

Benefits and Barriers to Participation in Cycling for Non- Traditional Cyclists

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Non-Traditional Cyclists**

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Dedication page

I would like to first acknowledge my family, my husband Mike and daughter Emma, who supported me through the evening classes by taking our dog for walks and spending hours on the weekend at the local climbing gym so I could work on homework.

I want to thank the Tillman Foundation for believing in me and naming me a Tillman Scholar in 2020. Your support helped make this degree possible.

To the members of both of my cohorts – your support, friendship, and insights made this a wonderful experience. The Covid cohort began in January 2020, and we had no idea what was about to happen.

To my advisor, Dr. Courtney Preston, I appreciated your guidance through this process.

To all the faculty who taught in this program – you challenged me to learn, think, and apply the knowledge in a meaningful way so that I can make a difference in my work and with those who I work with.

Executive Summary

Area of Inquiry

All Bodies on Bikes is a volunteer organization that views itself as a movement to create size inclusivity in biking through education, creating a welcoming environment and education for new riders, welcoming people of all sizes and fitness levels, as well as reaching out to the industry to develop products for riders of all sizes. The challenge All Bodies on Bikes wanted to examine was how to increase opportunities for non-traditional cyclists to join in the sport.

To understand the challenge of creating an organization that caters to non-traditional cyclists, I examined the demographics of the cycling community, motivations for riding, whether those motivations are intrinsic or extrinsic, barriers to participation for non-traditional participants in cycling and outdoor sports, as well as the Optimal Distinctiveness Theory as a framework for how participants might view their identity as it intertwines with the All Bodies on Bikes community.

Problem of Practice

All Bodies on Bikes is developing a thoughtful approach to future growth as part of their goal to support riders who would otherwise be uncomfortable in a more stereotypical cycling environment. The questions I examined to support this organization are:

- Who is the audience for All Bodies on Bikes and how do they identify with the organization?
- What barriers to entry to participate or barriers to continued participation are faced by the members of All Bodies on Bikes?
- Do benefits vary based on the level of participation in All Bodies on Bikes?

Methods

To answer these questions, I conducted a survey through All Bodies on Bikes to measure participation in All Bodies on Bikes, how members identify with All Bodies on Bikes, the barriers they faced and continue to face, benefits of cycling through an adjusted version of the Motivations of Marathoners survey, and the first demographics scan of the organization.

Findings

My findings include demographics, and center around three main themes: Identities, Participation, and Motivation.

Demographics: All Bodies on Bikes had not previously done a demographics survey. Unlike the larger cycling community, the respondents of this survey were 90% female, about 32% identify as LGBTQIA+ and almost 14% identify themselves as a person with a disability. Like the larger cycling community, the majority of respondents are white (90%), educated (almost 85% have at least a bachelor's degree), and high income.

Identities: Participants identify with All Bodies on Bikes in both expected and unexpected ways. While the majority do identify with the current mission and state responses such as “I’m a plus sized cyclist” or “I am a body on a bike,” many cyclists find refuge in this organization because they are accepted regardless of size, fitness level, what type of bike they ride, age, disability, gender expression, race, or sexual orientation. All Bodies on Bikes is more diverse in all of these categories than the wider cycling community, and this difference is a strength as their members feel like their diversity is valued and they are welcomed and seen.

Participation: All Bodies on Bikes was an online community during my period of study, even as they are moving toward in-person community. Participants bucketed into three categories – low,

medium, and high participation as defined by self-reported activities such as participating in the Facebook group, following All Bodies on Bikes, or attending events. Based on the adjusted Motivations of Marathoners scale, the high participation group had a statistically significantly higher agreement with motivation subscales related to affiliation, life meaning, personal goal achievement, emotional coping, life management, and recognition scales.

Motivation: While community is an important driving factor for the survey participants, the personal factors and factors related to intrinsic motivation are of higher importance than extrinsic factors such as recognition. Most respondents identified with positive outcomes of riding, such as confidence, improving self-esteem, and feeling a sense of achievement, but were more divided on outcomes such as improving productivity at work.

Recommendations:

1. *Formalize in founding documents that All Bodies on Bikes is beyond size inclusion.* The current mission and vision of All Bodies on Bikes are focused on size inclusion, but the group is also inclusive of age, race, ability, gender, sexualities, and more. They should consider formalizing this expanded definition of inclusion.
2. *Continue and expand partnerships with other underrepresented groups in cycling.* All Bodies on Bikes is beginning to host events in collaboration with other under-represented groups in biking. They should continue to expand this offering as being an inclusive and welcoming community for ALL aspects of identity is meaningful to members.
3. *Advocate for more inclusive cycling events.* Outreach, education, and advocacy are needed to change the cycling culture. Local chapters of All Bodies on Bikes can share resources with local events on how to be more inclusive. The national organization can

support this effort by creating a resource guide for event organizers with best practices, resources, suggestions, and contacts to learn more.

4. *Offer virtual community: ride options and virtual connection for events.* Based on the evidence that the majority of members ride alone and identify time and geographic location as limiting factors, creating a virtual riding community may be a way to grow community across time zones and around the world. Creating opportunities for members to connect virtually prior to an in-person event can also create an inclusive affinity group within a larger, less inclusive event such as a race.
5. *Provide on demand education.* Supporters of All Bodies on Bikes want to learn more about being inclusive and welcoming in environments such as local bike shops or as they teach bike clinics. Creating well-designed, on demand training can create a grassroots approach to changing the cycling culture and create awareness for inclusive language and practices.

Organizational Context

All Bodies on Bikes is a volunteer organization that views itself as a movement to create size inclusivity in biking. This effort includes education, creating a welcoming environment and education for new riders, welcoming people of all sizes and fitness levels, as well as reaching out to the industry to develop products for riders of all sizes. They also value and celebrate “joyful movement” (*Mission, Vision & Values*, n.d.).

All Bodies on Bikes has a large following online. Their private Facebook group has over 7,400 members, while their public Facebook page has 178 followers. Their Instagram account has over 16,000 followers. They also have a large email audience through their regular newsletter. They host online education, such as “Biking for Big People” and “Bike Camping for Beginners.” Other ways to support them include merchandise sales through their website (mugs, koozies, bike head cap) and agreements with other companies such as Little Bike Bag, who created bike bags to go on handlebars from custom fabric designed for the group by the artist Lisa Congdon. They created an extended-size gear testing list to support and encourage companies to develop new products to support cyclists of all sizes. To support cyclists, they have resources such as lists of clothing companies and bike companies that make gear for larger cyclists. To clarify why this is important, people wearing loose-fitting medium unisex t-shirts often require an XL or 2XL in the fitted spandex jerseys traditionally worn for road or gravel cycling. Safety gear, such as knee and elbow pads, are tight on even average-sized adults. There are some companies, such as Pearl Izumi, Machines for Freedom, and Shredly, who have expanded or plan to expand their size range, but most large companies that sell cycling gear, such as Castelli or Gorewear, have not.

Biking is a sport with many barriers to entry, to include equipment, skill, and finding routes. All Bodies on Bikes has heard from many cyclists or want-to-be cyclists who want to ride but feel unwelcome due to size or fitness level. Bikes, bike clothing, and accessories are generally designed for a body type that is leaner than the average American. All Bodies on Bikes has heard from people who want to learn how to bike but feel like they are not good enough to join group rides or in good enough shape to ride with a group, or who are scared to ride after having a bad experience riding with someone who was not riding at an appropriate level with a beginner rider. While some biking organizations welcome newcomers and create organized rides separated by skill and pace, many organizations have rides that are, in practice, fast or faster. Groups that do not leave people behind who are having trouble keeping up with the skill level or pace call these rides “no drop.” Groups without no drop rides do not have a structure in place to welcome newcomers or support newer riders as they improve. Generally newer riders self-select out of these groups and either ride by themselves or do not ride. Riders who overcome these barriers to entry benefit from positive outcomes that include positive health outcomes from exercise, friendship, increased confidence, finding a sense of belonging and empowerment, and finding community when moving to a new area (Lozancich, 2018; Roberts et al., 2018).

One rider described her apprehension of learning to mountain bike as realizing “it wasn’t the fear of trying something new that was unnerving, it was the perception of being alone in the process. That’s what felt intimidating” (Lozancich, 2018). All Bodies on Bikes is creating an online and, eventually, in-person community, to support anyone who wants to ride a bike. Biking is not a cheap or easy sport to get into. The leaders of All Bodies on Bikes, and those active online members, have experienced a myriad of benefits from their participation in biking. That is

why identifying how to create a supportive community to welcome new members into the sport is important.

The immediate stakeholders are the board members, volunteers, and members of All Bodies on Bikes. Their founders are beginning regular board meetings and working to create a more formalized structure that will eventually include local chapters. All Bodies on Bikes has not yet done a demographic survey to identify their membership, so group membership is currently poorly defined. External stakeholders include the manufacturers of bikes, clothing, and safety gear who do not generally focus on the plus sized market because there is an assumption that there is not enough of a market to justify spending money creating those sizes. However, traditional bike clothes and gear are sized smaller than average mass market clothing, resulting in average sized people wearing plus sized bike gear. The cycling industry made \$8.5 billion in revenue from August 2020-July 2021. The industry had the greatest growth in mountain bikes, gravel bikes, and e-bikes. Their analysis was that “non-threatening” cycling off roads (on trails using mountain or gravel bikes) and e-bikes that support riders to overcome their physical limitations are fueling that growth (Sorenson, 2021).

Problem of Practice

The challenge All Bodies on Bikes wanted to examine was how to increase opportunities for non-traditional cyclists to join in the sport. All Bodies on Bikes took off after Shimano created a movie in 2020 about Kailey Kornhauser and Marley Blonsky, the co-founders of All Bodies on Bikes (*All Bodies on Bikes*, 2021). The movie followed Kailey and Marley’s two-day bikepacking trip along the Oregon Coast. The movie is accompanied by a discussion guide (Blonsky, n.d.). Shimano makes bicycle components (such as drivetrains, wheels, pedals, and

brakes) for all levels of riders, from daily users to professional racers (Shimano, n.d.). Following up on the success of this movie, Steamboat Gravel reached out to sponsor a team of non-traditional cyclists to train for and compete in the gravel race in Steamboat, Colorado. Simultaneously, many people reached out and wanted to create local chapters to ride with like-minded people. Initially, the founders were excited about the groundswell and excited to have anyone join the movement but realized there needed to be an organized methodology for the rapid expansion. They identified local group leaders in select cities and are planning a retreat in 2023 for all leaders to attend. Recreational Equipment, Inc. (REI Co-op), a national outdoor gear, apparel, and experience store, will cover the retreat's cost.

Project Questions

All Bodies on Bikes is a movement to create a welcoming environment for all riders, at all sizes, experiences, and fitness levels. They want to support new riders who would otherwise be uncomfortable in a more stereotypical cycling environment. I examined the barriers to entry to cycling for the All Bodies on Bikes population to help them better understand their audience. As an expanding movement, they are planning more events in addition to their large online community. Examining the motivations and benefits of their members based on the level of participation is valuable information as they plan to expand moving forward. The questions I examine are:

Q1: Who is the audience for All Bodies on Bikes and how do they identify with the organization?

Q2: What barriers to entry to participate or barriers to continued participation are faced by the members of All Bodies on Bikes?

Q3: Do benefits vary based on the level of participation in All Bodies on Bikes?

