

# Cutting Edge Research in Trails and Greenways – Michigan's project

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# Michigan Trails

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- The Michigan Trails Alliance was formed in 1986.
- Twenty-one years later Michigan is second only to Wisconsin in the nation with 131 established “rail-trails” covering 1,398 miles.
- There are currently 15 regional railway initiatives working in Michigan to connect individual trailways to each other and to important destinations.

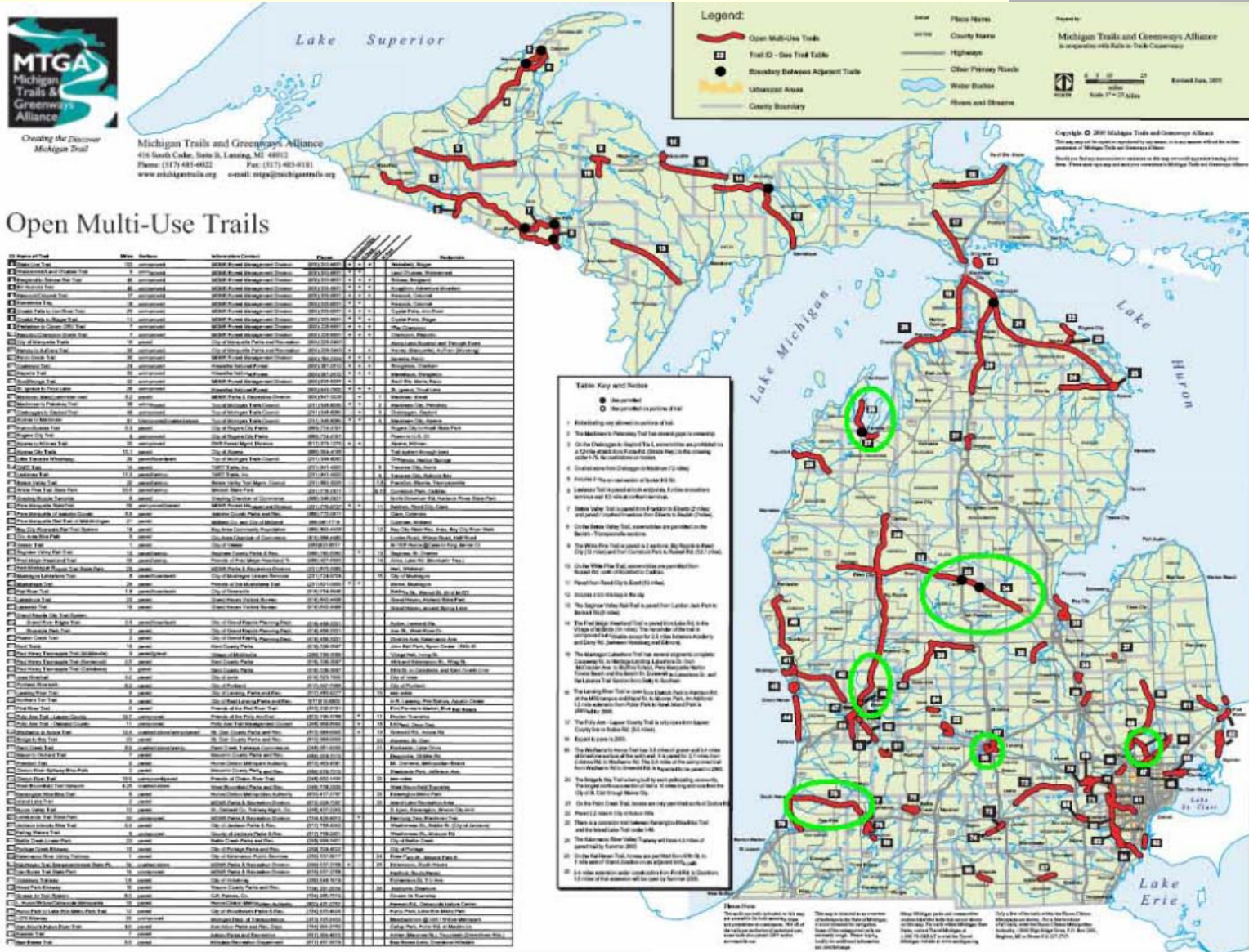
(Source: Connecting Michigan: A statewide trailways vision and action plan.)

# Goals of the Almost 10 Year Investment in Community Trails Research

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- Who uses the trails? Level of tourism demand?
- How many users?
- Are there notable differences in users by:
  - Location
  - Surface type
- How does a community benefit from trails?
- What type and level of support do adjacent residents and nearby businesses have for the trail?

# Michigan Trails Researched



# Types of Studies Performed

Shading denotes research	On-Site	Off-Site			
	User – Resident and Tourist	Adj. Resident	Nearby Businesses	Events	Comprehensive Recreation Study
Trail					
Pere Marquette					Replicated in 2008 for Midland County
TART	Replicating in 2008				
Paint Creek					
Lansing River Trail					
Fred Meijer White Pine					Recently completed for Kent County
Kal Haven					

# On-Site Methods

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- Observe/tally uses
  - Provides data to extrapolate to overall use by type of user, activity
- Conduct on-site self-administered survey of a selected portion of those observed
  - Unweighted provides data on characteristics of uses
  - Weighted to account for frequency of use bias provides data on characteristics/opinions of distinct users

# Off-Site Methods – Mail Questionnaires

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- Adjacent residents and business
  - Tax assessor's office – plat maps and lists
  - Chamber of Commerce
  - Driving the area
- Event registrants
  - Sample or census depending on population size
  - Ability to ask in-depth economic questions
- Registered voters
  - Likely to be sample as population significant at township, city or county level
  - Provides estimate of proportion of households using trail system over set period
  - Explore importance of trails (development, maintenance related to other potential recreation opportunities)
  - Done in context of comprehensive recreational planning

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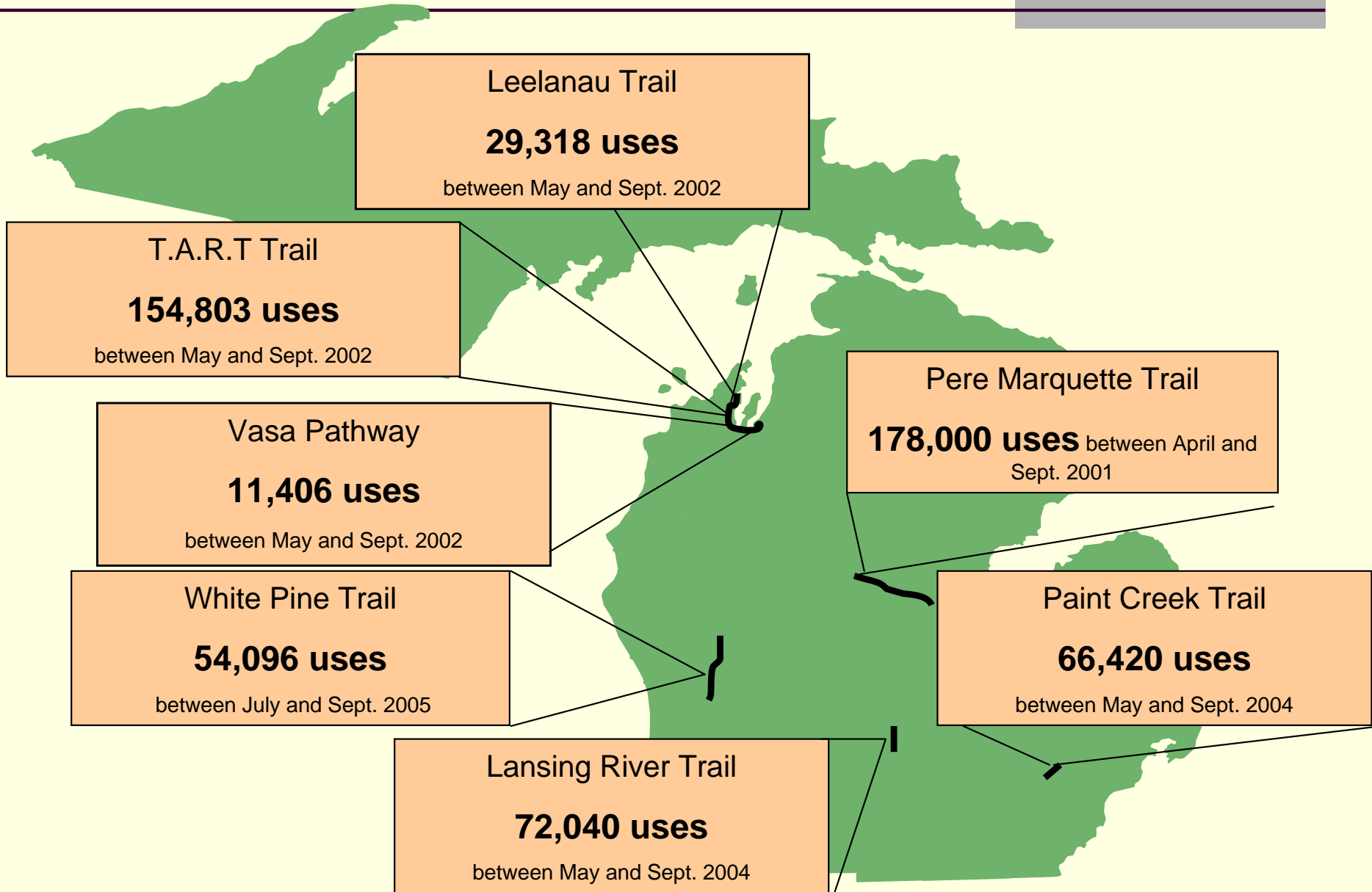
# Use and Users of Michigan Trails

