocation.

⁹ This was done using Random.org V2 available at www.random.org/integers/.

Table A2. Planned observation samples distributed throughout the year-long study (November 2010 through October 2011)

Year	Month	Weekend/Holidays		Weekdays		Study Days per Month	Total # of Time Slots per Month
		Total Days	# of Time Slots	Total Days	# of Time Slots		
2010	November	11	47	19	17	30	65
	December	10	43	21	24	31	67
2011	January	11	47	20	19	31	67
	February	9	39	19	22	28	60
	March	9	39	22	28	31	67
	April	10	43	20	22	30	65
	May	10	49	21	27	31	75
	June	8	69	22	60	30	129
	July	11	95	20	39	31	133
	August	8	69	23	65	31	133
	September	9	46	21	28	30	74
	October	11	47	20	19	31	67
		117	632	247	368	364	1000

Yellow represent months with peak period usage (May 28 through September 5, 2011) stratified for double sampling pressure.

A summary of actual observations and their user counts is shown in Figure A1. Note that volunteers staffed 683 two-hour time slots administered during the year-long intercept period. This yielded a relatively large number of null samples (a time slot completed without seeing a trail user). Taking into account use by weekend and weekday, Table A3 presents a summary of observations, use pressure, and total number of observable time slots during the study period. For interpretation and to match time periods in which stratification allowed for differing numbers of observation slots, we further report this for four time frames that roughly mimic seasons.

This allows us to expand our sampled number of users to a total population; basically accounting for the amount of time we observed use. Our total number of observed users reflects use in both directions on the trail. If we assume that Cheese Country Trail users entered and exited the trail at the same location, our total number of observations would be at least twice the size of the total number of trail users. Thus, total number of observed users is at least twice the size of the total number of users.

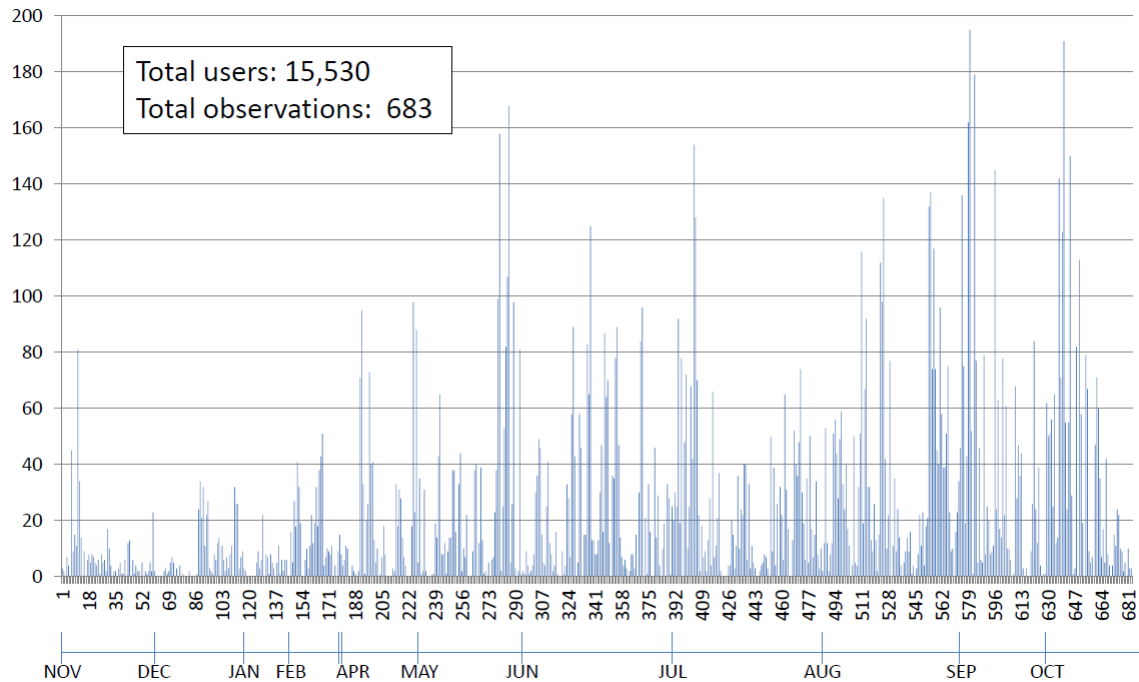


Figure A1. Actual observations of trail use over between November 1, 2010 and October 31, 2011 (horizontal axis reflects a numbering of 683 observations and is not to scale due to trail closures and stratification approach identified in Table A2).

