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Research Article - social sciences

# National Forest Visitation Preferences and Avenues to Participation for Urban Hispanic Recreationists in the Portland Metropolitan Area (USA)

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## Abstract

Health benefits of outdoor recreation have been broadly demonstrated and land managers recognize the equity implications of providing safe and inclusive outdoor spaces. Data on public lands visitation and outdoor participation show that Hispanic recreationists are less likely to engage in outdoor leisure than White persons. Early studies of outdoor preferences of Hispanic persons identified a desire for large-group settings and social activities. To update our understanding of outdoor recreation needs, preferences, and constraints, we collaborated with a Latinx organization in Portland, Oregon (USA). We collaboratively designed three focus groups that combined structured engagement, cognitive sorting, and participatory mapping to elicit desired outdoor activities and settings and identify constraints and opportunities. Results suggest that urban Hispanic recreationists seek a variety of human-powered, motorized, and contemplative outdoor activities and gravitate toward familiar settings. Predominant barriers relate to a lack of experience with outdoor activities and gear and lack of exposure to public land settings.

**Study Implications:** Early studies about Hispanic outdoor participation emphasized preferences for social activities in group settings. Urban Hispanic recreationists in our study sought a diversity of human-powered, motorized, and contemplative outdoor activities. Guided group outings and Spanish-language materials were identified as steps to increase participation. Barriers included a lack of awareness of prospective recreation sites, the absence of recreation partners, and unfamiliarity with outdoor gear. Agencies seeking to enhance access may gain the greatest efficiencies by enabling guided group events providing gear, instruction, and companionship. Outreach efforts in Spanish detailing information about setting and safety features would be well received.

**Keywords:** outdoor recreation, access, equity, Latinx, urban

Parks, forests, and public natural spaces offer a multitude of ecosystem services (benefits) to people, including clean air, clean water, carbon storage,

fish, game, forage, scenery, recreation, and heritage ([Millennium Ecosystem Assessment 2005](#)). Scientific studies have documented the health benefits of nature



exposure, including improved air quality, physical activity, stress reduction, improved cognition (Bowler et al. 2010, Hartig et al. 2014, Frumkin et al. 2017, Hossain et al. 2020, Lackey et al. 2021, Brymer et al. 2021). Outdoor recreation activities such as walking, bicycling, climbing, or paddling improve physical strength, introduce challenge or adventure, and contribute to a sense of accomplishment (Thomsen et al. 2018). Federal public lands, such as national forests, monuments, and parks, provide wide-ranging opportunities to engage in outdoor recreation and procure these benefits (Flores et al. 2018).

Growing recognition of the health benefits of federal public lands raises questions about equity and access to recreation opportunities across segments of society, given that many federal lands are in rural areas distant from cities where most Americans reside. Given the array of benefits associated with being outdoors, it is important to critically assess beneficiaries with a social justice lens. Federal land managers are increasingly aware of disparities in access and seek ways to expand opportunities for visitation to those not currently being served. They also recognize the importance of outreach to expand their constituencies and enhance their relevance. In 2021, Executive Order 13985, “Advancing Racial Equity and Support for Underserved Communities Through the Federal Government” [86 Fed. Reg. 7009] was issued by President Joseph Biden. The order seeks equity (defined as “consistent and systematic fair, just, and impartial treatment”) for all individuals, with particular attention to underserved communities, including Black, Latino, Asian, Indigenous, and other persons of color. Executive Order 13985 requires public agencies to identify and remove barriers to access public resources and services. In response, federal land managers have explored strategies for increasing public lands visitation, removing barriers to access public lands, and enhancing engagement opportunities. Our study points to findings that may help guide federal agencies in efforts to provide equitable benefits to all.

Research has found that disadvantaged communities do not have access to the same quantity or quality of parks and green spaces available for outdoor recreation that more affluent communities have (Floyd et al. 2009, Rigolon 2016). Feeling safe, comfortable, or welcome in outdoor spaces is important to their use (Ortiz 2018). Historically, outdoor settings and activities were designed, conceptualized, and framed in a way that reflected preferences of White middle-class recreationists (Davis et al., 2019, Ho et al. 2021,

Thomas et al. 2022). In a study of a national park in Florida, Ryan et al. (2020) learned that Latinos viewed the park as a “white space” that was unwelcoming or alienating partly due to the lack of local relevance and Spanish-language interpretation. For Hispanic visitors, national parks also may evoke fear or suspicion, as shown in one urban-proximate unit near Los Angeles (Byrne 2012). Understanding barriers, opportunities and patterns associated with access to public natural spaces is important for assessing whether ecosystem benefits are broadly accessible. This raises questions among federal land managers about whether outdoor programs, services, and opportunities are available to everyone and whether people visiting public lands feel welcome, valued, safe, and included.

An ongoing body of research on outdoor participation by Hispanic populations in the United States demonstrates differences in activity preferences, site preferences, and modes of learning about recreational sites from White recreationists (Thomas et al. 2022). In 2020, 62.1 million people, or 18.7 percent of the US population, self-identified as Hispanic, a 23 percent increase since 2010 (US Census 2021).<sup>1</sup> Previous studies have identified numerous barriers to Hispanic outdoor recreation participation, particularly in national forests and parks (Chavez 2008, Stodolska et al. 2020, Flores and Sanchez 2020). Despite this wealth of knowledge, certain gaps remain. Much of the early knowledge on Hispanic persons’ outdoor recreation preferences was based on research among migrant communities (predominantly Mexican) in southern California, with limited data available on outdoor participation trends of Hispanic people elsewhere. Just as Hispanic communities are heterogeneous, so too are outdoor recreation preferences and behaviors within these communities. Differences appear to be linked to place of birth, length of time in the United States, and English language competency (Thomas et al. 2022). Empirical research about recreation preferences and trends among various Hispanic groups and generations is lacking (Flores and Sanchez 2020). Addressing these gaps will enable land managers to improve outreach efforts to Hispanic communities and reduce barriers to the participation of Hispanic people in outdoor recreation on public lands.

In 2017, we set out to conduct research to better understand desired activities, destinations, and barriers to national forest access among Hispanic residents of the Portland metropolitan area (Oregon, USA). We first attempted to gather data at a “table event” (cultural fair), which provided exposure to a diverse

Hispanic audience, but we found those who stopped at the booth were not familiar enough with the nearby national forests to feel comfortable participating. We partnered with Vive Northwest, a grassroots organization dedicated to expanding opportunities for outdoor engagement for Hispanic residents of Portland. Vive Northwest links Hispanic persons interested in the outdoors through social meetups, group outings, and events. Their goal is to increase familiarity and comfort with the outdoors through exposure and information to inspire greater outdoor participation leading to healthy lifestyles (Vive Northwest 2022). Our collaborative project was designed to co-develop and test two rapid assessment approaches to understanding elements of public lands visitation and engage people in conversations about the outdoors. The project was designed in cooperation with the USDA Forest Service (Forest Service), which was interested in expanding outreach and removing barriers to national forest access.

In this exploratory study, we sought to address the following questions: (1) What ideas about being outdoors are held by urban Hispanic recreationists? (2) What destinations, settings, and site features are preferred by urban Hispanic recreationists visiting nearby national forests and other federal lands? (3) What barriers and constraints inhibit visitation to nearby national forests and other federal lands? (4) What strategies and approaches would improve access to national forests and reduce barriers to outdoor recreation? To answer these questions, we co-hosted three focus groups of Vive Northwest members that featured guided dialogue and use of rapid appraisal tools (cognitive sorting and participatory mapping). We present results on desired outdoor locations and setting features, outdoor activities of interest, and barriers and opportunities to outdoor participation on public lands.

### Cultural Norms and Outdoor Participation among Hispanic Populations

The US Hispanic population is diverse both in terms of cultural origins and degrees of assimilation into mainstream culture (Shaull and Gramann 1998). Cultural norms for outdoor recreation vary by recency of immigration, generation, residential status (urban/rural), gender, and other factors (Sasidharan 2002). Hispanic respondents who are most acculturated are said to be closely aligned with White population norms in terms of perceiving benefits of outdoor recreation participation (Shaull and Gramann 1998). Flores and Sánchez (2020) research supports the notion that Hispanic

subgroups' differences translate into heterogeneity in outdoor recreation activities and preferences as well as changes over time in their interactions with public lands. Studies conducted in the 1990s and early 2000s noted a tendency for the outdoor recreation of Hispanic persons to center around day-use activities and large family gatherings (Chavez 2008). Flores and Sánchez (2020) documented a trend among more assimilated and younger Hispanic people toward more complex, diverse, and adventurous outdoor activities. However, they also described a strong desire for communal outdoor experiences.