All studied trails featured



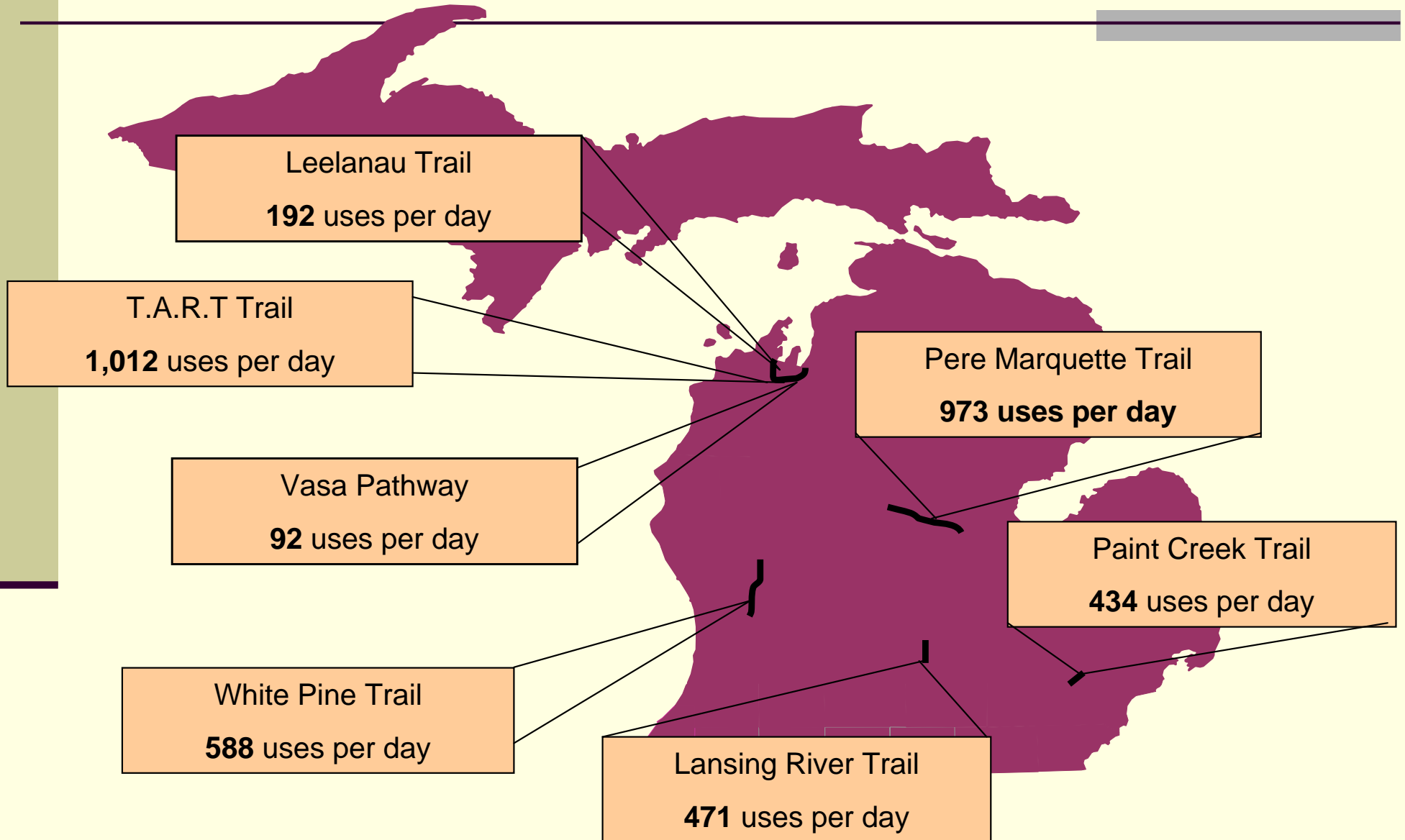


# Total Number of Trail Uses



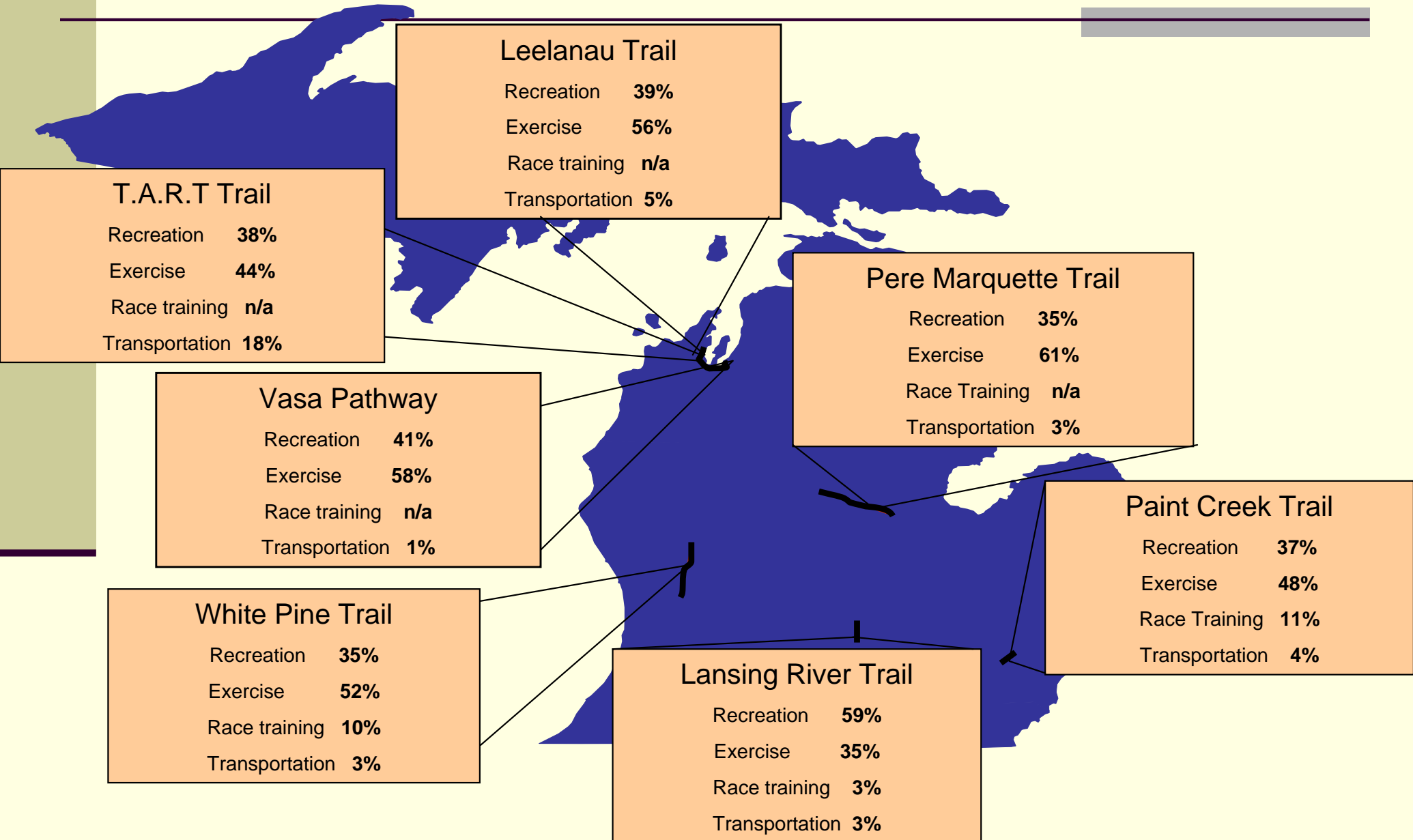


## Uses by Day



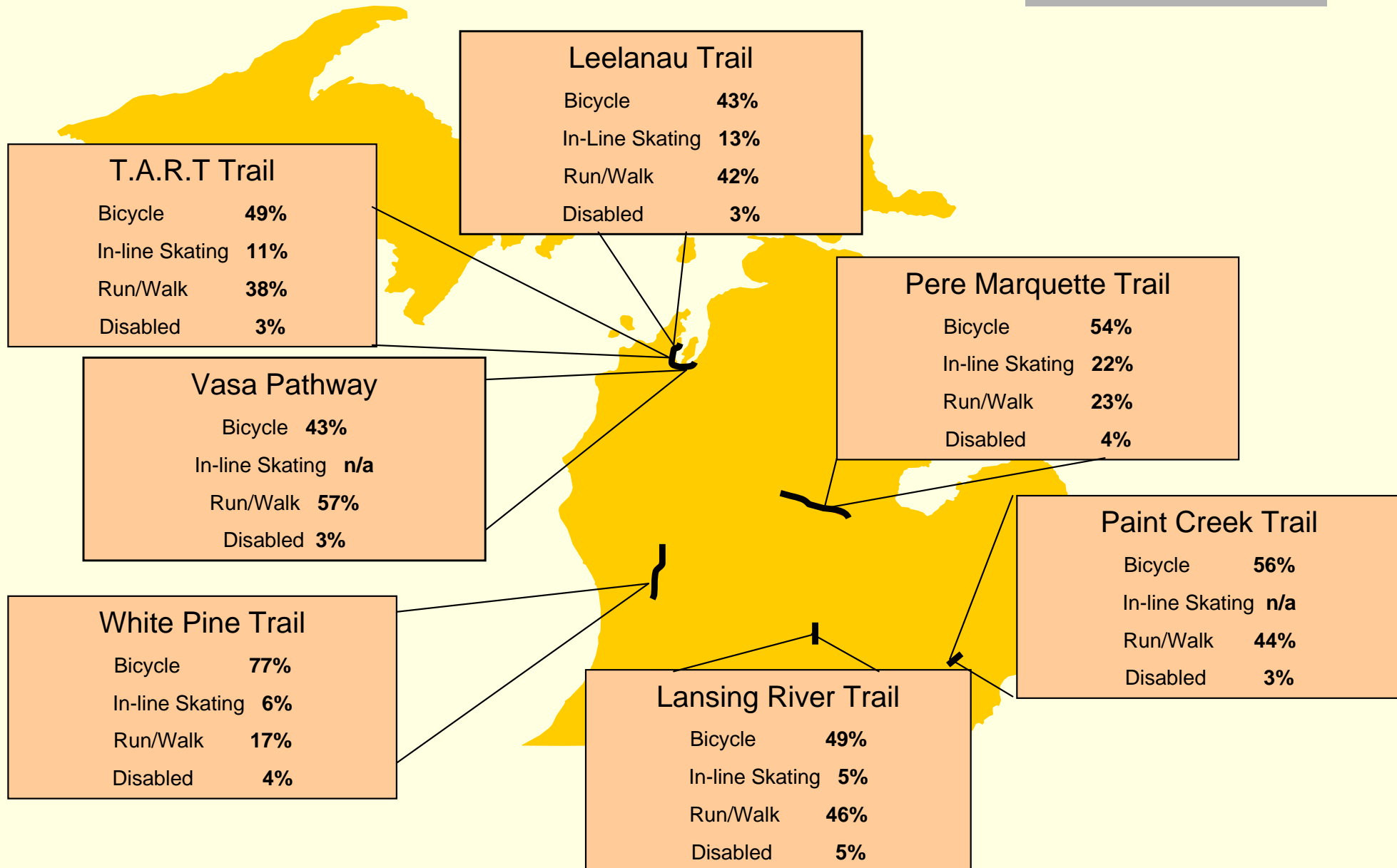


# Reasons for Using the Trail

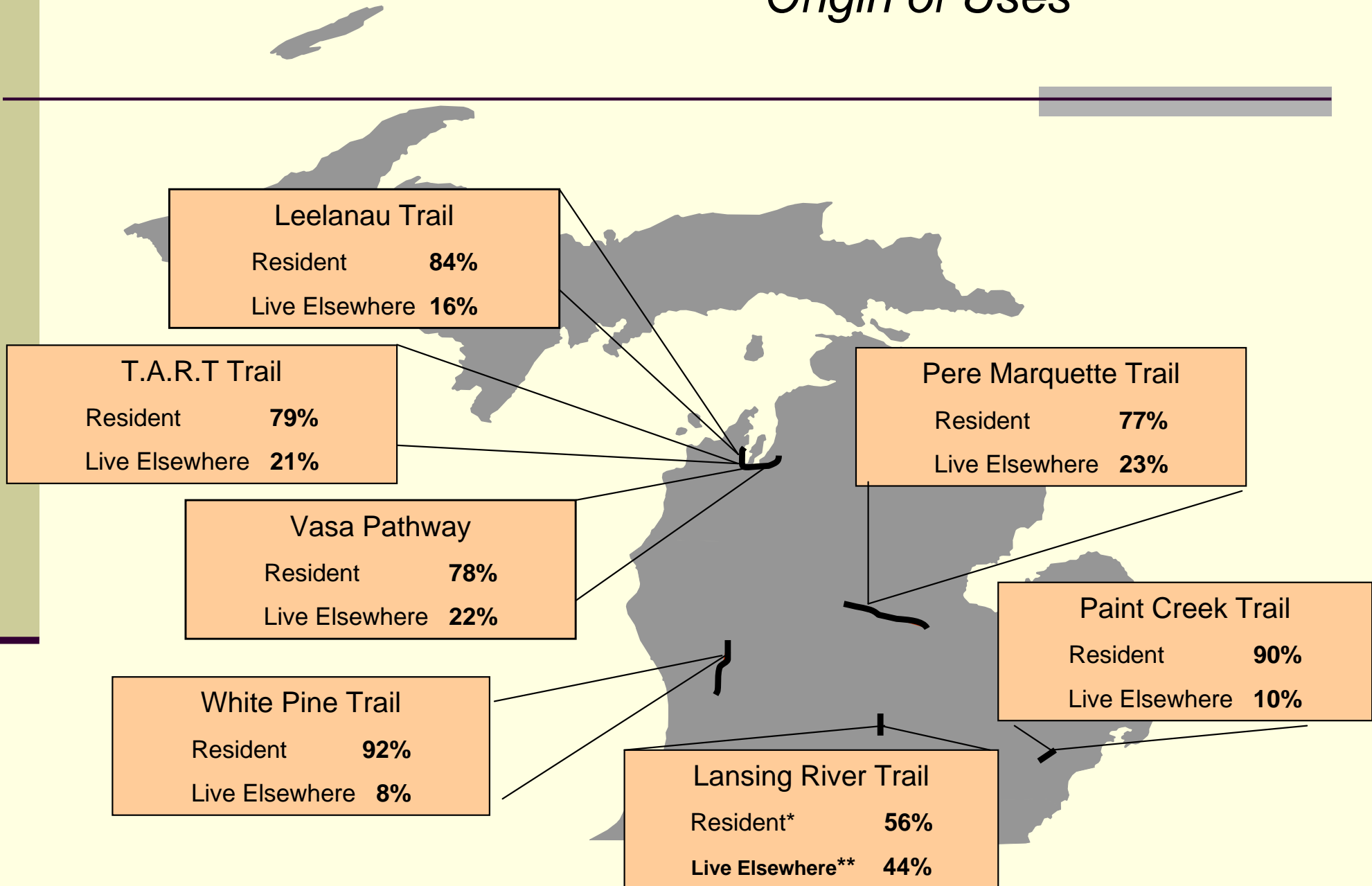




# Types of Trail Use and Disabled Users



# Origin of Uses

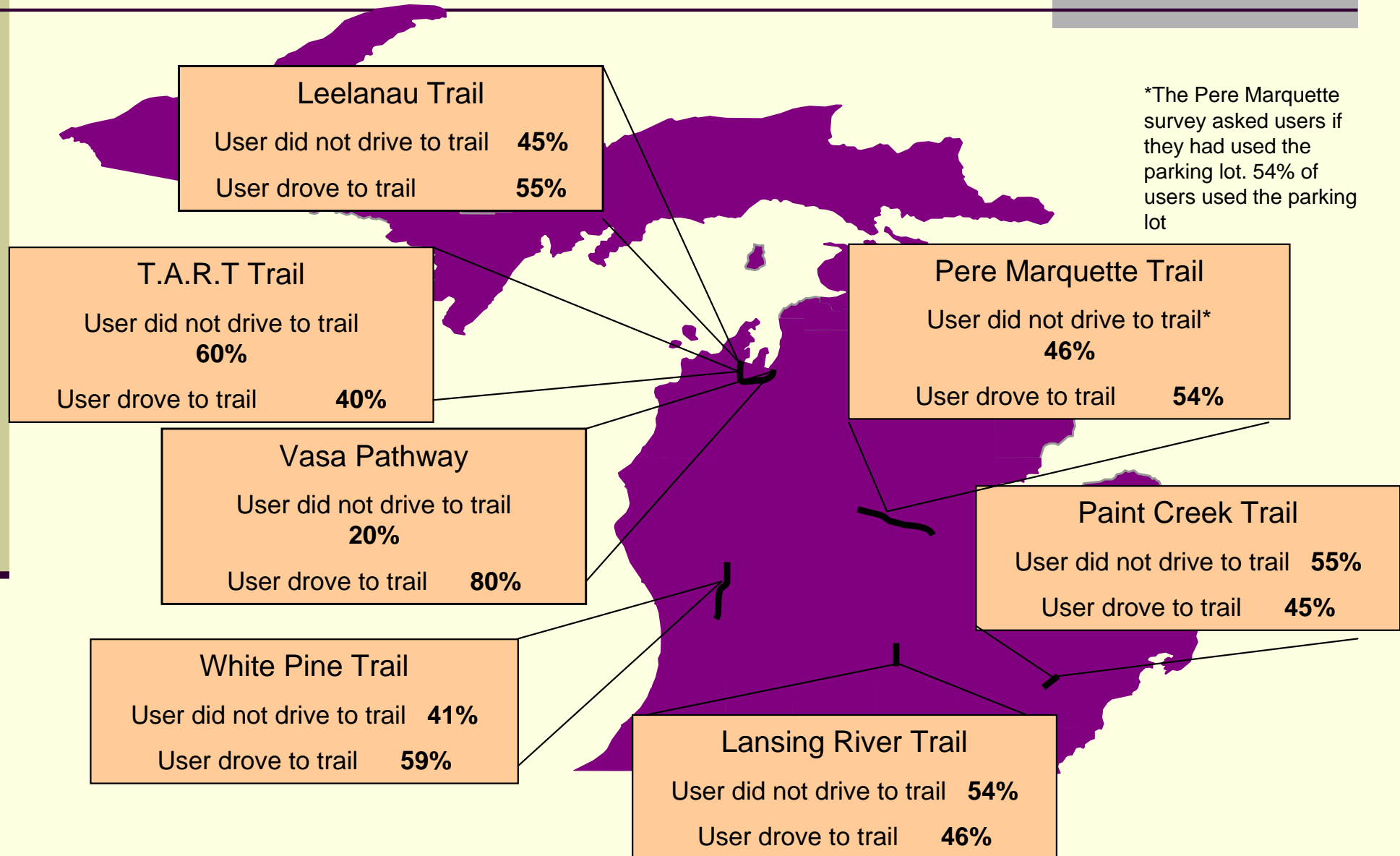