Further, to match our expenditure patterns which were collected on a per trip basis, we further reduce our observations to account for trips where the user spent at least one night. Our assumption here was that individual users used the trail at least one day of their trip. While the vast majority of local users were day use only (roughly 5 percent exceptions), a modest number of non-locals had trips that were multiple days (at least one night).

Table A3. Data upon which expansion procedure was based (from observation reports and 2010/2011 calendars based on initial stratification)

Observation Periods	Number of Individuals Observed	Number of Time Slots Observed	Number of Time Slots Trail Open	Portion of Time Slots Observed	Expanded Number of Observed Users
11/1/10 – 3/30/11:					
Weekend	1,251	115	1,152	9.98%	12,532
Weekday	182	59	2,240	2.63%	6,910
3/31/11 – 5/27/11:					
Weekend	1,437	64	792	8.08%	17,783
Weekday	135	38	1,952	1.95%	6,935
5/28/11 – 9/5/11:					
Weekend	8,242	186	1,800	10.33%	79,761
Weekday	1,343	130	3,296	3.94%	34,050
9/6/11 – 10/31/11:					
Weekend	2,799	62	680	9.12%	30,699
Weekday	141	29	1,560	1.86%	7,585
Total	15,530	683	13,472	5.07%	196,254

Table A4. Actual number of samples by intercept location and reported point of origin on Cheese Country Trail (highlights in red indicate most popular trips taken).

Question 2: Got on trail at..	Survey Intercept location	# of people	Distance between locations	
Monroe	Browntown	74	7.2	
	Calamine	11	37.1	
	Darlington	20	31.1	
	Gratiot	25	21.3	
	Mineral Point	8	46.2	
	Monroe	99	0	
	South Wayne	46	11.8	
	Mineral Point	Belmont	2	19.1
		Browntown	3	39
		Calamine	15	9.1
Darlington		10	15.1	
Gratiot		11	24.9	
Mineral Point		24	0	
Monroe		1	46.2	
South Wayne	South Wayne	6	34.4	
	Belmont	3	35.3	
	Browntown	8	4.6	
	Darlington	9	19.3	
	Gratiot	1	9.5	
	Mineral Point	4	34.4	
Browntown	South Wayne	12	0	
	Browntown	13	0	
	Calamine	1	29.9	
	Darlington	2	23.9	
	Gratiot	3	14.1	
	Mineral Point	2	39	
Darlington	Monroe	1	7.2	
	South Wayne	8	4.6	
	Belmont	Belmont	8	0
		Browntown	6	39.9
		Calamine	13	10
		Darlington	12	16
		Gratiot	1	25.8
		Mineral Point	9	19.1
Monroe		1	47.1	
South Wayne		9	35.3	
Calamine		Belmont	4	10
		Calamine	4	0
	Darlington	8	6	
	Gratiot	1	15.8	
	Mineral Point	3	9.1	
Gratiot	South Wayne	1	25.3	

A2. Focus Group Interviews

To assist in understanding the data on trail use and recreational activity compatibility, we also collected information from several stakeholder groups who are locally active and important to decision-making. The information that we sought from these local stakeholder groups was contextual in-nature. Contextual issues included such topics as (1) the role of the Cheese Country Trail in local community development initiatives, (2) specific management issues associated with the Trail system, and (3) important aspects of public policy that can affect trail usage and recreational interactions.

Our approach in developing, conducting, and analyzing this contextual data relied heavily on the focus group approach as outlined in Krueger (1994), Stewart and Shamdasani (1990), Morgan (1988), and Templeton (1987). A focus group interview is a carefully planned, informal, small group discussion. It is designed to collect information by getting participants to talk about their ideas and perceptions of a specific topic or issue. Each focus group was comprised of 5 to 10 people. The intent of these focus groups was to obtain a broad contextual basis upon which to assess the validity of secondary data and obtain insights into local trail issues as they relate to activities within communities along the trail and interactions within and between alternative recreational user groups from knowledgeable sources. This approach has been successfully used in previous tourism-related research (Green et al. 1997; Marcouiller, et al. 2002; Kazmierski et al 2008; Marcouiller and Xia 2008).

