

2020-2024 PA Statewide Comprehensive Outdoor Recreation Plan: Public Survey

Final Report

Submitted to:

**Pennsylvania Department of Conservation
and Natural Resources**



Prepared by:

**Center for Survey Research
Penn State Harrisburg**

August 2019



PennState
Harrisburg

Center for Survey Research

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EXECUTIVE SUMMARY

The 2020-2024 PA Statewide Comprehensive Outdoor Recreation Plan: Public Survey was conducted by the Center for Survey Research (CSR) at Penn State Harrisburg at the request of the Pennsylvania Department of Conservation and Natural Resources (DCNR). The survey was designed to evaluate the opinions and experiences of Pennsylvanians who engage in outdoor recreation throughout the Commonwealth. A total of 8,676 respondents from across Pennsylvania completed the web survey between May 15 and July 1, 2019; 54.1% were male, 64.6% were between the ages of 35 and 64, and 93.2% were non-Hispanic and white.

Looking at participation in outdoor activities, respondents most-often indicated that they participated in hiking (72.0%) and walking or running (71.4%), while more than half said that they visited historic sites or nature centers (60.5%), did scenic driving (59.3%), camped (50.9%), or watched birds or wildlife (50.8%). More women than men indicated that they participated in walking or running, wildlife watching or bird watching, swimming, picnicking, visiting historic sites or nature centers, night sky viewing, and playing at or visiting playgrounds. Conversely, more men than women indicated that they participated in hunting, fishing, and motorized trail use.

Respondents were also asked to provide one outdoor recreational activity that they currently do not do but would like to try. The most common responses were kayaking or canoeing, rock climbing, motorized trail use, stand-up paddleboarding, bicycling, cross country skiing or snowshoeing, fishing, camping, ziplining, backpacking, hunting, and hiking. The single activity mentioned more frequently than any other activity was kayaking.

Community or regional trail systems were identified as the highest priority for facility investment over the next five years, which aligns with the results from the 2014 survey. Community or regional parks replaced opportunities for/access to water-based recreation as the second-highest priority, although water-based recreation and outdoor environmental educational/nature facilities were close behind. Overall, results were similar to the 2014 survey, but respondents indicated a higher level of priority for most items in the 2019 survey. There were exceptions for action sports parks and opportunities for hunting and/or fishing, both of which saw decreases in overall investment priority between 2014 and 2019.

Respondents were divided over what they considered to be their highest funding priorities for outdoor recreation and conservation efforts in Pennsylvania. Roughly even numbers of respondents chose acquire and protect open space, maintain existing park and recreation areas, and protect wildlife and fish habitat as their top priorities. These three were followed by build more greenways and trails, build walking paths and bicycle lanes, and restore damaged rivers and streams, each of which saw similar numbers of responses.

Respondents overwhelmingly turned to search engines or specific web sites on the internet to seek information on outdoor recreation in Pennsylvania, while some respondents primarily turned to social media, friends or relatives, maps or brochures, and smart phone apps. Looking at how respondents use technology to aid in their outdoor recreation, 80.5% said that they use the Internet to find places to go or read reviews, 44.2% use GPS and 41.4% post their experiences to social media sites. Additionally, 29.4% use a fitness tracker, such as a Fitbit. More men indicated that they use GPS to navigate through their outdoor experience, while more women indicated that they use a fitness tracker or social media. More respondents between the ages of 18 to 34 than those 65 or older said that they use a fitness tracker, use GPS to navigate through their outdoor experience, use technology-based games or apps that use the outdoors as their setting such as geocaching or Pokémon Go, and post their outdoor recreation experiences to social media sites like Facebook, Instagram, YouTube, or Twitter.

Nearly nine out of 10 respondents were concerned that youth are not spending enough time outdoors (88.7%) and said that outdoor recreation is an essential part of their lives (88.4%), while 80.7% said that they like to participate more in outdoor activities, and 78.1% said that they participate in such activities to improve their health. One-half (53.9%) were also worried about how a changing climate is going to impact their future outdoor experiences.

When given the opportunity to share the single most-important thing that parks and outdoor recreation agencies or organizations could do to help them participate in outdoor recreation in Pennsylvania, respondents shared a wide range of suggestions and concerns. Common topics included maintenance, general trail use, motorized trail use, technology, conservation, activities and programming, education, support of sportsmen and nature enthusiasts, access and affordability, communication, accessibility and ADA compliance, and safety.

INTRODUCTION

The 2020-2024 PA Statewide Comprehensive Outdoor Recreation Plan: Public Survey was conducted by the Center for Survey Research (CSR) at Penn State Harrisburg at the request of the Pennsylvania Department of Conservation and Natural Resources (DCNR). The survey was designed to evaluate the opinions and experiences of Pennsylvanians who engage in outdoor recreation throughout the Commonwealth.

At the conclusion of the data collection period, a total of 8,676 respondents had completed the web survey. All data were collected between May 15 and July 1, 2019.

Data Analysis Notes

The following notes should be taken into account when reviewing the final dataset:

1. Because the survey was open-access and is not a random sample, the final dataset is considered to be representative only of the respondents who chose to participate.
2. While some results are included from the 2014 iteration of the survey for comparison purposes, all data are from the 2019 administration of the survey unless otherwise indicated.
3. Percentages may not total to 100% due to the exclusion of 'Don't know' responses.
4. See Appendix A of the report for a map and list of the regions.
5. See Appendix B for the survey instrument used in data collection.

METHODOLOGY

Institutional Review Board

The study protocol and survey instrument were submitted to Penn State University's Office for Research Protections and were subsequently approved as non-research under study number 00011522 by Penn State University's Office for Research Protections.

Instrument Development

During April and May 2019, the CSR project team worked with DCNR to develop and refine a survey instrument for collecting data from Pennsylvanians who engage in outdoor recreation. Portions of the survey instrument were adapted from a previous survey that was administered in 2014.

The instrument was then programmed using Qualtrics web survey software. Qualtrics' online survey platform allows for complex question patterns and automatic skipping when appropriate to create a seamless flow from one question to the next for respondents.

Data Collection

Surveys were self-administered through Qualtrics Online Survey Platform. Survey responses were collected through CSR's Qualtrics web survey account between May 15 and July 1, 2019.

Distribution of the survey link was the responsibility of DCNR. DCNR partnered with various organizations to share the survey link through various distribution lists. Due to the open access nature of this survey, the sample is not considered to be randomly selected; consequently, results are considered to be representative only of those who chose to participate.

Survey Response

Due to the open access nature of the survey, the total number of invited respondents is unknown. Therefore, it is not possible to calculate a response rate for this survey.

Data Preparation and Analysis Notes

All completed survey data were extracted from Qualtrics into Statistical Package for the Social Sciences (SPSS) software. Data were verified for accuracy of variable coding, and verbatim text was edited and re-coded into additional categories for analysis purposes before final review by the senior staff of the Center for Survey Research. A survey dataset was created in SPSS for Windows version 25.0.

Study Limitations

Because the survey was open access, the total number of invited respondents is unknown. In addition, this non-random sampling method prevents the use of traditional statistical methods, meaning that a margin of error cannot be calculated for the survey. The results are only representative of those who chose to participate. Finally, CSR did not receive a completed survey from every possible respondent. Because the answers from these non-respondents could be different from those who did participate, non-response bias exists.