Review of Literature

Based on the 2020 Outdoor Recreation report, 16.1% of American participate in biking, including road, mountain, gravel, and BMX (Outdoor Industry Association, 2020). Women represent only 46% of participants in outdoor recreation despite being 51% of Americans (Outdoor Industry Association, 2021). Participation in biking activities is believed to be much less, ranging from 20-33% (Shred Trail, 2020). These participation surveys consolidate the data at a level that makes it difficult to compare year over year participation in individual biking activities by sex. The way the questions were asked also makes it impossible to determine when demographic groups began individual outdoor recreation activities or their level of commitment and years of experience. USA Cycling's 2020 demographic survey of 7,031 riders, including approximately 76% members, found that 80% of individuals completing the survey identified as male (USA Cycling, 2020). In a male-dominated sport, it is valuable to consider the motivations and challenges of non-traditional, and therefore non-male, riders who may be more likely to seek out an organization that is more welcoming and open than traditional riding organizations.

Various studies examine the motivations for riding, such as well-being outcomes (physical and mental health, weight, self-esteem) and affiliation (LaChausse, 2006; Lozancich, 2018; Roberts et al., 2018). Motivation can be characterized as intrinsic, extrinsic, or amotivation when there is no motivation. Intrinsic motivation is self-determined, and the activity is rewarding, with the participant experiencing pleasure and satisfaction from the activity. Extrinsic motivation involves actions undertaken with an externally controlled variable, such as receiving a reward or avoiding punishment (Deci & Ryan, 2012; Taylor, 2015). Vallerand's Hierarchical

Model of Motivation includes the impact of social factors on motivation, including perceptions of competence, autonomy, and relatedness at the situational, contextual, and global levels (Vallerand, 1997). In a 2006 study of the motivations of cyclists, females were more likely to cite weight, affiliation (as defined by relatedness, group identity, and participation with others), and self-esteem as their motivations for riding, and mountain bikers were more likely to include life meaning as part of their motivation (LaChausse, 2006). A 2019 examination of gravel cyclists found the more participants identified as gravel riders, the stronger their motivations were to participate in the sport, although they did not examine the initial motivation to begin gravel riding (Mueller et al., 2019). Lozancich (2018) expanded on the community around women's biking and the empowerment and confidence that come from participation in the sport. While examining long distance running, a 2015 study found that women who overcame the barriers to participation have increased beliefs in themselves and their ability to overcome constraints (Wegner et al., 2015). Strategies to overcome the barriers to participation include social support, the development and use of resiliency strategies, and a passion for the outdoors (Evans, 2014).

Studies examine similar barriers to participation in mountain biking, cycling, and outdoor recreation activities (Irvin et al., 2021; Lozancich, 2018; Mueller et al., 2019; White, 2008) as well as the efforts and negotiations needed to overcome constraints to participation (Mueller et al., 2019; Wegner et al., 2015). Whether professional or amateur, female outdoor athletes face fear, lack of confidence, and gender relations as constraints to participation (Evans, 2014). Women cited intrapersonal, interpersonal, and structural beliefs such as mountain biking being a male dominated sport with expensive gear, and riders being super athletic. Those who picture men as mountain bikers were less likely to be mountain bikers and identified those beliefs as

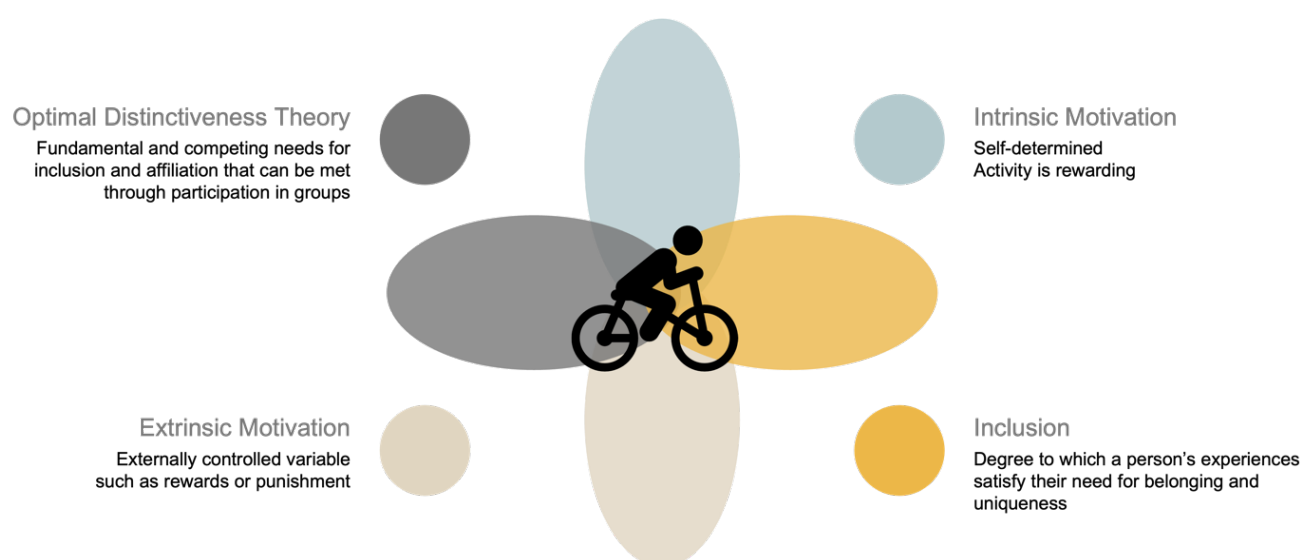
barriers to entry to the sport (Irvin et al., 2021) Women are also less likely to have ridden as children, have fewer years of experience, rate their ability as lower than males, and avoid bike maintenance (Roberts et al., 2018). However, self-rated ability in outdoor sports is subjective and males have demonstrated in studies about mountain biking, climbing, and skiing that they overestimate their skill level while women slightly underestimate their skill level (Siebert et al., 2022). Another study reported that women felt that they are assumed to be beginners who must prove themselves in order to be accepted by male riders, making this self-assessment imbalance problematic (Hill & Gomez, 2020; McCormack, 2017).

Given that cycling is a sport with a high barrier to entry and even to continued participation, it is valuable to consider how participation in a formal organization can contribute to a cyclist's continuation in the sport. Borrowing from the concept of workplace inclusion, inclusion is the degree to which a person's experiences satisfy their need for belonging (members feel valued and respected) and uniqueness (view diversity as a resource) (Shore et al., 2011). Optimal Distinctiveness Theory (ODT) proposes humans have fundamental and competing needs for inclusion and differentiation that can be met through group participation while acknowledging that group membership does not always lead to self-identification with the group (Leonardelli et al., 2010). Baumeister and Leary's (1995) seminal work on belonging found that the need to belong is a powerful and fundamental human motivation. A lack of belonging can lead to ill effects such as psychological and physical health problems. A lack of belonging can be a shaping force that affects cyclists' expectancy of success or causes them to believe that they are incompetent and change their motivation to learn, potentially leading to ending participation in the sport (Baumeister & Leary, 1995; Cook & Artino Jr, 2016; Wigfield & Eccles, 2000) Conversely, experiencing belonging and uniqueness simultaneously through group participation

may benefit cyclists who are part of a minority but belong to a group inclusive of that minority, such as All Bodies on Bikes. These concepts all affect the self-identity and level of community for an individual cyclist who chooses to participate with All Bodies on Bikes, as shown in Figure 1.

Figure 1

Framework for Cyclists Participating in All Bodies on Bikes



Project Design and Data Collection

The data was collected through a survey with a convenience sample. The survey is in Appendix A. All Bodies on Bikes distributed this survey to supporters, members, and allies through their Facebook group and email distribution group, as shown in Appendix B. Marley Blonsky sent the initial email on December 9, 2022 from the “Marley at All Bodies on Bikes” email. The survey was the first item headlining the communication. Marley shared the survey the same day in the closed Facebook group. At the time of distribution, the All Bodies on Bikes Facebook group had over 7,400 members. Over the next two months, I asked Marley to send a

follow up email several times. Marley followed up with another message requesting responses to the survey in the Facebook group on February 6, 2023. Participants were provided an incentive to participate in the study through a raffle for two custom head caps featuring the All Bodies on Bikes pattern by Lisa Congdon. Approximately 210 surveys were complete enough to be included in the data analysis, although only about 160 surveys were complete. The response rate is difficult to determine because All Bodies on Bikes does not know how many regular participants in their Facebook group there are. I have asked the organization to provide any information they can about the Facebook post reach or open rate of the email, but they have not responded. Low participation was the main challenge, likely due to the time of year and reliance on Facebook to share the survey. The questionnaire completion time was approximately 17 minutes.

For the purpose of this study, participation in All Bodies on Bikes is defined as interaction and support of the organization as self-reported activities through a survey question. Participants were asked to select from a list of items all the ways they interacted with or supported All Bodies on Bikes. Examples of interaction included following All Bodies on Bikes on social media, purchasing merchandise, participation level in the Facebook group, visiting the website, viewing the video, donating, an attending in-person event, attending an online event, volunteering, etc. Examples of support included sharing an event online, sharing an event within personal or professional network, or sharing the mission with a personal contact.

The dependent variable is the individual's benefits from biking. These benefits were adjusted from existing surveys such as the Benefits of Hiking Scale and the Motivations of Marathoners survey (Freidt et al., 2010; Masters et al., 1993; Zach et al., 2017). In previous research, the Motivations of Marathoners Scale has been used to measure motivations among

groups beyond marathoners, including comparisons between competitive and non-competitive cyclists and athletes competing in the 2010 Pan Pacific Masters Games (Heazlewood et al., 2012; LaChausse, 2006). I used scales that measure motivation to examine the benefits related to participation. The motivations I am interested in are affiliation, competition, environment/nature, general health orientation to keep fit, general health orientation to reduce disease prevalence, life meaning, personal goal achievement, psychological emotional coping, psychological coping related to everyday life management, and recognition. The Motivations of Marathoners Scale was further examined and expanded from four factors to eleven (Zach et al., 2017). In this investigation, I used nine of the factors from the scale. I changed the word “run” or its derivations to “ride” or “bike.” The scale for this survey consisted of 42 questions rated on a 7-point Likert-type scale (1= *never/not applicable*, 7 = *very much like me*).

Barriers to participation are defined as factors that prevent or impede entry into cycling, including feelings, competing commitments, cost, availability of equipment, or lack of community/mentorship. I also collected demographic information and measures of participation in cycling. Examples include how often participants ride, types of riding, and favorite type of riding.

Data Analysis

I calculated descriptive statistics for demographic data and the subscales adjusted from the Motivations of Marathoners Scales, as shown in Table 1. I calculated subscale scores for each item in the nine subscales with 42 questions. Most scales’ results demonstrated good reliability (internal consistency as measured by Chronbach’s alpha between 0.76 to 0.91). The competition subscale had marginal internal consistency with a Chronbach’s alpha of 0.69.

