

Recreation Needs of Mountain Bikers at Whiskey Run Trails in Bandon, Oregon



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Acknowledgements



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- Contract negotiations
- Project oversight
- Insightful survey comments and suggestions

Source: <https://www.linkedin.com/in/julie-miller-2092248>

Acknowledgements



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- Introduced the OSU team to TSOC
- Initiated conversations that led to this project

Source: <https://tourism.oregonstate.edu/tourism-presentation-miles-phillips/>

Acknowledgements



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- Insightful comments on the survey

Source: <https://independent.academia.edu/GhahramaniLadan>

Acknowledgements



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Presentation Overview



- Project Purpose and Goals
- Methodology
- Response Rates
- Results
- Future Work

Project Purpose and Goals

Purpose: To help Coos County and collaborators (TSOC and ORSTN), understand the recreation needs of mountain bikers at Whiskey Run

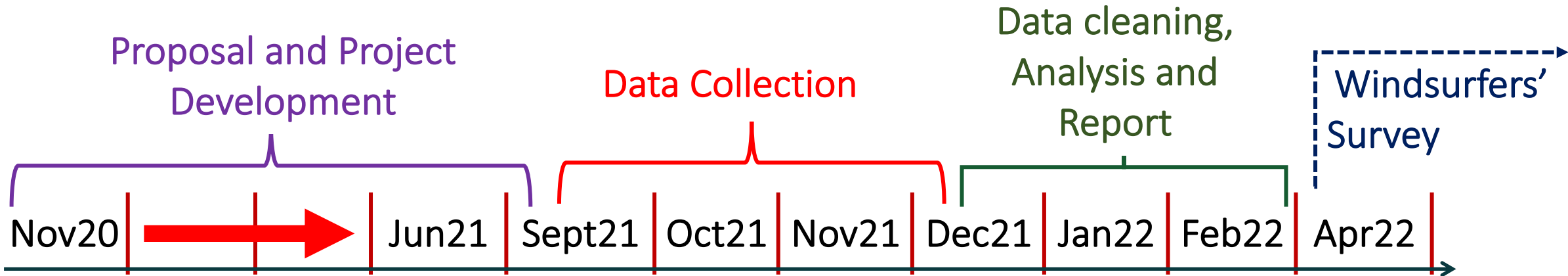
Goals

1. Identify the most **important recreation facilities** to mountain bikers at Whiskey Run.
2. Identify the level of **support for selected recreation services** at Whiskey Run.
3. Identify the level of **support for new recreation management actions** aimed to enhance mountain biking experience at Whiskey Run.
4. Identify the level of **willingness to contribute resources** toward trails maintenance costs.



Methodology

Project Timeline



Methodology

Survey Design



Part 1: Demographic/socio-economic characteristics (Manning, 1999)

- Influence recreation recreation needs
- Consider visitors and non-visitors to understand variability of needs

Part 2: Individual recreation attributes (recreation attributes framework-Lee et al., 2007)

- Individual recreation attributes influence recreation needs

Part 3: Site recreation attributes (recreation attributes framework-Lee et al., 2007)

- site recreation attributes influence recreation needs

Methodology



Data collection

- Online survey launched on September 1, 2021
- Paper survey launched on September 4, 2021

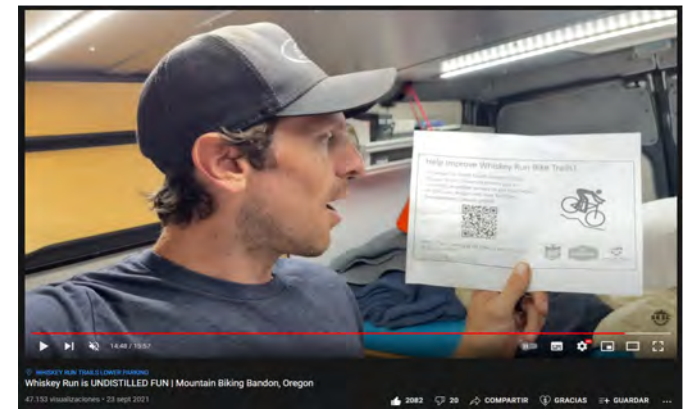
Help us Improve Whiskey Run Bike Trails!

On behalf of Travel South Oregon Coast, Oregon State University invites you to complete an online survey to get your input on trail use, design and new facilities development. Details online



Point phone camera at QR code or write this link in your browser:

<https://bit.ly/38HcTZO>



Methodology



Data Analysis

Group difference analysis approach (i.e., compare needs by skill level)

- This decision is informed by the recreation specialization theory-Ewert & Hollenhorst,1994)
(riding needs change with change in skill level)

Responses

Total Responses = **433**

Cases removed for missing more than 10% of total responses = **24**

Total sample = **409**

- ~63% are visitors (257)
- ~ 37% are non-visitors (152)



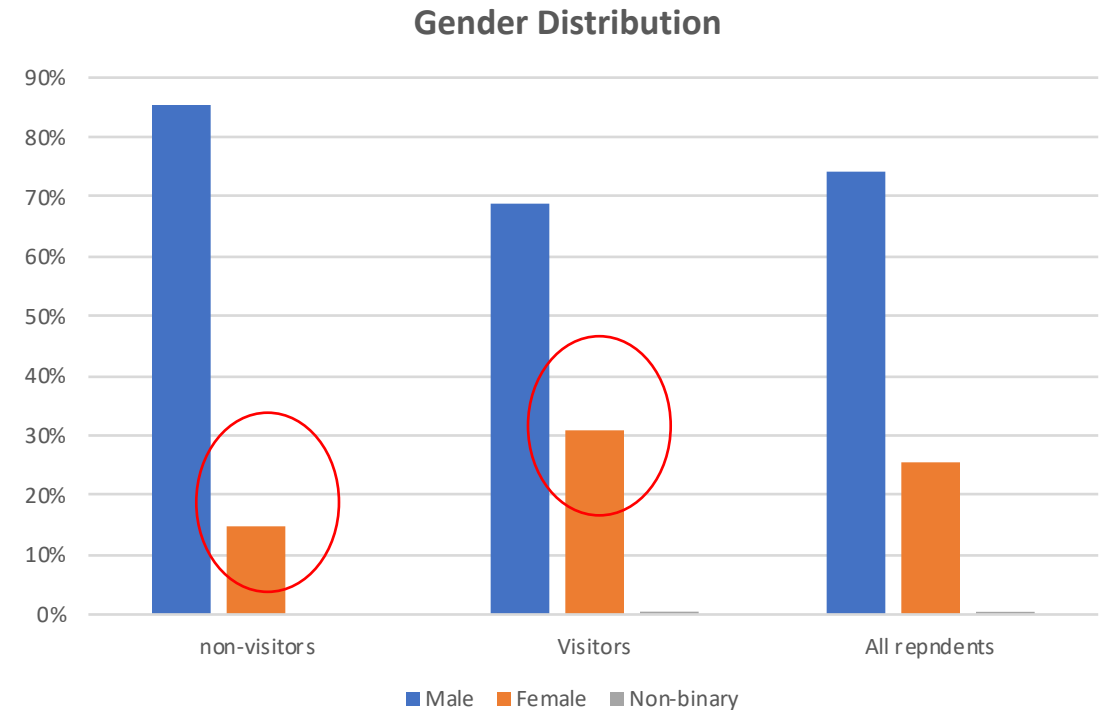
Results: Demographic Information

Gender distribution:

- Overall, out of 409 respondents, about 74% are men and 25% are women.
- There are more female bikers among visitors (30.7%) than the non-visitors (14.8%).

These statistics indicate that;

1. Female bikers represent a potential growth area
2. Whiskey Run is likely a family destination



Gender difference is statistically significant at 95% confidence level ($\chi^2 = 8.50, p < .05$). However, a moderate effect size (Crammer's $V = .2$) indicating a less concerning difference (Vaske, 2008).