Although the US population is steadily diversifying, visitation to national forests does not reflect this diversity. Data collected by the Forest Service on the visitation trends of Hispanic persons provide some insights, although these data sources do not differentiate by national origin or ethnic identity. According to the National Visitor Use Monitoring (NVUM) program, which estimates visitation trends on national forests, Hispanic visitors made up 6.9 % of all 168 million national forest visits nationally in the 2016–2020 period, which is less than the proportion of Hispanic people in the US population (18.7%) (USDA 2021a, U.S. Census 2021)<sup>2</sup> In the Pacific Northwest Region (Washington and Oregon), where this study takes place, Hispanic visitors comprised 9.2 percent of national forest visits in the 2016–2020 period (USDA 2021b), compared to the general Hispanic population of Oregon (13.9%) and Washington (13.7%) (US Census 2021). Flores et al. (2018) developed an inequity index that, when applied to national forests, revealed that there is an ongoing gap in national forest use across the country between the White population and ethnic and racial minorities. This means that for many ethnic groups, including Hispanics, national forests are not something they are necessarily familiar with or comfortable visiting. Reasons for nonvisitation are likely complex and varied, relating to a variety of factors, including cultural norms around being outdoors, concerns about safety, perceptions of inclusivity and belonging, lack of resources or information, or active noninterest/resistance.

Previous research has identified preferences for outdoor activities among Hispanic recreationists. A report analyzing data from the National Survey on Recreation and the Environment explores outdoor participation in twenty-nine nature-based activities across ethnic categories. Of the twenty-nine activities, Hispanic respondents' top activities (50% participation rates or higher) included: viewing/photographing nature, visiting a beach, viewing/photographing

flowers, swimming, visiting heritage sites, and sight-seeing (Cordell 2012). Compared to non-Hispanic counterparts, Hispanic persons were more interested in water-based activities, heritage activities, and bicycling and less interested in activities involving viewing nature or wildlife. Several studies note that group size of outdoor visitation is larger for Hispanic participants (Thomas et al. 2022). An Outdoor Industry Foundation study observed that Hispanic outdoor visitors enjoyed activities with their families and often included extended families (Adams et al. 2006). These studies lump all Hispanic populations together and do not account for differences among subpopulations, such as Cuban, Mexican, or Peruvian.

### Barriers to Outdoor Recreation and Public Lands Visitation

Numerous studies have documented barriers to use of nonurban natural areas by racial and ethnic minorities and how those have changed over the past three decades. Stanis et al. (2009) studied barriers to physical activity in parks and recreation areas both close to and far from the city and found that for all ethnic groups, the greatest barriers were lack of time, family obligations, and lack of energy. Ghimire et al.'s (2014) national study identified the top constraints to outdoor recreation among ethnic minorities as being concerns about personal safety, language barriers, lack of money, lack of time, and limited transportation options. For Hispanic residents of Los Angeles, identified the most important barriers to visiting nonurban natural areas as lack of workers of Hispanic ethnicity at the recreational sites, a desire for better accommodations, not knowing where to go or what to do, and lack of time. also found that members of minority groups were more likely than nonminorities to say that people of their ethnicity were discriminated against or did not feel welcome when recreating in natural areas, although these factors did not make their top ten barriers. Two studies in California documented feelings on the part of Hispanic visitors of being discriminated against at natural areas (Roberts and Chitwere 2011, Winter et al. 2020). In contrast, Flores and Sanchez (2020) reported that Hispanics felt welcome on federal and state lands and perceived staff and visitors to be friendly.

Chavez (2008) studied visitation by Hispanic persons to nearby national forests in Los Angeles, comparing barriers among recent visitors and those who had never visited these natural areas. Nonvisitors to national forests mentioned financial and time

constraints, a lack of Hispanic employees at natural areas, crowding, a lack of friends who recreate in natural areas, and not knowing where to go or what to do. Meanwhile, for recent visitors to these areas, the main barrier was the lack of companions to recreate with in natural areas. In a study of outdoor recreation constraints, Green et al. (2012) found that compared to non-Hispanic respondents, Hispanic respondents were more likely to list “not enough time because of my job,” “safety problems,” “can’t understand the language,” and “feel afraid in forests.” In their reviews of studies documenting barriers to participation by Hispanic persons in outdoor recreation, Ryan et al. (2020) and Thomas et al. (2022) identified the following barriers: limited knowledge of where to go; insufficient information about sites; limited access because of distance, lack of transportation, cost, and lack of time; real and perceived discrimination; language difficulties; lack of Hispanic staff in natural areas; and overcrowding.

A common thread in early studies of barriers to use of natural areas for outdoor recreation by Hispanic people are challenges associated with knowing what sites to visit, what activities to engage in, and what uses are permitted at such sites (c.f., Chavez et al. 2005, Roberts et al. 2009, Winter et al. 2020). These challenges are aggravated for those with limited English skills or who may have difficulties with signage and interpretive materials written in English (Roberts et al. 2009, Ryan et al. 2020, Thomas et al. 2022). Chavez et al. (2005) reported that Latinx visitors to natural areas tended to learn about sites through word of mouth; later studies point to social media and the internet as important means by which Hispanic individuals learn about outdoor places (Flores and Sánchez 2020, Winter et al. 2020). Flores and Kuhn (2018) document the emergence of Latino Outdoors, a nonprofit organization reliant largely on volunteers to organize group outings on public lands in sites across the country. Storytelling, particularly through social media, is a key component of the Latino Outdoors approach to expanding public land access.

## Materials and Methods

### Study Context

This study was conducted in and around the Portland metropolitan area (pop. 2,478,810) which includes several cities in Oregon and Washington (US Census 2021) In 2020, the percentage of Hispanic residents in the Portland metropolitan area was 12%, slightly lower than the state of Oregon (13.9%) (Census Reporter

**Table 1.** Focus group activity guide and worksheet.

Exercise	Question
Icebreaker question (open-ended)	What comes to mind when you think of the outdoors?
Participatory mapping Instructions were provided in Spanish and English. Map features were in English.	What outdoor places do you like to visit? Select 3 places on the map you have visited. For each place, tell us... <ul style="list-style-type: none"> <li>• What activities do you do there?</li> <li>• Why did you select this site?</li> <li>• What do you like about the facilities?</li> </ul>
Activity board: Cognitive sorting Participants receive a stack of 35 laminated cards with names of activities in Spanish/English on one side and photos of activities on the other. Cards are sorted based on 5 categories.	What outdoor activities do I engage in? <ul style="list-style-type: none"> <li>• Things I currently do...</li> <li>• Things I used to do, but don't anymore...</li> <li>• Things I am not interested in doing...</li> <li>• Things I don't currently do, but want to try...</li> <li>• Things I'm not familiar with...</li> </ul>
Activity board: Identifying barriers Participants received a stack of laminated cards with 15 barriers in Spanish/English on one side and icons/photos on the other side.	From this list of 15 barriers, select the four most relevant to you. <ul style="list-style-type: none"> <li>• Safety concerns</li> <li>• Not having people to go with</li> <li>• Lack of skills or know-how</li> <li>• Physical ability/health</li> <li>• Lack of time</li> <li>• Don't feel welcome</li> <li>• Lack of money</li> <li>• Not having the right gear/equipment</li> <li>• Not having transportation</li> <li>• Facilities or services</li> <li>• Needing more information</li> <li>• Not knowing where to go</li> <li>• Danger or risk</li> <li>• Presence of uniformed officials</li> <li>• Not knowing rules or permit requirements</li> <li>• Other</li> </ul>
Closing question (open-ended) Demographic worksheet	How do we improve access to the outdoors? <ul style="list-style-type: none"> <li>• Gender</li> <li>• Ethnicity</li> <li>• Age</li> <li>• Generational status</li> <li>• ZIP code of residence</li> </ul>

2021; US Census 2021). According to the 2010 US Census, most Hispanic residents in the Portland metropolitan area came from Mexico. Portland lies west of the Cascade Range and is situated within an hour's drive of the Mount Hood National Forest (Oregon), the Gifford Pinchot National Forest (Washington), and the Columbia River Gorge National Scenic Area (straddling Oregon and Washington). Data from the 2016 NVUM reports of the three forest areas reveal that Hispanic visitors made up 4.6% of the 2.3 million national forest visits to the Mount Hood National

Forest (USDA 2021c), 3.3% of the 1.2 million national forest visits to the Gifford Pinchot National Forest (USDA 2021d), and 6.7% of visitors to the Columbia River Gorge National Scenic Area (USDA 2021e).