Table 1*Descriptive Statistics of Adjusted Motivations of Marathoners Subscales*

Scale	No. of Items	Mean	SD	Chronbach's Alpha
Affiliation	4	3.25	1.99	0.76
Competition	3	3.02	2.00	0.691
General Health Orientation: Fitness	4	4.40	1.88	0.911
General Health Orientation: Reduce Disease	4	4.65	1.67	0.827
Life Meaning	5	4.25	1.86	0.851
Personal Goal Achievement	5	4.39	1.75	0.892
Psychological Coping: Emotional Coping	4	4.30	1.77	0.864
Psychological Coping: Life Management	8	4.03	1.96	0.877
Recognition	5	1.91	1.68	0.901

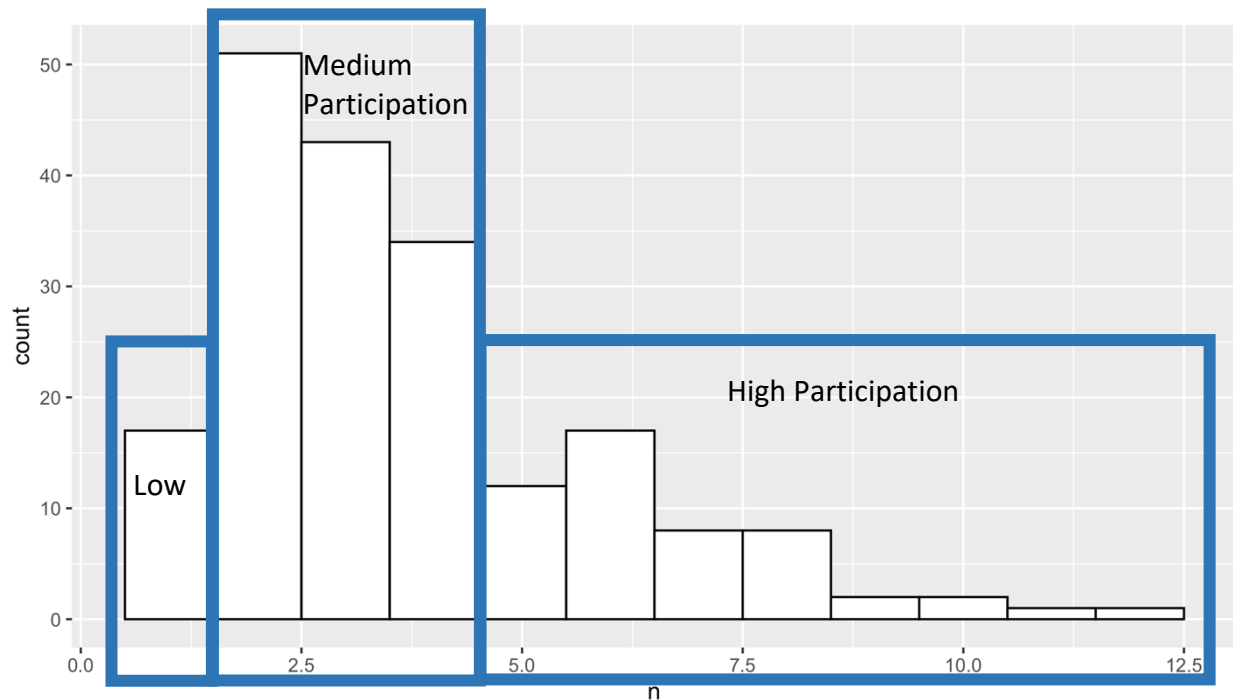
Thematic codes were used to analyze the open-ended questions on barriers to entry and how the survey taker identifies with All Bodies on Bikes. Themes for barriers to entry from the literature include intrapersonal constraints defined as individual psychological qualities that affect the development of leisure preferences, interpersonal constraints defined as social factors that affect development of leisure preferences, and structural constraints that are factors that intervene between preferences and participation (White, 2008). An example of an intrapersonal constraint could be a person who is too shy to go to a biking event alone. An example of an interpersonal constraint is not having companions to ride with. For example, an interested person could attempt to join a bike club that does not have ability groups and is therefore not welcoming to newcomers if they cannot keep up with the ride group. Structural constraints could include insufficient money to buy a bike or protective items such as knee pads not being sold in their

size. Analyzing the barriers their membership faces can inform their advocacy efforts, whether prioritizing working with industry to be more size inclusive or creating in person introductory level events to make a safe space for participation.

The level of participation was unknown, so I looked at the data to determine what a high level of participation is. I divided participation levels into three bins by the number of activities participants completed, as shown in Figure 2. The low participation group completed one activity, the medium participation level completed two to four activities, and the high participation group completed five or more activities.

Figure 2

Levels of Participation in All Bodies on Bikes



I conducted an ANOVA analysis to compare the level of participation to the factors of motivation (affiliation, competition, general health orientation to keep fit, general health orientation to reduce disease, life meaning, personal goal achievement, psychological emotional coping, psychological coping related to everyday life management, and recognition). All Bodies on Bikes was an online-only organization with few exceptions during the period that I was working with them and conducting the survey, so this question shifted from the original goal I had of learning how in person or virtual participation differed in motivations to examining the level of online participation and the difference in Motivations of Marathoners/Cyclists subscales.

Findings

Finding 1: Demographics

As part of the survey, I conducted the first demographic scan of the organization's participants to answer the question of practice of who the audience for All Bodies on Bikes is. Due to a lack of understanding of the response rate and the survey being conducted as a convenience sample, these demographics may not be representative of the entire group. However, these demographics help the leadership of All Bodies on Bikes understand their active supporters who are engaged enough to answer a survey. I also compared the demographics of All Bodies on Bikes to a 2020 USA Cycling survey of over 7,000 riders to understand the similarities and differences between the audience of All Bodies on Bikes and a more traditional cycling organization.

Survey participants range from 18 to over 65, and are normally distributed across those age ranges, as show in Table 2.

Table 2*Characteristics of Survey Participants: Age*

Age	All Bodies on Bikes N	All Bodies on Bikes %	USA Cycling % (N)
17 and under	n/a	n/a	4% (276)
18-24 years old	2	1.3%	4% (273)
25-34 years old	26	16.3%	13% (879)
35-44 years old	39	24.4%	19% (1307)
45-54 years old	43	26.9%	27% (1899)
55-64 years old	33	20.6%	23% (1614)
65 or older	17	10.6%	11% (742)
Total	160		6990

Of note, almost 87% of the survey participants identify as female. This is in stark contrast to other demographic surveys of cyclists, such as the USA Cycling 2020 survey, in which their membership identified as 80% male (USA Cycling, 2020).

Table 3*Sociodemographic Characteristics of Survey Participants: Gender Identity*

Gender	All Bodies on Bikes N	All Bodies on Bikes %	USA Cycling % (N)
Female	139	86.9%	19% (1324)
Male	10	6.3%	80% (5597)
Non-binary, third gender, Genderqueer and/or Transgender	8	5.0%	1.2% (87)
Genderqueer	2	1.3%	n/a
Prefer to self-describe	1	.6%	1.2% (83)
Total	160		7091

Of the survey participants, 30.0% identify as LGBTQIA+, with 3.8% preferring not to answer. Of the survey participants, 17.0% identify as disabled, with 1.3% choosing not to answer. Only 4% of the 2020 USA Cycling survey participants indicated they had a disability as

defined by the Americans with Disabilities Act. Like the USA Cycling survey, participants are highly educated, as shown in Table 4. The highest percentage of All Bodies on Bikes participants report having graduate or professional degrees (44.7%), followed by bachelor's degrees (39.6%).

Table 4

Sociodemographic Characteristics of Survey Participants: Education

Level of Education	All Bodies on Bikes N	All Bodies on Bikes %	USA Cycling % (N)
Graduate or Professional Degree (MA, MS, MBA, PhD, JD, MD, DDS, etc.)	71	44.7%	39% (967)
Bachelor's Degree	63	39.6%	39% (2695)
Some college, but not degree	13	8.2%	11% (759)
Associates or technical degree	11	6.9%	5% (324)
High school diploma or GED	1	.6%	7% (469)
Total	159		5214

As shown in Table 5, most participants are White (89.4%). Of all participants, only 4.4% identify as Latinx. The USA Cycling survey did not define race and ethnicity the same way as my survey, so a direct comparison is not possible.

Table 5

Sociodemographic Characteristics of Survey Participants: Racial Identity

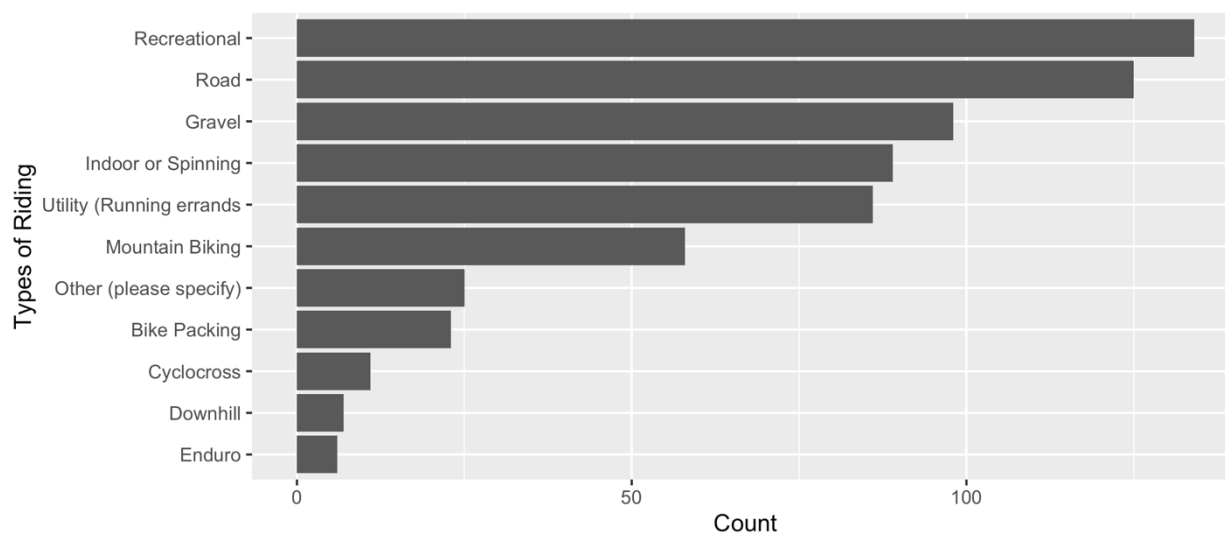
Racial Identity	N	%
White	143	89.4%
Asian	7	4.4%
Prefer not to say	3	1.9%
Multiracial	2	1.2%
American Indian/Native American or Alaska Native	1	.6%
Total	160	

For similar categories, USA Cycling members are 85% White or Caucasian, 6% Hispanic or Latino, 4% Asian or Asian American, 3% Black or African American, 1% American Indian or Alaska Native, and 1% Native Hawaiian or other Pacific Islander.

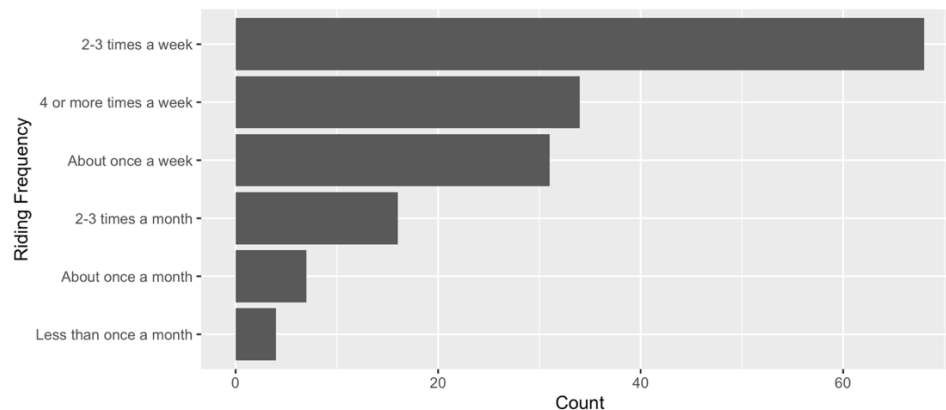
Cycling is a wide sport with many ways to ride, and survey respondents participate in a wide variety of riding activities, ranging from one to eight types of riding in the last 12 months ($M = 4.112$, $SD = 1.577$), as shown in Figure 3.