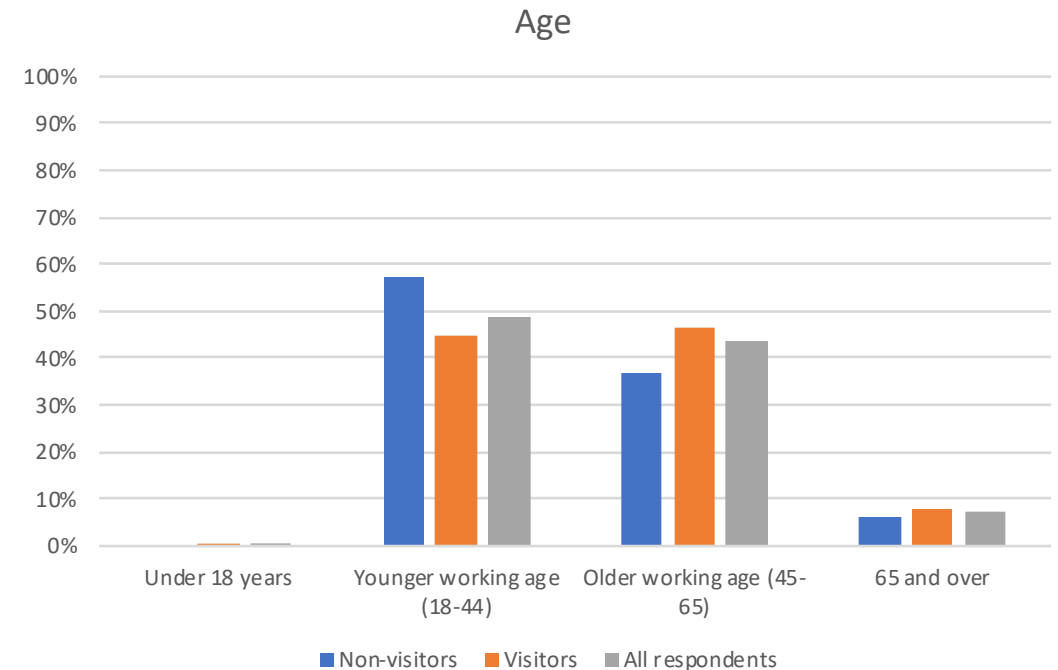
Results: Demographic Information

Age:

- Most bikers are in the following age groups:
 - young working-age group (48.8 %)
 - adult working-age group (43.5%)

These statistics show that it is worthwhile to:

1. Target young working-age group (18 to 44- by developing and promoting technical biking experiences-the thrill of riding black diamond)
2. Target adult working-age group (45 to 65-e.g., by showing safe and family-oriented adventure biking experiences).



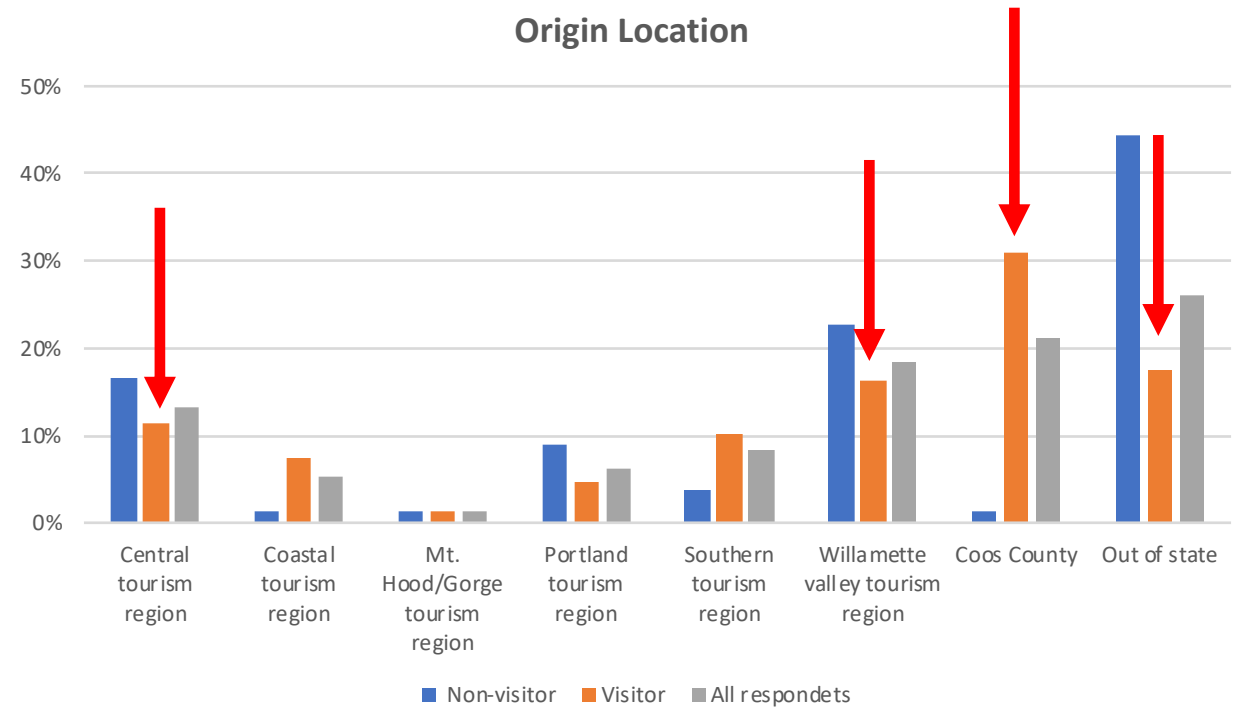
Age difference is not statistically significant at 95% confidence level ($\chi^2 = 3.58, p > .05$)

Results: Demographic Information

Origin location:

- Visitor statistics:
- 30.9 % are from Coos County,
- 17.6 % are from out of state, particularly Washington State and California
- 16.4 % are from Willamette Valley,
- 11.5 % are from Central Oregon

Visitors origin: Coos County, Willamette Valley, Out of State (Washington State and California) and Central Oregon. These locations represent the geographical areas of market growth for mountain bikers at Whiskey Run trails-should be the focus of marketing and promotion for Whiskey Run.



Location difference is statistically significant at 95% confidence level ($\chi^2 = 46.54, p < .001$) with a large effect size (Cramer's $v = .44$) indicating a substantial difference (Vaske, 2008)

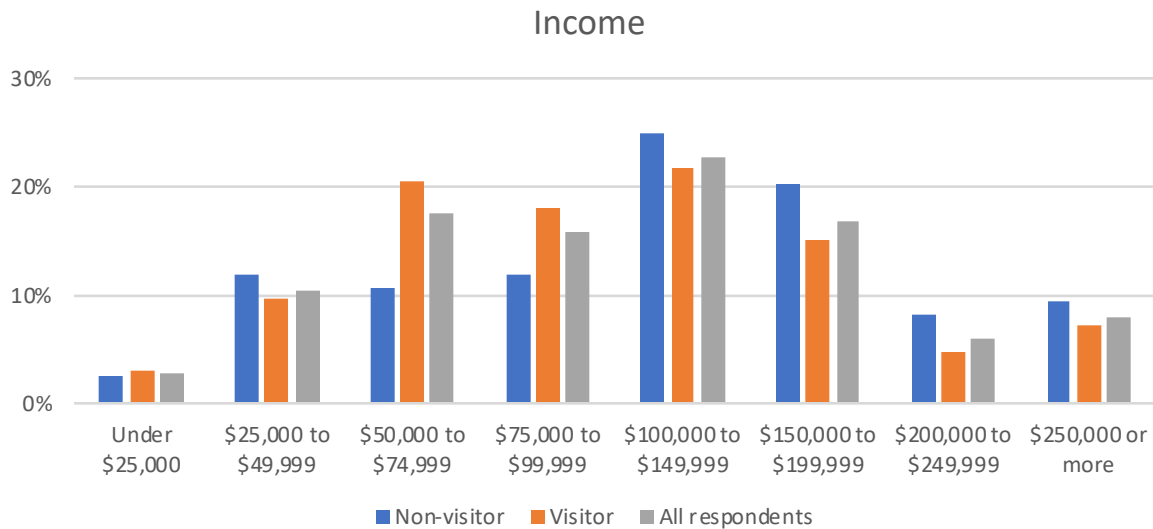
Results: Demographic Information

Income and Education:

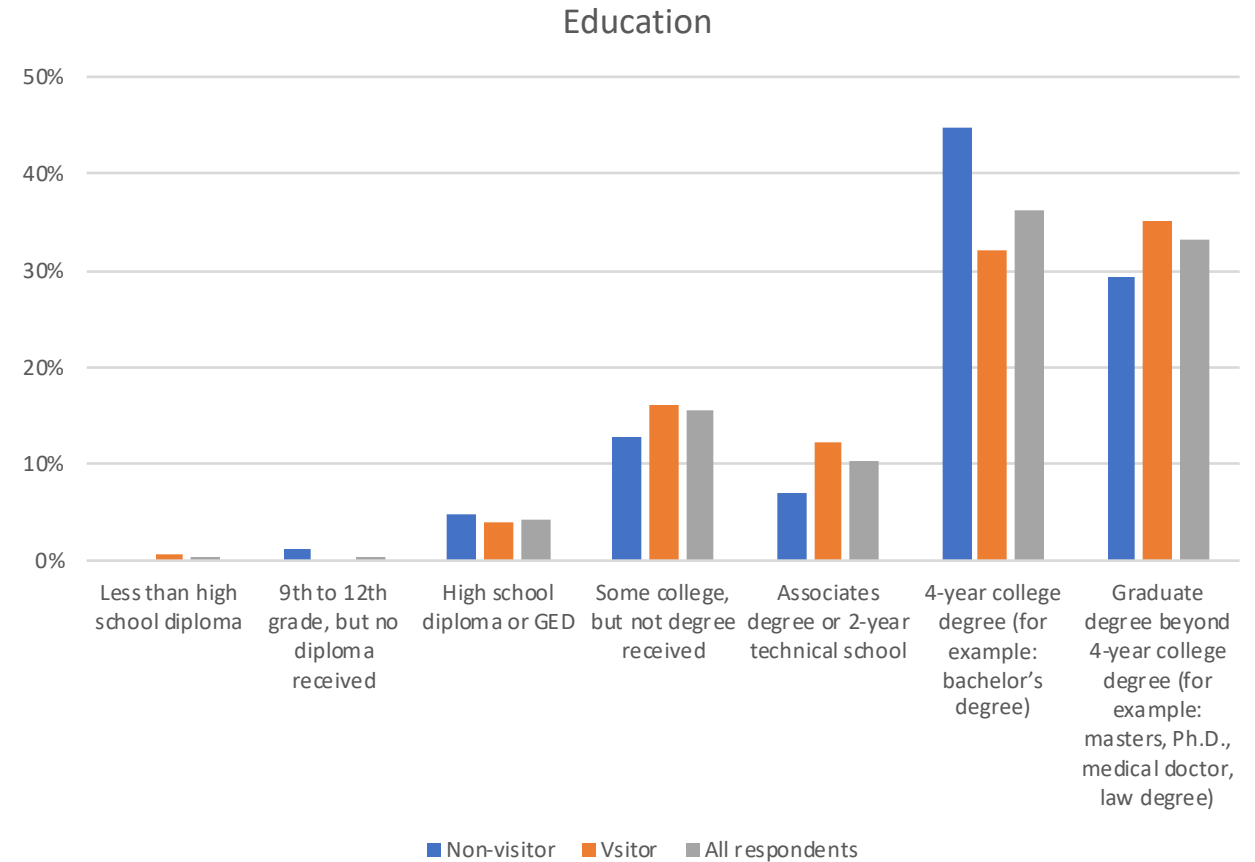
Overall, respondents are:

- Highly educated (about 69% have a 4-year college degree or advanced graduate degrees),
- Affluent (about 53% earn \$100,000 and more per year).

Affluent riders are more sensitive to poor quality of recreation experience. Active management of trails is needed (regular maintenance of trails and facilities)



Difference in education is not statistically significant at 95% confidence level ($\chi^2 = 7.45, p > .05$)



Difference in education is not statistically significant at 95% confidence level ($\chi^2 = 7.37, p > 0.5$)

Results: Whiskey Run Mountain bikers' recreation attributes



Individual recreation attributes likely to influence needs

- Level of riding skill
- Source of information
- Recreation behavior (riding time and group size)
- Level of satisfaction with experience

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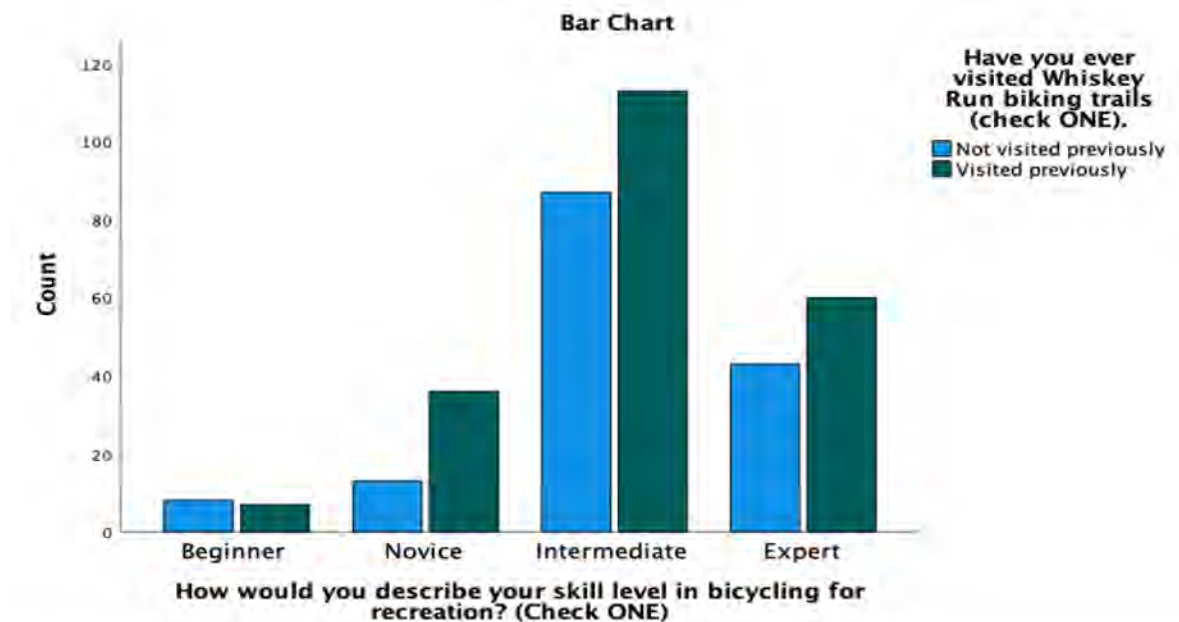
Results: Whiskey Run Mountain bikers' recreation attributes

Level of riding skill:

- Most perceive to be intermediate skilled riders(54.4%).
- About 28% perceive to be expert skilled riders

These statistics show that:

1. Whiskey Run attracts skilled riders.
2. Management needs to pay close attention to the needs of skilled riders (prioritize development and promotion of technical trails).



No statistical difference between visitor and non-visitors respondents (Chi-square = 5.09, df = 6, p-value = 0.53).

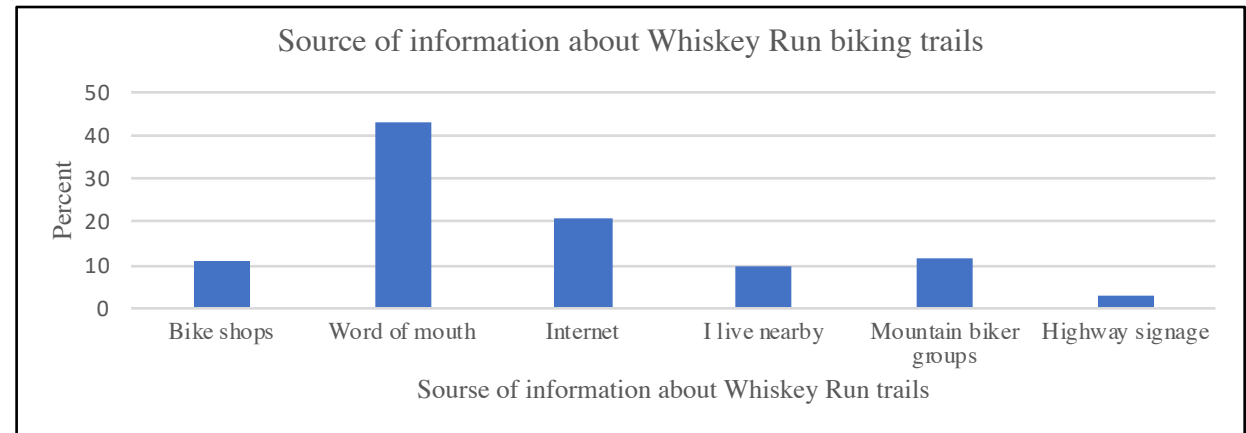
Results: Whiskey Run Mountain bikers' recreation attributes

Source of information about Whiskey Run:

- Most bikers learn about it through word of mouth (43.2%), and
- Internet (21%).

These statistics show that:

- Whiskey Run offers unique and competitive biking experiences.
- Management should emphasize the uniqueness and quality of trails at Whiskey Run in promotion and communication.