## Methods

Three 2-hour focus groups were conducted in 2018. Focus groups are guided conversations with a group of persons that include group discussion and activities (Cyr 2015). Developed initially for marketing research and expanded for use as a standard social science tool



in the 1990s, a focus group is an efficient means of gathering information about a topic that uses open-ended questions, hands-on activities, and other structured exercises in a relaxed atmosphere that builds on group synergy. Data are analyzed not individually but at the collective level. Focus groups can be heterogeneous or homogeneous in terms of composition within or among groups (Cyr 2015). Following a coproduction model, our study team worked collaboratively to agree upon objectives, design focus group guides, develop data collection tools, facilitate activities, and conduct the focus groups (Stull and Schensul 2019). We identified mutual interests and developed an approach that would (1) generate information helpful to the leadership of Vive Northwest about member needs, (2) allow our research team to design and test rapid assessment tools in a bilingual focus group context, and (3) result in data to inform public land managers of the national forests near Portland.

The project used a purposive sampling approach in which participants were selected by the project team (Cresswell and Clark 2011). Advertising and recruitment of focus groups was led by the Vive Northwest public relations staff who created a Spanish language video describing project goals that was distributed on social media. Interested participants registered for the group that best met their schedule needs. Focus group participants included active members and staff of Vive Northwest, persons who had participated in past group events, and associates of Vive Northwest staff. Focus group participants were all persons of Hispanic origin who were active outdoor recreationists or had a strong interest in being outdoors. Study participants came from communities throughout the Portland metropolitan area. They were not representative of the broader Hispanic population.

Two focus groups occurred during midweek evenings on a university campus in downtown Portland. The third was conducted on a weekend afternoon at a county park approximately 30 minutes by car from downtown Portland. Focus group locations were roughly a 60 minute drive to the nearest national forest and 45 minute drive to the Columbia River Gorge National Scenic Area. The third group was organized around a group hike at the park, which occurred directly after the focus group. Each group was facilitated by a Spanish speaker who provided an overview and instructions both in Spanish and English. All written materials were provided in Spanish and English except the maps. Spanish speakers were engaged to answer questions about the activities. Focus groups included several components, including guided open-ended

questions, participatory mapping, and a cognitive sorting exercise. In addition, demographic information (gender, age, ethnicity, generational status, residential ZIP code) was collected on a separate worksheet in English and Spanish. Income and education data were not collected at the request of the project partners (Table 1).

### Open-ended Questions

Each focus group was asked the same set of questions with one exception. We began and ended each focus group with a guided, open-ended question. Responses were captured on flip charts and analyzed qualitatively. We asked participants to talk about their connection with nature and the outdoors by asking, “What comes to mind when you think of the outdoors?” Comments were captured on a flipchart so that all participants could see and reflect on what had been said. More ideas were added to the list until group members felt confident that the group’s ideas had been fully exhausted (saturation achieved). In one focus group, the facilitator surprised us by asking a different question and we did not analyze the data resulting from that question.

### Participatory Mapping

Spatial information about outdoor sites visited by Hispanic recreation users was collected using a public participatory GIS (PPGIS). PPGIS has been employed to understand human connections with landscapes in a variety of settings and to address a variety of resource topics (Brown and Fagerholm 2015, Brown and Kyttä 2018). In the Pacific Northwest, the approach has been piloted for use on national forests (Brown and Reed 2009, Besser et al. 2014, McLain et al. 2017, Helmer et al. 2020), including with Hispanic wild mushroom and floral greens harvesters (Biedenweg et al. 2014).

Participants were grouped around tables with two large maps, one showing the Gifford Pinchot National Forest and the other displaying the Mount Hood National Forest and the Columbia River Gorge National Scenic Area (Figure 1). Map features were labelled in English. Participants were asked to identify up to three places that they had visited and mark these places with a sticker dot. The maps showed primary highways and forest roads, as well as developed forest destinations and trailheads, lakes, rivers, and prominent sites. The maps also included Portland, Oregon. Spanish-speaking facilitators helped participants at each table to navigate the map and find destinations. For each of their marked places, participants were asked to explain why they liked that place, activities they do

at that location, how they heard about the site, and the features/facilities they liked. Survey questions were available to participants in both Spanish and English, and twenty-four of forty-five (53%) participants filled out the survey form in Spanish. The Spanish survey was more likely to be filled out by older participants (average 41 years), of whom 90% identified as “first generation,” whereas the English version was primarily used by a younger set (average 31 years), of whom 44% were first generation. The data were digitized and mapped to show the location of high-use sites.

For the qualitative data associated with the map points, a coding scheme was developed by the study team to capture the breadth of responses, which primarily consisted of phrases and short sentences, which in some cases were translated into English by the study team. Once the codes were established, data were subsequently sorted and tallied. For quality control, two team members reviewed the coded data to verify that the codes accurately reflected the contents.

### Cognitive Sorting Exercise

A modified pile sorting exercise was used to capture study participant perceptions of outdoor activities. Pile sorts and other cognitive tools are used to understand how study participants make sense of and organize their world through categorization of like concepts and establishment of cultural domains (Lobinber and Branter 2020). Typically, subjects sort a stack of cards either with no preconceived categories (unstructured)

or based on predetermined criteria (structured). We used a structured approach to assess familiarity with outdoor activities. Participants were given thirty-five cards. On the front of each card was a photograph of an outdoor activity, such as hiking, rafting, or picnicking. On the back of the card were words or phrases describing the activity in both Spanish and English. Participants also were given a large, game board-sized poster with categories and were asked to sort the thirty-five cards into one of five categories: (1) activities you currently do, (2) activities you used to do but do not do anymore, (3) activities you have never done but would like to try, (4) activities you have no interest in, and (5) activities that you do not know about (Figure 2). Participants could choose to place the cards face-up with photographs or face-up with words. Once the sorting was complete, the research team photographed the boards. Responses were tallied in a spreadsheet and analyzed using descriptive statistics for this study.

### Identifying Barriers and Opportunities

A final component to the sorting activity was identifying barriers to visiting natural areas. The study team created a set of fifteen barrier cards. The barriers were derived based on a review of the literature on barriers to public lands visitation, which include tangible (money, transportation, gear) and intangible (comfort, safety, knowledge) (Ghimire et al. 2014). Two barriers were specifically identified and requested by Vive Northwest, including familiarity with permits and regulations and



**Figure 1.** Focus group participants gathered around maps of national forests near Portland, Oregon. Photo credit: Vive Northwest.



the presence of uniformed officials (see Table 1). From that list, they were asked to pick the top four barriers that were most relevant to them. However, one quarter of the participants noted more than four barriers. Each participant worked on their own activity and barrier boards, although in two instances couples paired up to complete the activity as a team. The research team calculated the frequency and percentages of the responses obtained through the activity sorting and barriers identification exercises. After completing the barrier exercise on the activity board, we transitioned back to a group discussion of barriers, capturing them on the flip chart. We then asked participants a final open-ended question, “How do we improve access to the outdoors?” Responses were captured on the flip charts and ideas were added until saturation was achieved. These qualitative data were categorized, coded, and tallied by the study team as with the other open-ended questions.