Figure 3

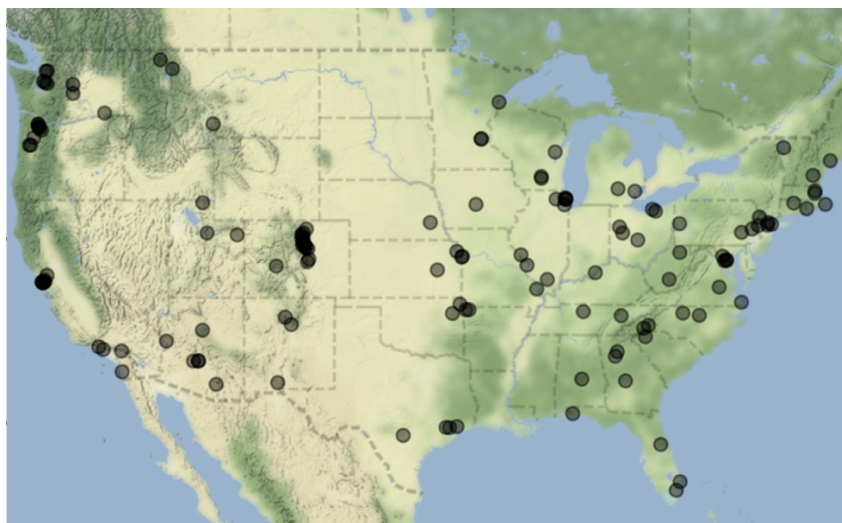
Types of Riding in the last 12 months



Of the 160 survey respondents who answered whether they entered a race in the last 12 months, 68.8% have not, which also means almost a third of respondents did enter a race in the previous year. Just over 50% of respondents usually ride alone, followed by 21% riding with family and 17% riding with friends. Survey respondents participate in multiple forms of biking, and the majority (80%) own more than one bike, with the total number ranging from one to 12 or more ($M = 2.981$, $SD = 1.795$). Even with the barriers to continued participation, just over 42% of survey respondents ride two to three times per week, as shown in Figure 4.

Figure 4*Frequency of Riding in the last 12 months*

Finally, 90.6% of survey respondents are from the United States, as shown in Figure 5. In Figure 5, each circle is a respondent's location based on zip. The circles get darker if there are multiple respondents in the same area. Other respondents live in Australia (n=1), Canada (n=9), Germany (n=1), the Netherlands (n=1), South Africa (n=1), Sweden (n=1), and the United Kingdom (n=1).

Figure 5*Locations of survey respondents in the United States*

Finding 2: Identities – Beyond Size

To answer the question of practice of how the audience for All Bodies on Bikes identifies with the group, I asked participants how they identify with All Bodies on Bikes. While there were many of the expected responses related to size, such as “I’m a plus-sized cyclist” or “size inclusivity,” there were also many responses related to the broad themes of community, inclusion, diversity beyond size, and their intersectional identities. The most common categories included size (n=116), diversity and inclusion (n=49), and age (n=25).

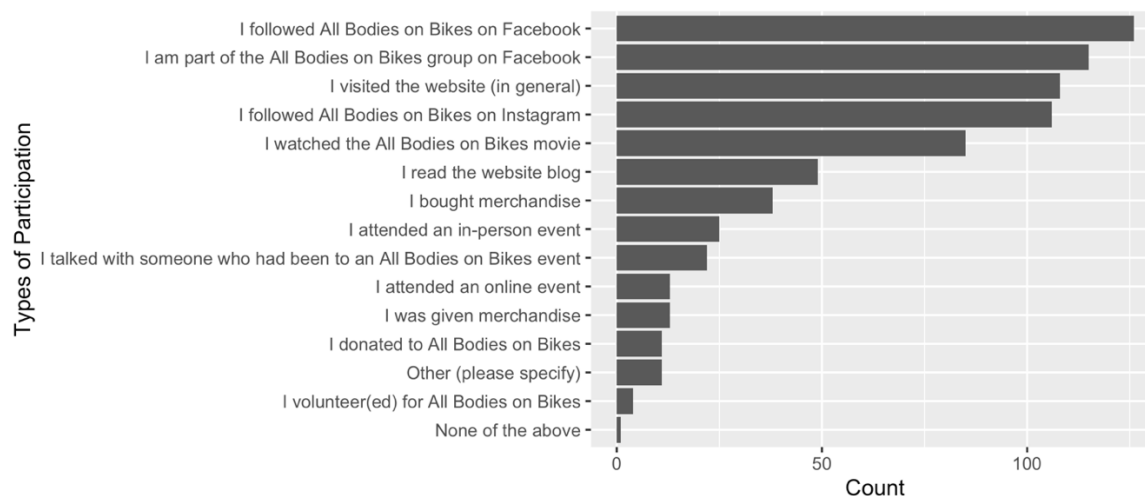
Cyclists are finding All Bodies on Bikes to be a place where they can be accepted regardless of size, fitness level, what type of bike they ride, disability, gender expression, race, or sexual orientation, as demonstrated by the following responses to the question of how they identify with the organization. One respondent showed the potential for inclusion in the sport when they said, “I love that biking is accessible to all BIPOC community members and inclusive to people of all walks of life.” Another respondent spoke to her intersectional identities and said that “I’m an L in the lgbtq, older, a woman of size and have always believed bicycling was for everyone at any level.” Another respondent spoke of age and type of bike by saying “I am older and have average bikes.” Another comment combining identities with the idea of inclusion said that “I have disability/ health issues and body geometry that make me feel left out in some bike circles. I also believe strongly that everyone should be able to ride a bike if they want to.” While the All Bodies on Bikes community is like the broader cycling community in some ways, they also differ in some important ways. This difference is a strength as members feel like their diversity is an asset and feel welcomed and seen.

Finding 3: Participation

I was curious if the benefits of riding varied based on the level of participation with All Bodies on Bikes. Currently, All Bodies on Bikes members participate through their online communities as shown in Figure 6. The Facebook group is the most common avenue for participation, followed by the website and Instagram. Far fewer members participate in in-person activities, online or in-person events, or through other methods such as buying merchandise or donating to the organization.

Figure 6

Types of Participation

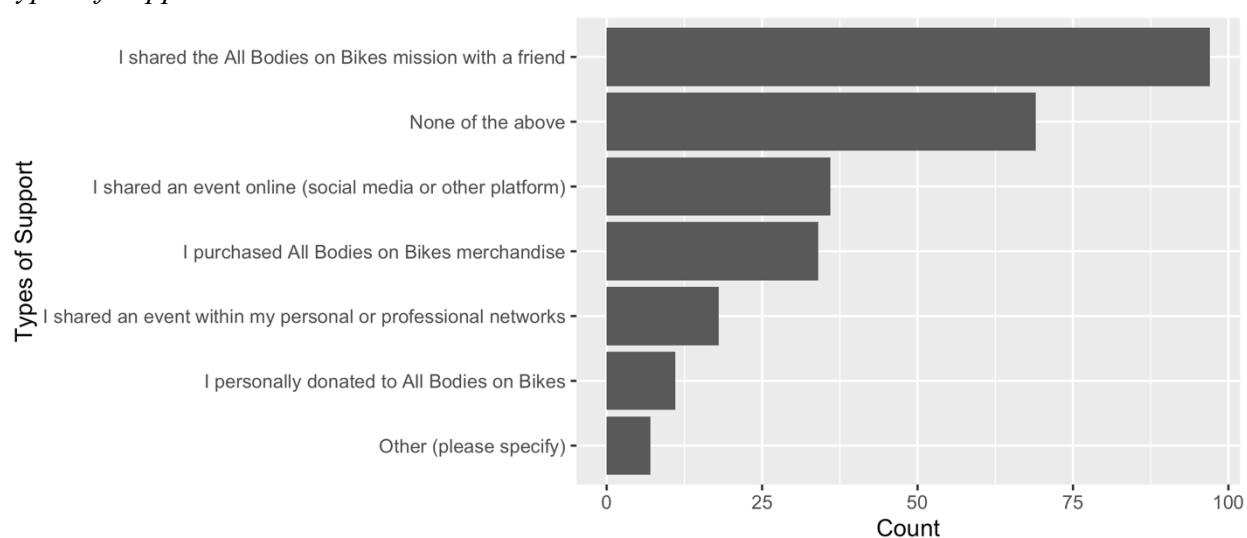


I asked survey participants how they interacted with All Bodies on Bikes in the past 12 months. The count of interactions per unique response ranged between 1 and 12 ($M = 3.709$, $SD = 2.146$). The organization launched a podcast after this survey was released, so I could not include it in the data collection. When I phrased the question differently, as to how survey participants supported All Bodies on Bikes in the last 12 months, fewer respondents had multiple ways they supported the group, and the variety of ways to show support was less. The most

common method of showing support was to share the All Bodies on Bikes mission with someone else, as shown in Figure 7. The less common actions were to share an event, purchase merchandise, or donate. The count of interactions per unique response ranged between 1 and 6 (M = 1.706, SD = 1.068).

Figure 7

Types of Support



I also wanted to answer the question of practice of in what ways does or could All Bodies on Bikes overcome barriers to entry or continued barriers to participation. I asked survey participants an open-ended question about what barriers they overcame as they began biking. The most common themes for responses included equipment (n=30), confidence (n=22), belonging described as a lack of affinity spaces (n=21), community described as no one to go with (n=18), knowledge (n=18), physical (n=16), cost (n=14), fitness (n=13), safety (n=10), and fear (n=7). While responses fit into these main themes, the less frequent responses featured in Figure 8 draw attention to the individual challenges faced by survey participants.