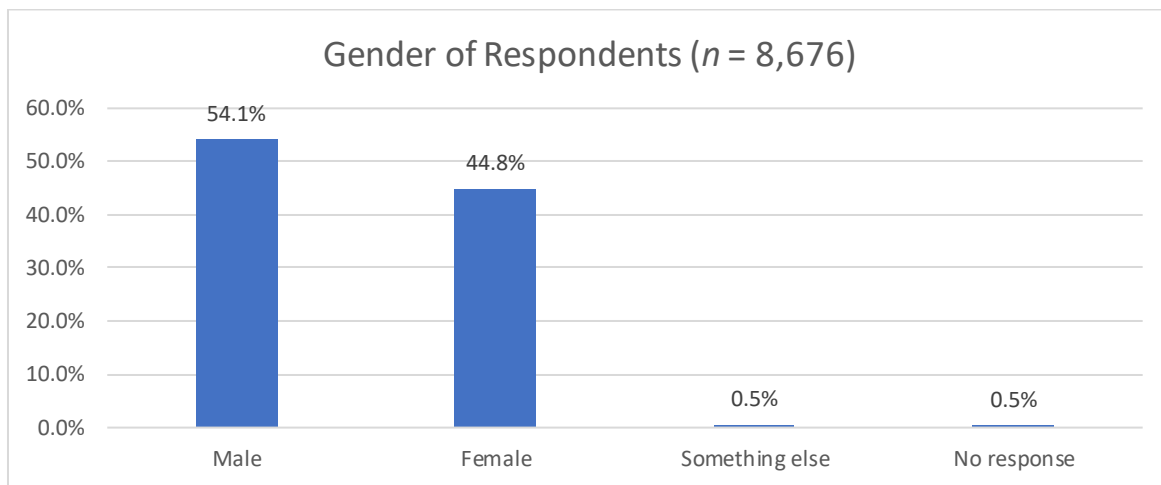
RESULTS

Respondent Profile

In total, 8,676 respondents provided data to at least some questions in the survey. A few questions were asked to develop a profile of the respondents completing the survey. The following section describes the respondent profile by gender, age, race/ethnicity, and Pennsylvania region.

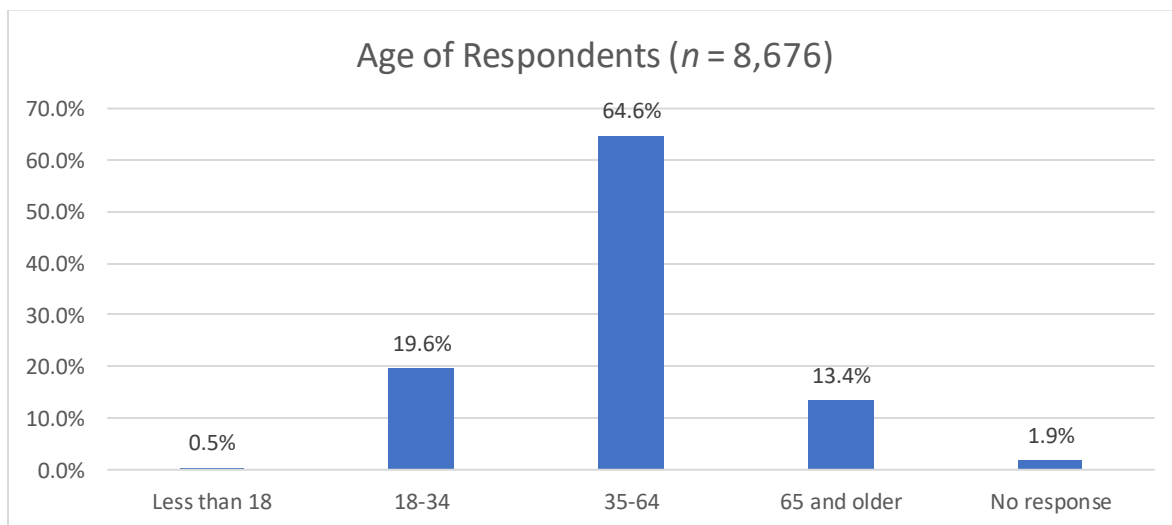
Just over half of respondents were male (54.1%; $n = 8,676$), while 44.8% were female, 0.5% identified as something else, and 0.5% did not respond, as seen in the following figure.

Figure 1. Gender



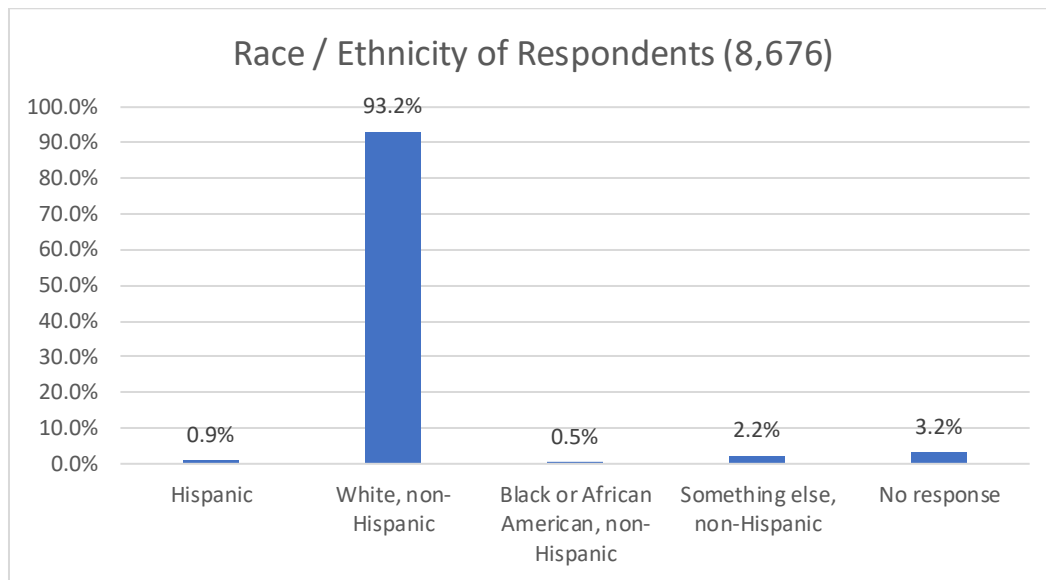
Nearly two-thirds of respondents (64.6%; $n = 8,676$) were between the ages of 35 and 64, while 19.6% were between 18 and 34, 13.4% were 65 and older, 0.5% were less than 18, and 1.9% did not respond, as seen in the next figure.

Figure 2. Age



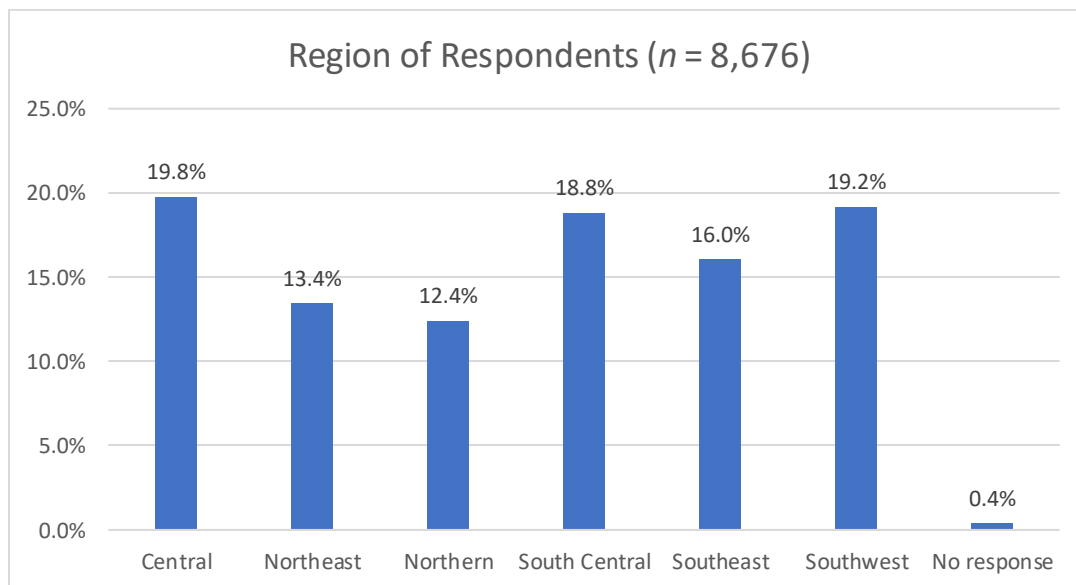
The vast majority of respondents (93.2%: $n = 8,676$) were white non-Hispanics, while 0.9% were Hispanic, 0.5% were black or African American, 2.2% were some other non-Hispanic race, and 3.2% did not respond, as seen in the next figure.

Figure 3. Race / Ethnicity



Respondents were distributed throughout Pennsylvania, with 19.8% coming from the Central region ($n = 8,676$), 19.2% from the Southwest, 18.8% from the South Central, 16.0% from the Southeast, 13.4% from the Northeast, and 12.4% from the Northern regions, while 0.4% did not provide their county, as seen in the next figure. See Appendix A for a map and list of survey regions.