Focus group interviews were conducted on three occasions in November of 2011. These were conducted with individuals from specific stakeholder groups including (1) local tourism business owners, (2) local public policy makers, and (3) motorized trail users. These were selected to represent the primary interest groups within the local community that exhibit direct involvement with the Cheese Country Trail.

An analysis of focus group interviews was conducted based on responses to previously identified questions, statements, and probes. Specifically, all focus group interviews were recorded and content analysis was performed on responses to each question posed during the focus group. Where useful, specific quotations were pulled from focus group sessions to emphasize important issues. A sample thematic agenda for the focus groups is found in Appendix C.

A3. Data Analysis Techniques

Data collected from the observation sheets and completed survey instruments were entered into a data analysis template and checked for consistency. Summaries found in the results were generated from standard statistical analysis using an Excel 2007 spreadsheet. Arithmetic means and standard deviations were based on various groupings of the sample data dictated by the specific analysis being conducted. Significant differences, where noted, are assessed using simple tests appropriate to the type of data being analyzed and are noted

at the $p < .05$ significance level.¹⁰ Several elements of the results expand sample responses. Most notably, total amounts of user spending needed for economic impact assessment were estimated by applying individual spending patterns to monthly estimates of use. This extended an approach used in previous studies that allowed for standardized annual spending levels. Expansion resulted from analysis of data collected by the intercept surveyor and matched to the pre-specified stratification strategy. Proportional duration of intercept samples was accomplished using the surveyor notes on time at the intercept location prior to encountering a trail user. Expansion of the sample was then done through accounting for hourly, daily, and monthly stratifications by location.

A4. Estimating Local Economic Impact

To develop estimates of the local economic impacts associated with trail use, estimates of individual spending (once expanded to represent total visits), were used as initial stimuli for local businesses. Input-output models were constructed for the study region using the most recent 2009 county-level MicroIMPLAN datasets for Green, Lafayette, and Iowa Counties (MIG 2006). In calculating the demand shock, 2010 and 2011 spending levels were taken into account in the use of a sector-specific deflator to convert to 2009 dollars. All reports reflected results inflated back to a common 2011 reporting year using sector-specific inflation rates. A total multiplier approach was used in running the impact models. The full description of input-output modeling as a standard method used to develop estimates of regional economic impacts is beyond the scope of this report but readily available in standard textbooks on the topic (Shaffer et al. 2004; Chapter 15).

For the assessment of economic impacts resulting from trail user spending, non-local use expenditures were allocated to seven specific industrial sectors. Each sector into which expenditures were allocated is represented by unique 3 to 6 digit NAICS codes and is specific to the sector structure of MicroIMPLAN.¹¹ Expenditure categories, IMPLAN sectors, and respective NAICS codes are summarized in Table A.5. Estimated total expenditures and the amount spent locally were summarized. Only the local portion of expenditures that occurred within the Green, Lafayette, and Iowa County regional economy were used as the demand shock for input-output modeling.

¹⁰ In other words, where noted, we have 95 percent confidence that significant response differences exist between groups.

¹¹ While we recognize that this method of expenditure allocation could miss some sectoral groupings and/or overly simplifies the manner in which spending relates to local business receipts, we are confident that these potential problems are minor. The approach represents a valid technique used to estimate the local supply-side shocks associated with visitor spending found in other tourism impact studies (c.f. Smith 1987; Smith 1998; Marcouiller and Xia 2008)

Table A.5. Respective industrial sectors for expenditure patterns used to estimate regional economic impacts (IMPLAN sectors and respective 3-5 digit NAICS codes in which expenditures were allocated).