Figure 8

Word cloud summarizing survey responses to what barriers they faced entering cycling

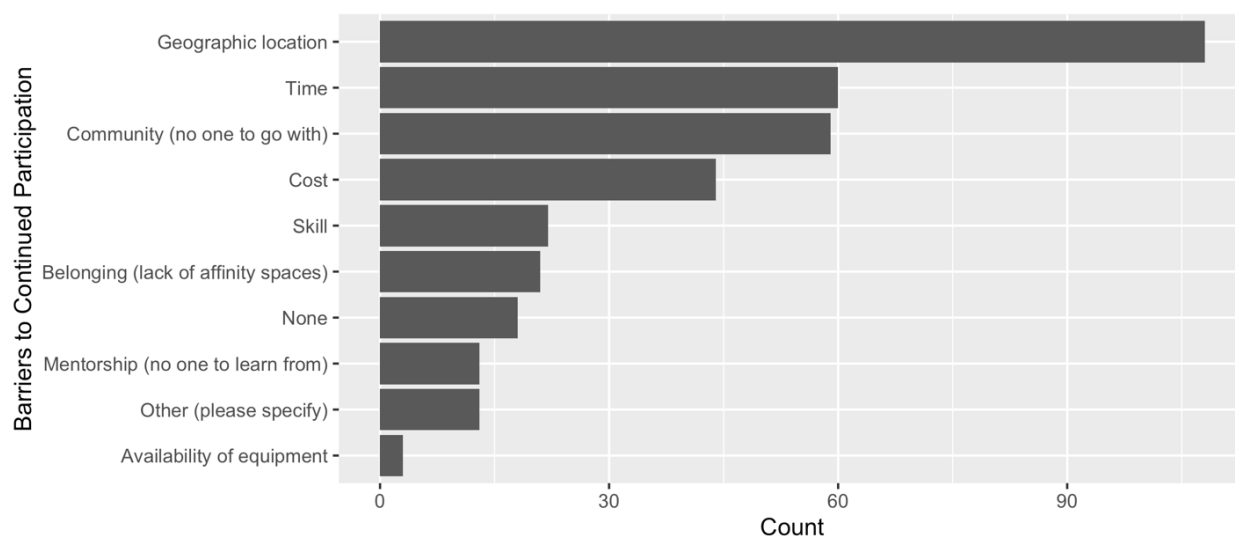


Equipment barriers include finding bikes, saddles (bike seats), clothes, and safety gear such as knee pads, as well as the attitude of employees in bike shops. One respondent described their challenge as “buying a bike – not the cost but the prejudice of the salespeople. They wanted to put me on basically cruisers.” The salespeople did not see this person as a serious cyclist, wanting to invest in a specialized bicycle for the type of cycling they wanted to participate in. Another respondent described the barrier of not being able to find correctly sized safety gear

because “knee pads and full-face helmets don’t fit me, so I am pretty conservative riding because I don’t have the right safety gear.” Barriers related to confidence ranged from imposter syndrome, “the mental hurdles of worrying if my bike was ‘good enough,’” and included issues related to equipment as one respondent explained that “I didn’t feel like I could wear a jersey or chamois until I was a ‘better’ rider.” Multiple respondents described challenges related to community, such as difficulty finding people to ride with because “most people are faster than me” or being intimidated by the male-centric cycling culture. Knowledge included barriers such as not knowing what to wear, how to find routes or make repairs, tire pressure, and “figuring out what I didn’t know.” Fear included physical fear of falling, fear of feeling left behind, and insecurities. One respondent said that “I still work hard to swallow the fear and lack of confidence every time I go out for a ride.”

Figure 9

Barriers to Continued Participation in Cycling



When asked what barriers survey participants had to prevent them from access to continue biking, respondents included one to six barriers ($M = 2.248$, $SD = 1.238$). The most

common barrier was geographic location, followed by time and community (no one to go with), cost, and then lower rates of agreement with skill, belonging (lack of affinity spaces), mentorship (no one to learn from), or availability of equipment, as shown in Figure 9.

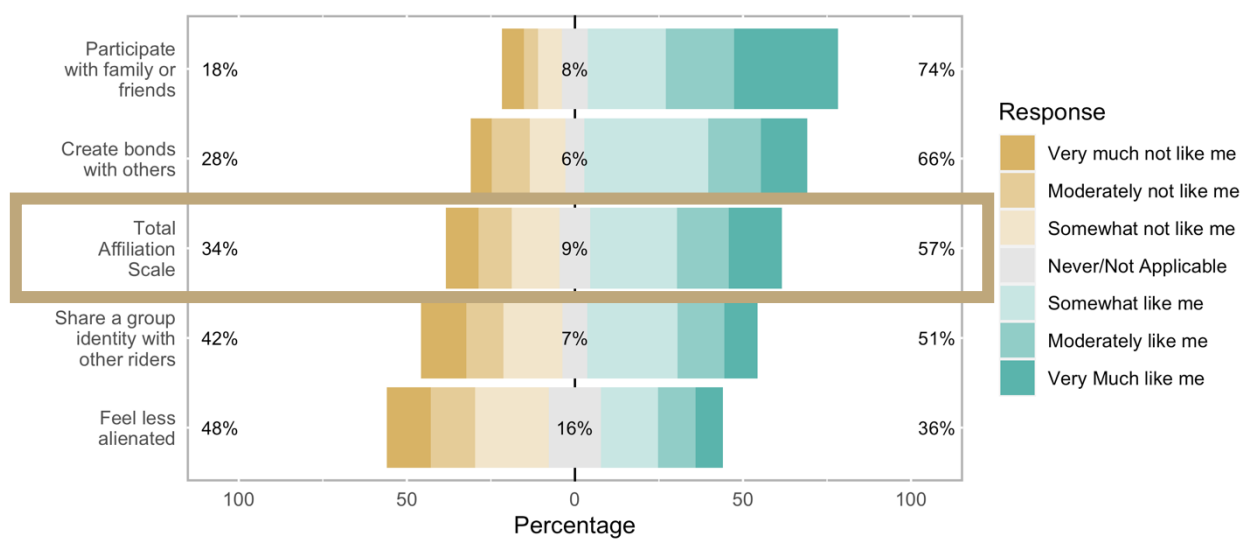
Interestingly, the barriers to entry and the barriers to continued participation were complementary but different. For example, the availability of equipment was not a barrier to most continuing participants but was the most significant barrier for new participants. Equipment availability is a topic that All Bodies on Bikes views as a priority in their outreach to the industry. They created an extended size gear testing list to support and encourage companies to create new products to support cyclists of all sizes. To support cyclists, they have resources such as lists of clothing companies and bike companies that make gear for larger cyclists. These efforts may be working given that more experienced cyclists have found solutions to their equipment challenges. Another large difference is the barrier of time, rated as the second highest barrier to continued participation but the least named barrier to entry (n=2).

In the previous question about how participants identify with All Bodies on Bikes, many responses were centered around community and finding a place to feel accepted as a participant in the sport of cycling. Participants describe how they feel excluded in “traditional” or “mainstream” cycling communities. One respondent said, “the cycling community is pretty unfriendly to fat bodies, so it’s important to me to have space to remember that I’m not an anomaly.” Another respondent said that All Bodies on Bikes “felt like a cool group supporting all cyclists. I’m new and feel alienated sometimes so this seemed like a way to mingle with my own kind.” Another respondent referred to how they ride compared to many mainstream groups where they do not feel welcome because they are a “slow rider...not a racer. So much of bike culture is about racing so it is nice to find folks who aren’t (always) about racing.” This is a

group of people who are devoting large amounts of money and time to a sport in which they are not comfortable attending or participating in traditional cycling groups or events, and All Bodies on Bikes gives them space to exist as non-traditional cyclists, even if that space is online. One respondent summarized this idea when they said that “I love the concept that you don’t have to fit the ‘cyclist’ stereotype to know you’re welcome.”

Figure 10

Motivation of Cyclists Scale: Affiliation



The Motivations of Marathoners Scale, adjusted to biking, examines some of the social motives for participation, such as the desire to affiliate with other riders. The affiliation scale included four items, as shown in Figure 10. Participants identify more strongly with the statements that they bike to participate with family or friends and to create bonds with others. Over 50% agree they bike to share a group identity with other riders. Figures 10-16 display the frequency of Likert scale responses, where brown to the left of the center indicates the frequency of statements that are not like participants. In contrast, the green to the right of the center

represents the frequency of agreement that statements are like participants. In order to examine how the level of participation relates to the motivations of cyclists, I found the means for each subscale and level of participation, as shown in Table 6.

Table 6

Mean of Adjusted Motivations of Marathoners Subscales Based on Participation Level

Scale	Low Participation	Medium Participation	High Participation	Total Scale
Affiliation	2.15	3.01	3.80*	3.25
Competition	4.37	4.66	4.82	3.02
General Health Orientation: Fitness	3.73	4.49	4.72	4.40
General Health Orientation: Reduce Disease	4.37	4.66	4.82	4.65
Life Meaning	2.93	4.02*	4.83**	4.25
Personal Goal Achievement	3.63	4.28	4.65***	4.39
Psychological Coping: Emotional Coping	3.22	3.97	4.80**	4.30
Psychological Coping: Life Management	2.62	3.93*	4.55**	4.03
Recognition	1.15	1.67	2.25**	1.91

Note:

* Mean is statistically significantly higher than the next lower participation group

** Mean is statistically significantly higher than the low and medium participation groups

*** Mean is statistically significantly higher than the lowest participation group

Table 7*Results of one-way ANOVA Analysis*

Scale	F (2,169)	p	Eta squared
Affiliation	12.36	<0.05	.13
Competition	2.18	0.116	n/a
General Health Orientation: Fitness	2.71	0.069	n/a
General Health Orientation: Reduce Disease	0.91	0.406	n/a
Life Meaning	15.69	<0.05	0.16
Personal Goal Achievement	7.443	<0.05	0.04
Psychological Coping: Emotional Coping	10.94	<0.05	0.11
Psychological Coping: Life Management	18.64	<0.05	0.18
Recognition	5.584	<0.05	0.06

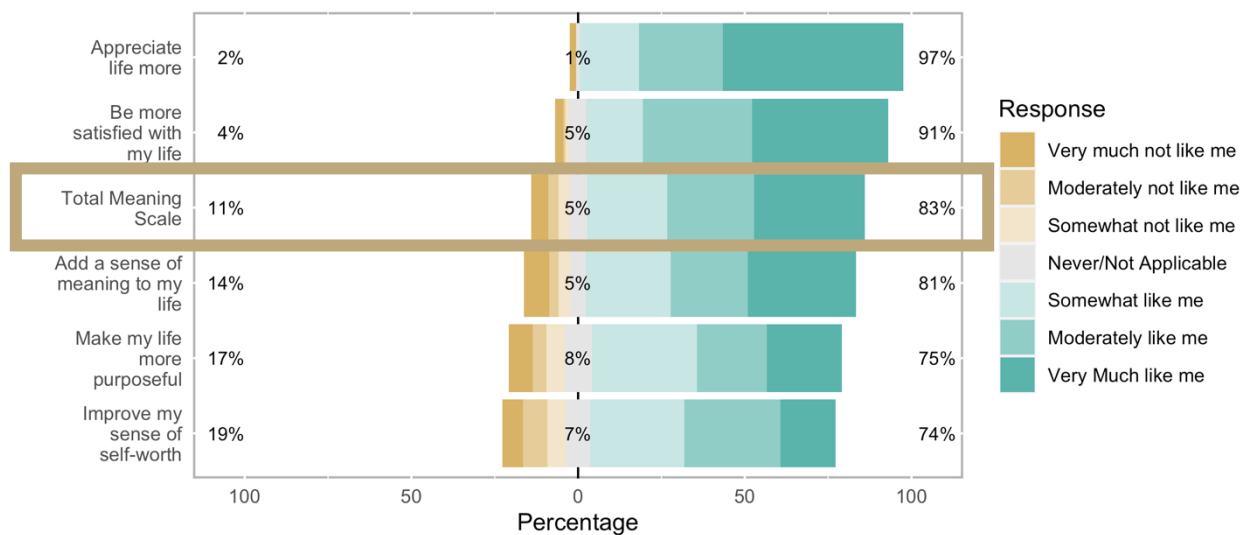
A one-way ANOVA (alpha .05) revealed no statistically significant differences between the health focus to reduce disease average scores, the health focus for fitness, or competition by the level of participation in All Bodies on Bikes. Examining the pairwise participation level difference, I found that the difference between participation groups and the scale scores. The highest participation groups showed a level of agreement with the Personal Goal Achievement scale that was statistically significantly higher than the lowest participation group. The remaining scales (Affiliation, Psychological Coping: Emotional, and Recognition) all showed that the mean of the high participation group was statistically significantly higher than the lower participation groups, both low and medium participation. For the scales of Life Meaning and Life management, the medium participation group also demonstrated statistically significantly higher means than the lower participation groups. To summarize, the higher the level of participation, the more they identified with the benefits of cycling.