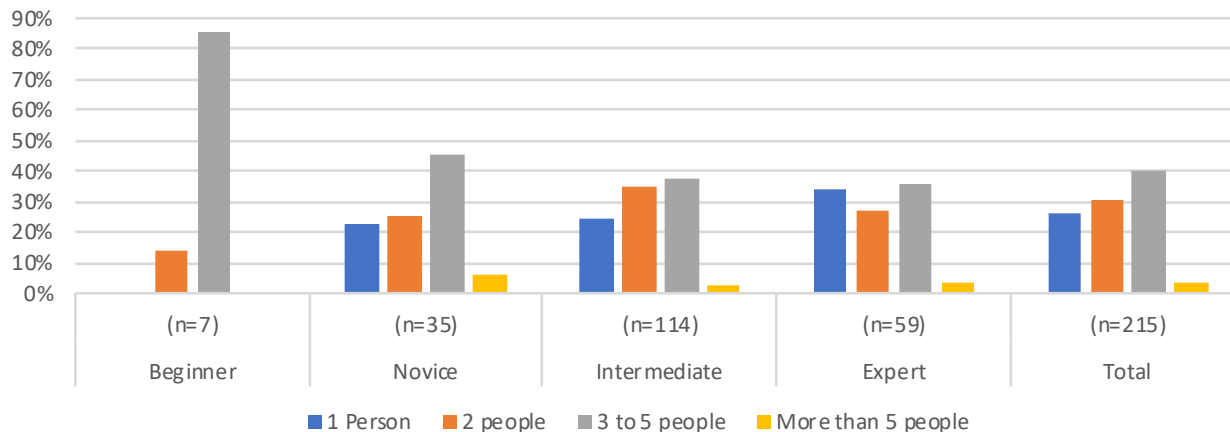
No statistical difference by skill level (Chi-square = 17.91, df = 15, p-value = 0.27)

Results: Whiskey Run Mountain bikers' recreation attributes

Recreation behavior of bikers to Whiskey Run (time riding at WR and group size):

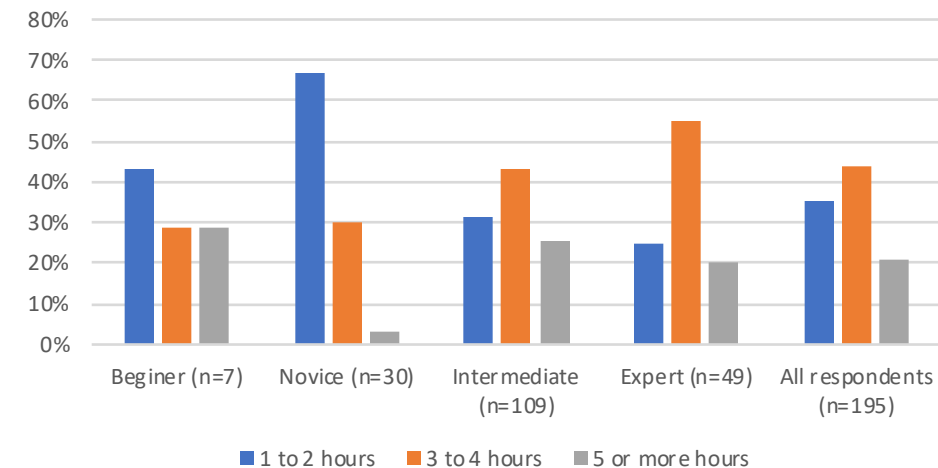
- Most bikers recreate in groups of 3 to 5 people (40%)
- Most bikers ride for about 3 to 4 hours per day of mountain biking,
- **This information indicates that Whiskey Run is arguably a family mountain biking destination. This attribute should be emphasized in trail development (e.g., by adhering to address safety issues and concerns) and in promoting Whiskey Run (e.g., by showing that Whiskey Run offers a family-oriented, fun, and safe biking experience).**

Typical group size of riders



No statistical difference (Chi-square = 10.72, df = 9, p-value = 0.29)

Time spent in trails riding



moderate statistical difference (Chi-square = 19.51, df = 6, p-value = 0.03, Cramer's V (effect size) = 0.22)

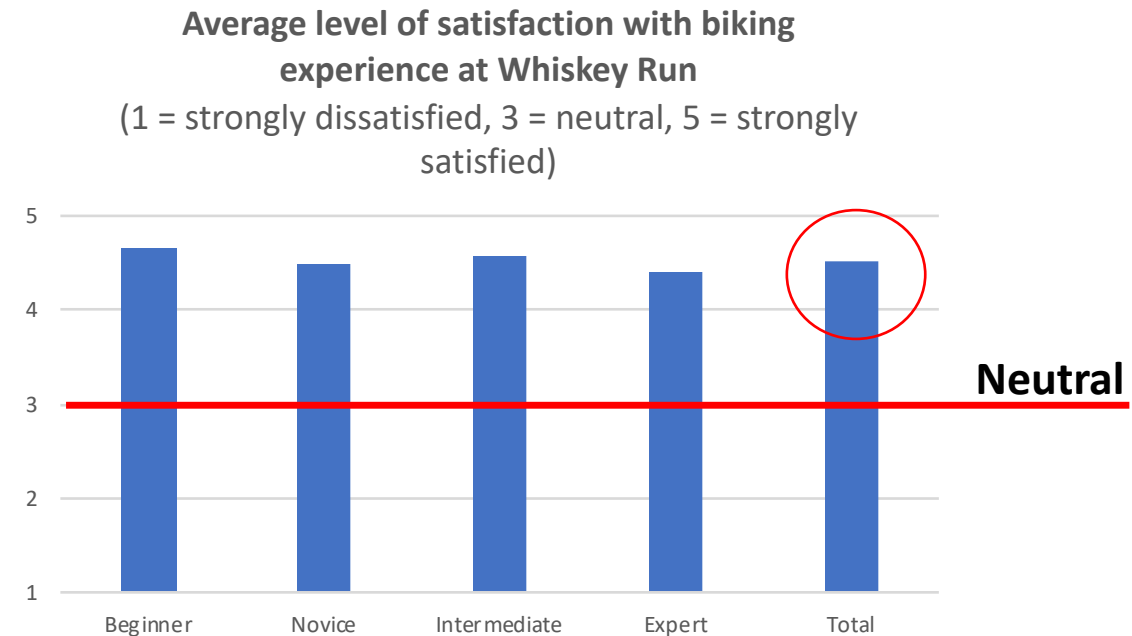
Results: Whiskey Run Mountain bikers' recreation attributes

Riders' satisfaction with experience at Whiskey Run:

- Overall, mountain bikers very much enjoy their experience at Whiskey Run (i.e., an average rating of 4.5 out of 5).

These results show that:

1. Whiskey Run offers competitive biking experiences.
2. However, this also means that management must put in place a quality monitoring program to detect and address quality early.
3. Similarly, management must increase active management/maintenance of trails and facilities to sustain this quality level of biking experience.



Difference by skill level is not statistically significant
($F = 1.65$, $p = 0.18$)

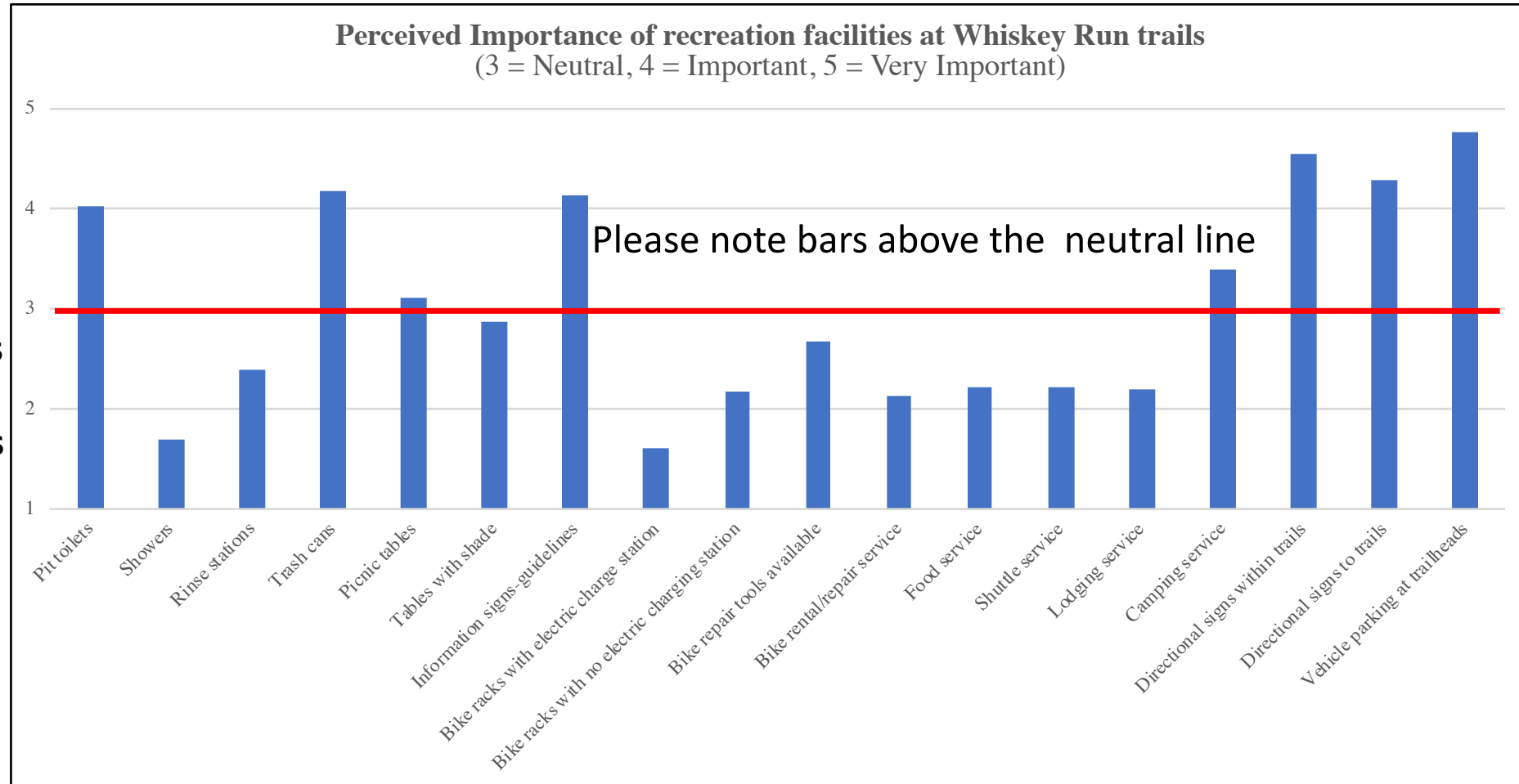
Results: Whiskey Run Recreation attributes

- 1) Most important recreation facilities (e.g., pit-toilets, parking),
- 2) Level of support for key recreation services (e.g., food, lodging),
- 3) Level of support for new biking recreation management actions (e.g., expanding trail distance, camping area),
- 4) Level of support for alternative funding for trails maintenance costs (e.g., donations, volunteering).