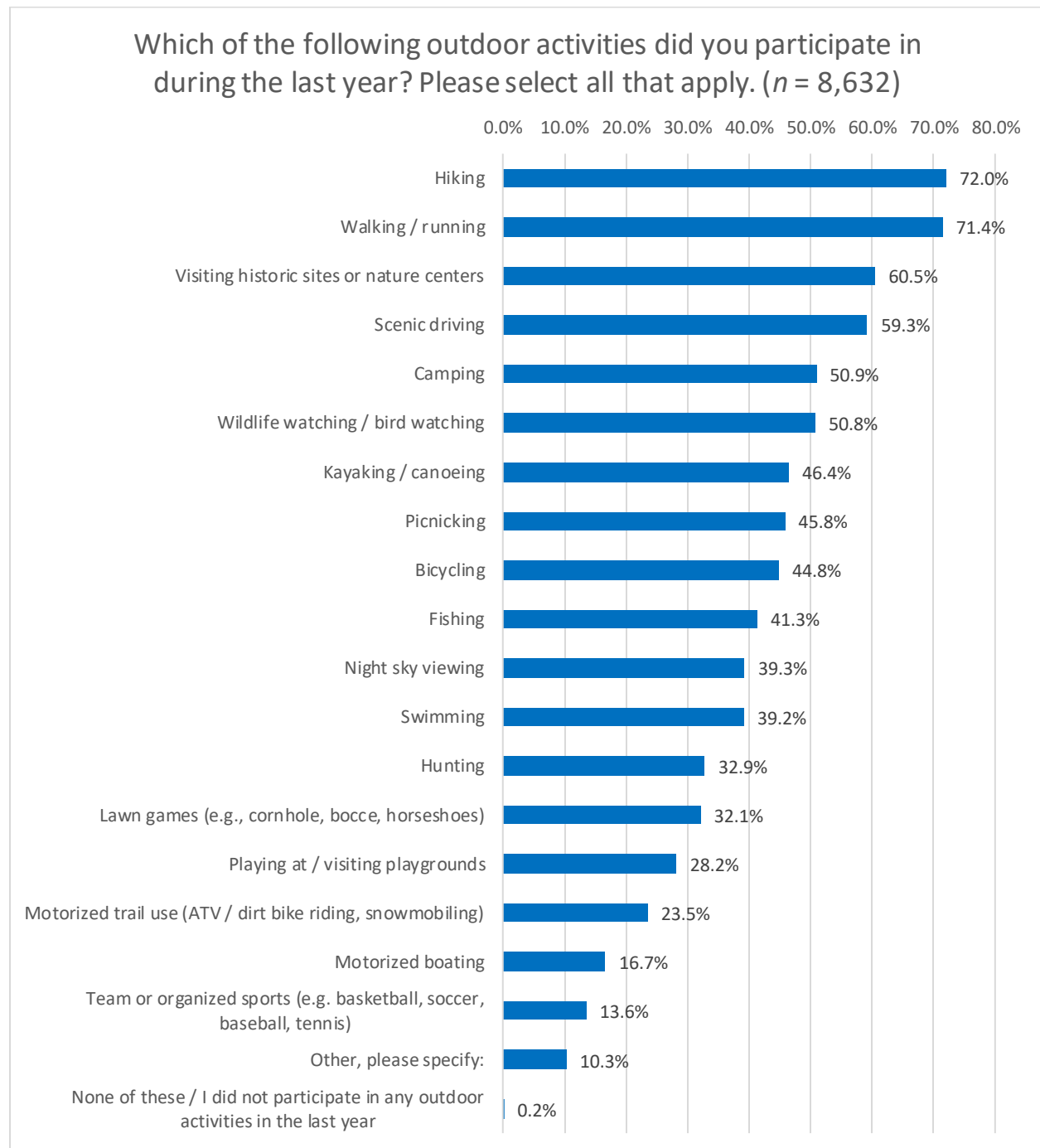
Figure 4. Region



Participation in Outdoor Activities

Respondents were asked to indicate all of the outdoor activities that they participated in during the last year. Respondents most-often indicated that they participated in hiking (72.0%; $n = 8,632$) and walking or running (71.4%), while more than half said that they visited historic sites or nature centers (60.5%), did scenic driving (59.3%), camped (50.9%), or watched birds or wildlife (50.8%). Just 0.2% did not participate in any outdoor activities in the last year, as seen in the next figure.

Figure 5. Participation in Outdoor Activities in the Last Year



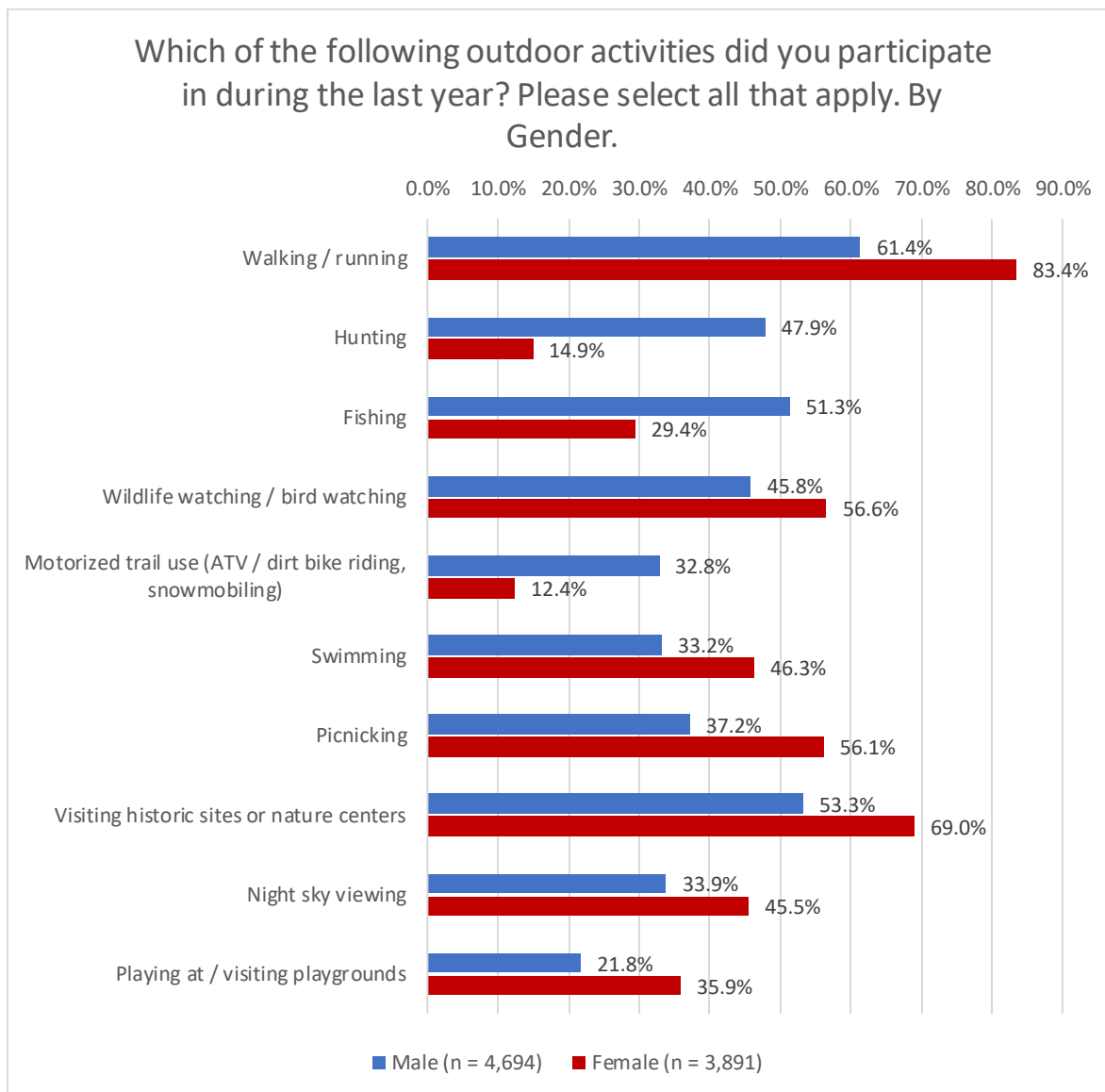
In addition, one-in-10 respondents provided some activity other than those listed. The most common Other responses (mentioned by more than 0.5% of respondents) included horseback riding, disc golf, skiing, and climbing. The following word cloud provides a visual summary of common responses. The larger the word, the more common that it appeared in responses. See Appendix C for a complete list of Other responses provided.