Finding 4: Motivation – I bike for me

While community is an important driving factor behind participation for the survey participants, personal factors and factors related to intrinsic motivation are of higher importance than extrinsic factors such as recognition. The Motivations of Marathoners Scale, adjusted to biking, examines some of the personal motivations for participation such as the needs for competence and autonomy. The scales of life meaning, self-esteem, and general health orientations to both reduce disease and keep fit can fill the need for autonomy. Psychological coping and everyday life management scales can demonstrate the need for competence. Survey respondents find that cycling brings meaning and purpose to their life, as shown in Figure 11.

Figure 11

Motivation of Cyclists Scale: Life Meaning



The emotional coping scale included five items, as shown in Figure 12. As shown by the percentages on the right of Figure 12, the vast majority of survey respondents identify with positive outcome of riding with respect to psychological and emotional coping, such as

confidence, lowering depression, improving self-esteem, and becoming less anxious. The personal goal achievement scale included five items, as shown in Figure 13. As shown by the percentages on the right of Figure 13, more than three-quarters of survey respondents do identify with measures of personal goal achievement demonstrating intrinsic motivation, such as feeling a sense of achievement, self-pride, and pushing themselves.

Figure 12

Motivation of Cyclists Scale: Psychological Coping - Emotional Coping

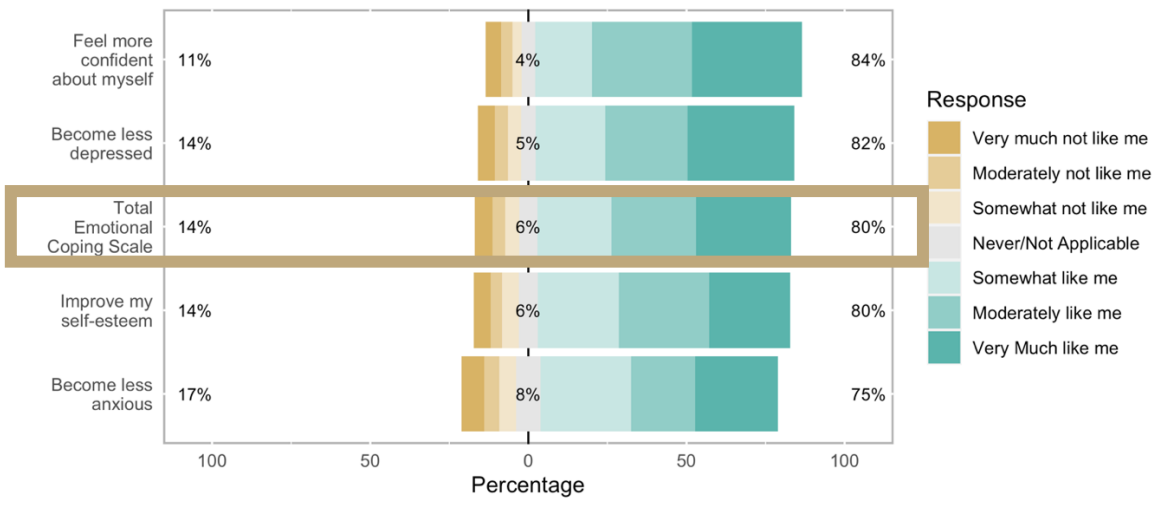
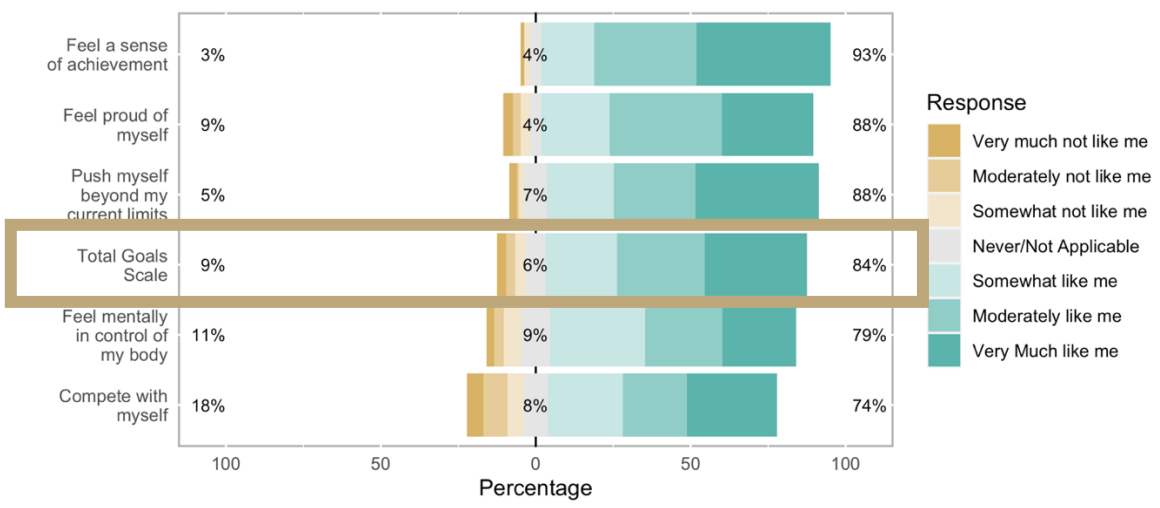


Figure 13

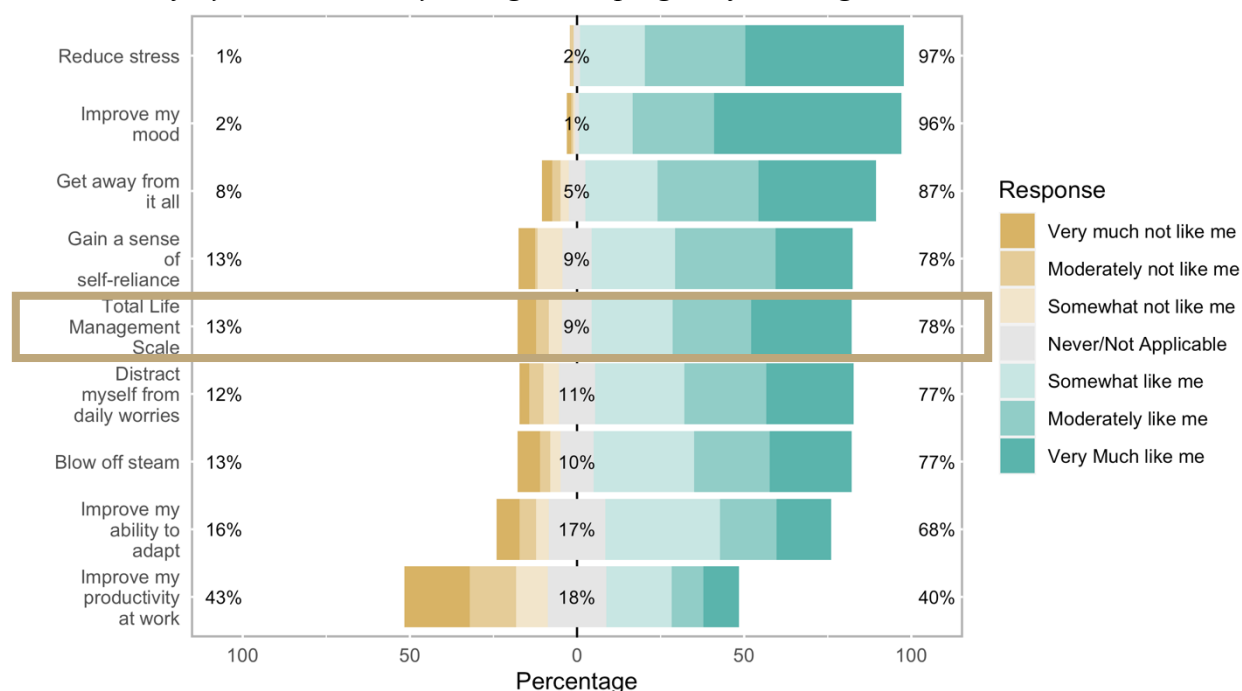
Motivation of Cyclists Scale: Personal Goal Achievement



The life management scale included eight items, as shown in Figure 14. Again, the elements contributing to this scale demonstrate the internal focus of the riders and the importance of intrinsic motivation. Respondents are split on whether they ride to improve productivity at work, but in more agreement about reducing stress, improving mood, and gaining a sense of self-reliance.

Figure 14

Motivation of Cyclists Scale: Psychological Coping – Life Management



Cycling's benefits for health and fitness are also important to survey respondents. The general health orientation to reduce disease scale included four items, as shown in Figure 15. The general health orientation for fitness scale included four items, as shown in Figure 16.

Figure 15

Motivation of Cyclists Scale: General Health Orientation – Reduce Disease

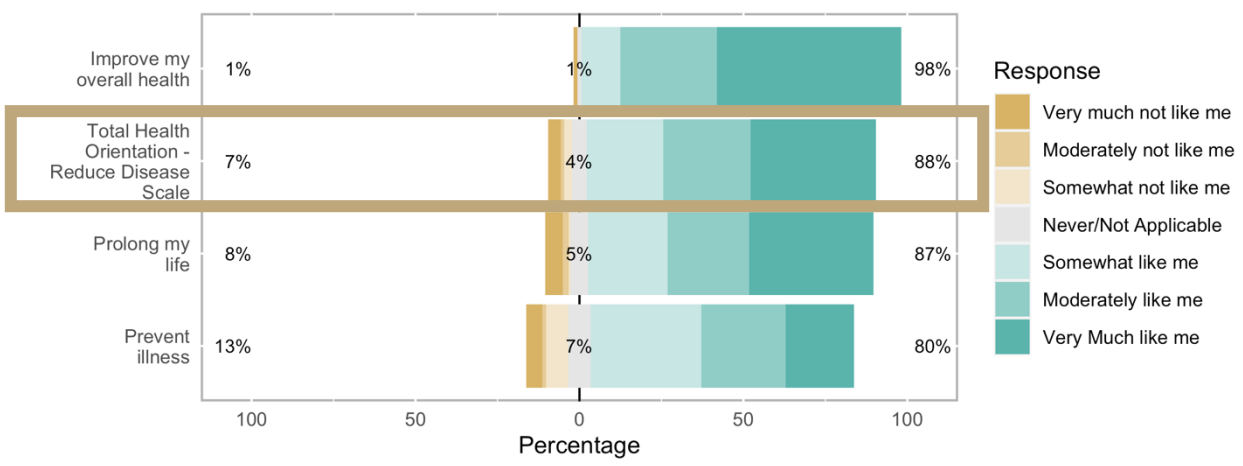
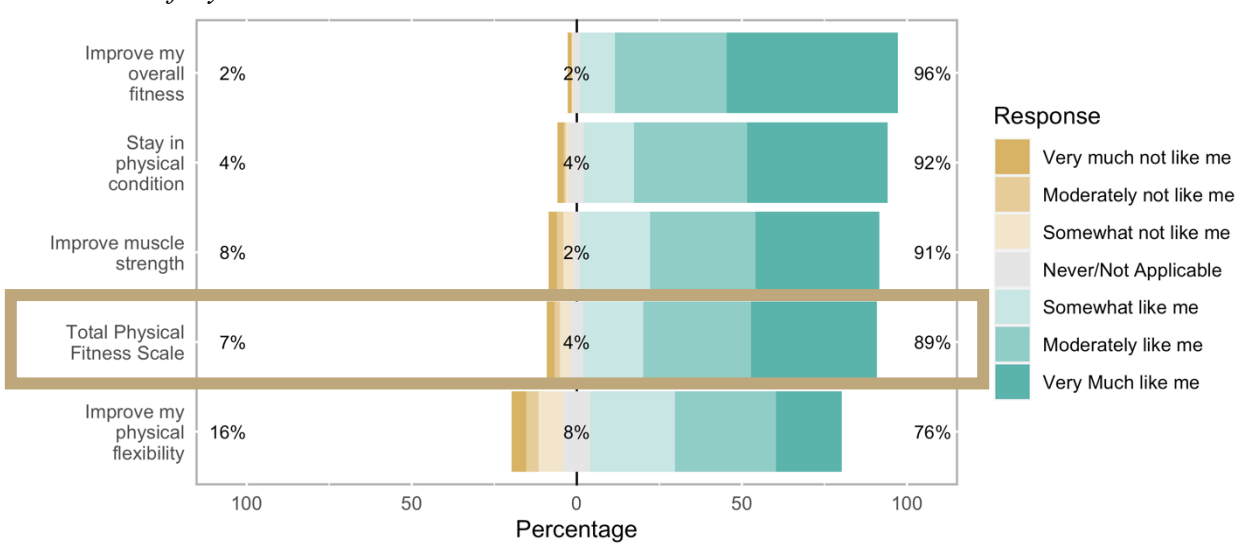