Important Recreation Facilities

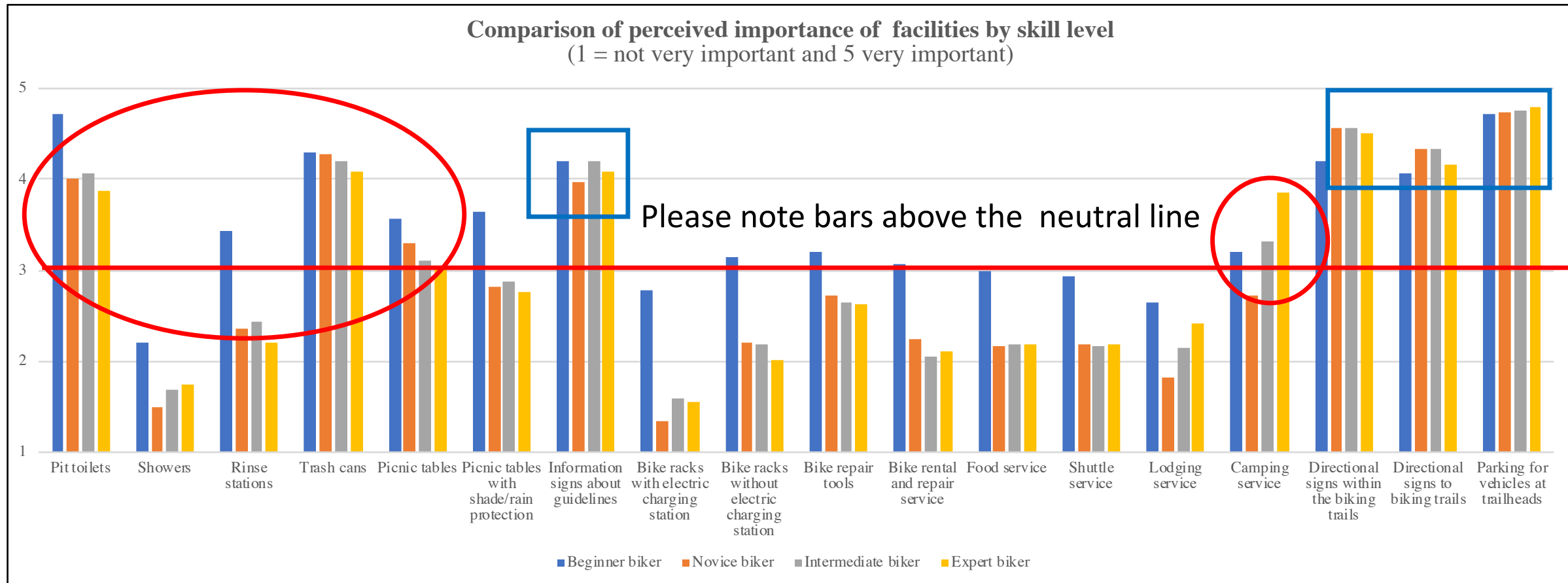
Overall perspective



1. Parking at trailheads
2. Directional signs in the trails
3. Directional signs to the trails
4. Trash-cans
5. Information signs/guidelines
6. Pit-toilets
7. Camping service

Important Recreation Facilities

Compared by skill level

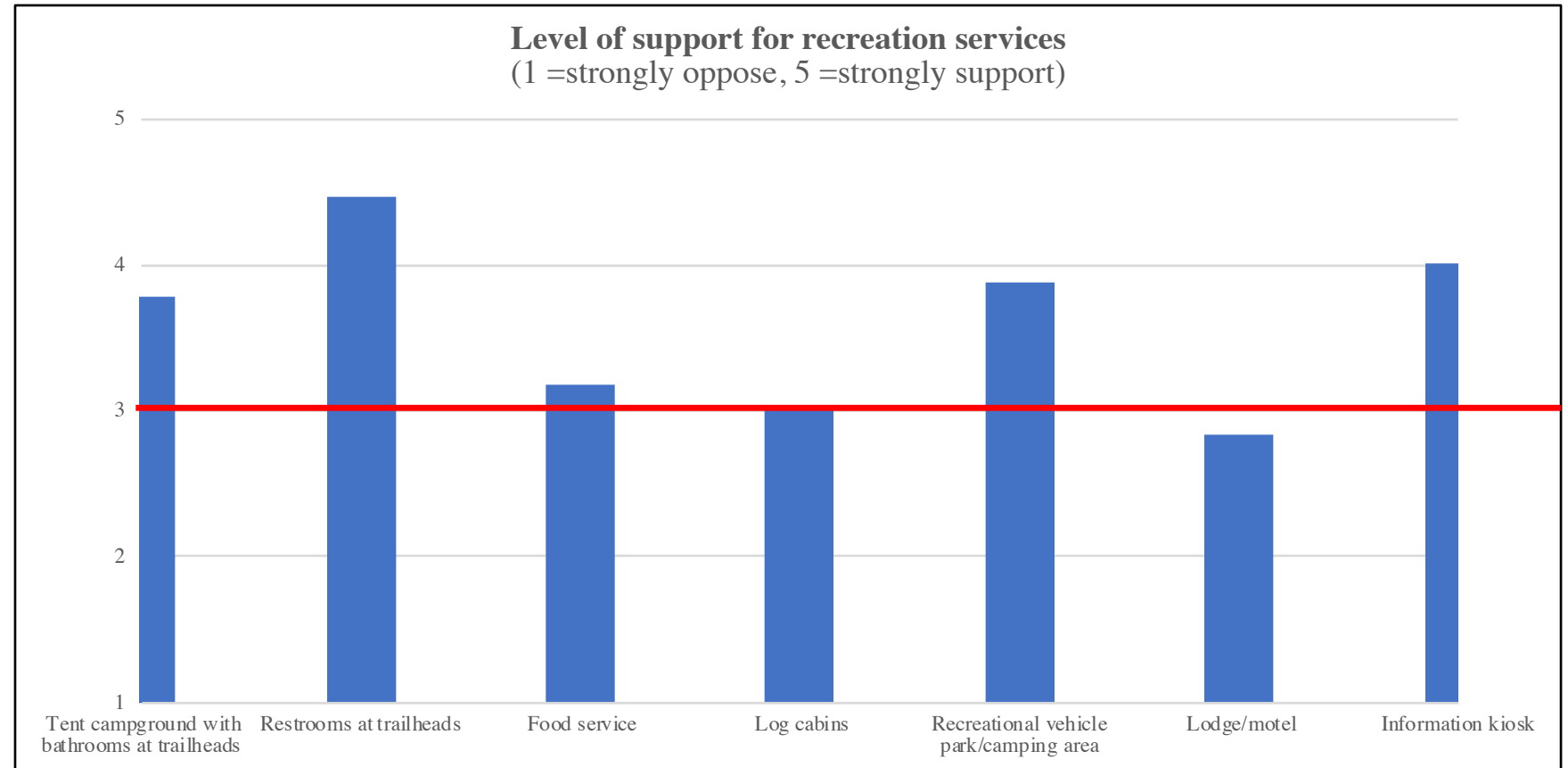


Important facilities: Parking area, directional signs within and to trails, trashcans, information signs, pit toilets, camping area