## Results

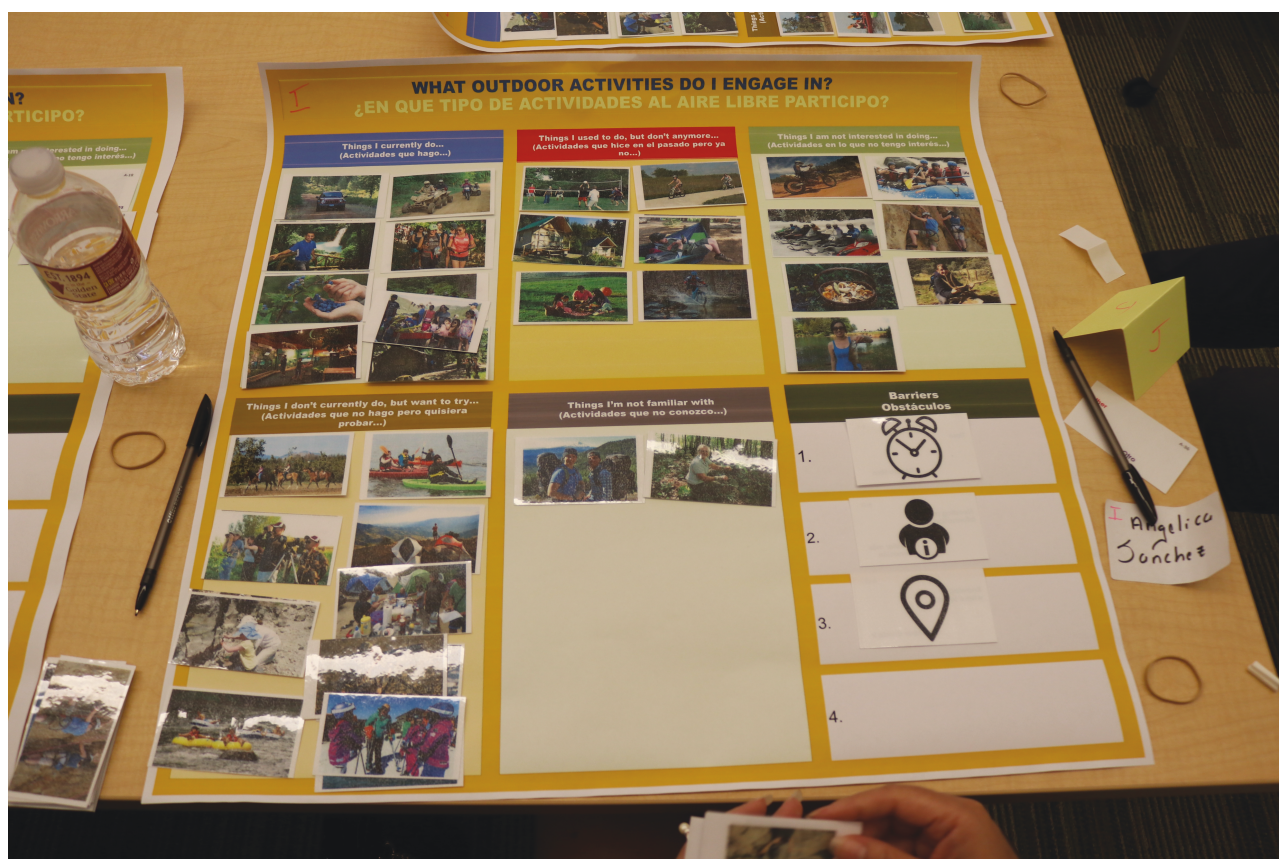
### Study Participants

A total of forty-five individuals attended our three focus groups combined, including eighteen at the first

group, seven at the second group, and twenty at the third group. The second group was lightly attended due to a scheduling conflict that inadvertently drew prospective participants to another Vive Northwest event. The third group was held on a weekend at a county park and was organized around a scheduled group hike, which likely increased the attendance. Of the forty-five focus group participants, forty-two provided demographic information. All participants (100%) listed their ethnicity as Hispanic/Latino and 86% lived in the Portland metropolitan area. In total, 45% identified as female and 55% as male. Participants ranged in age from 23 to 68 years with a mean of 37 years. The majority (69%) identified as first-generation immigrants, 23% were second-generation, and 8% were third-generation. Demographic information about income and education was not collected at the request of the project partner.

### Ideas about the Outdoors

We asked an open-ended question to start the focus groups, which revealed interesting insights about participants’ conceptions of what it means to be outdoors. For two of the three focus groups, we asked, “What



**Figure 2.** Image of cognitive sorting board, “What outdoor activities do I engage in?”

**Table 2.** Coded responses to question, “What comes to mind when you think of the outdoors?” (focus groups A and C only).

Nature experiences	40	Reflection (7), peace/tranquility (6), diversion (5), health/well-being (4) relaxation (3), spirituality (3), freedom (3), learning (2) meditation/being present (2); exploration/adventure (2) history, harmony, value
Physical environment	27	Greenery/trees (6), fresh air (5), nature (4), water/rivers (4), beaches (3), wildlife (2), scenery, life, ecosystems
Outdoor activities	14	Running (2), swimming (2) walking (2), kayaking, camping, hiking, paddleboarding, backpacking, exercise, photography, recreation
Roles	7	Preservation (2), stewardship (2), sustainability, conservation, climate change
Relationships	7	Family (2), conviviality (2), friends, students, ancestors

comes to mind when you think of the outdoors?” (Table 2). Responses from two of the three groups were analyzed, because one of the groups was asked a different version of this question. Responses varied, but the most prevalent response across the two groups was related to outdoor experiences and sensations (forty mentions), such as reflection, tranquility, and health. This was followed by references to specific natural features (twenty-seven mentions), such as water, beaches, and wildlife. Less important were references to specific outdoor activities (fourteen mentions). Some talked about roles in the environment (seven mentions) (e.g., conservation, stewardship, or preservation) whereas others noted the importance of human connections (seven mentions), such as family, friends, and ancestors.

### Participatory Mapping: Identifying Outdoor Destinations, Activities and Settings

Collectively, focus group participants marked a total of 114 points on the map and these points represented thirty different locations (Figure 3). Eighty-nine percent of those locations were in Mount Hood National Forest or the Columbia River Gorge National Scenic Area and most were well-known, developed sites along major transportation routes, such as Multnomah Falls along Interstate 84 and the historic lodge at Mount Hood. The participants had far less familiarity with the Gifford Pinchot National Forest, and those who did mostly marked the visitor center at Mount St Helens National Volcanic Monument.

We asked participants to note the activities that were associated with the mapped points for all three focus groups (Figure 4). Hiking (39%) was the most common activity listed, followed by observation/photography (35%), and nonstrenuous activities (33%) such as relaxation or walking. Far fewer mentioned strenuous outdoor activities, such as mountain biking or climbing (9%) or harvest activities, such as fishing, hunting, or gathering (2%). Next, we asked participants to tell us why they liked each selected outdoor location (Table 3).

The most common responses emphasized the site’s natural features (62%), (e.g., snow, waterfalls), followed by scenic views (40%). Fewer than one-third of the places (28%) were liked because of a specific outdoor activity conducted there. Some mentioned aspects of the facilities (16%), whereas others focused on sensations and emotions that they experienced at these sites, such as the feel of the wind or the touch of snow (12%).

We asked participants how they learned about the site they selected on the map. More than half the participants learned about places by either a recommendation (45%) or they visited with a companion who guided them there (15%). The internet (20%) was also a common source of information as well as other sources of travel advice such as television and visitor centers (11%).