Expenditure Category:	IMPLAN Sector	NAICS Code
Convenience - retail	324	445
Gas - retail	326	447
Shopping - retail	329	452
Other - retail	330	453
Rental	363	5322*
Gaming	409	7139*
Entertainment	410	713*
Lodging (hotels, motels, bed & breakfasts, camping)	411	72111/72112
Food and drinking places (restaurants)	413	722

* some exceptions are employed by IMPLAN; detailed queries are best referred to the authors.

Standard categories of economic impacts included *output* (or the aggregate impact on regional economic activity), *value added* or *income* (that portion of total output that accrues locally), and *employment* (total numbers of jobs created) locally.¹² The county-level input-output model used to calculate total impacts estimated multiplier effects measured as direct, indirect, and induced impacts. These are uniquely calculated and reported for output, income, and employment. Direct effects include respective portions of the amount initially injected into the regional economy (non-local spending in the region). Indirect effects relate to inter-industry transactions resulting from the initial demand shock (direct effects). Induced effects include the increase in local income resulting from the direct and indirect effects and their subsequent effects on local consumption.

The extent of these round-by-round “multiplier” effects will depend on fundamental characteristics of the regional economy. In general, larger and more diverse regional economies will exhibit higher levels of economic multiplier effects. Conversely, smaller and less diverse regional economies will exhibit relatively lower multiplier effects. These economic multiplier generalizations reflect alternative levels of regional economic “leakage” and “capture”. They relate to regional export/import balances that differ by region. In general, the Green, Lafayette, and Iowa County region is a relatively small and less diverse exurban economy that lies in close proximity to the Madison, Dubuque, and Chicago metropolitan areas.

¹² Output includes all economic activity related to visitor spending including intermediate purchased inputs, income or value added, and imported inputs. Income most clearly reflects the impacts felt by local residents and includes four components: (1) employee compensation, (2) proprietor’s income, (3) other property income, and (4) indirect business taxes. Employment measures total jobs created and includes full-time, part-time and seasonal jobs.

Appendix B Sample Intercept Schedule with Randomly Allocated Time Slots and Locations.

November 2010- CCT Study Intercepts

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Intercept Start 9, 30, 32	2 20	3 10	4 20, 29	5	6 1, 6, 4, 17
7 Daylight Savings ends 20, 19	8	9	10 3, 16	11 Veteran's Day 4, 8, 3, 15, 16, 18, 24	12 26, 18	13 8, 16, 10, 5, 12, 15
14 21, 17, 19	15	16	17 26, 10, 16	18 31, 13	19	20 18, 29, 24, 2, 11, 8, 23, 13
21 1, 17, 30, 23, 14	22	23	24	25 Thanksgiving 29, 15, 28	26 Thanksgiving Holiday 21, 29	27 21, 9, 30, 25, 19
28 23, 21	29 3	30				

**November 2010 through March 2011
Scheduled Intercept Calendar Numbers
(numbers relate to calendar for intercept time and place)**

- | # | time | place |
|-----|--------------------|-------------|
| 1. | 9:00 am - 11:00 am | Monroe |
| 2. | 11:00 am - 1:00 pm | Monroe |
| 3. | 1:00 pm - 3:00 pm | Monroe |
| 4. | 3:00 pm - 5:00 pm | Monroe |
| 5. | 9:00 am - 11:00 am | Browntown |
| 6. | 11:00 am - 1:00 pm | Browntown |
| 7. | 1:00 pm - 3:00 pm | Browntown |
| 8. | 3:00 pm - 5:00 pm | Browntown |
| 9. | 9:00 am - 11:00 am | South Wayne |
| 10. | 11:00 am - 1:00 pm | South Wayne |
| 11. | 1:00 pm - 3:00 pm | South Wayne |
| 12. | 3:00 pm - 5:00 pm | South Wayne |
| 13. | 9:00 am - 11:00 am | Gratiot |
| 14. | 11:00 am - 1:00 pm | Gratiot |
| 15. | 1:00 pm - 3:00 pm | Gratiot |
| 16. | 3:00 pm - 5:00 pm | Gratiot |