Figure 6. Participation in Outdoor Activities in the Last Year: Other, Please Specify



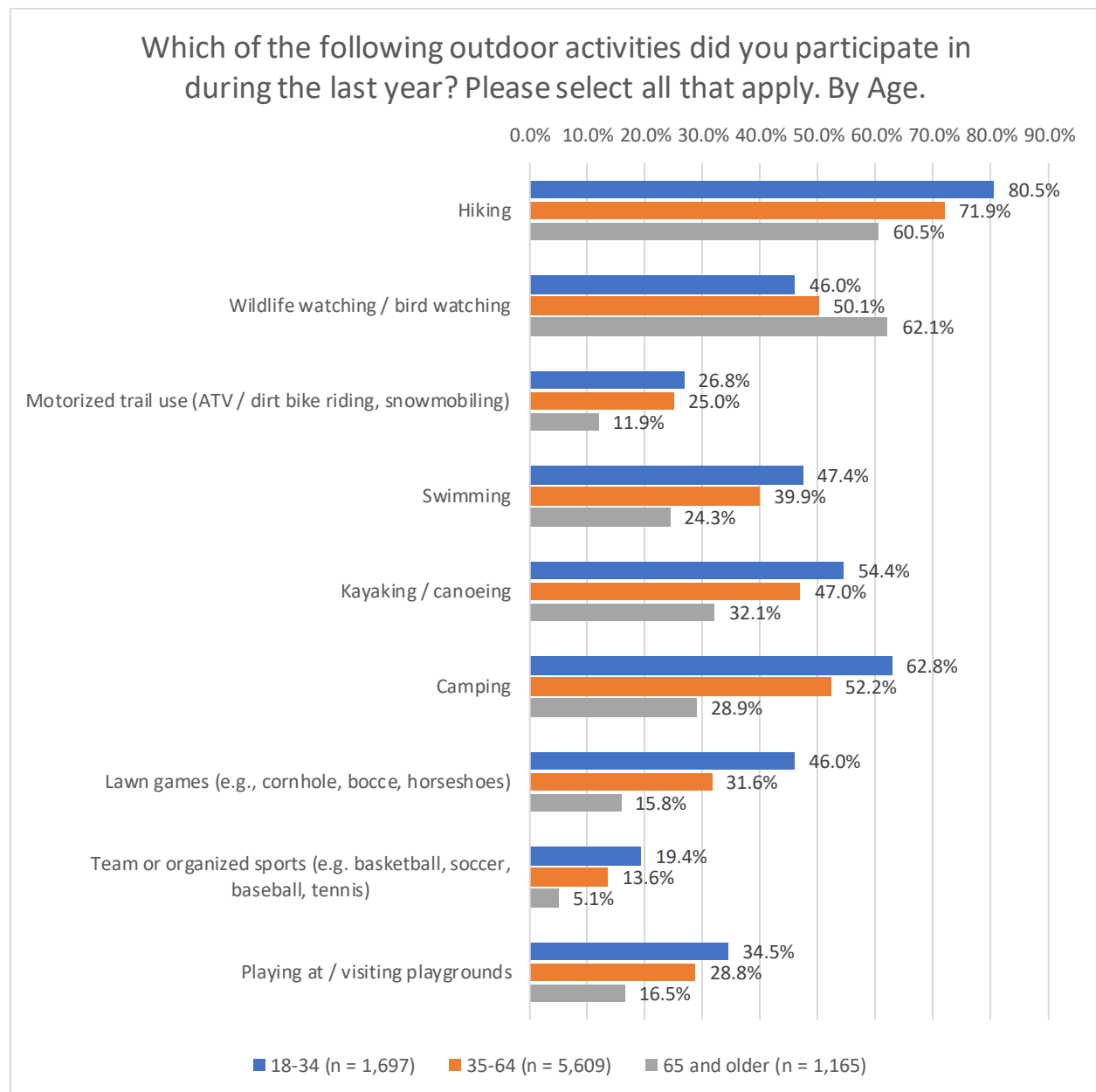
There were several differences in responses by gender. More women ($n = 3,891$) than men ($n = 4,694$) indicated that they participated in walking or running (83.4% versus 61.4%, respectively), wildlife watching or bird watching (56.6% versus 45.8%), swimming (46.3% versus 33.2%), picnicking (56.1% versus 37.2%), visiting historic sites or nature centers (69.0% versus 53.3%), night sky viewing (45.5% versus 33.9%), and playing at or visiting playgrounds (35.9% versus 21.8%). Conversely, more men than women indicated that they participated in hunting (47.9% versus 14.9%), fishing (51.3% versus 29.4%), and motorized trail use (32.8% versus 12.4%), as seen in the next figure.

Figure 7. Participation in Outdoor Activities in the Last Year, by Gender



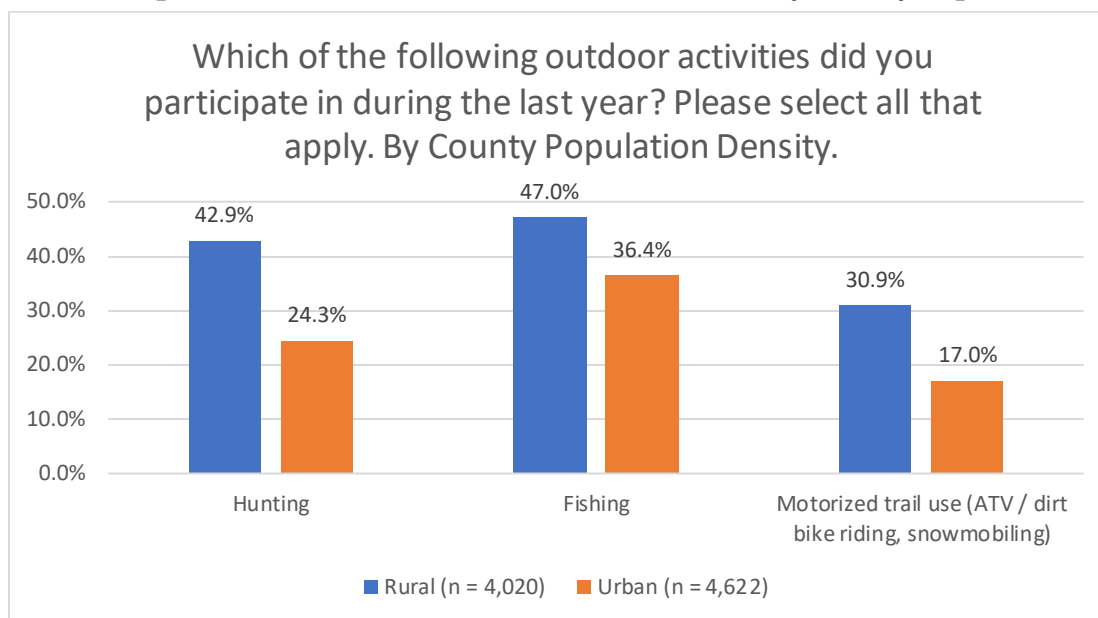
Differences in outdoor activity participation in the last year were also seen by age. More individuals between the ages of 18 and 34 ($n = 1,697$) than those 65 and older (1,165) indicated that they participated in hiking (80.5% versus 60.5%, respectively), motorized trail use (26.8% versus 11.9%), swimming (47.4% versus 24.3%), kayaking or canoeing (54.4% versus 32.1%), camping (62.8% versus 28.9%), lawn games (46.0% versus 15.8%), team or organized sports (19.4% versus 5.1%), and playing at or visiting playgrounds (34.5% versus 16.5%). More of those 65 or older participated in wildlife watching or bird watching than those 18 to 34 (62.1% versus 46.0%), as seen in the next figure.