\*Resident considered resident of the city of Lansing

\*\* 15% were E. Lansing residents and 29% elsewhere

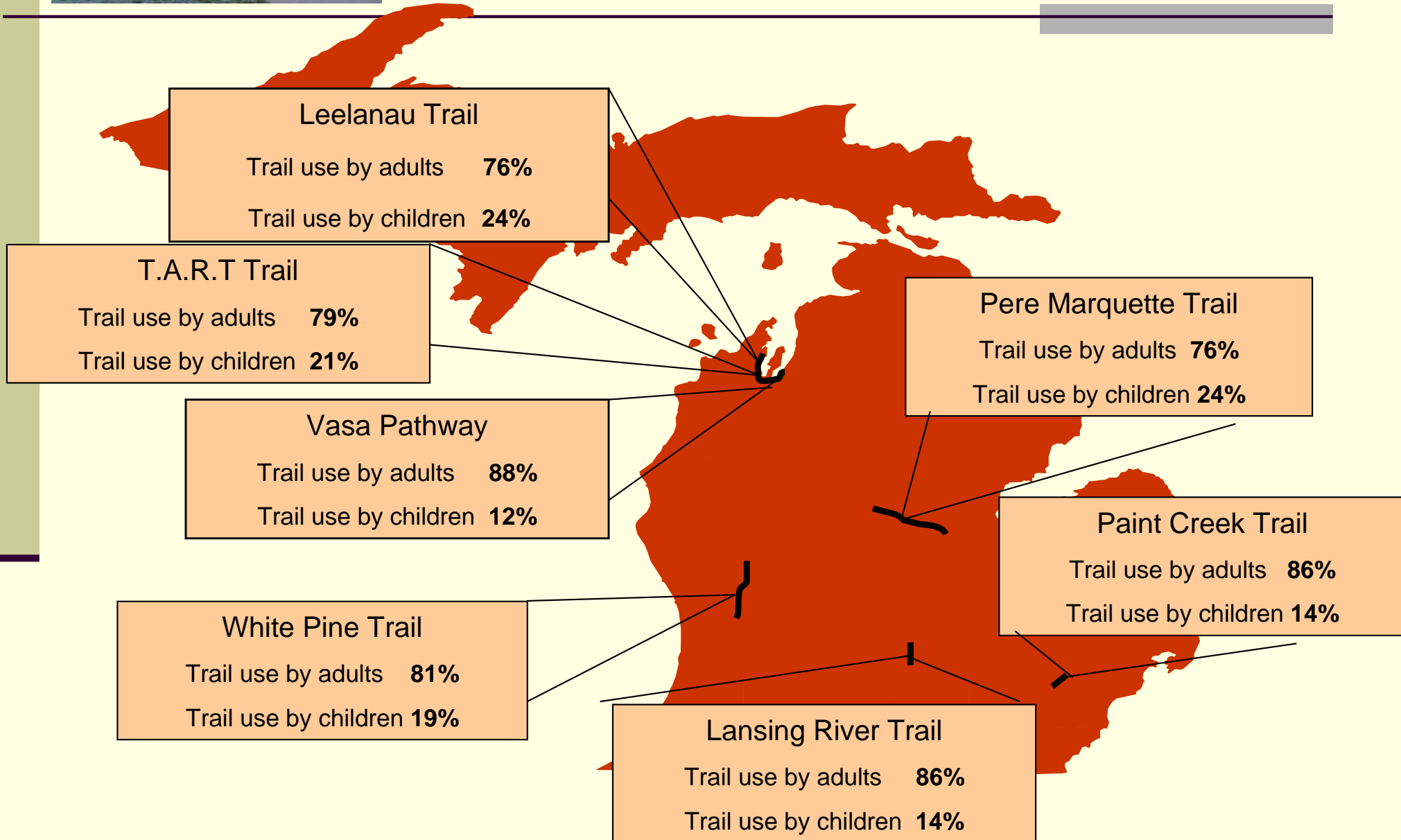


# Getting to the Trail





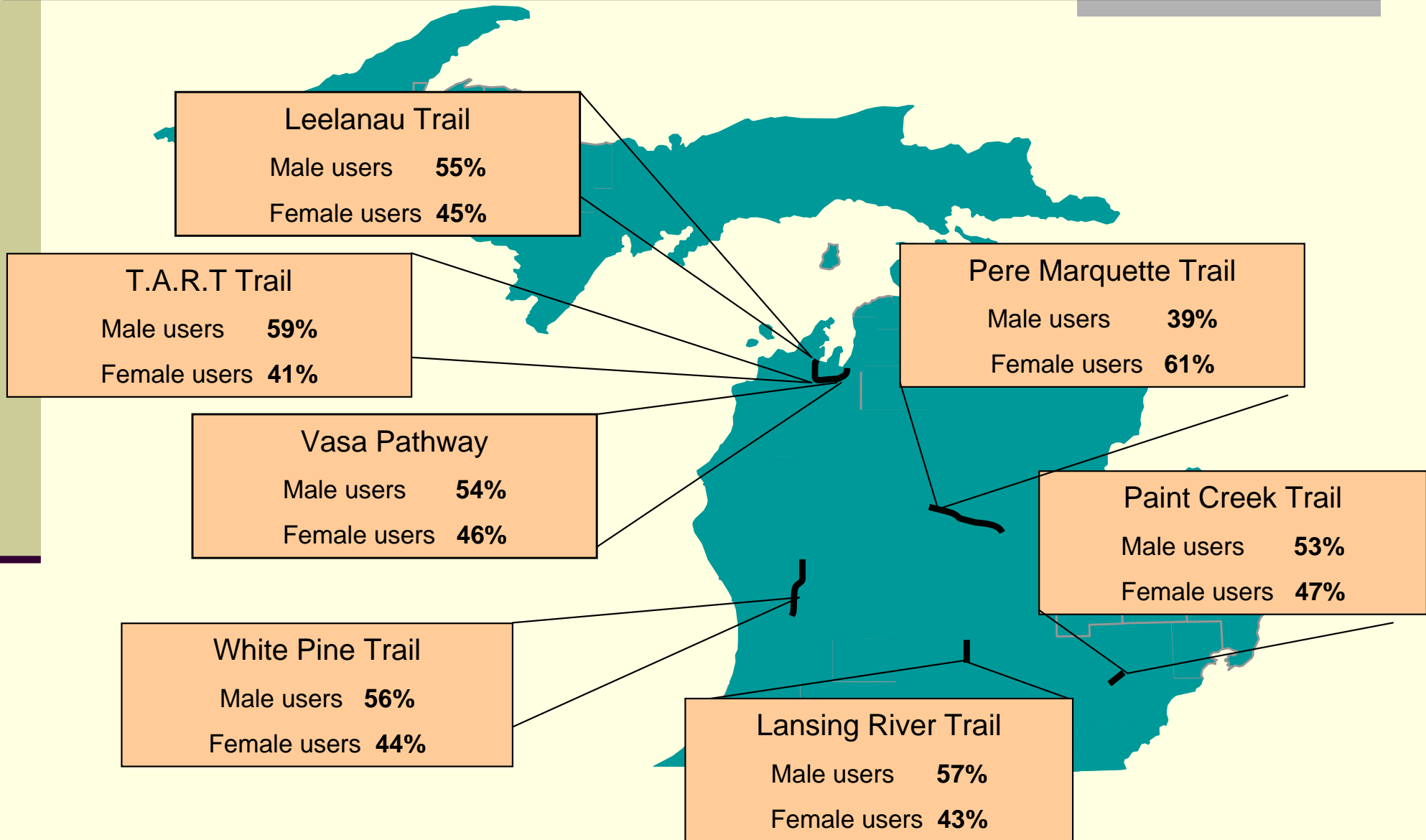
## *Trail Uses by Adults and Children*







## Gender Profile (All ages)





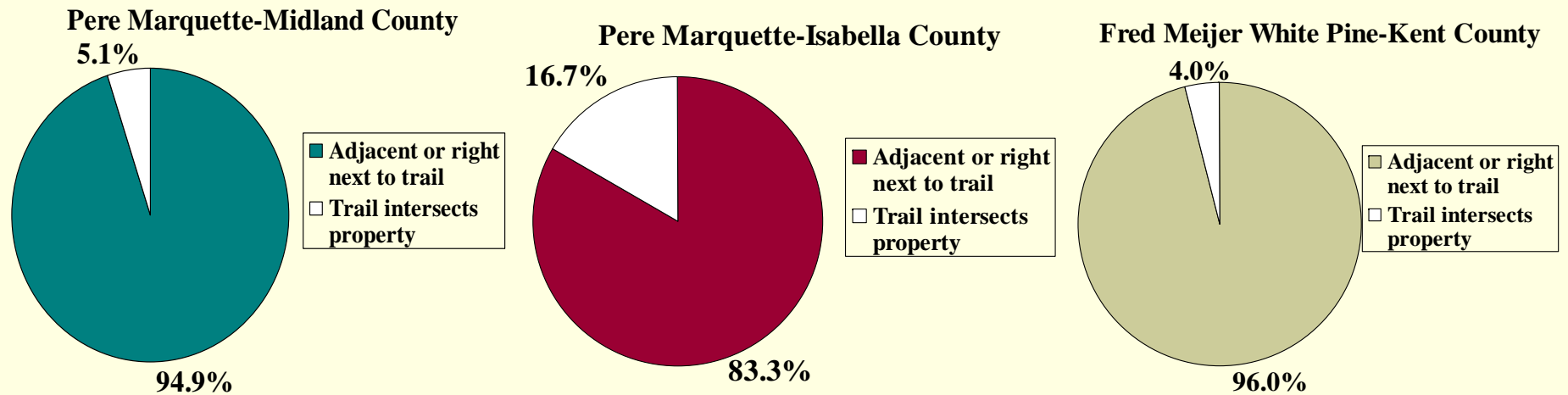
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# Adjacent Residents