Level of support for key recreation services

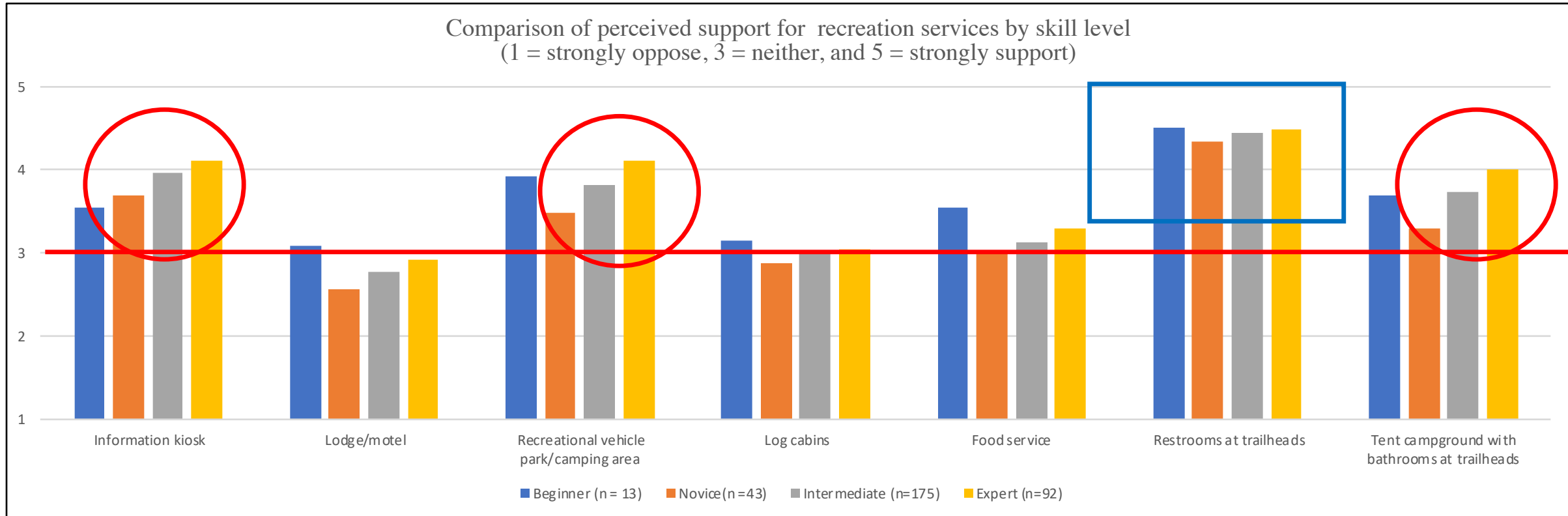
Overall perspective

1. Restrooms at trailheads
2. Information kiosks at trailheads
3. Recreational vehicle park
4. Tent campground with bathrooms at trailheads



Level of support for key recreation services

Comparison by skill level

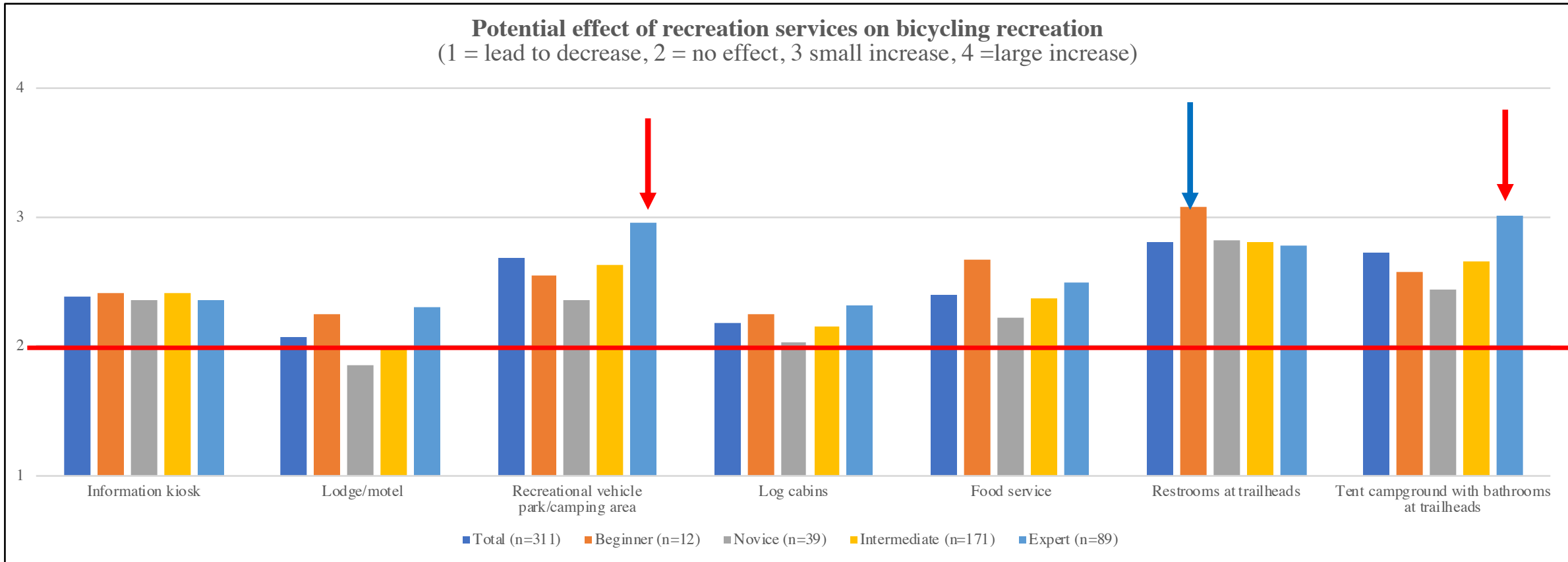


Services supported by all: Restrooms,

Services sensitive to skill level: information kiosk, recreation vehicle park, tent campground

Level of support for key recreation services

Potential impact of services on biking



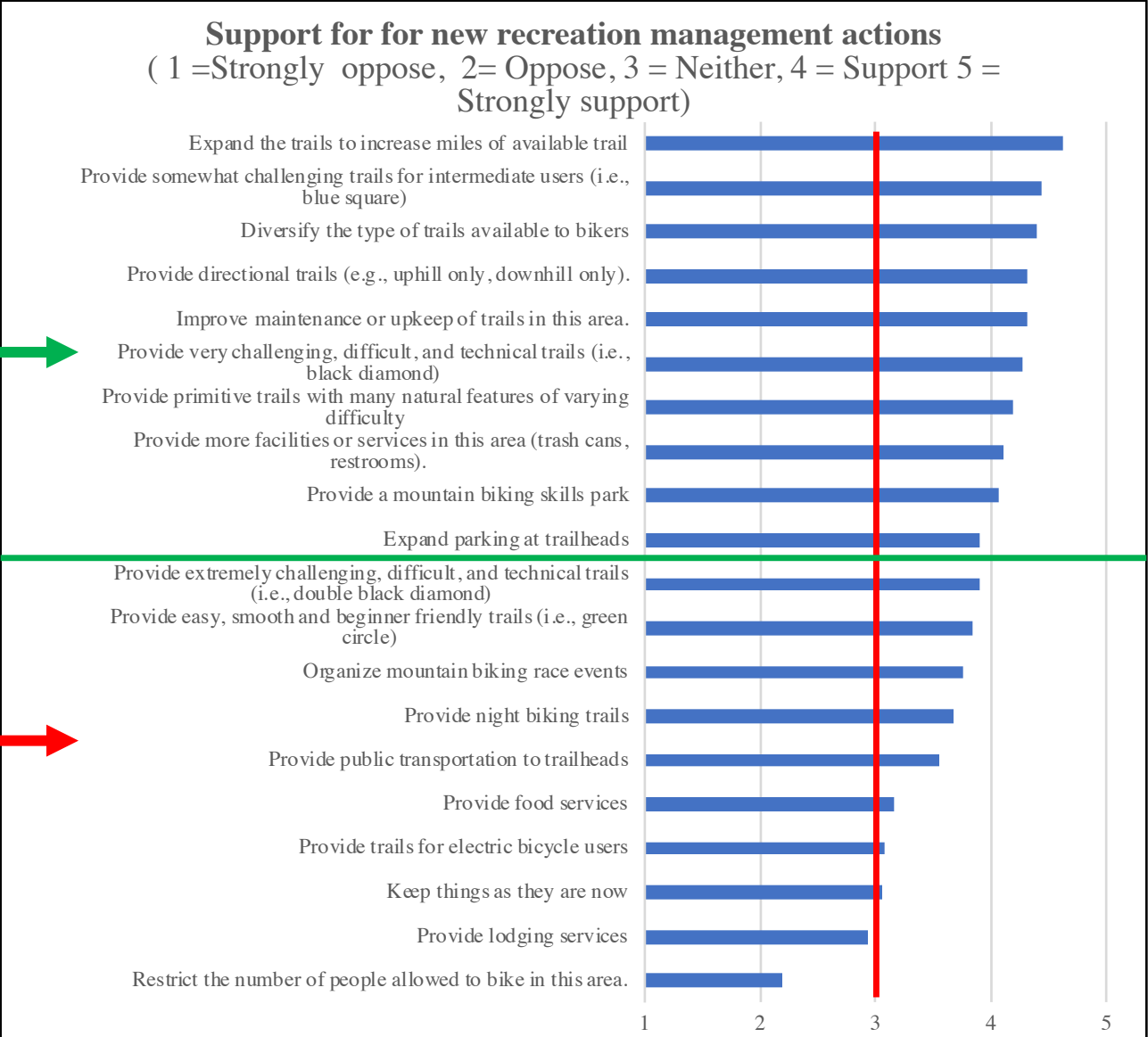
Priority services: recreation vehicle park and tent campground with bathrooms (skilled riders), restrooms at all trailheads (less skilled riders)