### Cognitive Sorting: Familiarity with Outdoor Activities

The card-sorting exercise identified an array of outdoor activities that study participants were actively engaged in, familiar with, and interested in pursuing (Table 4). Top activities of current interest included viewing natural features/waterfalls (89%), hiking (80%), relaxing (72%), visiting a nature center (57%), parties and celebrations (54%), picnicking (50%), and visiting historic sites (50%). When asked what activities they previously but no longer do, at least 50% of participants mentioned outdoor games/sports and bicycling. Asked which activities they wanted to try, study participants expressed great interest in motorized sports such as snowmobiling (72%), off-roading vehicle riding (52%), boating (52%), and motorcycling (44%), as well as gear-intensive sports such as rock climbing (63%), camping (55%), rafting (50%), and cross-country skiing (58%). Downhill skiing and horse-riding also were mentioned by nearly half of participants (49%) as something they wanted to try. Far less interest was shown in trying traditional forest activities such as



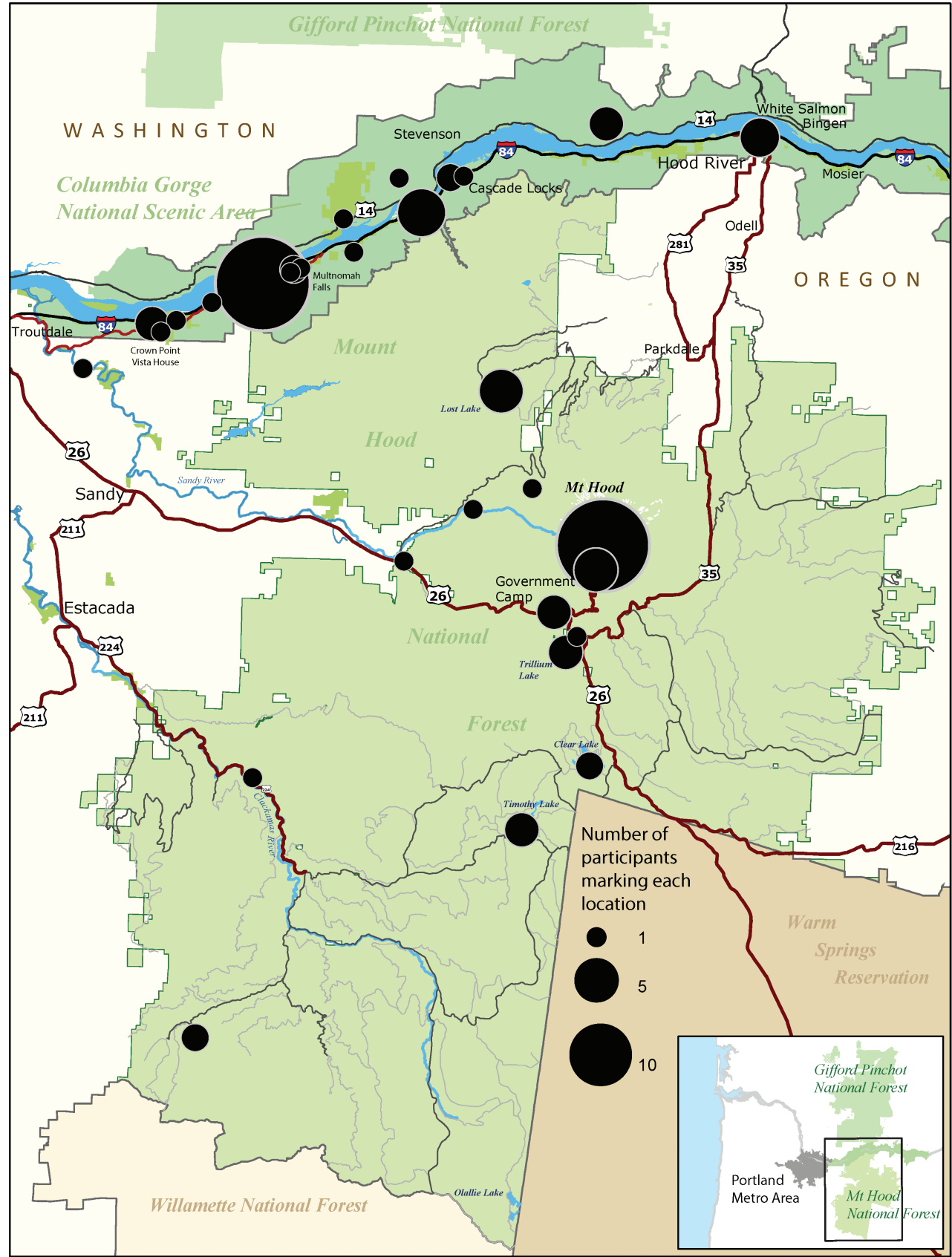
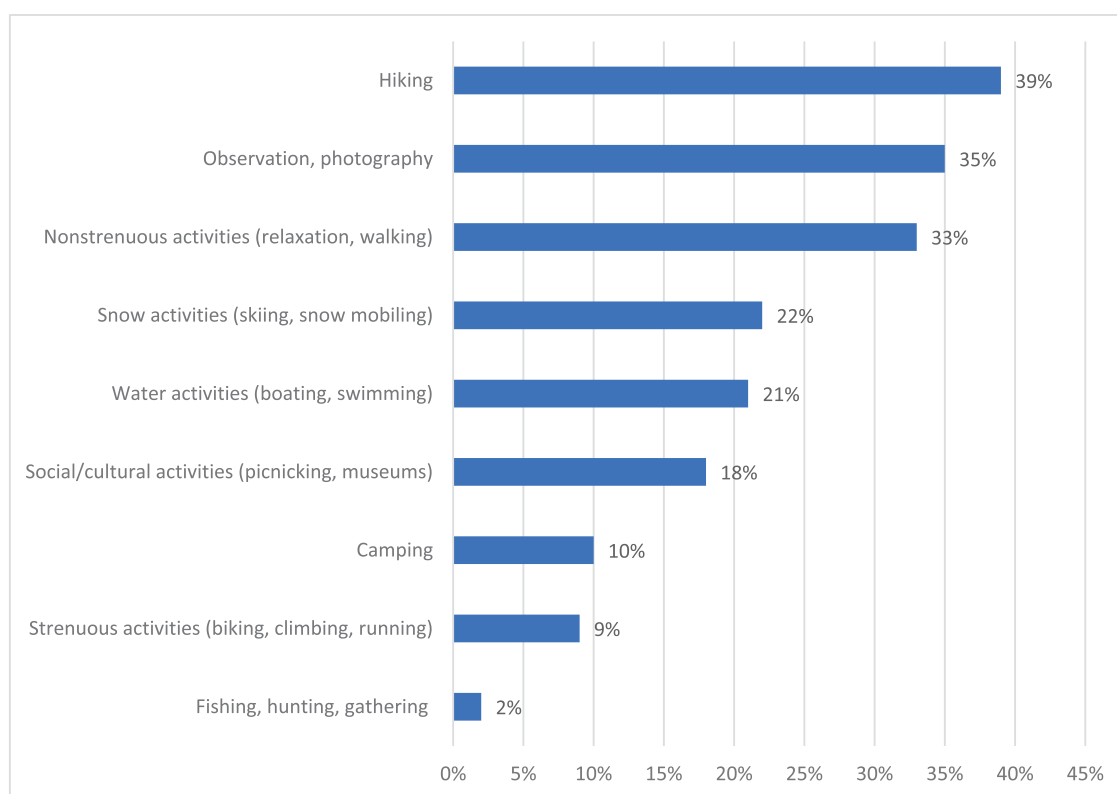


Figure 3. Frequency of mapped locations for three focus groups.



**Figure 4.** Percentage of responses for each mapped outdoor activity for combined focus groups ( $n = 44$ ).

hunting (14%), gathering (28%), or fishing (34%). When asked what activities they were not interested in, fishing came up high (48%). Finally, gathering wild greens and mushroom-picking topped the list of activities most unknown to focus group participants, with more than one-third indicating no familiarity.

### Barriers to Accessing Outdoor Places

Participants were asked to identify the top four barriers to accessing federal public lands from a list of fifteen (Figure 5). Although asked to display cards for only the four greatest barriers, twelve of the forty-four participants noted more than four, with one person noting as many as nine. By far, the most often mentioned barriers related to lack of outdoor gear or equipment (73%). Additional barriers included not knowing where to go (55%), lack of time (55%), and the lack of information (52%). Factors such as safety, danger, knowledge of regulations, or feeling unwelcome were mentioned by fewer than 15% of participants.

The open discussions after the mapping and activity sorting exercises allowed participants to elaborate on barriers to access and provide suggestions or solutions for breaking down those barriers. Although “not feeling welcome” was rarely mentioned as a barrier in the card sorting activity of barriers, several participants

expressed feelings related to inclusion and exclusion in the outdoors environment in the follow-up group discussion. As one focus group 2 participant explained (paraphrase):

“We had three generations of family and drove two hours in a caravan to the coast. When we got there to find a camp spot, people were looking at us. People just stared and made us feel that we did not belong there. We stayed for a while and tried to find a spot and get comfortable, but the feeling was the same. So, we turned around and went home.”