Pere Marquette Rail-Trail and Fred Meijer  
White Pine Trail featured

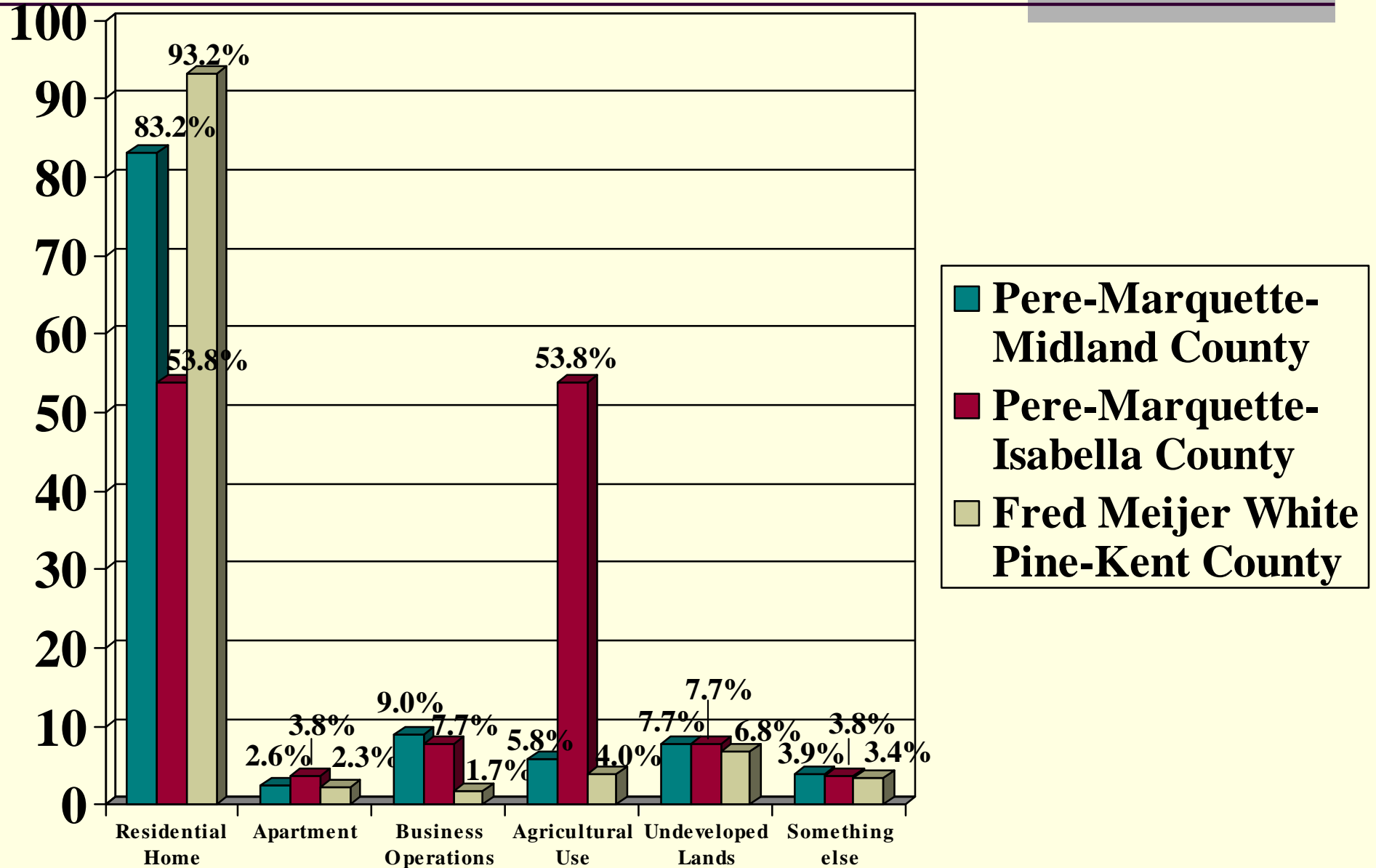
# Property Relation and Distance from Trail

## Property in relation to the trail



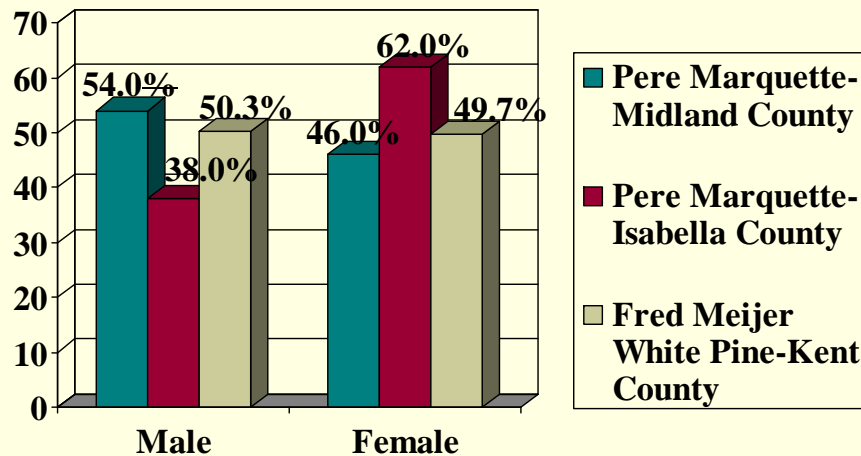
Approximate Distance from Trail			
	Pere Marquette-Midland County	Pere Marquette-Isabella County	Fred Meijer White Pine-Kent County
Range	1-3,520 yards	50-1,760 yards	1-1,760 yards
Mean	100 yards	394 yards	60 yards