Level of support for management actions under consideration

Overall perspective

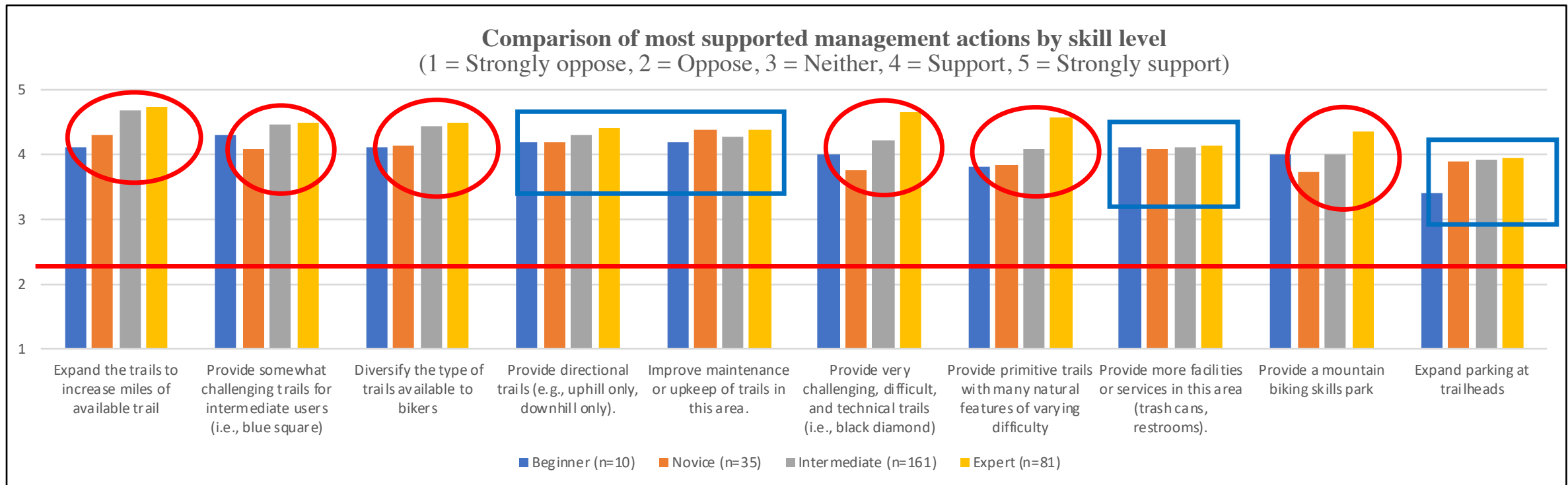
Most supported management actions →

Less supported management actions →



Level of support for management actions under consideration

Comparison by skill level



- **Actions are desired by riders at all skill levels:** parking, trail maintenance, directional trails, more facilities
- **Actions mostly desired by skilled bikers:** increasing trail miles, creating challenging trails, biking skills park(note)
- **Therefore,** it is important to consider management actions for skilled and unskilled riders

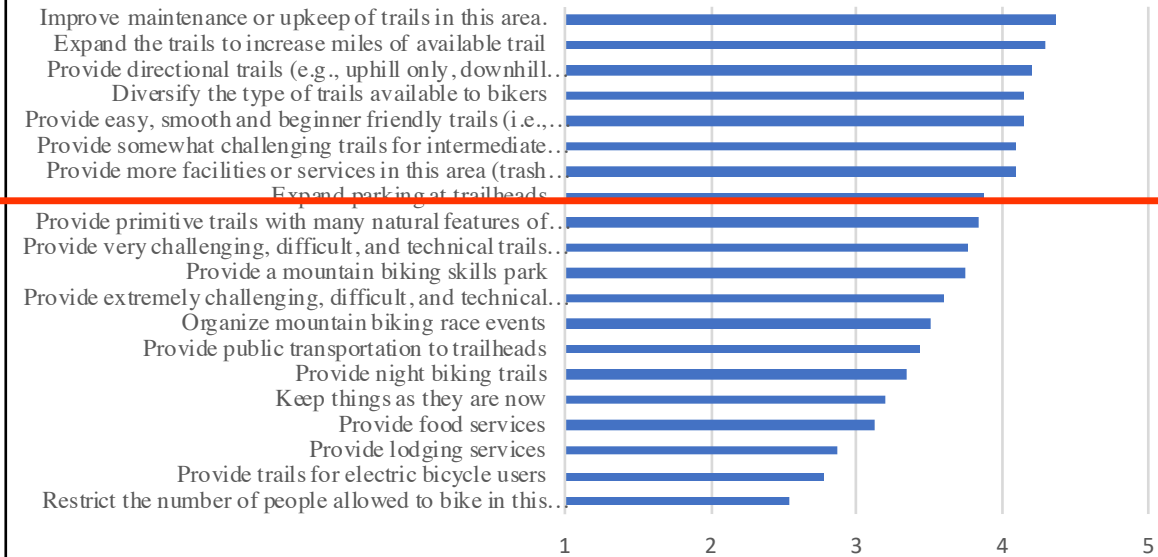
Level of support for management actions under consideration

Priority actions for less skilled riders (level of support and impact)

Support for new recreation management actions among the beginner bikers
(1= Strongly oppose, 2= Oppose, 3=Neither, 4=Support, 5=Strongly support)



Support for new recreation management actions among the Novice bikers
(1= Strongly oppose, 2= Oppose, 3=Neither, 4=Support, 5=Strongly support)