Figure 8. Participation in Outdoor Activities in the Last Year, by Age



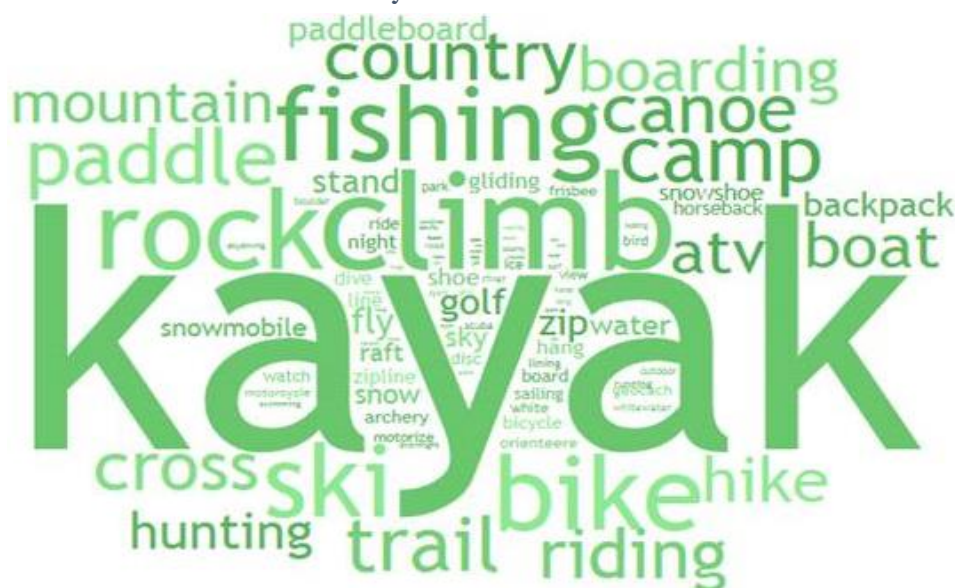
Finally, more respondents who lived in rural counties ($n = 4,020$) than urban counties ($n = 4,622$) indicated that they participated in hunting (42.9% versus 24.3%, respectively), fishing (47.0% versus 36.4%), and motorized trail use (30.9% versus 17.0%), as seen in the next figure.

Figure 9. Participation in Outdoor Activities in the Last Year, by County Population Density



Respondents were also asked to provide one outdoor recreational activity that they currently do not do but would like to try. A total of 3,798 respondents provided a response, and **21.7% of those respondents said that they would like to try kayaking**. Looking at all respondents, the most common responses were kayaking or canoeing (9.6% of all survey respondents; $n = 8,676$), rock climbing (3.5%), motorized trail use (3.1%), stand-up paddleboarding (2.8%), bicycling (2.7%), cross country skiing or snowshoeing (2.7%), fishing (2.3%), camping (1.9%), ziplining (1.3%), backpacking (1.2%), hunting (1.2%), and hiking (1.2%). The following word cloud provides a visual summary of common responses. The larger the word, the more common that it appeared in responses. See Appendix D for a complete list of responses provided.

Figure 10. Outdoor Recreational Activity Interest



Facility Investment Priorities

Respondents were then asked to rate the level of priority their local community should place on investing in various facilities or infrastructure in the next five years, with 1 being the lowest priority and 5 being the highest priority. Choices of 4 and 5 were then combined to provide an indication of the proportion of respondents indicating that they believe their local community should place a high priority on the particular type of facility investment over the next five years. Nearly four-fifths of respondents (79.3%; $n = 8,069 - 8,345$) gave a high priority to Community or regional trail systems, compared to 72.7% who said so in 2014 ($n = 6,536 - 6,652$). About three-fifths gave high priorities to Community or regional parks (62.8% in 2019 versus 59.3% in 2014), Outdoor environmental educational/nature facilities (62.4% versus 45.7%), and Opportunities for/access to water-based recreation (60.7% versus 60.9%), while about half gave high priorities to Inclusive programs/facilities for persons with disabilities (55.3%), Neighborhood parks (54.9% versus 51.1%), and Opportunities for hunting and/or fishing (46.8% versus 59.1%). It should be noted that the Sports fields and Sports courts items were asked as one item, Team sports facilities, in 2014, so the results are not directly comparable. In addition, the Inclusive programs/facilities for persons with disabilities and the Pavilions, amphitheaters, or other outdoor public spaces like plazas items were not asked in 2014.

Scores were also averaged on a scale of 1 to 5 to develop an overall mean assessment of the extent to which respondents believed that their local community should place on investing in the various facility types over the next five years. As with before, there were items that appeared in the 2019 survey that did not appear in the 2014 survey. The overall mean score for all items was 3.17 ($n = 8,069 - 8,345$); for comparison purposes, the mean score for items that appeared in both the 2014 and 2019 surveys was 3.25 for the 2019 responses and 3.17 ($n = 6,536 - 6,652$) for 2014 responses. Priority orders were similar to the previous discussion, but this provided a better indication of how priorities of certain items changed from 2014 to 2019. The mean scores for all items was slightly higher in 2019, but there were some outlying items. Items that outperformed the increase in mean score from 2014 to 2019 included Outdoor environmental educational/nature facilities (3.76 out of 5 in 2019 versus 3.32 in 2014), Swimming pools/water play parks (2.96 versus 2.70), Community or regional trail systems (4.23 versus 4.00), and Trails/parks for motorized activities (2.72 versus 2.53). Items that were lower in 2019 as compared to 2014 included Opportunities for hunting and/or fishing (3.29 in 2019 versus 3.66 in 2014), Action sports parks (2.37 versus 2.58), and Mountain bike trails (3.05 versus 3.06).

The next figures show all combined 4 and 5 responses and the mean scores out of five to this question by survey year. See Appendix E for a complete set of responses by individual item rating.

Figure 11. Community Facility Investment Preferences in Next Five Years, by Survey Year