An additional barrier to accessing public lands was also conveyed during the follow-up discussions yet did not feature prominently in the barrier sorting activity. The discussion focused on how preconceived ideas about being in the wild can affect site selection and activity choices. For some, being outdoors may be associated with arduous work (farming, forestry) or poverty (relying on land for food) and not recreation. As a participant in focus group 2 participant explained (paraphrase),

“Coming from Mexico, being in the forest was about working. It is not a place you would go to relax. In my family, we have changed our view. It

**Table 3.** Attributes of favorite outdoor places respondents marked on area map (n = 44).

What I like about the Place	Percentage of Respondents	Sample of Quotations
Natural feature	62.3	<ul style="list-style-type: none"> <li>• “The lake, the beauty of the forest, how calm it is, there are no motor or car noises, I feel relaxed with nature.”</li> <li>• “The waterfall and the mountain range.”</li> </ul>
Beauty or scenery	40.4	<ul style="list-style-type: none"> <li>• “A spectacular view, a very pretty place.”</li> <li>• “How stunning the waterfalls are and the vegetation.”</li> </ul>
Outdoor activity	28.1	<ul style="list-style-type: none"> <li>• “I like to play in the snow and to slide with a car tire.”</li> <li>• “That one can camp out and do country things.”</li> </ul>
Facilities	15.8	<ul style="list-style-type: none"> <li>• “It’s a well-organized site, very clean. I also like how there is equipment for rent like stand-up paddle boards.”</li> </ul>
Sensations	12.3	<ul style="list-style-type: none"> <li>• “I like to watch and feel the snow.”</li> <li>• “It’s very silent place”</li> <li>• “I love to feel the water drops”</li> </ul>
Social	11.4	<ul style="list-style-type: none"> <li>• “I like the coffee and that there’s opportunity to meet the people of the region.”</li> <li>• “The history of how it began, its roads, and the train.”</li> </ul>
Accessibility	7.9	<ul style="list-style-type: none"> <li>• “Close and easy to get to”</li> <li>• “Plenty of parking”</li> <li>• “The trail that is not very hard”</li> </ul>
Relaxation	5.3	<ul style="list-style-type: none"> <li>• “I enjoy going to let go, disconnect and realign, listen to nature, get a breath of fresh air with the clean air one can breathe and listen to water.”</li> </ul>

started with birthdays in parks. We began to enjoy being outside. We had tables, playgrounds. It started with the kids. Now, we go on our own. We changed, and now we go all the time.”

Topics of safety, feeling welcome, and cultural norms about nature and the outdoors arose in the group discussion format where participants were less constrained by fixed responses and the structured guide.

### Strategies and Solutions

Focus group participants in the three groups were asked to brainstorm strategies to improve access to the outdoors and these were captured on flipcharts. We summarized responses of all three groups and organized them into eight thematic categories: accessible information, marketing/media, guided groups, local partnerships, equipment/gear, transportation, culture, and safety (Figure 6). Participants mentioned the need for access to information about the national forest settings, sites, and opportunities as well as information about permits, passes, and regulations (in English and Spanish). Participants described the need for specialized marketing and use of social media outlets. One idea circulated was to have a Spanish language travel program featuring Hispanic people visiting outdoor sites.

Another mentioned the need for social media posts and websites in Spanish to identify trails and trips of interest, which one person noted would help to build confidence and familiarity. In these discussions, it was reiterated that guided experiences through outing clubs and meetups, like those provided by Vive Northwest, help to build familiarity with the outdoors and provide opportunities to meet others who enjoy the outdoors. Also mentioned was the need for gear, equipment, and clothing appropriate for the outdoors. In each group, the idea of a gear-lending library was raised. The need for partnerships with local schools, churches, or youth organizations was suggested by members of two groups as a means to diversify networks of outdoor enthusiasts. The groups also discussed ways to make outdoor leisure a more regular part of contemporary Hispanic culture and ideas to enhance safety and comfort in the outdoors.

### Discussion

A partnership between Forest Service researchers, a university, and a local Hispanic outdoor organization resulted in this exploratory study. Collaboration with Vive Northwest on research design, protocols, and translation of materials was essential to developing shared knowledge

**Table 4.** Percentage of respondents who categorized outdoor activities by familiarity ( $n = 45$ ).

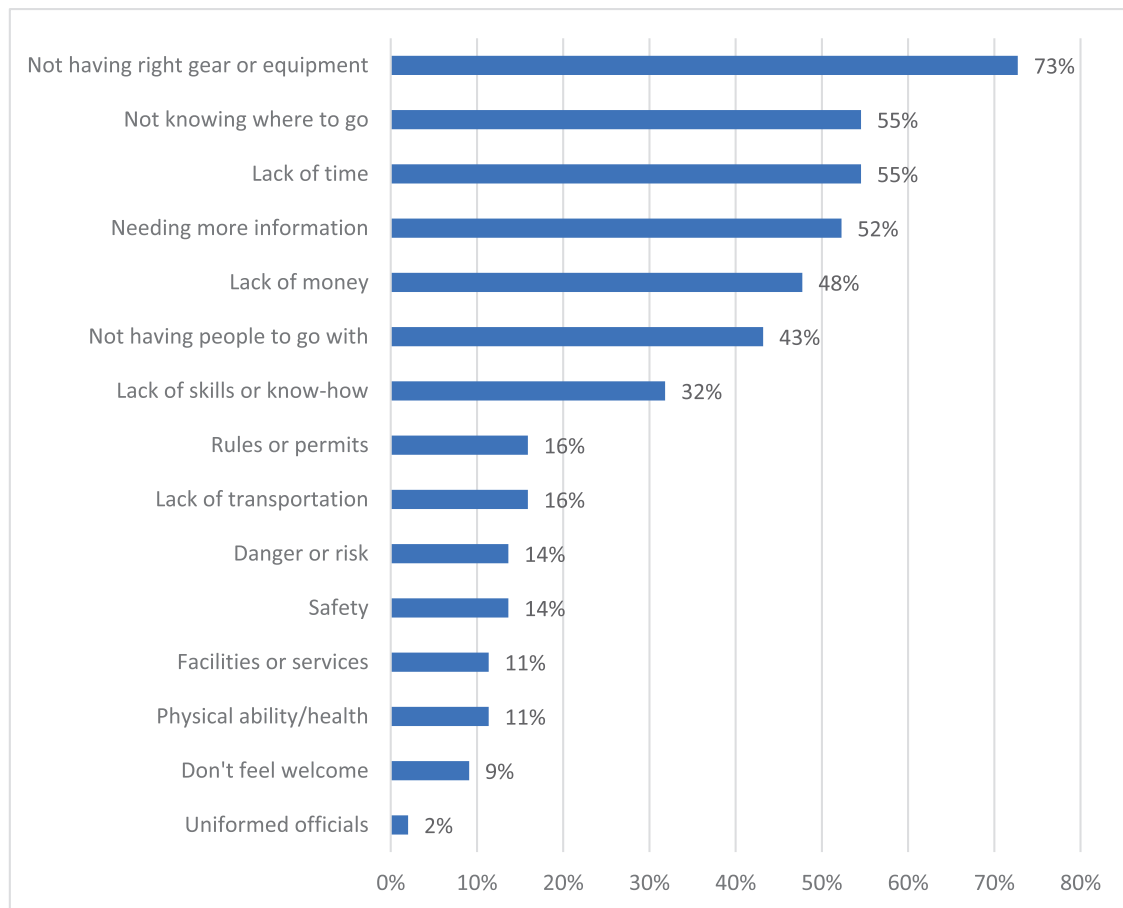
Activity	Currently do	Used to do	Want to try	Not interested in	Not familiar with
Viewing waterfalls and natural features	88.6	11.4	0.0	0.0	0.0
Hiking or forest walking	79.5	9.1	9.1	2.3	0.0
Relaxing and being outdoors	72.1	18.6	2.3	4.7	2.3
Visiting a nature center	56.8	11.4	13.6	11.4	6.8
Parties, celebrations	53.5	32.6	4.7	9.3	0.0
Picnicking	50.0	27.3	18.2	2.3	2.3
Visiting historic sites	50.0	16.7	16.7	7.1	9.5
Camping in a campground	43.2	27.3	22.7	2.3	4.5
Swimming, tubing, floating	40.9	9.1	36.4	4.5	9.1
Driving in the forest	38.6	15.9	20.5	11.4	13.6
Nature photography	37.2	4.7	32.6	14.0	11.6
Riding bicycles	34.9	51.2	9.3	2.3	2.3
Guided tour	37.5	10.0	25.0	15.0	12.5
Canoeing or kayaking	31.8	9.1	45.5	2.3	11.4
Viewing wildlife, birdwatching	29.5	2.3	31.8	15.9	20.5
Outdoor games/sports	29.5	52.3	13.6	2.3	2.3
Gathering berries	29.5	15.9	29.5	13.6	11.4
Visiting a forest resort	26.2	23.8	26.2	4.8	19.0
Backpacking	22.7	9.1	40.9	13.6	13.6
Collecting gems rocks and minerals	14.0	11.6	18.6	27.9	27.9
Jeeping or off-road riding (4WD)	14.3	7.1	52.4	14.3	11.9
Boating	11.4	15.9	52.3	2.3	18.2
Ski or snowboard at a ski resort	11.6	16.3	48.8	11.6	11.6
Whitewater rafting	11.4	9.1	50.0	6.8	22.7
Fishing	11.4	4.5	34.1	47.7	2.3
Camping in the wild	9.1	18.2	54.5	9.1	9.1
Gathering greens, herbs, medicines	9.5	0.0	31.0	21.4	38.1
Dirt biking or motorcycling	9.3	0.0	44.2	25.6	20.9
Rock climbing, mountaineering	7.0	0.0	62.8	16.3	14.0
Horseback riding on trails	7.0	18.6	48.8	14.0	11.6
Cross-country skiing or snowshoeing	7.0	4.7	58.1	11.6	18.6
Mountain biking	4.7	18.6	46.5	20.9	9.3
Gathering wild mushrooms	0.0	4.7	27.9	30.2	37.2
Snowmobiling	0.0	4.7	72.1	14.0	9.3
Hunting	0.0	0.0	13.6	75.0	11.4