# Type of Residential Ownership

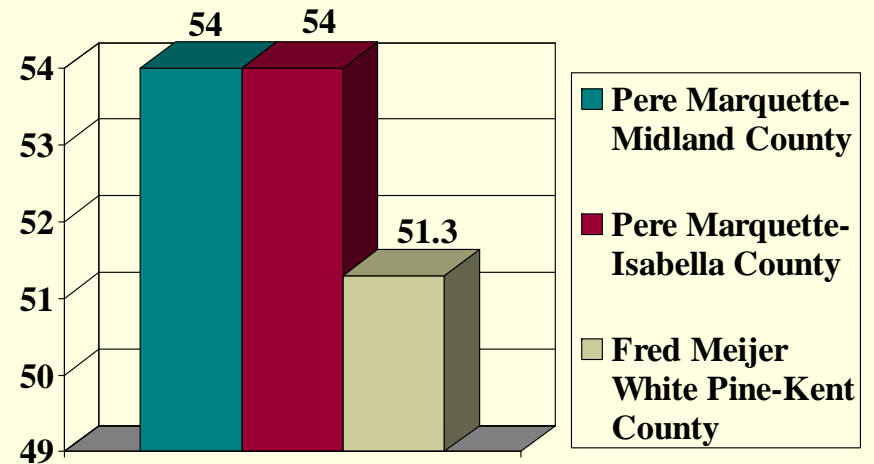


# Resident Respondents' Demographics

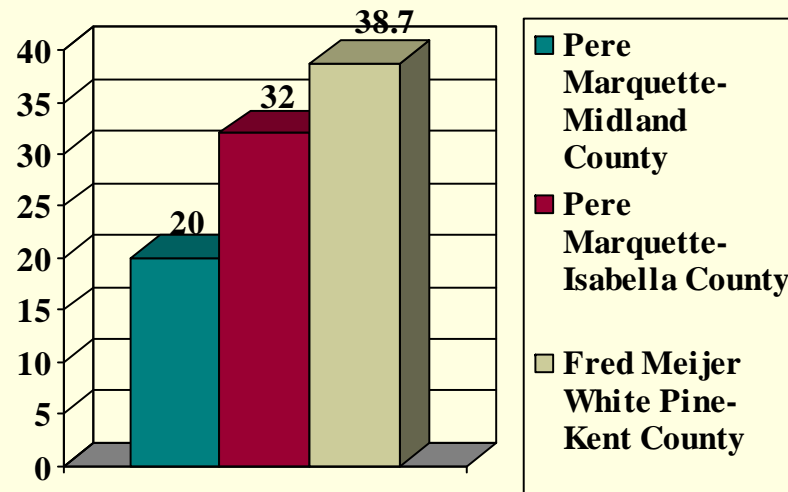
**Gender**



**Age (years)**

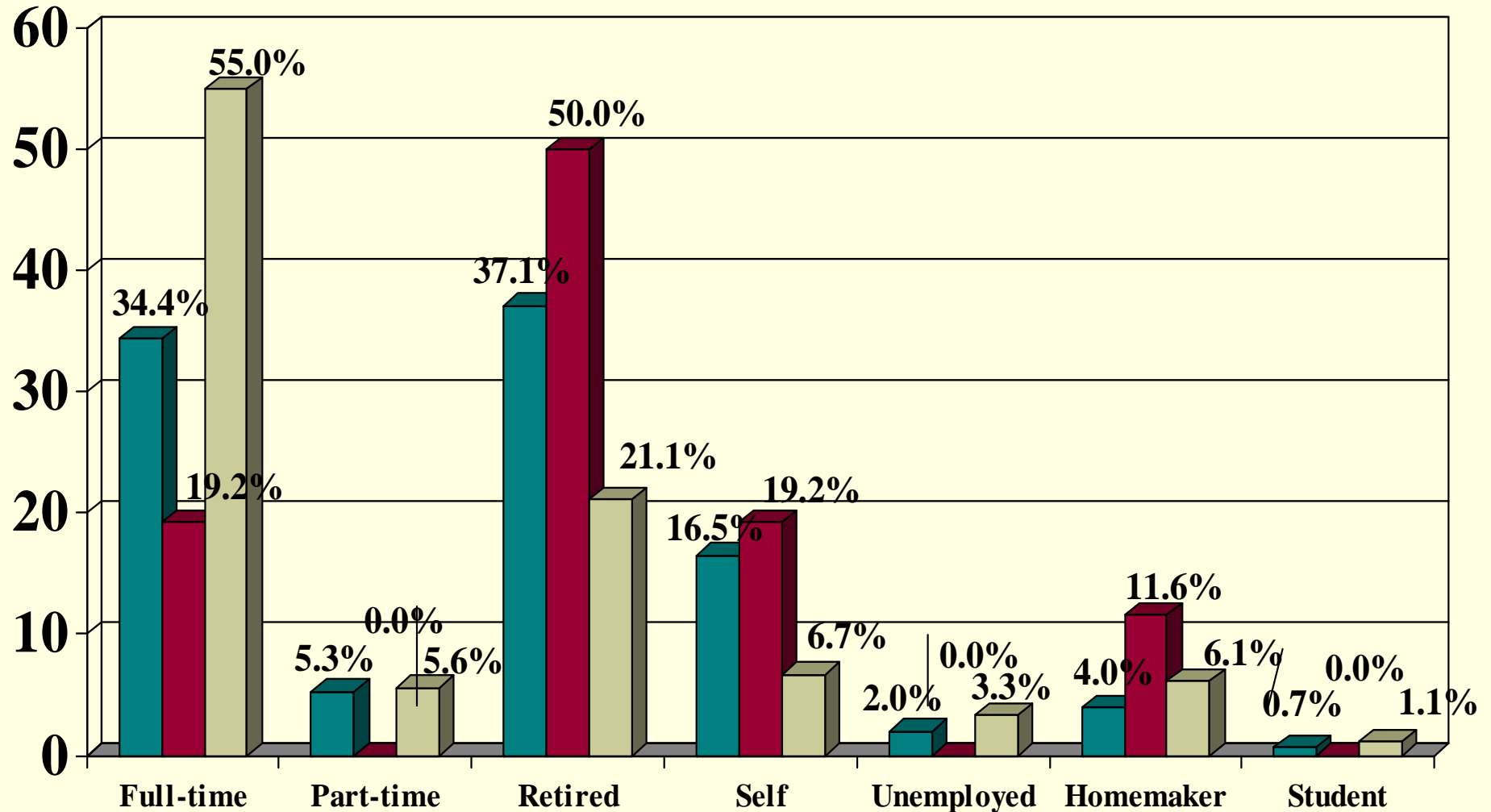


**Length of Residency (years)**

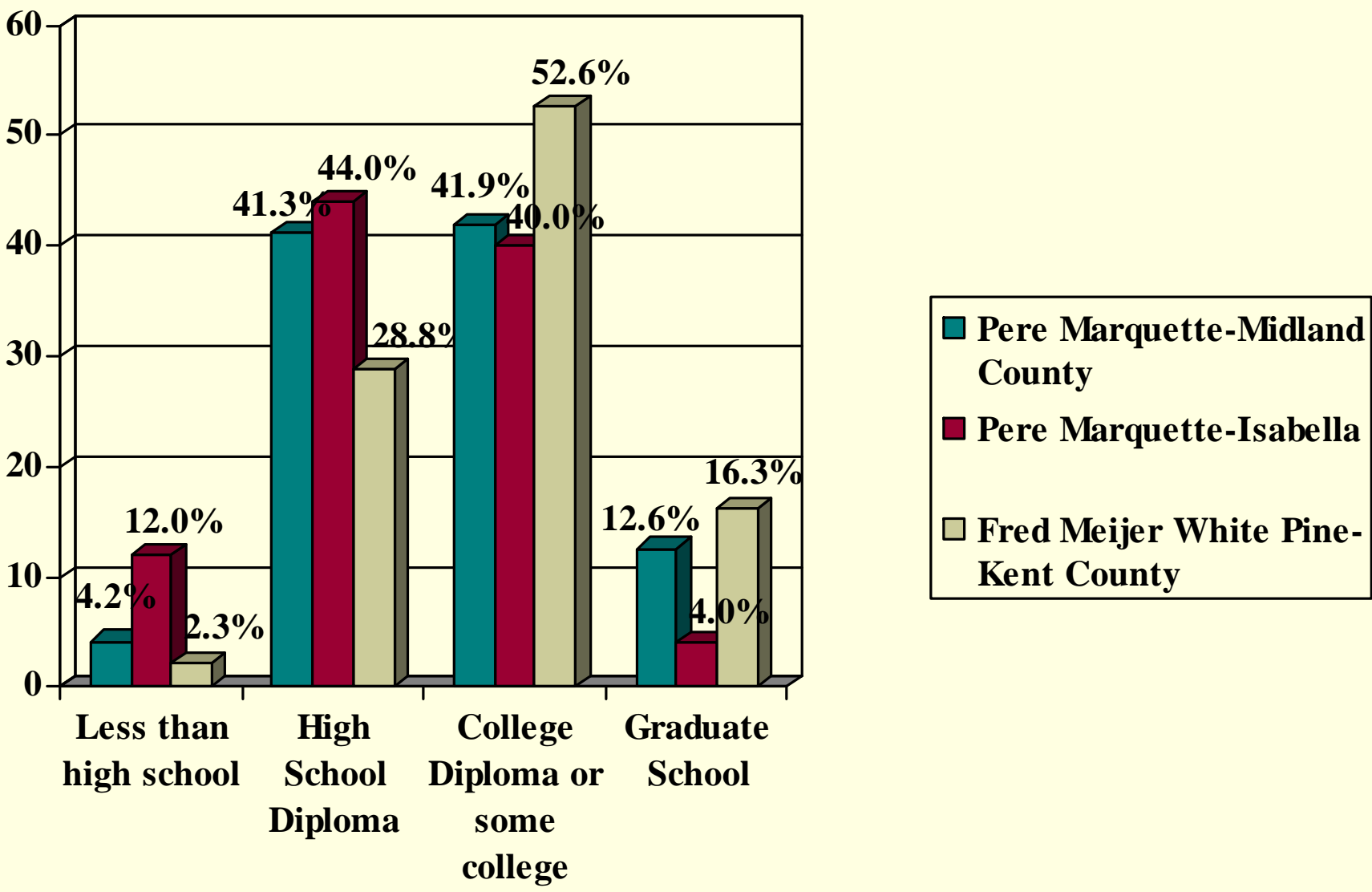


# Resident Respondents' Employment Status

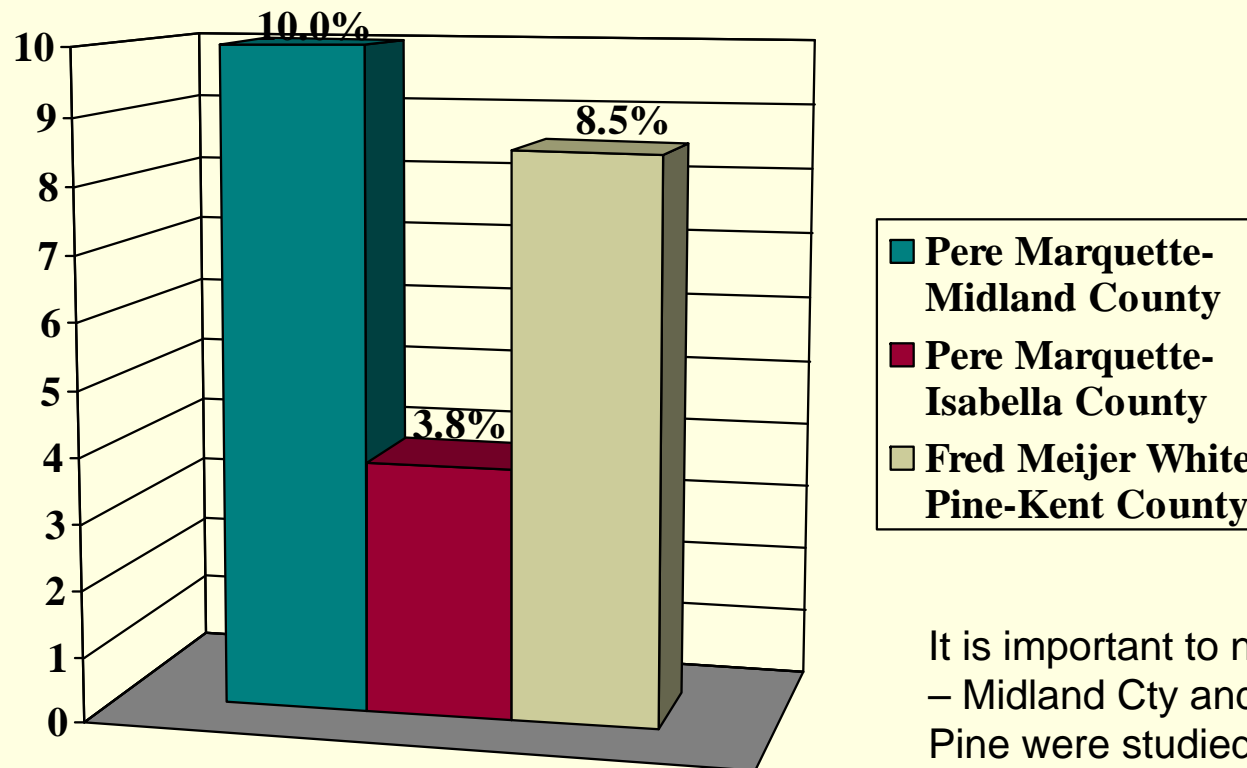
■ Pere Marquette-Midland County ■ Pere Marquette-Isabella County ■ Fred Meijer White Pine-Kent County



# Resident Respondents' Educational Attainment

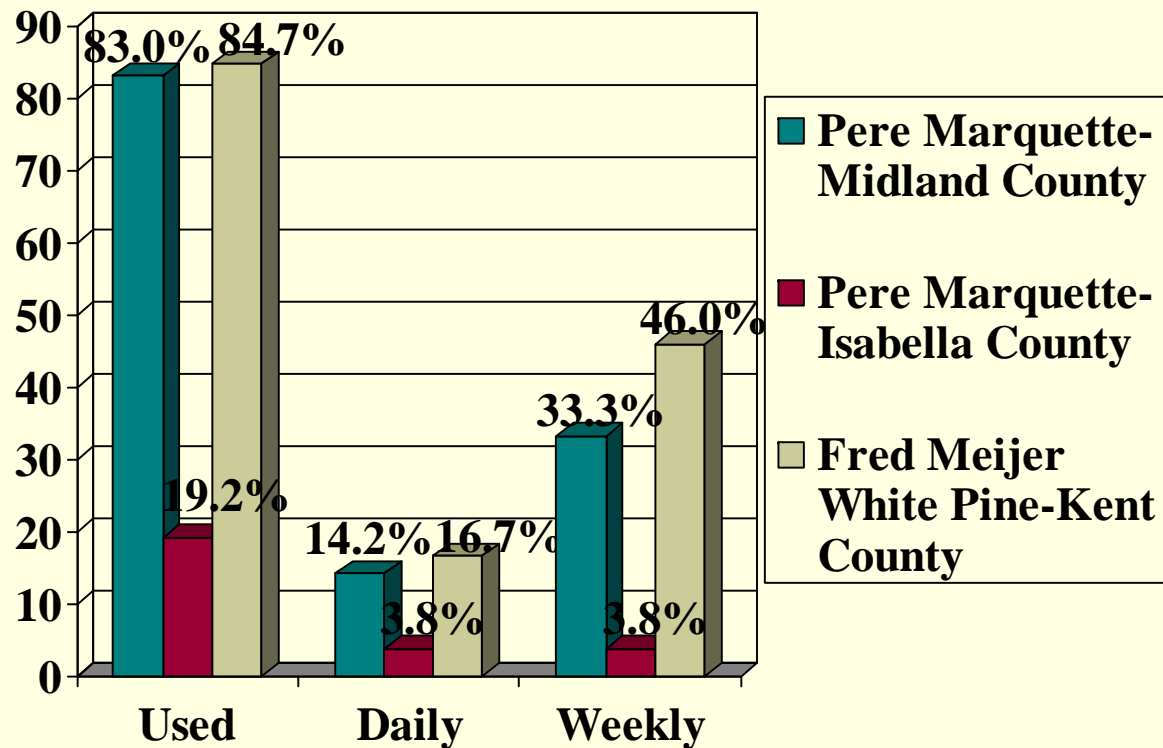


# Resident Respondents' Attendance at Planning Meetings



It is important to note PMRT – Midland Cty and White Pine were studied after trails' existence (10 or so years). PMRT-Isabella Cty was studied before trail construction.

# Adjacent Residents' Use of Trail



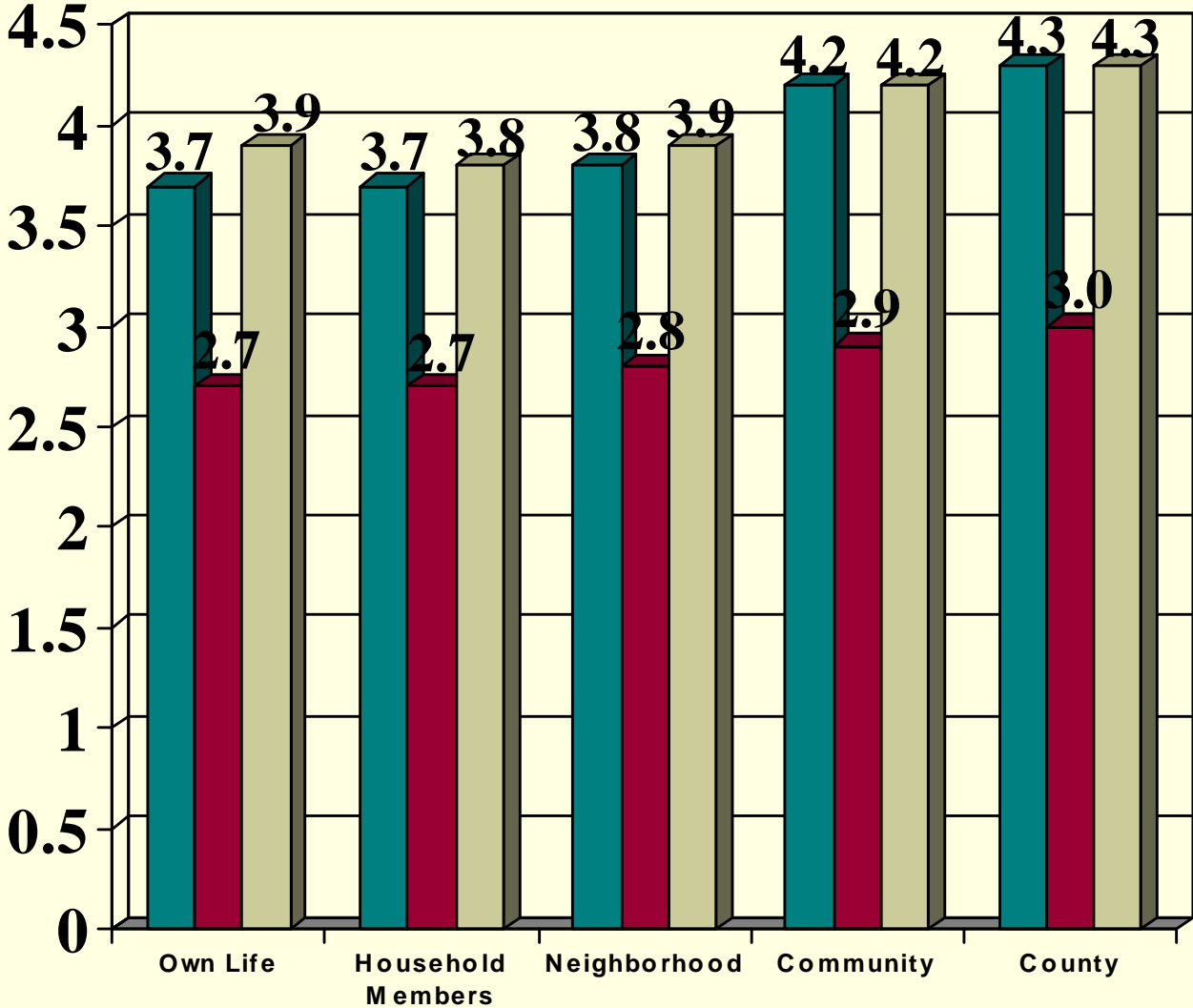
65.0% of Pere Marquette-Midland County residents used the trail for exercise and improving their health.