Figure 16

Motivation of Cyclists Scale: General Health Orientation – Fitness



The survey findings suggest that All Bodies on Bikes' audience is highly educated, predominantly female, and largely identify with the organization due to inclusion based on multiple identities that include but are not limited to size. Riders face various barriers to entry and continued participation, such as equipment, confidence, belonging, community, knowledge, physical, and cost issues. They identify with All Bodies on Bikes for a sense of acceptance and

community and are intrinsically motivated as demonstrated by their agreement with statements in the personal goals, psychological and emotional coping, life meaning, and life management scales. These findings demonstrate the importance of creating a cycling space that is accepting, diverse, and inclusive in order to meet the needs of the All Bodies on Bikes community.

Recommendations

Recommendation 1: Formalize that All Bodies on Bikes is beyond size inclusion.

All Bodies on Bikes started as a size inclusive group with a mission to create a body size inclusive community. However, its members view it as more than inclusive to size. The group demographics also show a wider audience than a typical cycling group. Their comments in the survey talk about feeling welcome as a body on a bike, regardless of fitness level, what type of bike they ride, disability, gender expression, race, or sexual orientation.

In the introduction to their new podcast, Marley (one of the co-founders) and Maggie (a local group leader) talk about this expanded view. They say, “All bodies really means all bodies, not just larger bodies, but bodies of all sizes, ages, races, abilities, genders, sexualities, and beyond.” Their current mission and vision are focused on size inclusion. Their current value statement does expand beyond size to include race, country of origin, mobility, income, and all types of bikes including adaptive bikes. As this part of their organization grows, they should consider formalizing this expanded definition of inclusion in their founding documents and public facing website by updating their mission and vision.

Recommendation 2: Continue and expand partnerships with other underrepresented groups in cycling

All Bodies on Bikes has started to host events in partnership with other under-represented groups in biking. As discussed in the previous recommendation, they should continue to expand these types of events as part of being an inclusive and welcoming community for all aspects of identity that are meaningful to their members.

Opportunities include social rides, such as the ride that occurred in February 2023, as shown in Figure 17, or working in conjunction with other groups at larger events such as races or festivals. These are opportunities for groups to get together and mutually support the intersecting identities of their membership, as well as allies for both groups. The All Bodies on Bikes podcast is also a great venue to give a voice to underrepresented groups. They've interviewed a wide variety of guests, including a para-Olympian; Khadijah Diggs, a Muslim woman and triathlete who has pushed companies to create kit and change Ironman rules so she can race in clothing that meets her religious requirements; and Abi Robbins, also known as Queer Gravel, who won the first non-binary or genderqueer category at Unbound Gravel.

Figure 17

Social Media post promoting social ride with Queer Gravel and All Bodies on Bikes



Recommendation 3: Advocate for more inclusive cycling events

Not all cycling events are inclusive. Many riders look at the wording used in event announcements, categories for the competition, and pictures from previous events to determine if they will be welcome if they show up. Examples of welcoming behaviors include race pictures showing multiple genders, races, and sizes, merchandise sold in an inclusive range of sizes, and race categories that include multiple age groups and gender identities beyond male and female. All Bodies on Bikes has created a couple of podcast episodes detailing ways to create an inclusive culture. Still, more advocacy and outreach are needed in this area, including the episode shared in Figure 18.

Figure 18

All Bodies on Bikes Podcast episode promoting an inclusive cycling culture



February 1, 2023

**Building an Inclusive Cycling
Culture with Greer Van Dyck
(S1E3)**

[▶ Play Episode](#)

This is also an area where local chapters can play a powerful part. Local chapter leaders know what the local events are and can be a force multiplier to reach out and share resources on

how to be more inclusive. All Bodies on Bikes can create a resource guide with inclusive language, resources, suggestions, best practices, and contacts for race organizers to learn more. This guide would support other organizations hosting races or events who want to do better, while serving as an educational resource for those race or event organizers who may not yet realize that their event could be more inclusive or that their event is presenting publicly as not inclusive.

Recommendation 4: Offer virtual community through ride options and virtual connection for events

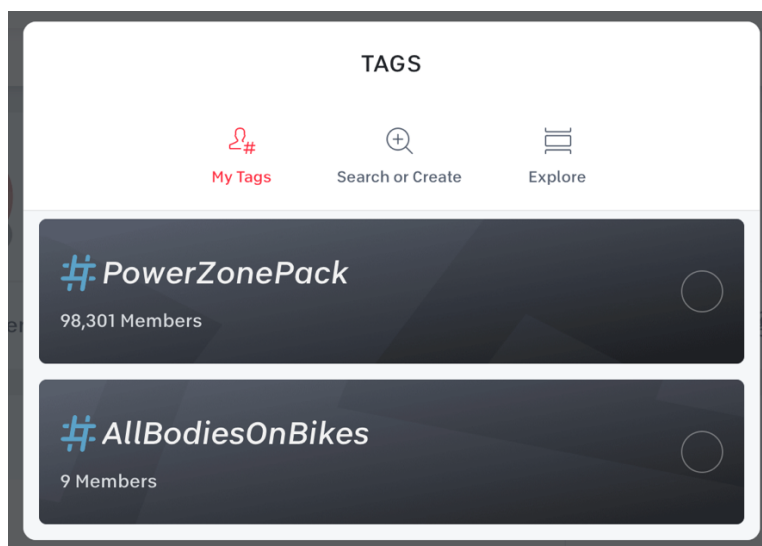
Based on the evidence that approximately half of the members ride alone and identify time and geographic location as limiting factors, All Bodies on Bikes should consider ways to create a virtual riding community. Indoor cycling or spinning was the 4th most common type of riding members participate in, so many members likely already subscribe to a virtual riding platform such as Wahoo, Swift, or Peloton. Without geographic limitations, virtual rides may be a way to grow community across time zones and worldwide.

There are multiple ways to accomplish this. Options range from the sophisticated weekly rides put on by Steamboat Gravel, which require membership to the Wahoo riding application, to simpler methods such as creating a Peloton hashtag. The Peloton hashtags, shown in Figure 19, allow members to find and follow each other and earn swarm badges for group rides. The organization views virtual rides as an option, but they do not currently have a volunteer willing to organize virtual rides. Something like the Peloton option is less labor intensive and can be as simple as announcing in the Facebook group to log in and do the same ride on the hour on a given day of the week. Additional outreach to membership to determine what platforms members

use for indoor cycling can help narrow down what platforms to investigate further. Testing rides on different platforms and on different days at different times can also help All Bodies on Bikes find the time and method most meaningful to and valued by their membership.

Figure 19

Peloton Tags on a member profile

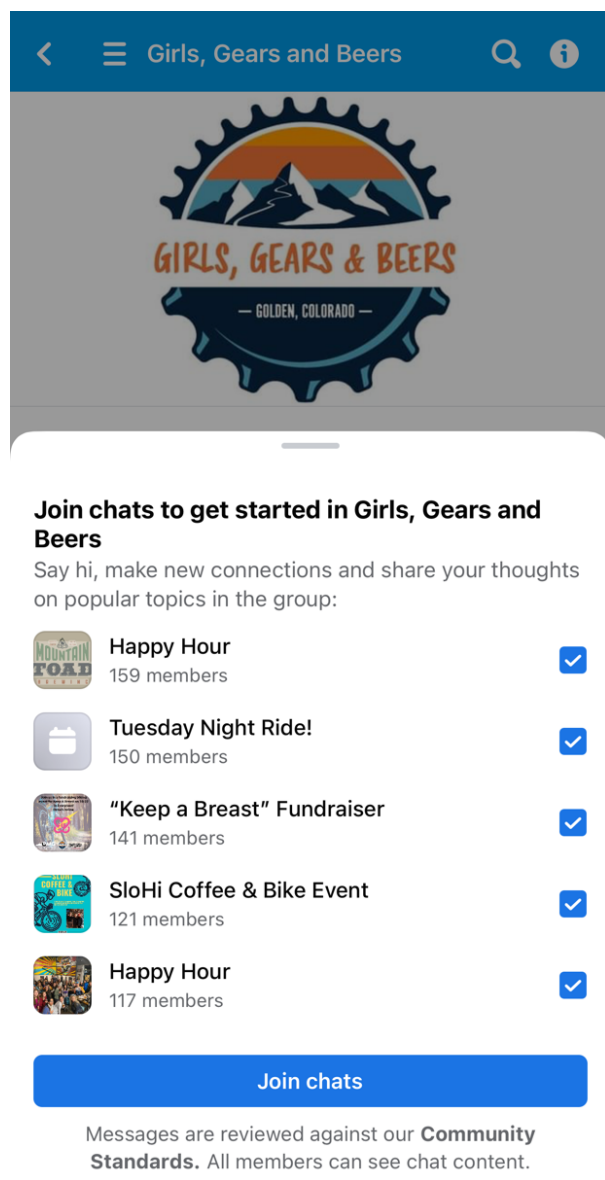


As discussed in the previous recommendation, All Bodies on Bikes advocates for in-person events to be more inclusive, but it is a slow process. Until event organizers make the necessary changes to be more inclusive, All Bodies on Bikes could support inclusion by creating a virtual group before and during the event. A group chat using WhatsApp or Facebook messenger, as shown in Figure 20, could make a space for belonging through a temporary affinity group. A group administrator can create the chat, and a best practice would be to identify a couple of people to act as admins within this smaller chat. The Facebook administrators could ask members of the Facebook group to sign up using a google form or similar technology and then send an invite to the WhatsApp group to the people who signed up in the form. This creates

more control to limit the group to people attending the event as it is more effort than clicking a button to join a chat. The WhatsApp invite could also be shared in the Facebook group with less control over who could join. Once again, a best practice would be to identify a couple of informal representatives to act as administrators in the group chat.