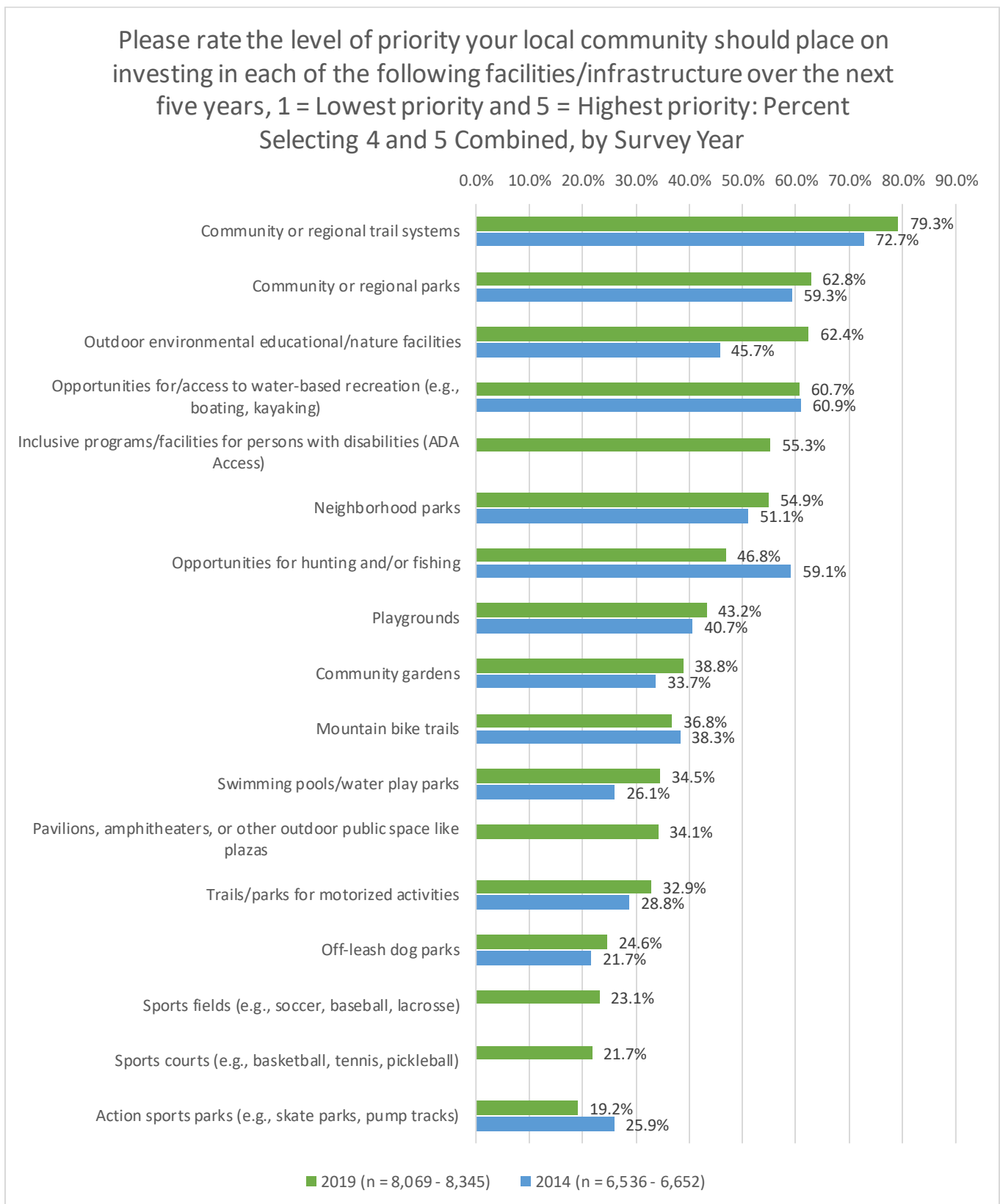
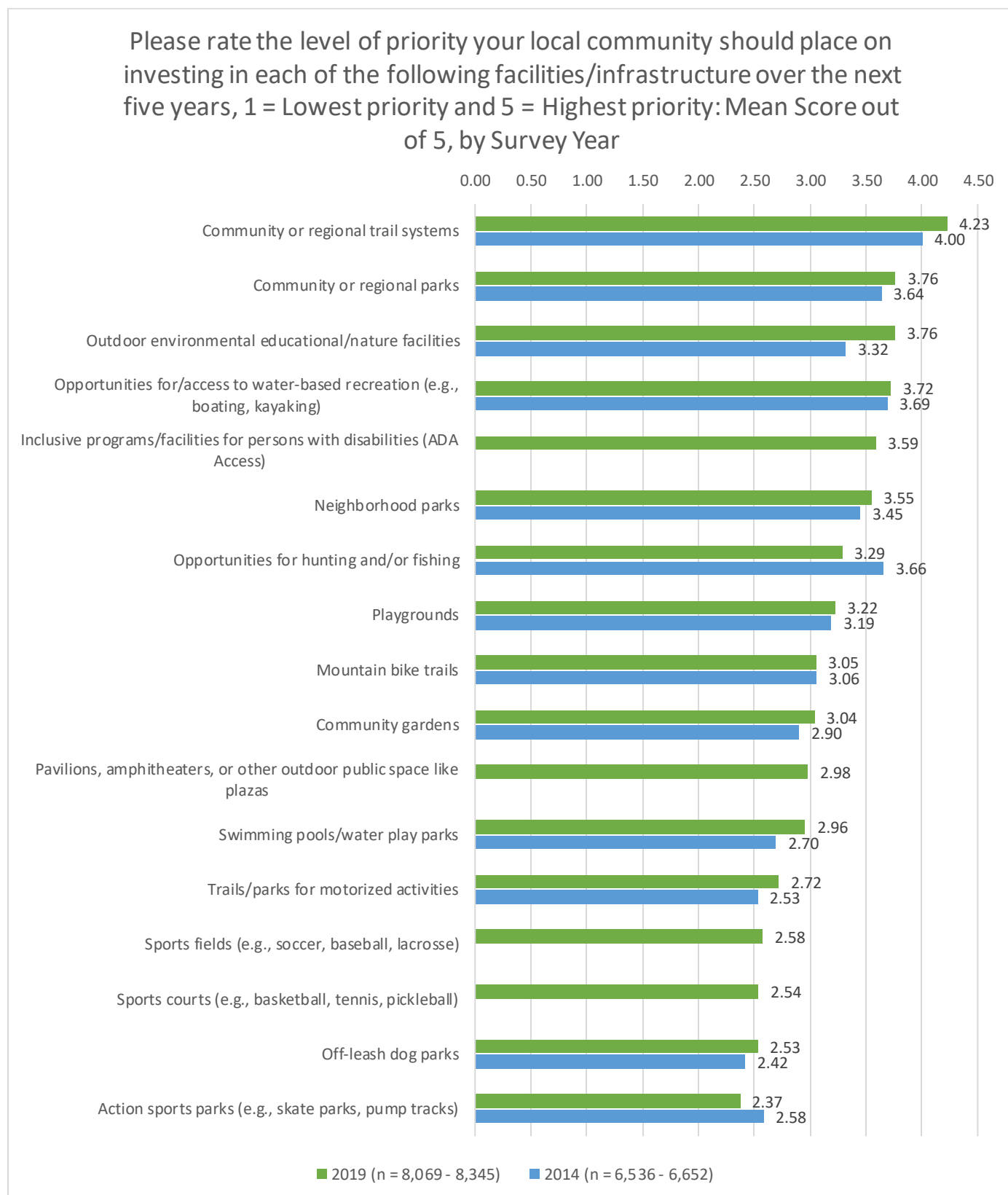
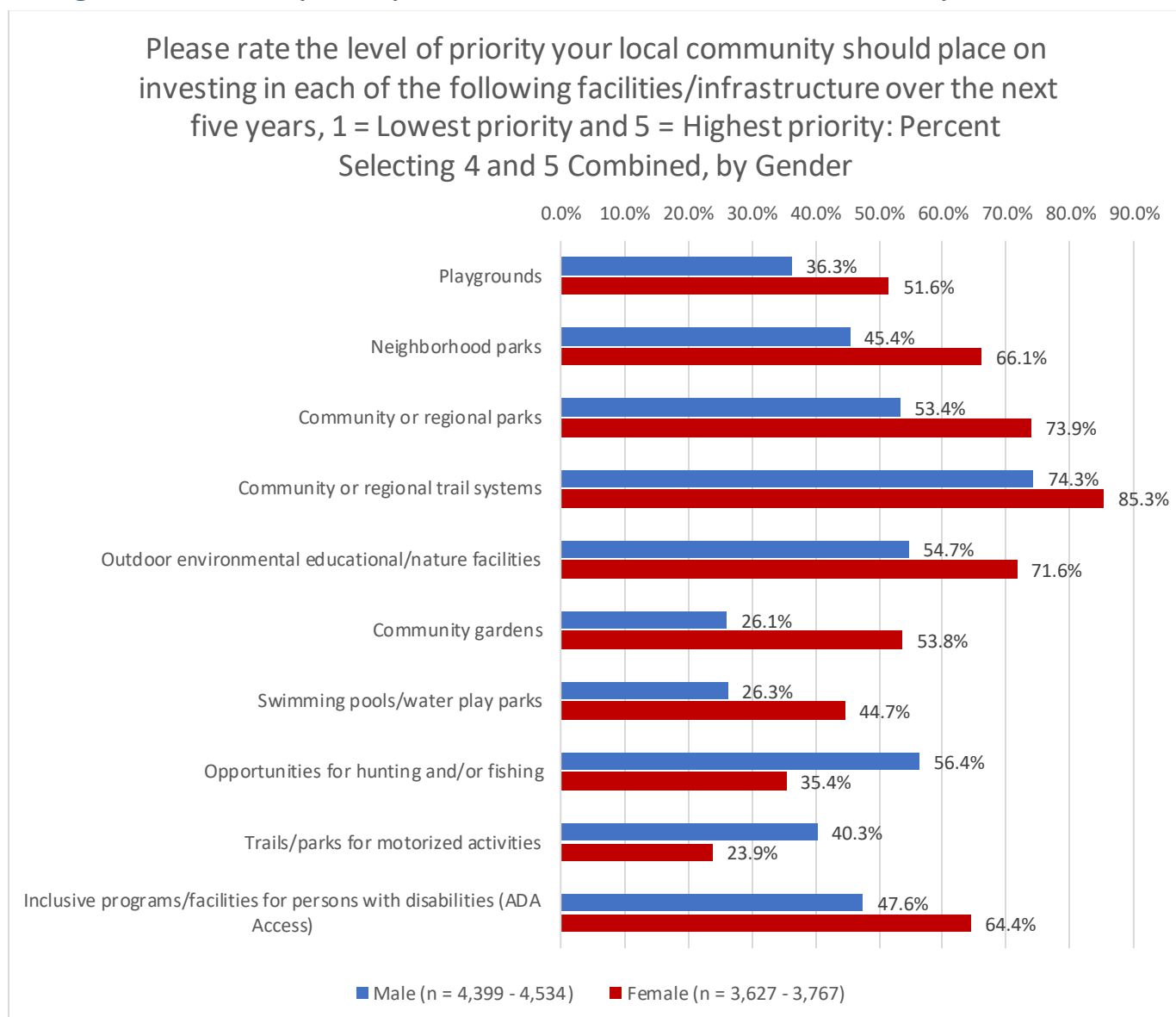