and creating a set of questions and approaches that fit the needs of the study population. Partnering with Vive Northwest was critical for focus group recruitment, logistics, facilitation, and Spanish language interpretation. Combining one of our focus groups with a forest outing generated a larger turnout, which suggests an important component for future groups. The resulting data was of high interest to regional national forest officials and provided useful feedback to guide recruitment and operations for Vive Northwest.

### Being Outdoors: Meanings and Settings

When talking about meanings associated with the outdoors and preference for outdoor places, we observed

that our study participants often used descriptors that reflected experiential associations with the outdoors and often referenced connection with natural features of the place rather than outdoor activities or built features (see Table 2). Similarly, when participants described their reasons for selecting favorite sites, they most often mentioned natural features and scenery (see Table 3). We often heard expressions about the outdoors being associated with freedom, tranquility, and temporary respite from reality. These findings may be contrasted with other participatory mapping studies conducted in the northwestern United States, where the landscape values associated with forest destinations have been overwhelmingly associated with active



**Figure 5.** Barriers to accessing federal public lands: All focus groups combined ( $n = 44$ ).

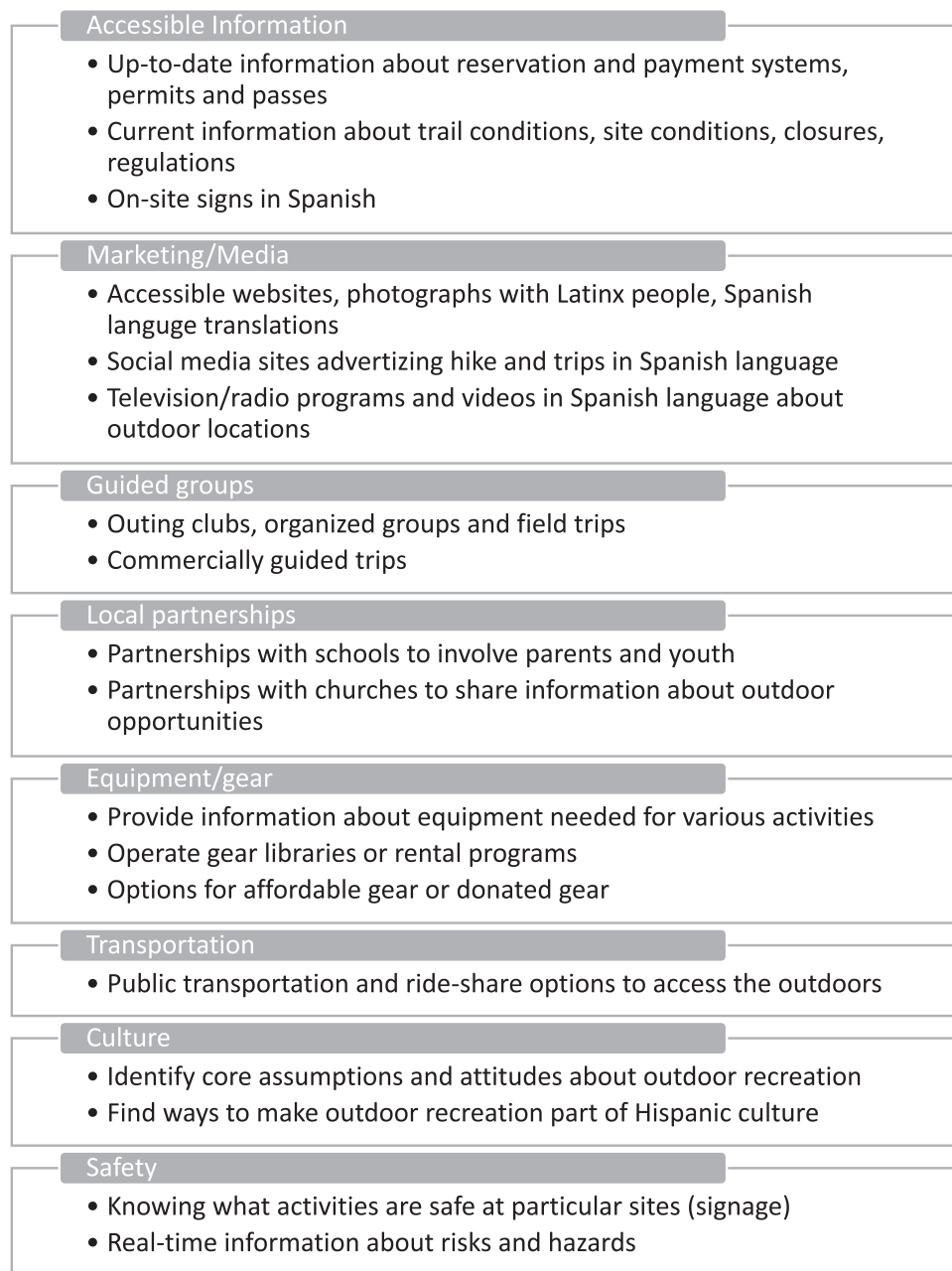
recreation (Besser et al. 2014, McLain et al. 2017). Although we lack direct evidence to suggest that these experiential characteristics are more pronounced than benefits identified in previous studies, we are interested in exploring further the mental models associated with nature and the experience of being outdoors for Hispanic recreationists of different demographic characteristics, generations, national origins, and regions.

The participatory mapping exercise enabled us to obtain place-specific input about activity and site preferences rather than broad opinions about the outdoors. The answers to the questions about specific sites were more informative than their spatial distribution, which were mainly very popular, accessible sites close to major highways. Participants primarily marked sites that were well developed with parking, signage, and facilities, and rarely mapped places located in areas off the major byways, which is most of the national forest. Developed and accessible sites appear to meet the criteria for familiarity and safety desired by participants. It could be that the signage, parking, and interpretation at these sites and the facilities they offer are

more welcoming or conducive to visitation. Moreover, it could be that more remote sites are unknown or unfamiliar to participants or they may be perceived as less welcoming to Hispanic persons. Previous studies have pointed to perceptions national parks and forests as “White spaces” and observed avoidance of these settings (Byrne 2012, Ryan 2020). Others have suggested that nonvisitation to these settings may reflect active resistance rather than conscious or unconscious avoidance. Although we did not find such evidence in our study, the lack of points marked in vast swaths of less developed national forest lands raises important questions. More research is needed to explore the specific setting features desired as well as the experiences sought in these outdoor places and to understand perceptions of accessibility, safety, and inclusivity.

