

MULTI-USE TRAILS: TRULY MULTI USE

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Abstract

Trails are a valued form of recreation that appeals to a wide variety of users. The uses that these trails support include walking, biking, running, inline skating, snowmobiling, cross country skiing, and others. A challenge to trail managers is designing and managing a trail that appeals to diverse groups of users. This research examined the similarities and differences between distinct user segments on the Lansing River Trail located in Lansing, Michigan. Respondents were segmented based upon their reasons for using the trail. Five distinct user groups were identified: those who use the trail solely for *exercise, training, recreation, transportation*, or for *mixed* purposes. These and other distinctions will be discussed in this paper for both researchers and managers.

1.0 Introduction

As communities continue to expand, lifestyles are becoming more fast-paced and people have less time to enjoy outdoor leisure opportunities. In addition, they are becoming more sedentary as they spend more time in vehicles and in front of computer monitors and televisions. Rail-trails and other urban trails are one type of asset that can serve society's need for physical activity, link communities, and can be accessible to many people depending on their route (Gobster, 2004; Rosegard, 2004). Trail activities such as walking, running, bicycling and in-line skating promote health and provide quality leisure experiences (Henderson and Ainsworth, 2000, 2002). A healthy, active lifestyle has been shown to lower the risk of cardiovascular morbidity (Manson et al., 1999). Trail users are diverse and have many different motives for trail use. The objective of this study was to better understand the demographics, motives, and activity patterns of urban trail users on Lansing Michigan's River Trail. In a recent trail symposium sponsored by American Trails Association, a research session discussed the situation that we continue to lack data on trail use and users (Pugh and Moore, 2005). This paper attempts to fill that gap to share a methodology and results from an in-depth, reliable trail use and user study.

2.0 Background

The Lansing River Trail (LRT) is a multiple use, non-motorized trail of seven miles in length. It meanders along the banks of the Red Cedar and Grand Rivers between Michigan State University (MSU) and North Lansing. In addition there is a spur that runs from River Point Park to Moore's River Park following the Grand River upstream for more than a mile. The trail traverses through a variety of habitats and natural environments. The trail provides direct river access to fisherman and offers walking/running, biking, and inline skating opportunities. The LRT links many of Lansing's city parks together, as well as downtown and neighborhood business districts and many other community attractions including historic museums, farmers market, and the city's convention center. In 2004, the Mid-Michigan Environmental Action Council (Mid MEAC) received a grant from the DALMAC Bike Tour to assess the use and users of the LRT. To accomplish this they contracted with researchers from the Department of Community, Agriculture, Recreation and Resource Studies at MSU to conduct a study on the level of trail use and to profile trail users.

3.0 Methods

The data gathered in this study was collected by an onsite survey conducted July 15th through September 15th, 2004. Six sampling sites were selected along the trail, each approximately one mile apart. Sample periods were proportionally distributed for weekdays and weekend days with two-hour sampling blocks. Trail users were intercepted at a rate of every ten minutes, with a possible sample size of 864 and an actual sample size of 354. The difference between the potential and actual sample size is due to no survey being administered during that 10-minute period as no user passed by or by a trail user refusing to complete the questionnaire. Those completing the survey responded to questions about motives for using the trail, duration of trail use, satisfaction with the trail experience, and suggestions for improvements and extensions.

Two trained interviewers collected all surveys. It was also the job of the interviewers to observe and record on a tally all trail users that passed by during their two-hour time block. Trail users were tallied by their type of use and also by their age (adults vs. children). The one-page survey was then given to only those trail users who gave consent.

4.0 Results

The findings of this research are reported by use and users. Use refers to an individual's presence on a segment of the trail at a given time. We estimate use by trail segment and then adjust our total use estimate by the average number of segments a user reports in a given occasion. Users refer to the type of use and qualities of that user. An individual user could be represented many times in use data, however, only once in user data.

4.1 Use of the Lansing River Trail

The LRT had 72,040 estimated uses from May 1 through September 30, 2004, using the 2 months of data to extrapolate to 5 months of summer use. This estimate comes from an estimate of 187,305 segment uses divided by 2.6 segments per use. Of the total uses, 64% of the uses were on weekdays and 36% of uses were on weekends (table 1). Adults (18 and over) accounted for 86% of the uses and children for 14% of uses. For the adult uses, 49% were bicycling, 46% walking/running and 5% inline skating. For the children uses, 62% were bicycling, 34% walking/running and 4% inline skating. These data were compiled from only observation data.

(insert table 1 about here)

Most (56%) LRT uses were by Lansing residents, with 15% by E. Lansing residents and 29% from elsewhere. For adults, males accounted for 57% of the uses and females for 43%. One-third (33%) of the adult uses were by people who were 50 and over, 39% were by those 35 to 49 years old and 28% were by those 18 to 34 years old. More than half (55%) of LRT use was accessed without driving a vehicle to the trail. Approximately half (48%) of the uses were by individuals who lived two miles or less from the trail. Eighty-four percent of uses were for two hours or less and 93% were rated as satisfactory experiences. These data were compiled from observation data to estimate total trail use and then applied data from the on-site survey using questions related to that day's use.

4.2 User Segments

Trail users were segmented by those who use the trail solely for *exercise, training, recreation, transportation*, or for the *mixed* purpose of two or more of the motives. These five segments were then evaluated amongst several other variables exclusively from the on-site survey.

The *exercise* group consisted of 24% of the total LRT users (table 2). Sixty-one percent of users originated in Lansing or E. Lansing (from the local area). Walking (54%) was the most common trail activity, followed by biking (29%) and running/jogging (13%). Exercise users reported a median annual use of 11 days on the trail.