- | # | time | place |
|-----|--------------------|---------------|
| 17. | 9:00 am - 11:00 am | Darlington |
| 18. | 11:00 am - 1:00 pm | Darlington |
| 19. | 1:00 pm - 3:00 pm | Darlington |
| 20. | 3:00 pm - 5:00 pm | Darlington |
| 21. | 9:00 am - 11:00 am | Calamine |
| 22. | 11:00 am - 1:00 pm | Calamine |
| 23. | 1:00 pm - 3:00 pm | Calamine |
| 24. | 3:00 pm - 5:00 pm | Calamine |
| 25. | 9:00 am - 11:00 am | Mineral Point |
| 26. | 11:00 am - 1:00 pm | Mineral Point |
| 27. | 1:00 pm - 3:00 pm | Mineral Point |
| 28. | 3:00 pm - 5:00 pm | Mineral Point |
| 29. | 9:00 am - 11:00 am | Belmont |
| 30. | 11:00 am - 1:00 pm | Belmont |
| 31. | 1:00 pm - 3:00 pm | Belmont |
| 32. | 3:00 pm - 5:00 pm | Belmont |

Appendix C Sample Survey Instrument

2010-2011 Cheese Country Trail Study Survey Sheet

Time of intercept: _____ Male
 Intercept code: _____ Female

Equipment Type: ATV Dirt Bike Golf cart Snowmobile
 UTV Bicycle Other _____

1. What is the primary reason for your trip to this area?

To ride this and/or other trails in the area
 To attend a special event/festival
 On a leisure trip in area
 Visiting family and friends in the area
 On business or meeting in area
 Live here, use trail as mode of transportation
 Other _____

2. Where did you get on the Cheese Country Trail

Monroe Darlington
 Mineral Point Gratiot
 South Wayne Belmont
 Browntown Calamine
 Other location _____

3. Have you ridden this trail before?

No
 Yes - How many times during the past 12 months? _____

4. How many people are in your immediate travel group? _____
How many in your group are younger than 16 years old? _____

5. Is this an "overnight" trip from home?

No - returning home today (skip to #6)
 Yes;
 If yes, what type of lodging are you using?
 Hotel/motel Camp
 Rent private home 2nd home/vacation
 Friend/relative Rent cabin
 B&B Other type _____

In what town did you overnight? _____
 How many nights will you be away from home? _____

6. What other activities will you or members of your immediate travel group participate in while on this trip?

Shopping Visiting family/friends
 Museums/historic sites Festival/event
 Dining Casino
 Area attractions Boating/fishing
 Auto races Factory tours (cheese/brewery)
 Other _____

7. Please estimate how much you (individually) have spent or plan to spend on this trip in the following categories?

\$ _____ lodging/overnight accommodations
 \$ _____ food & drink at area restaurants/bars
 \$ _____ area entertainment
 \$ _____ shopping (souvenirs, gifts, clothing)
 \$ _____ gas, repairs (auto and equipment)
 \$ _____ convenience stores
 \$ _____ ATV/UTV/snowmobile rental
 \$ _____ gaming (casinos)
 \$ _____ other leisure spending

8. On a scale of 1-5, how satisfied are you with ...

	Unsatisfied	Neutral	Satisfied
Trail signage?	1	2	3 4 5
Grooming of trail surface?	1	2	3 4 5
Trail safety (emergencies)?	1	2	3 4 5
Camping facilities?	1	2	3 4 5
Trail access & parking	1	2	3 4 5

9. If there is anything that could be done to enhance your experience in this area, please explain.

10. How did you find out about the trails in this region?

Family/friends Radio
 Internet Chamber of commerce
 Newspaper State tourism publication
 TV ATV/snowmobile club
 Magazine Brochure
 Travel show DNR
 Dealership Live here

11. What is your age? _____

12. What is the highest level of schooling you've completed?

Some high school
 High school graduate
 Some college/technical school
 Associate degree/certificate
 College degree
 Some graduate school
 Graduate degree
 Other

13. Which of these categories best describes your annual household income?

Less than \$25,000
 \$25,000-\$50,000
 \$50,000-\$75,000
 \$75,000-\$100,000
 \$100,000-\$150,000
 More than \$150,000
 Prefer not to answer

14. What is your home zip code? _____

Study will be finished in early 2012; would you like results emailed?