### Rethinking Activity Preferences

Our study lends support to Flores and Sánchez' (2020) conclusion that heterogeneity in outdoor recreation activity preferences exists among Hispanic people. Early studies on Hispanic recreational patterns (e.g.,



**Figure 6.** Strategies for enhancing access to public lands and recreation opportunities (all focus groups combined).

Chavez 2008) highlighted a preference for picnicking and large family gatherings, which for two decades has cultivated an implicit set of shared assumptions among federal agency recreation planners about setting and programmatic needs. In our study of urban Hispanic members of an outdoor organization, group gatherings were mentioned but were far less prominent than nature observation, hiking, and visiting nature centers. This was the case even though most participants were first-generation immigrants and many felt more comfortable completing the survey in Spanish (suggesting less time to assimilate). And, unlike earlier studies,

which have emphasized the importance of built recreation facilities (e.g., tables, fire pits) for Hispanic outdoor recreationalists (Chavez 2008, Chavez and Olson 2009), participants in our study were much more likely to identify features of the natural environment (e.g., waterfalls, lakes) and scenic features as what they liked about the places they visited.

Our study also supports Flores and Sánchez' (2020) contention that Hispanic persons' interactions and meanings associated with nature are dynamic. It is notable that celebrations and picnicking were among the top activities that participants listed as things they



used to do, but no longer do. The description provided by one participant of how their family's interaction with and conceptions of the outdoors changed as their children grew up illustrates one pathway by which such changes occur. For that participant, the outdoors had been initially seen as a place where people worked rather than a place where people went for enjoyment, exercise, or to learn about nature. We caution, however, against assuming that the forest is necessarily either primarily a place of work or a primarily a place of leisure in the minds of Hispanic individuals. The fallacy of this assumption is illustrated by Biedenweg et al.'s (2014) study with Hispanic forest harvesters, where the participants—all recently arrived immigrants—envisioned the forest as simultaneously a place for work and a place for leisure. More research is needed to understand the cultural models of the outdoors for Hispanic immigrants.

### New Insights on Barriers to National Forest Recreation

Our study findings concur with earlier research that lack of time, not knowing where to go, lack of information, financial constraints, and not having someone to go with are common barriers for Hispanic persons wishing to recreate in national forests (Thomas et al. 2022). For this group, which is a sample of persons already interested in outdoor recreation, lack of equipment was by far the most common barrier listed. Other constraints commonly identified in studies of Hispanic people's outdoor recreation patterns, such as lack of transportation, cost, safety concerns, and health issues (Thomas et al. 2022), did not appear as significant barriers. This highlights the heterogeneity of the Hispanic population and the need for context-specific understandings of barriers to outdoor recreation (Sasidharan 2002). Participants in our study did not identify discrimination as a barrier to recreation, yet the account of one group of Hispanic visitors feeling unwelcome in a rural campground suggests that discrimination may be situational and contextual. Media reports suggest that this is not an isolated occurrence. For example, in 2020, a multiracial family visiting the Olympic Peninsula was followed by four vehicles and their outlet was blocked in an act of intimidation (Peninsula Daily News 2020). Understanding factors that inhibit outdoor participation will equip federal land managers with knowledge that can inform new programs, services, or strategies to enhance visitation and suggest strategic partnerships that address the needs of underserved populations.

### Strategies for Facilitating Access

We learned that Hispanic recreationists actively seek additional information to help them make informed decisions about recreation options, with internet, word-of-mouth, radio, television, and social media as sources of information (see Figure 6). A common theme in research on Hispanic people's outdoor recreation patterns is the importance of using culturally appropriate communication approaches to provide information about recreational opportunities on public lands (Chavez 2008, Flores and Kuhn 2018). Our study participants also suggested the need for signs, brochures, and website in Spanish and the use of social media to relay information. Federal land managers and partners may consider diversifying the means they use to convey information (i.e., radio, television, social media) and expand the types of information that is shared to help Hispanic visitors make choices about where to go, what to expect, what risks may be involved, and how to prepare. Working with partners in media outlets with access to Hispanic audiences and translating materials into Spanish will expand the reach of these information efforts. Including information about regulations, fees, and safety protocols will improve the visitor experience.

Organized and guided group activities led by someone with outdoor skills and knowledge of the area is important to helping participants unfamiliar with the outdoors gain comfort and experience (Flores and Kuhn 2018). Our study participants also emphasized that the value of working through trusted community organizations to provide information about where to go and what the rules are could help make the nation's public lands more accessible to prospective Hispanic outdoor recreationists. Access to organizations like Vive Northwest enables people to meet others with similar interests and gain experience in outdoor settings. Engaging in these group adventures can provide a sense of safety and comfort for those with limited outdoor experience (Flores and Kuhn 2018). Federal land agencies may wish to consider ways to strengthen partnerships with outdoor organizations geared to underserved populations (Sanchez et al. 2020). On many federal lands, guided groups may trigger the need for special use permits, presenting a bureaucratic step. In addition, standard recreation facilities and settings in national forests cater to individuals or small family groups, whereas large groups may require permits or special administration. Moreover, continuing to provide settings for multigenerational groups to gather on public lands may be an effective way to expose those with limited outdoor experiences.

## Limitations and Future Work

Our study involved three focus groups consisting of members of an urban outdoor organization catering to Hispanic recreationists in the United States. Our results are not generalizable to the broader Portland area population but, may identify trends ripe for future investigation. The data we collected were limited due to our small sample size and the use of a purposive sample. Project participants also varied in their familiarity with federal lands in the area and map skills. Our maps suggest that study participants had visited relatively few sites in the study area. We would need to conduct additional focus groups and other data-gathering activities, such as on-site intercepts throughout to learn whether these same sites are consistently identified across different population groups (urban, suburban, rural) and whether the trend toward developed and accessible sites is consistent.

We did not account for differing preferences by age, gender, country of origin, or Hispanic identity. Flores and Sanchez (2020:2–3) call for research that explores “how new generations draw meaning from outdoor experiences and how they are combining traditional cultural traits with more diverse and active recreation activities”. We agree that additional research is needed to explore cultural models of nature and outdoor experiences among Hispanic persons of different generations, regions, nationalities, income and education levels, degree of English literacy, and other identities. This study focused on urban residents and additional research would be needed to explore perceptions among Hispanic residents in rural communities. Understanding perceptions of and preferences for outdoor recreation among rural Hispanic populations would be especially important, given recent population growth in areas adjacent to national forests.

## Conclusion

Executive Order 13985 (2021) seeks to remove barriers to access public resources and federal land managers are actively identifying ways to expand opportunities for public lands visitation. Our study points to findings that may help guide the Forest Service and other federal agencies in efforts to provide equitable benefits to all. Previous studies about Hispanic people’s outdoor participation emphasized preferences for social activities (e.g., picnicking) in group settings. In our study, urban Hispanic recreationists demonstrated interest in a diversity

of outdoor activities, whereas the sites visited tend to be relatively developed recreation areas accessible to major roadways. Hispanic recreationists face numerous barriers to accessing the outdoors. Lack of money or transportation were far less important than previously noted. More common was a lack of awareness of prospective recreation sites and their amenities and the absence of recreation partners. Federal land agencies seeking to encourage outdoor participation may explore opportunities for guided exposure to new activities or events that provide gear and instruction and build familiarity with a range of outdoor sites. Outreach efforts that emphasize information (in Spanish and English) about site features, safety, and gear requirements may be helpful for encouraging exploration.

## Supplementary Materials

Supplementary data are available at *Journal of Forestry* online.

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## Endnote

1. The term, “Hispanic” has been used historically by the US Census Bureau and refers to people and cultures tied to Spain and its historic colonial regions. Others prefer Chicano, Latino, or the gender-inclusive term “Latinx.” Here we use the term “Hispanic” while acknowledging the complexity of terms and identities.
2. A national forest visit is the entry of one person upon a national forest to participate in recreation activities for an unspecified period. A national forest visit can include multiple site visits. The visit ends when the person leaves the forest.

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