Figure 20

Facebook Messenger Chats in another Cycling focused Facebook group



This chat allows communications between like-minded riders who affiliate with All Bodies on Bikes to encourage each other, share tips about where to park or eat, or even set up meetups at local restaurants. A large event becomes smaller for participants who have connections, even virtually.

Recommendation 5: Provide on demand education

Part of the mission of All Bodies on Bikes is to educate and change the cycling industry. Marley, one of the co-founders, is working with many companies to change the view of who to design for. That progress is slow, and she has said that interest is waning after the pandemic bike boom. Attacking the culture shift from both sides is possible. Creating a well-designed online virtual, on demand training aimed at local bike shops, bike clubs, or even race organizers on how to be more welcoming and inclusive can aim at changing the cycling culture from the bottom up.

Multiple people took the survey who are supporters of the mission, or who follow All Bodies on Bikes because they want to learn more about being inclusive and welcoming as someone who works in a bike shop or teaches bike clinics. They are looking to learn and are likely not the only ones in this \$8 billion dollar a year industry.

Topics to cover could include inclusive language and practices. All Bodies on Bikes takes the stance that all bodies truly includes all bodies, giving them the high ground to speak to how inclusive language should include all genders, races, sexualities, abilities, and more. Stories from members about going on a no-drop bike ride and having to find their way alone back to the start may help groups understand that they need to follow up on their advertised commitment to be no-drop. Even terms such as “party pace” for the slow group can be impactful when the pace for the slow group is faster than a rider’s average.

All Bodies on Bikes has done webinars and trainings in the past, as shown in Figure 21, including a live virtual class in the fall of 2022. Good on demand training is difficult and time consuming to develop. Still, the ability for groups and bike shops to watch on-demand training could expand their reach and be a valuable step to continue the discussion on how to be more inclusive. One of the group's sponsors could underwrite the cost of curriculum development and filming the course.

Figure 21

Social Media post promoting a virtual class



The image shows a social media post for a virtual class. At the top, two women are standing outdoors with their bicycles. The woman on the left is wearing a floral dress and a cap, while the woman on the right is wearing a light blue shirt, dark shorts, and a green helmet. Both bicycles are equipped with panniers. The background is a plain, light-colored wall. Below the photo, the text reads: *Biking for Big People*, VIRTUAL CLASS WITH MARLEY & KAILEY, Tuesday November 9, 5:30pm Pacific Time. To the right, under the heading TOPICS INCLUDE:, are listed: BIKE BUYING, BIKE FIT, FINDING CLOTHING, and RIDING TECHNIQUES & MORE. A decorative orange line is drawn across the right side of the post.

Biking for Big People
VIRTUAL CLASS WITH MARLEY & KAILEY
Tuesday November 9
5:30pm Pacific Time

TOPICS INCLUDE:
BIKE BUYING
BIKE FIT
FINDING CLOTHING
RIDING TECHNIQUES & MORE

Conclusion

Cycling is a sport with a high barrier to entry and even to continued participation. The stereotypical cyclists and traditional organizations that currently exist have created a gap in which non-traditional cyclists wanting to join the sport are not able to find the support, knowledge, mentorship, affinity, or inclusion that they need to continue to participate in the sport. All Bodies on Bikes has created an inclusive community that has expanded to participants' intersectional identities beyond size to include ages, races, abilities, genders, incomes, and sexualities. These participants have found a cycling organization where they are valued and respected for their uniqueness and where diversity is valued and appreciated.

Based on my findings, All Bodies on Bikes has filled a critical gap in the cycling culture during their brief existence. Their current actions and initiatives are driving their mission forward successfully. By enacting my recommendations, they can advance their mission and community to make an even more significant impact on the sport of cycling.

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Appendix A: Instrument

Are you a member or supporter of All Bodies on Bikes? Please take our survey to help us learn about your motivation and benefits from cycling!

Individuals over the age of 18 are eligible. The online survey takes approximately 10 minutes.

If you complete the survey, you will be entered to win one of two bike head caps featuring the custom All Bodies on Bikes artwork by Lisa Congdon!

If you have any questions, please contact Heather Seminelli at heather.seminelli@vanderbilt.edu. Thank you!



How/why do you identify with All Bodies on Bikes?



In what ways have you interacted with All Bodies on Bikes in the past 12 months (choose all that apply)

<input type="checkbox"/> I followed All Bodies on Bikes on Facebook	<input type="checkbox"/> I watched the All Bodies on Bikes movie
<input type="checkbox"/> I am part of the All Bodies on Bikes group on Facebook	<input type="checkbox"/> I attended an in-person event (ride, talk, etc.)
<input type="checkbox"/> I followed All Bodies on Bikes on Instagram	<input type="checkbox"/> I attended an online event
<input type="checkbox"/> I bought merchandise (e.g. stickers, t-shirts, stem cap, etc.)	<input type="checkbox"/> I talked with someone who had been to an All Bodies on Bikes event
<input type="checkbox"/> I was given merchandise (e.g. stickers, hats, etc.)	<input type="checkbox"/> I volunteer(ed) for All Bodies on Bikes
<input type="checkbox"/> I visited the website (in general)	<input type="checkbox"/> None of the above
<input type="checkbox"/> I donated to All Bodies on Bikes	<input type="checkbox"/> Other (please specify)
	<input type="text"/>
<input type="checkbox"/> I read the website blog	

How do you participate in the All Bodies on Bikes Facebook group?

I am a member of the group, but do not participate.

I observe the posts and interactions in the group.

I have created a post at least once.

I occasionally like or comment on posts.

I post more than once a month.

I like or comment on posts more than once a month.

I post more than once a week.

I like or comment on posts more than once a week.

Other (please specify)

In what ways have you supported All Bodies on Bikes in the past 12 months (choose all that apply)

I shared an event online (social media or other platform)

I shared the All Bodies on Bikes mission with a friend, coworker, family member, etc.

I shared an event within my personal or professional networks)

None of the above

I personally donated to All Bodies on Bikes

Other (please specify)

I purchased All Bodies on Bikes merchandise



When considering your goals for attending an All Bodies on Bikes event, please rank the following in order of importance (1-5)

- Being part of a community
- Making new friends
- Learning a new skill
- Improving an existing skill
- Supporting All Bodies on Bikes mission

What would be your dream event to attend for All Bodies on Bikes?



Do you have any barriers that prevent you from access to further participation? (select all that apply)

Cost

Availability of equipment

Skill

Time

Geographic location

Community (no one to go with)

Mentorship (no one to learn from)

Belonging (lack of affinity spaces)

None

Other (please specify)

Use the following scale to share how much you identify with the following statements about biking:

	Never/not applicable	Very much not like me	Moderately not like me	Somewhat not like me	Somewhat like me	Moderately like me	Very much like me
I bike to create bonds with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I bike to feel gain a sense of self-reliance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I bike to improve my overall fitness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I bike to be more satisfied with my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I bike to feel less alienated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What types of riding have you done in the last 12 months? (select all that apply)

- Road
- Cyclocross
- Bike Packing
- Gravel
- Mountain Biking
- Downhill
- Enduro
- Recreational
- Indoor or Spinning
- Utility (Running errands, ride to work, etc.)
- Other (please specify)

What is your primary type of riding?

- Road
- Cyclocross
- Bike Packing
- Gravel
- Mountain Biking
- Downhill
- Enduro
- Recreational
- Indoor or Spinning
- Utility (Running errands, ride to work, etc.)
- Other (please specify)



Have you entered a race in the last 12 months?

- No
- Yes



How many bikes do you own?

0 1 2 3 4 5 6 7 8 9 10

Select the number of bikes you own

0 1 2 3 4 5 6 7 8 9 10

Who do you usually ride with?

On my own

Organized bicycle events such as races, charity rides, festivals

Friends

Family

Participate in a local cycling club

Other (please specify)

How often do you ride?

4 or more times a week

2-3 times a week

About once a week

2-3 times a month

About once a month

Less than once a month

How many miles do you typically ride in a week?

0 10 20 30 40 50 60 70 80 90 100

Select the miles you ride in a week you ride

How long have you been biking as an adult?

Less than 1 year

1-3 years

3-5 years

5-10 years

10+ years

How old are you?

Under 18

18-24 years old

25-34 years old

35-44 years old

45-54 years old

55-64 years old

65+ years old

How do you describe yourself?

Male

Female

Non-binary / third gender

Transgender

Cisgender

Agender

Genderqueer

A gender not listed

Prefer not to say

Prefer to self-describe

Do you identify as LGBTQIA+?

Yes, I identify as LGBTQIA+

No, I do not identify as LGBTQIA+

Prefer not to answer

Do you consider yourself a person with a disability?

Yes

No

Prefer not to answer

Choose one or more races that you consider yourself to be

White or Caucasian

Black or African American

American Indian/Native American or Alaska Native

Asian

Native Hawaiian or Other Pacific Islander

Other

Prefer not to say

Are you of Spanish, Hispanic, or Latino origin?

Yes

No

What is the highest level of education you have completed?

Some high school or less

High school diploma or GED

Some college, but no degree

Associates or technical degree

Bachelor's degree

Graduate or professional degree (MA, MS, MBA, PhD, JD, MD, DDS etc.)

Prefer not to say

What was your total household income before taxes during the past 12 months?

Less than \$25,000

\$25,000-\$49,999

\$50,000-\$74,999

\$75,000-\$99,999

\$100,000-\$149,999

\$150,000 or more

Prefer not to say

In which country do you currently reside?

What is your US Zip Code?

Would you like to enter the drawing to win a stem cap?

Yes

No



Thank you for taking the time to respond to this survey!

Your response has been recorded.

If you want to win the All Bodies on Bikes stem cap, [enter here](#).

Appendix B: Survey Distribution


Facebook posts:



Marley Blonsky
December 9, 2022 · 🌐

Hi All! We're working with a grad student at Vanderbilt University to better understand the needs and motivations of our community! Please help us out by taking this survey!
If you complete it, you'll be entered to win one of two custom All Bodies on Bikes head caps!

PEABODY.AZ1.QUALTRICS.COM
Online Survey Software | Qualtrics Survey Solutions

  You and 17 others 6 comments

 Like  Comment  Send





Marley Blonsky
February 6 · 🌐

Hi All Bodies on Bikes Community! I have an ask for help - we are working with a grad student to help understand our community a bit better. She has developed a survey and we would love your responses.

https://peabody.az1.qualtrics.com/.../SV_eIMssXijlprPAkm

  You and 15 others 6 comments

 Like  Comment  Send

Email to distribution list:



Marley at All Bodies on Bikes

Help Us Improve All Bodies on Bikes

To: Heather Seminelli,

Reply-To: Marley at All Bodies on Bikes

Inbox - H...yle@gmail.com December 9, 2022 at 9:36 AM



This message is from a mailing list.

Unsubscribe



[View this email in your browser](#)

**all bodies
on bikes** 

Help Us Improve

We're working with a student at Vanderbilt University to analyze our group's needs and ensure we're creating programs that support our community! If you complete the survey, you'll be entered to win one of two of our custom bike head caps! Your support is appreciated - please feel free to send it on to other folks as well!

[Take Survey](#)