Figure 12. Community Facility Investment Preferences in Next Five Years, Means by Survey Year



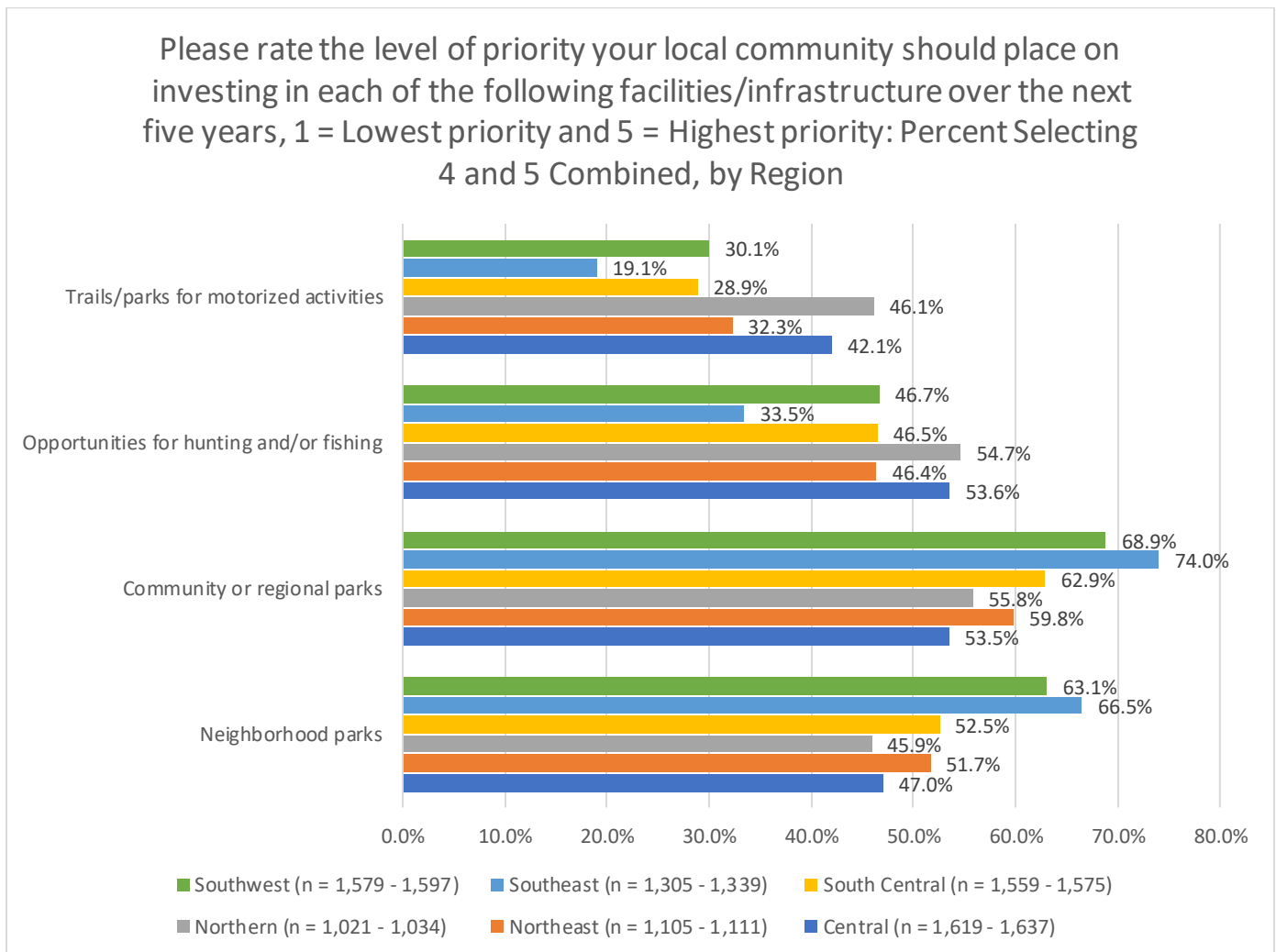
There were several notable differences in respondents' indications of how their local communities should prioritize investing in facilities by gender. **The responses with the biggest gender gaps are bolded below.** More women ($n = 3,627 - 3,767$) than men ($n = 4,399 - 4,534$) gave scores of 4 or 5 to Playgrounds (51.6% for women versus 36.3% for men), **Neighborhood parks (66.1% for women versus 45.4% for men)**, Community or regional parks (73.9% versus 53.4%), Community or regional trail systems (85.3% versus 74.3%), Outdoor environmental educational/nature facilities (71.6% versus 54.7%), **Community gardens (53.8% for women versus 26.1% for men)**, Swimming pools/water play parks (44.7% versus 26.3%), and Inclusive programs/facilities for persons with disabilities (64.4% versus 47.6%). In comparison, more men gave scores of 4 or 5 to **Opportunities for hunting and/or fishing (56.4% for men versus 35.4% for women)** and Trails/parks for motorized activities (40.3% versus 23.9%), as seen in the next figure.

Figure 13. Community Facility Investment Preferences in Next Five Years, by Gender



There were also differences in respondents' indications of how their local communities should prioritize investing in facilities by region. More respondents in the Northern region ($n = 1,021 - 1,034$) and Central region ($n = 1,619 - 1,637$) gave scores of 4 or 5 to Trails/parks for motorized activities (46.1% and 42.1%, respectively) than those in Northeast (32.3%; $n = 1,105 - 1,111$), Southwest (30.1%; $n = 1,579 - 1,597$), South Central (28.9%; $n = 1,559 - 1,575$), and Southeast (19.1%; $n = 1,305 - 1,339$) regions. In contrast, more of those in the Southwest and Southeast regions favored Community and regional parks (68.9% and 74.0% provided scores of 4 or 5, respectively) and Neighborhood parks (63.1% and 66.5%, respectively) than those in the Northern (55.8% for Community or regional parks and 45.9% for Neighborhood parks) and Central regions (53.5% and 47.0%, respectively). Furthermore, fewer respondents in the Southeast region gave a score of 4 or 5 to Opportunities for hunting and/or fishing (33.5%) than those in other regions, which ranged from 46.4% in the Northeast region to 54.7% in the Northern region, as seen in the next figure.