100.0% of Pere Marquette-Isabella County residents used the trail to exercise and to spend their free time.

63.6% of Fred Meijer White Pine-Kent County residents used the trail for exercise and fun and enjoyment



# Residents' Perceived Social Impact of Trail



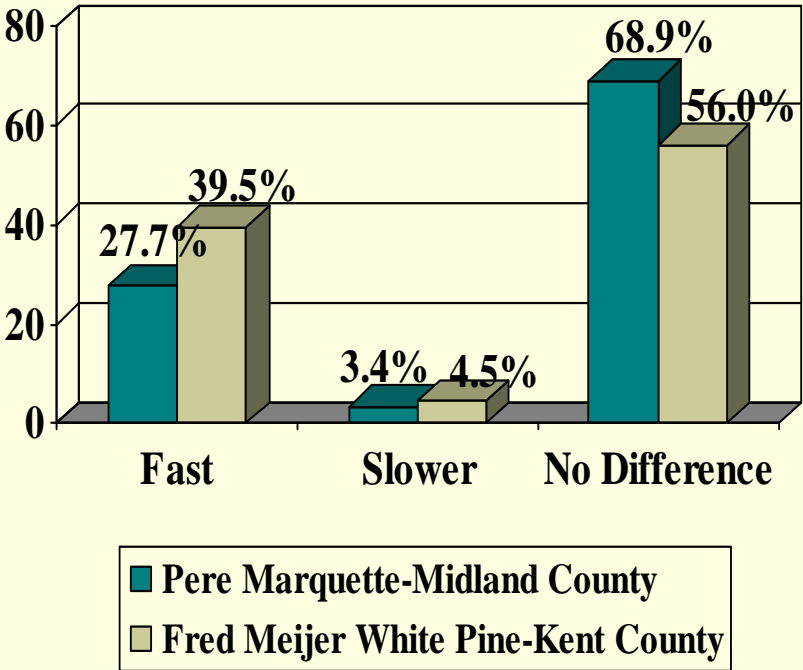
■ **Pere Marquette-Midland County**  
■ **Pere Marquette-Isabella County**  
■ **Fred Meijer White Pine-Kent County**

Rating scale with mean presented:

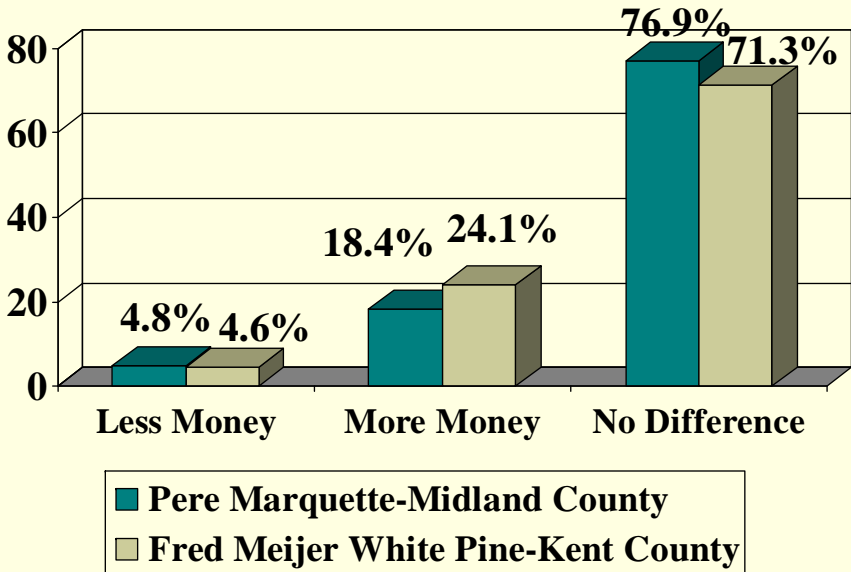
- 1=Very Negative Influence
- 2=Moderate Negative Influence
- 3=Neutral
- 4=Moderate Positive Influence
- 5=Very Positive Influence

# Residents' Perceived Economic Impact of Trail

Speed at which property would sell

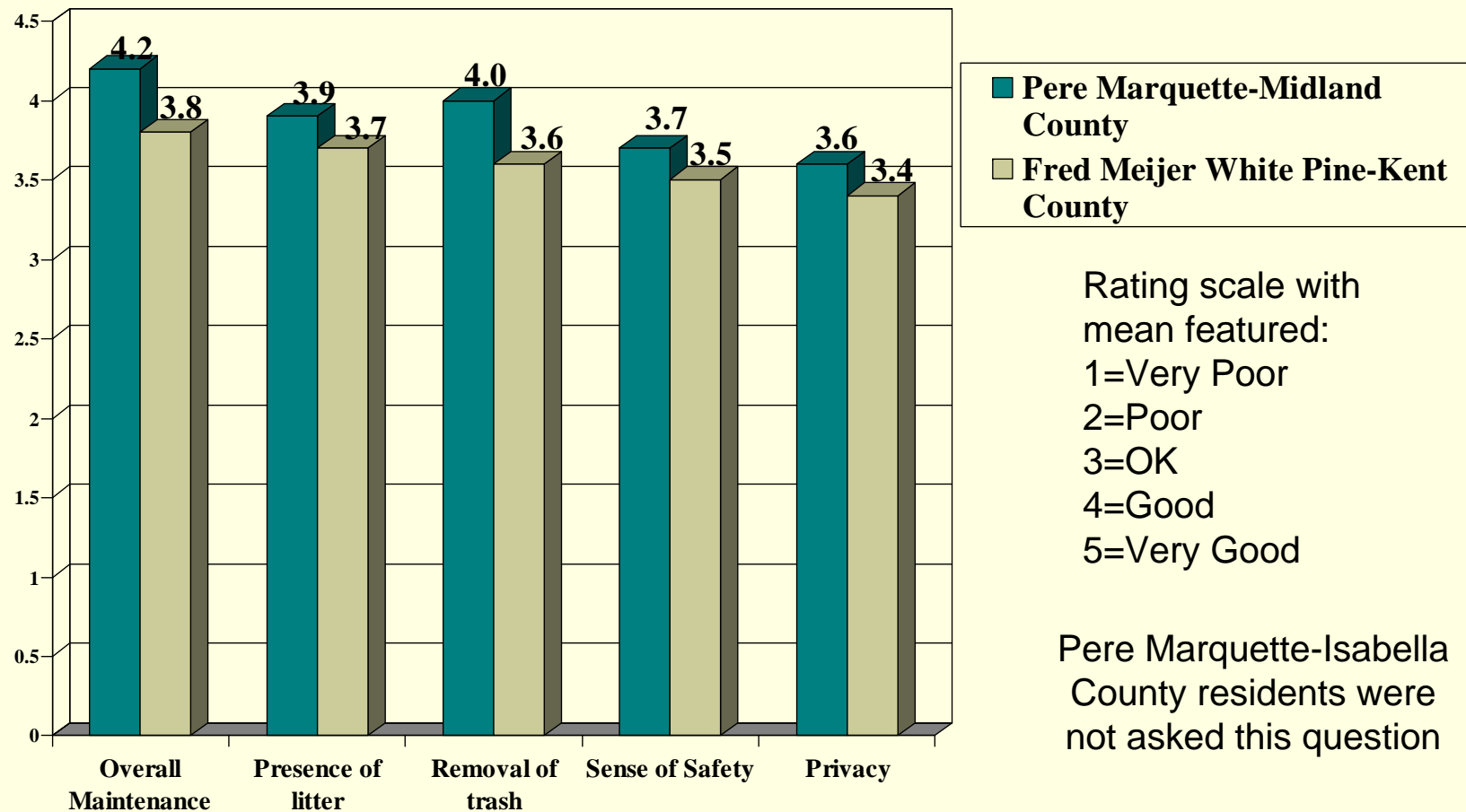


Amount at which property would sell



Pere Marquette-Isabella County residents were not asked this question

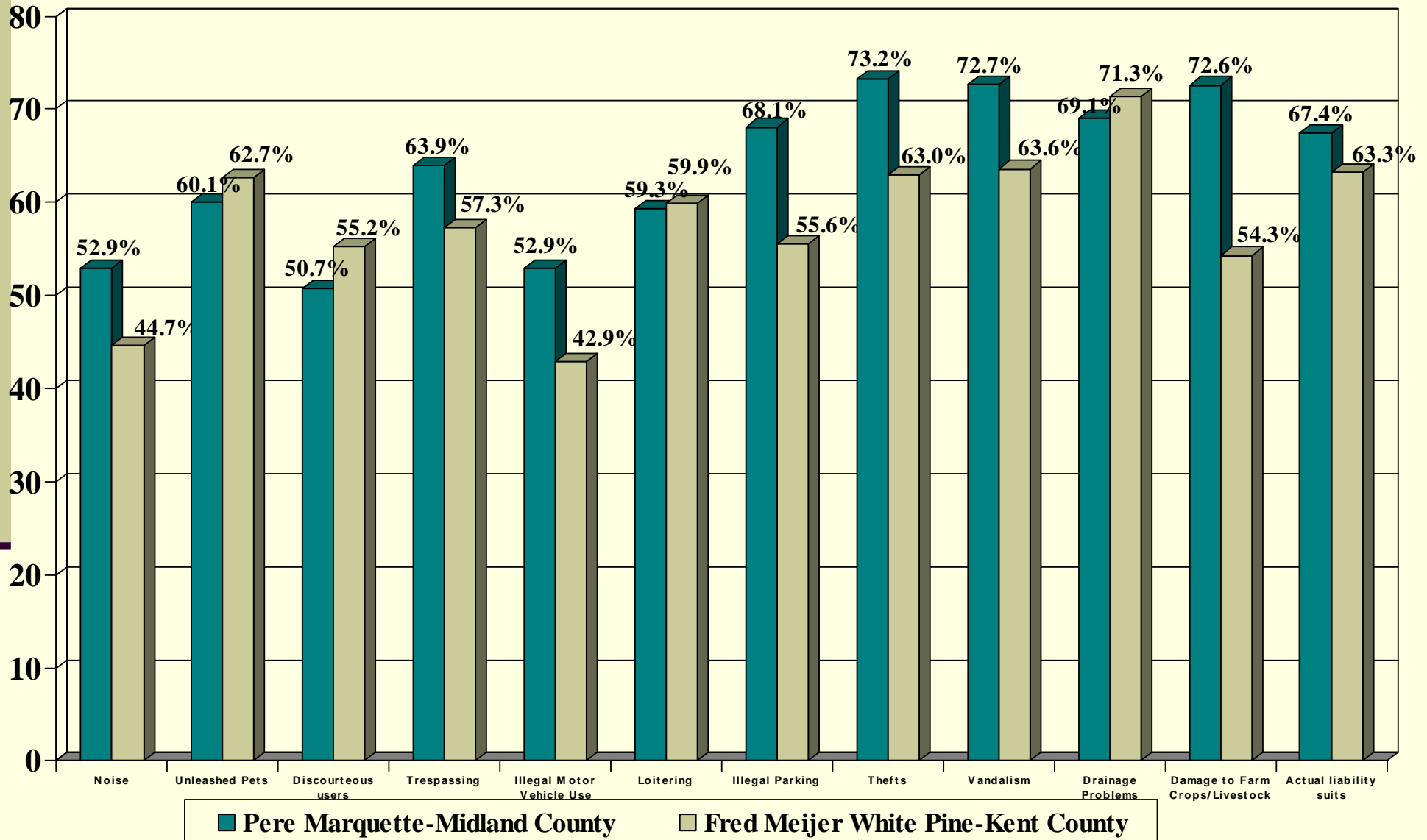
# Residents' Rating of Trail Conditions



# Trail Influence on Depreciative Behaviors

Percent of respondents reporting no change in depreciative behaviors.