Level of support for management actions under consideration

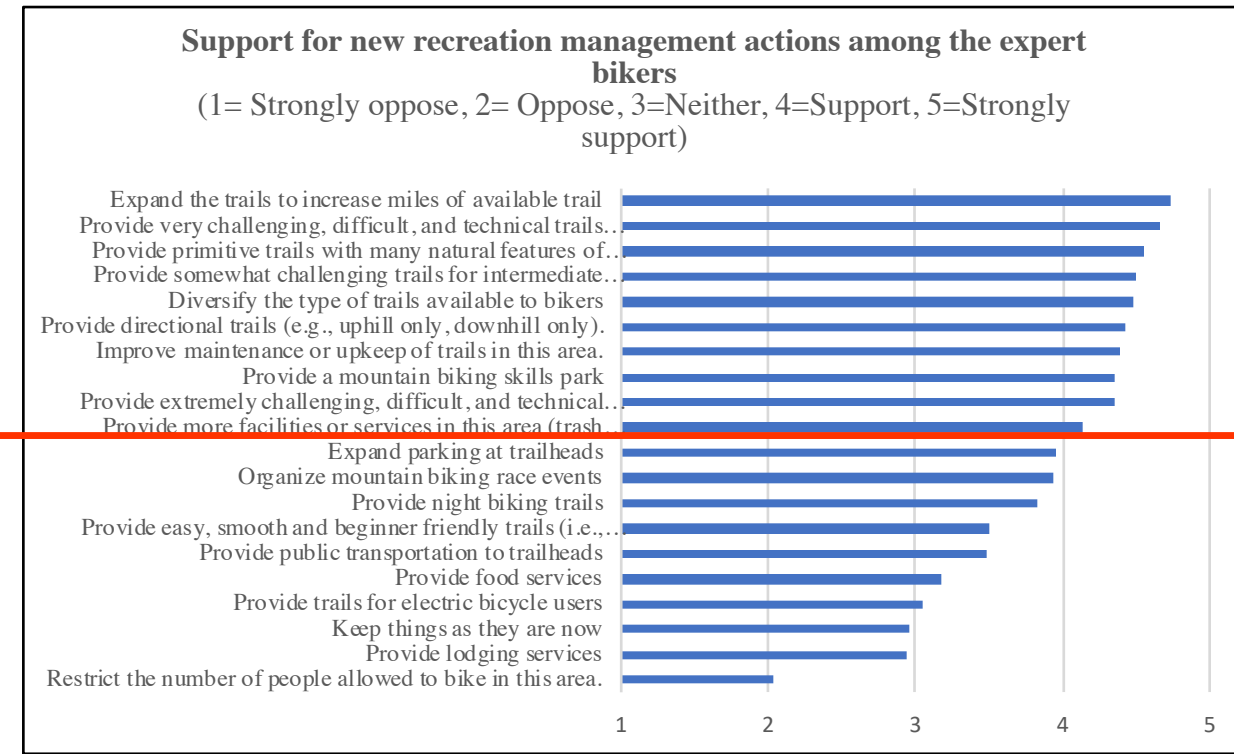
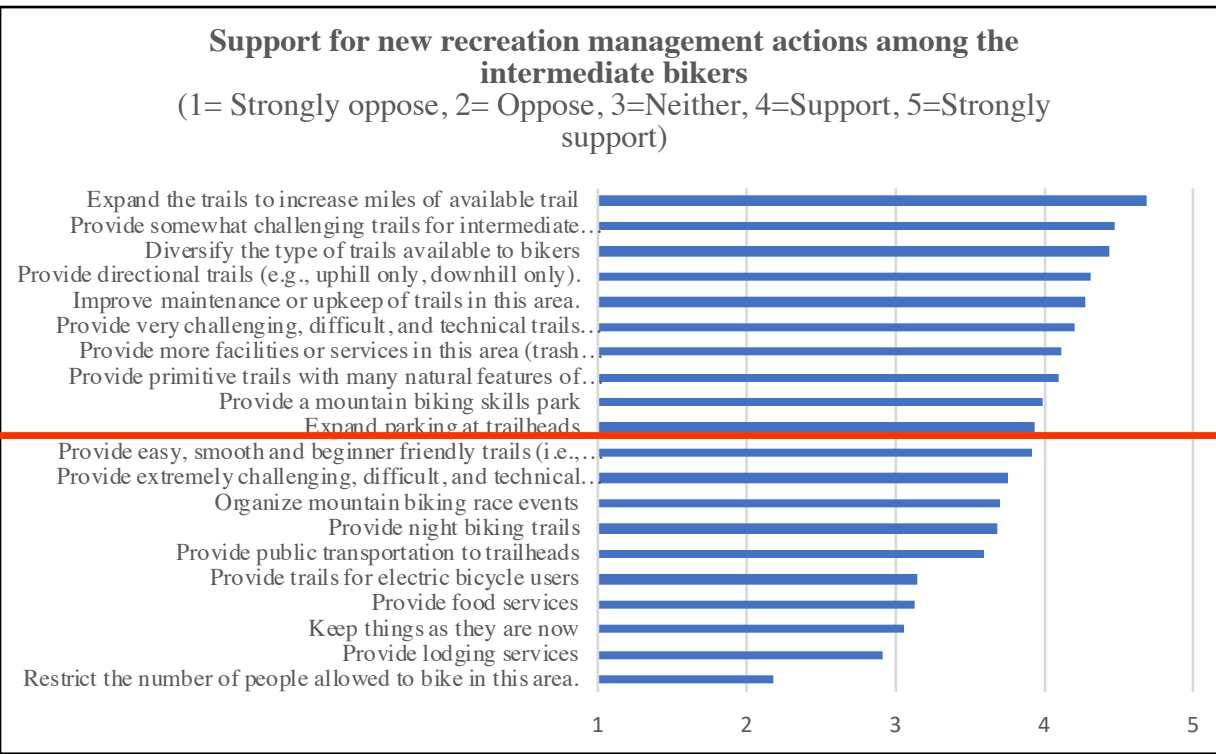
Priority actions for less skilled riders

Box 1: Priority bicycling recreation management actions for unskilled bikers at Whiskey Run

1. Provide easy, smooth and beginner friendly trails (i.e., green circle)
2. Improve maintenance or upkeep of trails in this area.
3. Provide directional trails (e.g., uphill only, downhill only).
4. Provide somewhat challenging trails for intermediate users (i.e., blue square)
5. Expand the trails to increase miles of available trail
6. Diversify the type of trails available to bikers
7. Provide more facilities or services in this area (trash cans, restrooms).
8. Provide very challenging, difficult, and technical trails (i.e., black diamond)
9. Provide a mountain biking skills park
10. Provide primitive trails with many natural features of varying difficulty

Level of support for management actions under consideration

Priority actions for skilled riders (level of support and impact)



Level of support for management actions under consideration

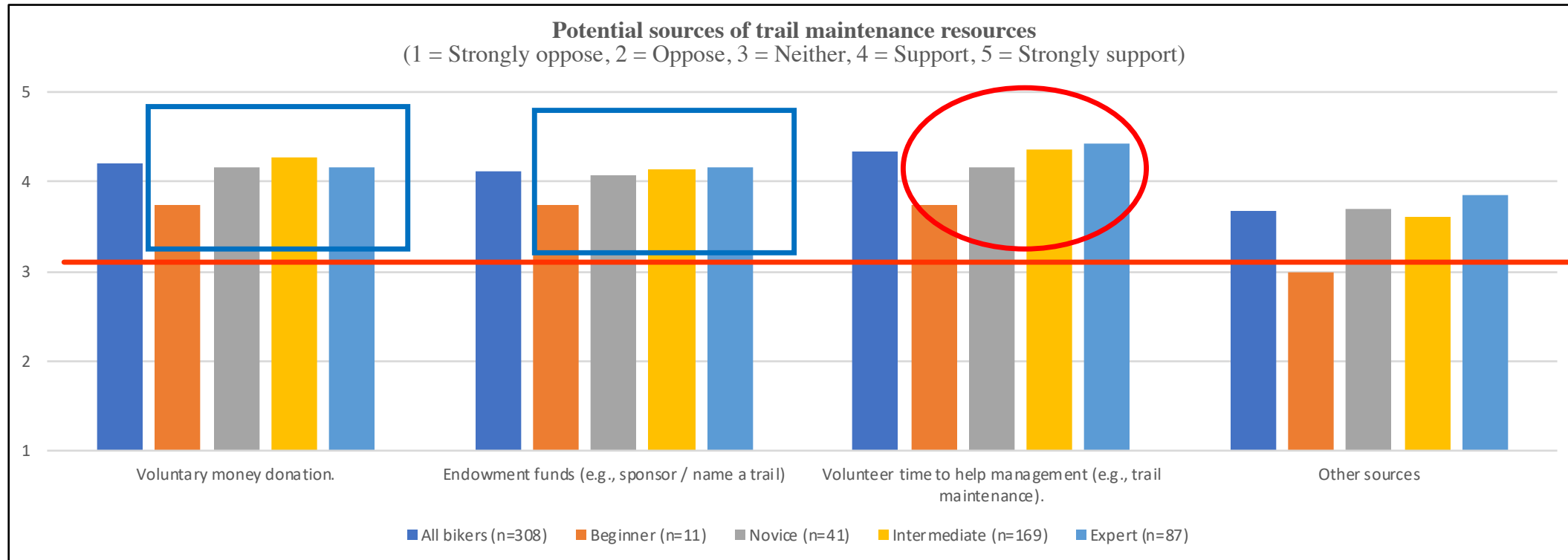
Priority actions for skilled riders

Box 2: Priority bicycling recreation management actions for skilled bikers at Whiskey Run

1. Expand the trails to increase miles of available trails
2. Provide somewhat challenging trails for intermediate users (i.e., blue square)
3. Diversify the type of trails available to bikers
4. Provide very challenging, difficult, and technical trails (i.e., black diamond)
5. Provide directional trails (e.g., uphill only, downhill only).
6. Improve maintenance or upkeep of trails in this area.
7. Provide primitive trails with many natural features of varying difficulty
8. Provide a mountain biking skills park
9. Provide more facilities or services in this area (trash cans, restrooms).
10. Provide extremely challenging, difficult, and technical trails (i.e., double black diamond)

Results: Level of support for alternative trail maintenance resources

- Donations and endowment options are supported by all.
- Trail volunteering is mostly supported by skilled riders



- About 30% of respondents are willing to donate more than \$50 a year,
- Most (about 83%) preferred annual donations
- Setup online donation campaigns for trail maintenance (create annual donation reminders)
- Create a volunteering program for trail maintenance (target skilled bikers)

Way Forward

1. **Control growth while improving quality:** suggestions outlined earlier carry the risk of creating fast growth in biking and the associated adverse effects (e.g., overcrowding and visitor use conflict).
2. **Short-term solution:** separate unskilled and unskilled trails and related facilities (e.g., parking, restrooms)
3. **Long-term solution:** conduct a study soon to determine the level of recreational carrying capacity of Whiskey Run (i.e., identify the level of use at which trails and facilities can withstand before the desired quality of recreation is compromised).
 - Use this information to create standards (indicators) of quality for biking at Whiskey Run,
 - Use the created indicators of quality to regularly monitor and mitigate adverse impact of growth on the quality of biking.

Both short-term and long-term solutions are important because any tourism and recreation destination in Bandon must meet quality expectations set by Bandon Golf Course Resort.

Thank you!