The *training* users made up 8% of the total LRT users. Seventy-seven percent originated locally. They were most likely to be running or jogging (82%), followed by biking (12%) and walking (8%). Their annual median use was 31 days on the trail, the highest of any group.

The *recreation* group made up 23% of the total LRT users. Forty-seven percent of the *recreation* users originated locally. Bicycling (55%) was the most common trail activity, followed by walking (38%), fishing access (8%), and all others (2%). Their annual median use was the lowest of any group with six days.

The *transportation* group consisted of 3% of the total LRT users, making it the smallest segment. Eighty-eight percent originated locally. Biking (65%) was the most common trail activity, followed by walking (17%), shopping (8%), running (4%), and all others (4%).

The *mixed* group was the largest group with 42% of the total LRT users. Forty-six percent of the mixed group were from the local area, the lowest percentage of the five segments. Bicycling (48%) was the most common trail activity, followed by walking (36%), running/jogging (10%), inline skating (4%), and all others (2%). Their annual median use was 11 days.

(insert table 2 about here)

Besides estimating the total trail use and describing user segments, trail users were asked to rate their trail experience and suggest improvements. These findings were intended to help park managers target areas of improvement or investment. For all segments, a better surface (i.e., fixing cracks and holes, resurfacing) was the single most commonly mentioned trail improvement. However, other key considerations differed among segments, with exercise users requesting improved litter cleanup, training users requesting numerous extensions and drinking fountains, recreational users requesting extensions and mixed users supporting trail extension and improved litter cleanup.

5.0 Discussion and Conclusions

The LRT serves residents, workers, and visitors to the Lansing/E. Lansing community. On an average daily basis, the trail receives 471 uses from May – September. Those who use the trail for recreation or exercise purposes are the largest single use groups and show that trails are appropriately positioned as recreation facilities, as well as health and fitness related. Many trails are also supported with federal, state or local transportation funding and this use is apparent, however, small. Additional efforts are needed to encourage and reward individuals who use trails over personal vehicles. This type of use can result in a healthier lifestyle and reduced pollution and road congestion. Besides the individual and health benefits of trails, economic benefits are also realized. Seven percent of the LRT users were tourists that make a specific trip to Lansing to use the LRT, with most spending money at restaurants, filling stations, convenience stores, and sporting goods outlets.

In total, most trail users are highly satisfied, but some key sources of dissatisfaction have been identified and many suggestions for improvement made by respondents. The greatest source of dissatisfaction is the LRT's uneven surface. This can influence enjoyment and safety. It is related to both paving and the boardwalk system. One reflection of this is the low proportion of trail uses involving inline skating compared to similar paved trail studies elsewhere in Michigan such as the Pere Marquette Rail-Trail in Midland County. Fortunately, resurfacing is underway on both the boardwalk portions and on the eastern paved sections. Such work should focus on providing a high quality, long lasting surface. Trail surface maintenance should be reviewed to maximize the useful life of the new surface.

Trail users also advocate extending the LRT. This is also in progress to the south, extending the LRT to Hawk Island County Park and Scott Woods City Park. There is support for additional extensions to the north, west and east. Linking with other jurisdictions including townships, county and other municipalities will enhance the prospects for trail extension as will working with interested citizens and organizations.

Many users support improved maintenance of trailside vegetation, trash, litter, the river shoreline, etc. With 72,040 uses annually and 15% of those by tourists to the area, the LRT and its trailside environs are one of the important assets of the Capitol City area. Their condition reflects on the perceptions of residents, workers and visitors about the condition of the region.

Improved signage, more drinking fountains and improved security, while noted by fewer people than the above mentioned concerns also merit consideration. While signs or maps for regular resident users showing directions, distance and "you are here" may be unneeded, such visible information is important to help a first visit by a tourist, new resident or new worker be an enjoyable one. Additional drinking fountains provide a valued service, allowing trail users to be less burdened with gear and promoting good health. All trail users need a sense of security about the LRT. While the trail does not appear to be perceived as dangerous as evidenced by 33% of adult uses by those over 50, security is best based on prevention and a visible security presence, not solely on response after a criminal incident. This includes appropriate lighting, trail visibility from easily patrolled streets, uniformed officers visible on the trail at unpredictable times and clearly identified volunteer safety patrol personnel trained to be "eyes and ears".

The LRT is a prominent and valued asset of Lansing. Its already high standing in the community can be enhanced and strengthened by listening to this representative cross-section of trail users and prudently acting on their suggestions. Other trails managers would benefit from a study of this nature to substantiate trail use levels and understanding the nature of uses that range from recreation to health and fitness to transportation.

6.0 Citations

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Table 1. Uses of the Lansing River Trail

	% of Uses	Frequency (total of 72,040 uses)
Age		
Adults	86%	61,954
Children	14%	10,086
Gender		
Male	57%	41,063
Female	43%	30,977
Time		
Weekday	64%	46,298
Weekend	36%	25,742
Activities (Adults)		
Walking/Running	46%	28,499
Biking	49%	30,357
Inline Skating	5%	3,098
Activities (Children)		
Walking/Running	34%	3,429
Biking	62%	6,253
Inline Skating	4%	404

Table 2. User Segments

	Exercise	Training	Recreation	Transportation	Mixed
% of Users	24%	8%	23%	3%	42%
Originated Locally	61%	77%	47%	88%	46%
Favorite Activity	Walking (54%)	Running/Jogging (82%)	Bicycling (55%)	Bicycling (65%)	Bicycling (48%)
Annual median use	11 days	31 days	6 days	7 days	11 days
Improvement	Litter cleanup	Extensions	Extensions	Bathrooms	Extensions