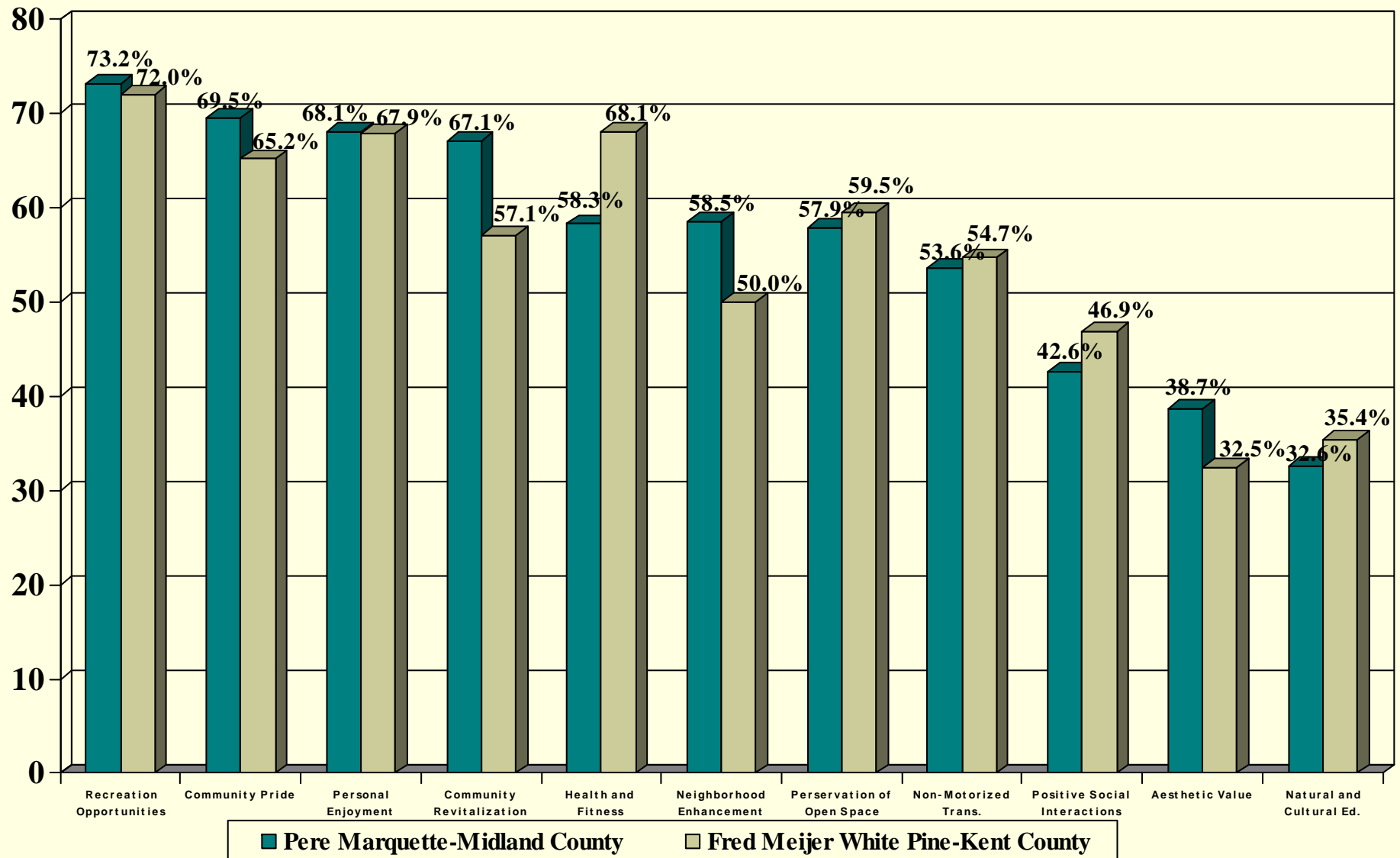
Pere Marquette-Isabella County residents were not asked this question.



# Trail Influence on Quality of Life Conditions

Percent of respondents reporting increase of quality of life conditions.

Pere Marquette-Isabella County residents were not asked this question.

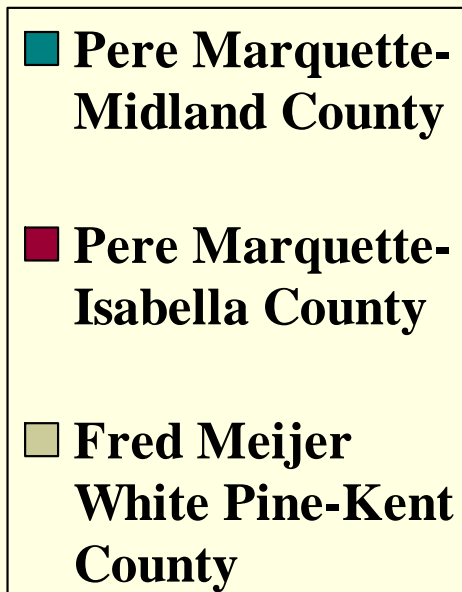
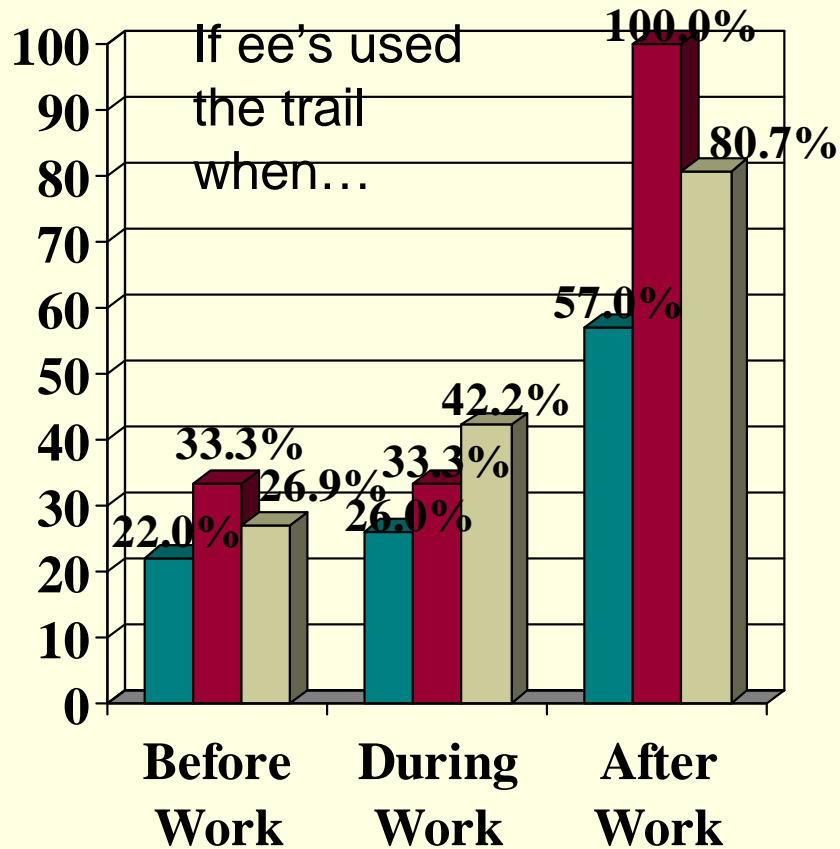