_____ no _____ yes (email: _____)

For interviewer following the interview, in retrospect, was the expenditure data given by the respondent reflective of ...

individual spending (correct), or group spending?

Appendix D Sample Observation Report

2010-2011 Cheese Country Trail Study Observation Report

Intercept Code: _____ Survey #1: accept, ___ # reject, ___ # repeat; comments: _____

Interceptor's Name: _____ Survey #2: accept, ___ # reject, ___ # repeat; comments: _____

Date of Intercept: _____ (mm/dd/yr)

Time of Intercept: Begin: _____ End: _____

Intercept Location:

Weather Conditions:

<input type="checkbox"/> Monroe	<input type="checkbox"/> Darlington	<input type="checkbox"/> Mineral Point	<input type="checkbox"/> Gratiot
<input type="checkbox"/> South Wayne	<input type="checkbox"/> Belmont	<input type="checkbox"/> Browntown	<input type="checkbox"/> Calamine
<input type="checkbox"/> Sunny	<input type="checkbox"/> Partly Cloudy	<input type="checkbox"/> Partly Sunny	<input type="checkbox"/> Cloudy
<input type="checkbox"/> Clear	<input type="checkbox"/> Foggy	<input type="checkbox"/> Light rain/drizzle	<input type="checkbox"/> Steady rain
<input type="checkbox"/> Misty	<input type="checkbox"/> Humid	<input type="checkbox"/> Heavy rain	<input type="checkbox"/> Sleet
<input type="checkbox"/> Thunderstorm	<input type="checkbox"/> Blizzard	<input type="checkbox"/> Light snow	<input type="checkbox"/> Heavy Snow
<input type="checkbox"/> Calm	<input type="checkbox"/> Light Wind	<input type="checkbox"/> Strong Wind	<input type="checkbox"/> Gusty

Approximate Temperature: _____ °F

Trail Conditions: _____

Approx. snow depth: _____ (inches)

Count of individual trail users (number of people) during intercept period (use line/slash method of counting; try not to double count)

Motorized:

ATV: _____ = Total ATV

UTV: _____ = Total UTV

Dirt Bike: _____ = Total Dirt Bikes

Golf cart: _____ = Total Golf-carts

Snowmobile: _____ = Total Snowmobiles

Other (list): _____

Non-motorized:

Hiker: _____ = Total Hikers

Jogger: _____ = Total Joggers

Bicycler: _____ = Total Bicyclers

Equestrian: _____ = Total Equestrians

Other (list): _____ = Total Other

Appendix E. Sample Local Field Staff Crib Sheet

Local Volunteer Crib Sheet Cheese Country Trail Study September 28, 2010 (v2)

1. Be present at the scheduled location during the time slot listed on the calendar. Time slots were randomly allocated by month, day of week, and time of day (1000 in total).
2. During each time slot, volunteers do two primary tasks including (a) observing trail use and (b) intercept and conduct two face-to-face interviews with trail users.
3. Trail use will be observed by filling out the Observation Sheet. For weather observations, mark all that apply. Pay close attention to trail use and count (using dash/slash method) the number of individuals that pass your pre-determined spot on the trail. To the best of your ability, do not double count individuals. You will have two intercept opportunities during the two hour time slot to begin at the bottom of the hour (__:30 or thirty minutes past the hour). Mark results of each attempted intercept on the Observation Sheet.
4. Beginning at the bottom of each hour, select the first person that crosses your pre-determined point on the trail. Approach stopped trail user (do not attempt to stop a moving trail user) and begin the following conversation with your selected individual:

Hello. My name is _____ and I am working with the UW-Extension and local trails groups on a year-long study of the Cheese Country Trail. Would you have a few minutes to answer a series of questions about your trail use today?

If no, thank them, record non-response, and select the next trail user. If yes, then continue.

Thanks ... have you participated in this survey before?

If yes, thank them, record repeat, and select the next trail user. If no, then continue.

For these questions, please respond with your own (individual) answers. Remember that they may not necessarily be the same as your group's answer.

[conduct interview]

Thank the user for their time.

5. To the best of your ability, be legible and clear in your markings. Remember, someone will be transcribing your writing so it is important to be as clear as possible.
6. Be professional and respectful.