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# Nearby Businesses

Pere Marquette Rail-Trail and Fred Meijer  
White Pine Trail featured

# Employees' Use of Trail



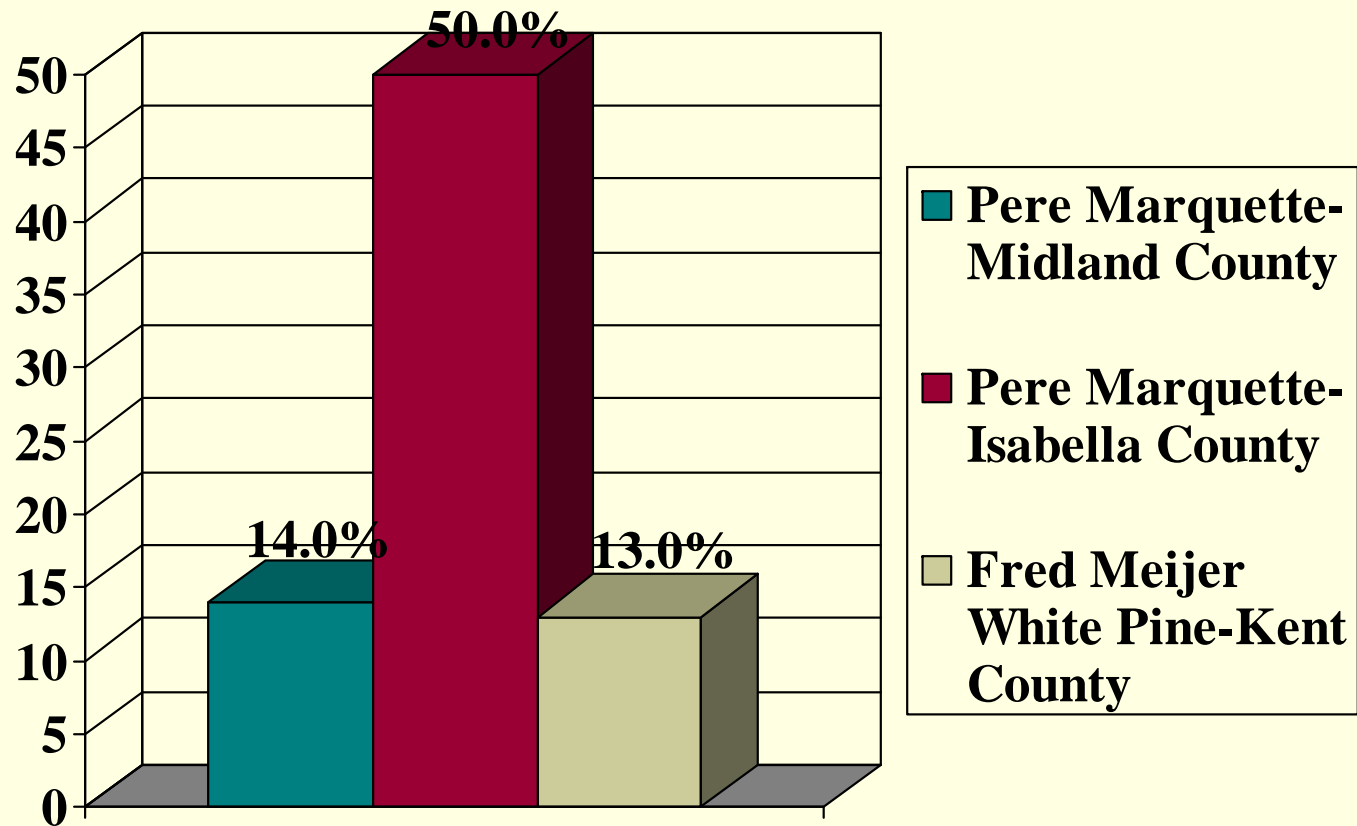
% of businesses using trail

96% of nearby Midland County business employees used the Pere Marquette Trail

100% of nearby Isabella County business employees used the Pere Marquette Trail

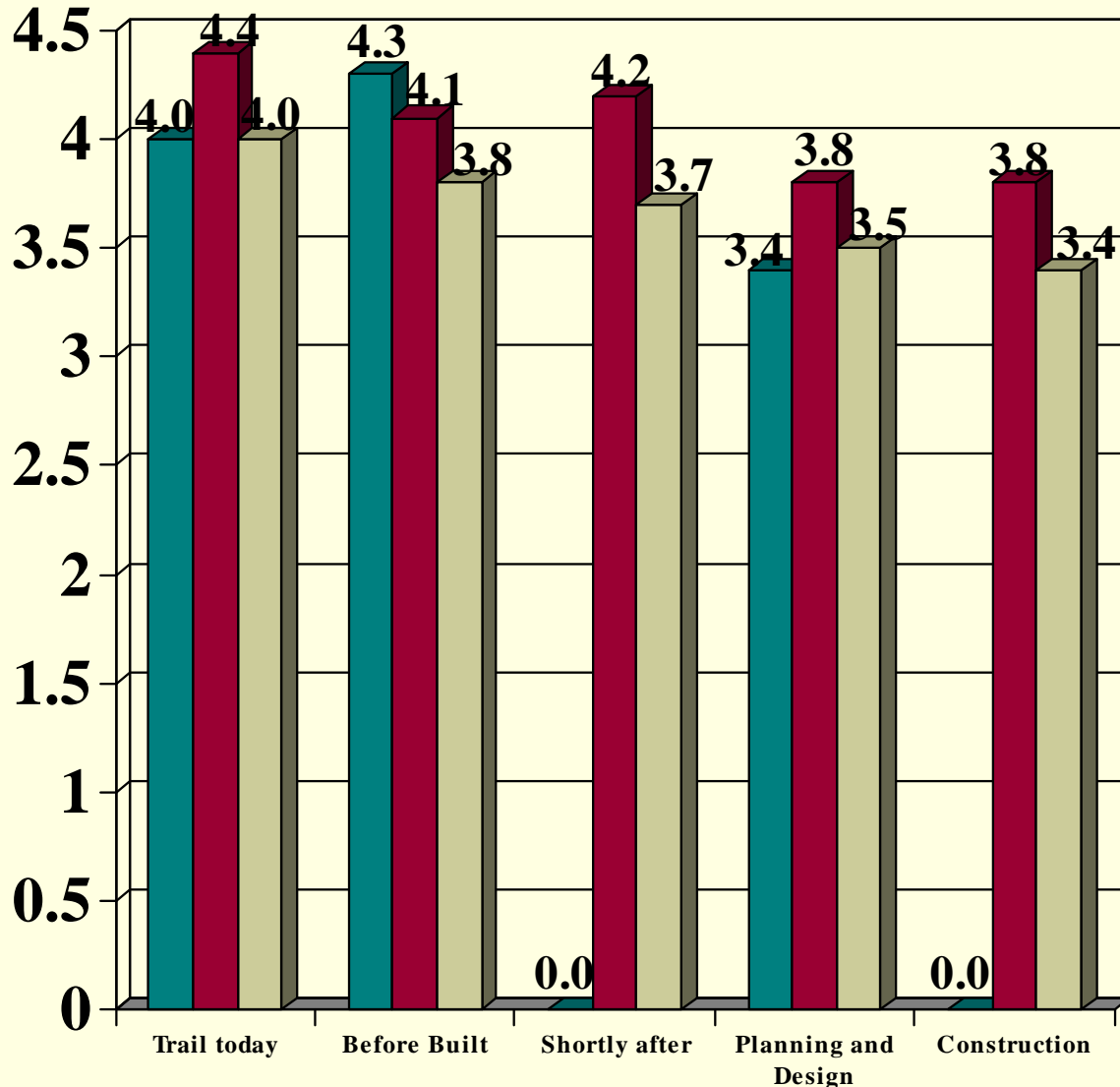
54% of nearby Kent County business employees used the Fred Meijer White Pine Trail

# Businesses' Attendance at Planning Meetings





# Businesses' Support for Trail

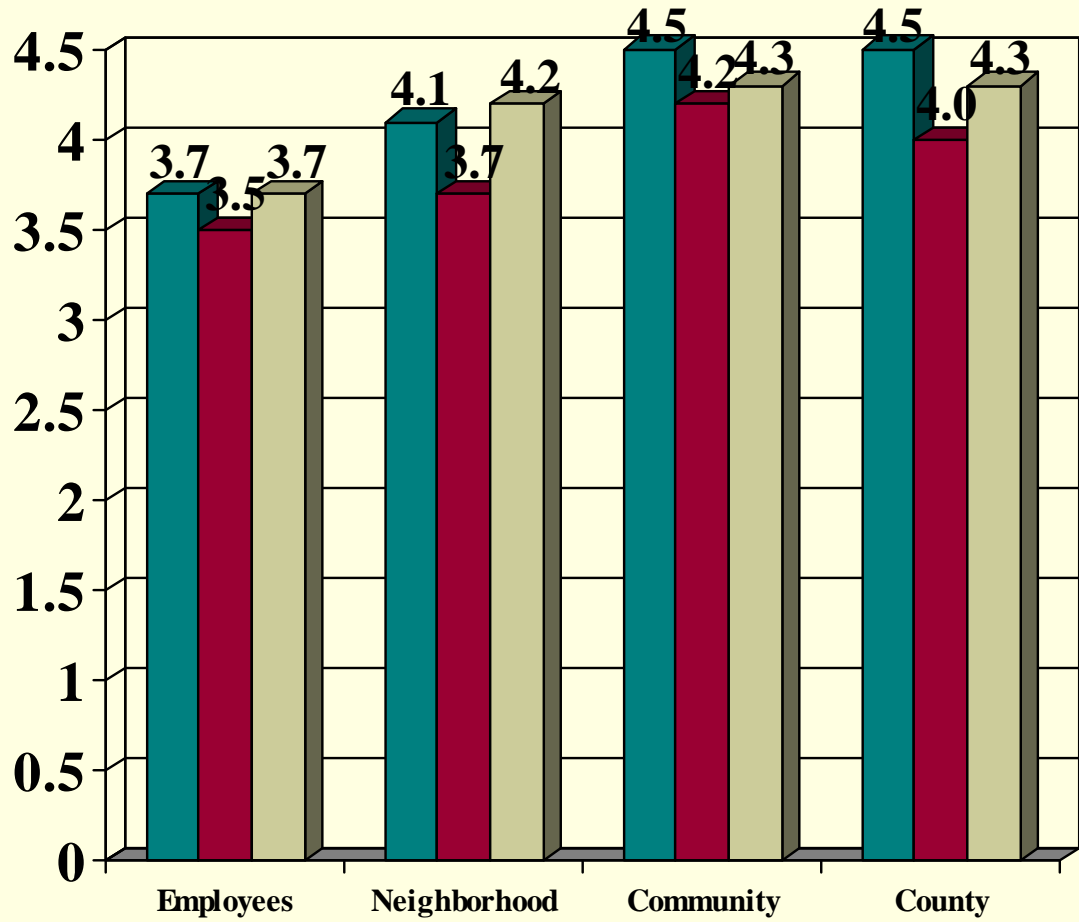


■ Pere Marquette-Midland County  
■ Pere Marquette-Isabella County  
■ Fred Meijer White Pine-Kent County

Rating Scale with mean featured:  
1=Very Opposed  
2=Moderately Opposed  
3=Neutral  
4=Moderately Supportive  
5=Very Supportive

Pere Marquette-Isabella County businesses were not asked their opinion about the trail shortly after and during the construction process.

# Businesses' Perceived Social Impacts of Trail



■ Pere Marquette-Midland County  
■ Pere Marquette-Isabella County  
■ Fred Meijer White Pine-Kent County

Rating scale with mean featured:  
1=Very Negative Influence  
2=Moderate Negative Influence  
3=Neutral  
4=Moderate Positive Influence  
5=Very Positive Influence

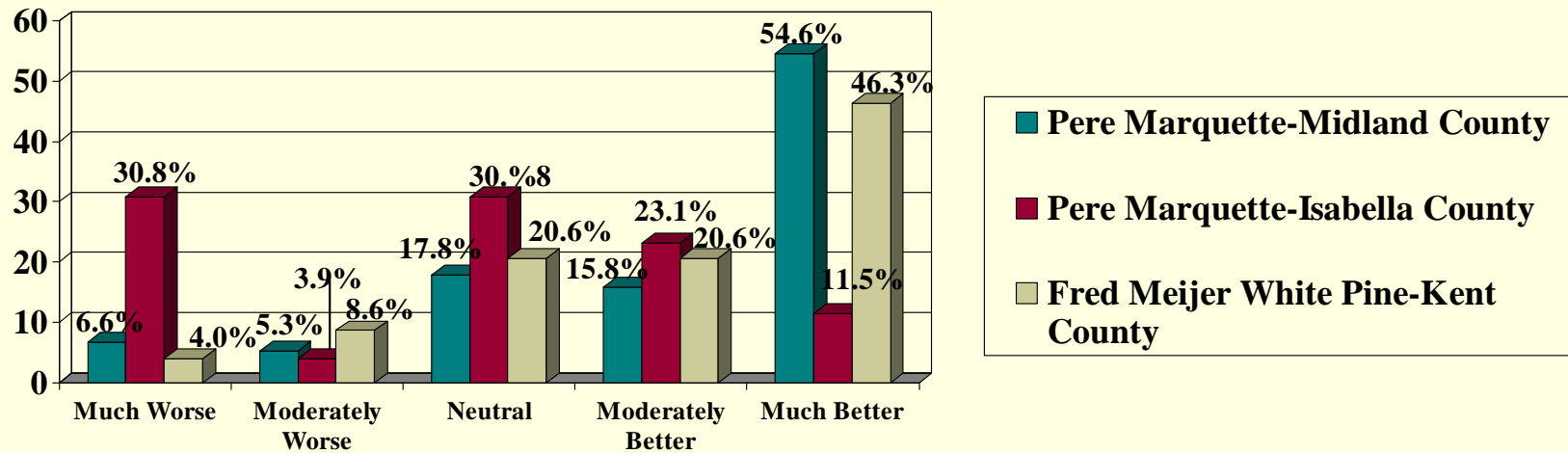
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# Final Comparison of How Neighborhoods of Residents and Businesses View the Trail

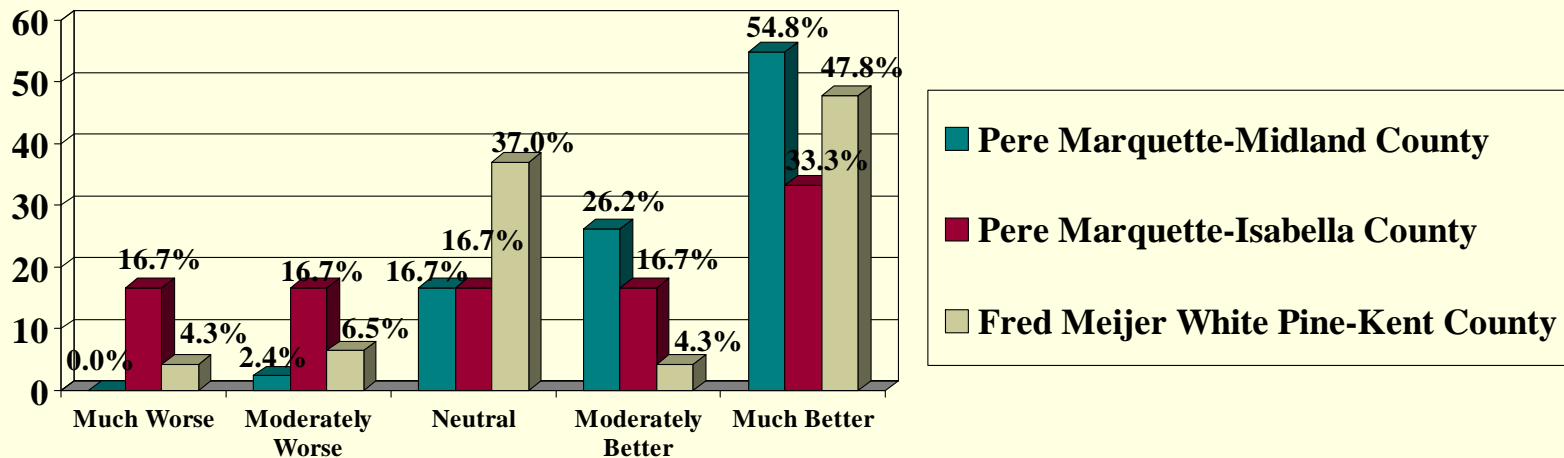
Pere Marquette Rail-Trail and Fred Meijer  
White Pine Trail featured

# Comparison of Trail to Abandoned Railroad Right-of-Way

## Adjacent Residents



## Nearby Businesses



# Overview of Findings

## ■ Methods

- Volunteers, students or summer interns are appropriate workforces for on-site surveying
- Observations or counting PLUS short user survey are easy to implement with a random sampling frame
- Event surveys with a registration list are relatively easy to do and yield high response rates. An on-site event survey is more challenging



# Overview of Findings

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- “In” community trail (sidewalk and trail system) yielded the highest use levels and greatest proportion of transportation use (Traverse City and TART trails)



Trail and sidewalk system in Traverse City



# Overview of Findings

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- Longer trails are more heavily used by cyclists (White Pine Trail, Pere Marquette – both trails are paved)



White Pine Trail



Pere Marquette Trail

# Overview of Findings

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- Trail neighbors are generally supportive of the nearby trail as shown by their own high level of use and opinion of the trail as better than rail or an abandoned corridor. Studies of residents before a trail is built and/or agricultural areas show some skepticism.



Pere Marquette in Isabella County



Pere Marquette in Midland County





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- Website with results and instruments located at [www.carrs.msu.edu/trails](http://www.carrs.msu.edu/trails)
  - Or e-mail [vogtc@msu.edu](mailto:vogtc@msu.edu)