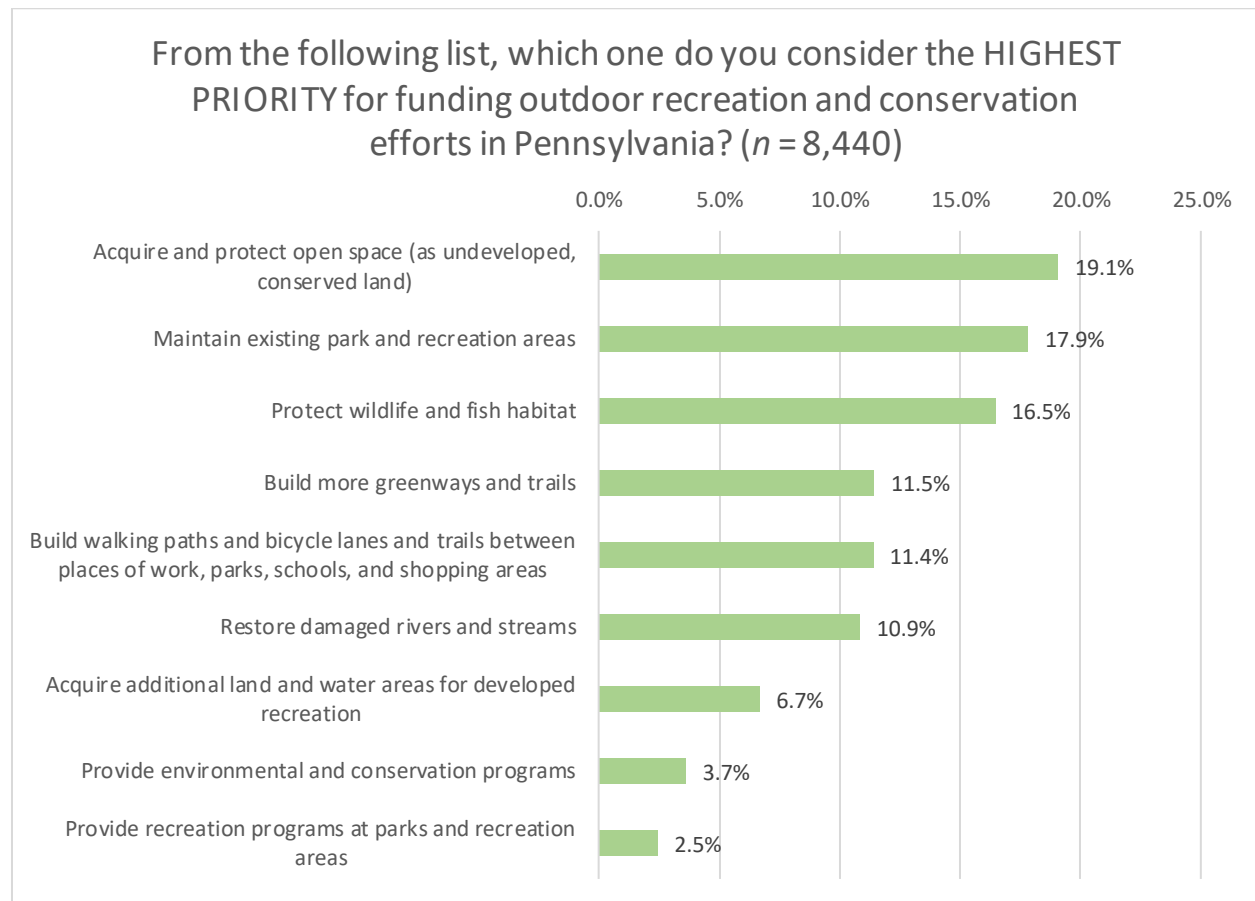
Figure 14. Community Facility Investment Preferences in Next Five Years, by Region



Outdoor Recreation and Conservation Funding Priorities

Next, respondents were asked to indicate their highest priority for funding outdoor recreation and conservation efforts in Pennsylvania. About one-fifth (19.1%; $n = 8,440$) selected Acquire and protect open space (as undeveloped, conserved land), while close behind were Maintain existing park and recreation areas (17.9%) and Protect wildlife and fish habitat (16.5%). About one-in-10 selected Build more greenways and trails (11.5%), Build walking paths and bicycle lanes and trails between places of work, parks, schools, and shopping areas (11.4%), and Restore damaged rivers and streams (10.9%). Rounding out the responses were 6.7% who selected Acquire additional land and water areas for developed recreation, 3.7% who selected Provide environmental and conservation programs, and 2.5% who said Provide recreation programs and parks and recreation areas, as seen in the next figure. The only difference seen by demographic sub-group was that more urban residents selected Acquire and protect open space (23.9%; $n = 4,539$) than rural residents (13.4%; $n = 3,912$).

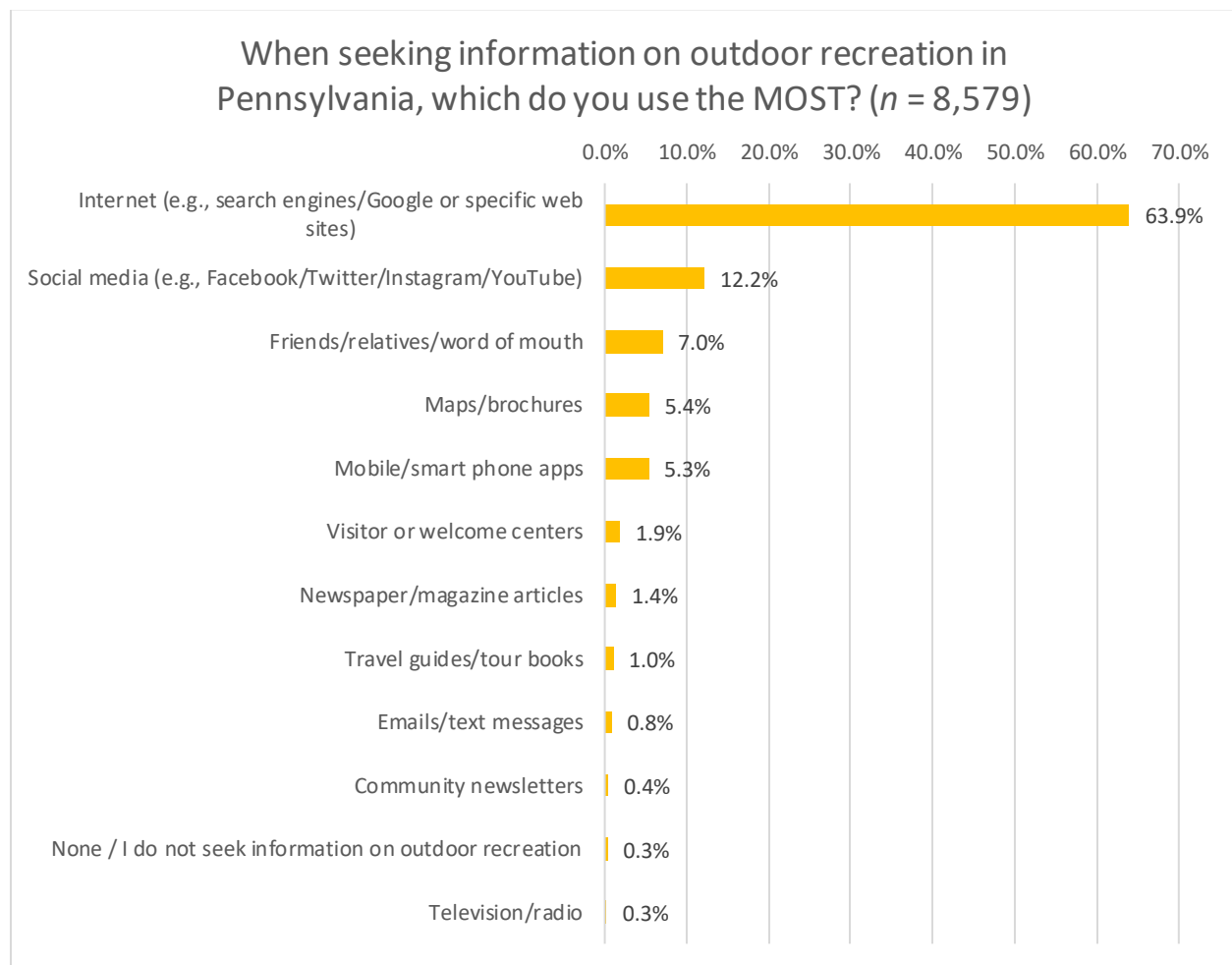
Figure 15. Outdoor Recreation and Conservation Funding Priorities



Information Seeking

When asked what respondents use most when seeking information on outdoor recreation in Pennsylvania, respondents overwhelmingly selected the Internet, which included search engines and specific web sites (63.9%; $n = 8,579$). Other responses included social media (12.2%), Friends/relatives/word of mouth (7.0%), Maps/brochures (5.4%), Mobile/smart phone apps (5.3%), Visitor or welcome centers (1.9%), Newspaper/magazine articles (1.4%), Travel guides/tour books (1.0%), Emails/text messages (0.8%), Community newsletters (0.4%), and Television/radio (0.3%). Just 0.3% of respondents said that they do not seek information on outdoor recreation, as seen in the next figure. More respondents between the ages of 18-34 indicated that they turn to Social media most often (15.6%; $n = 1,691$) than those 65 and older (6.1%; $n = 1,153$), but there were no other notable demographic differences.

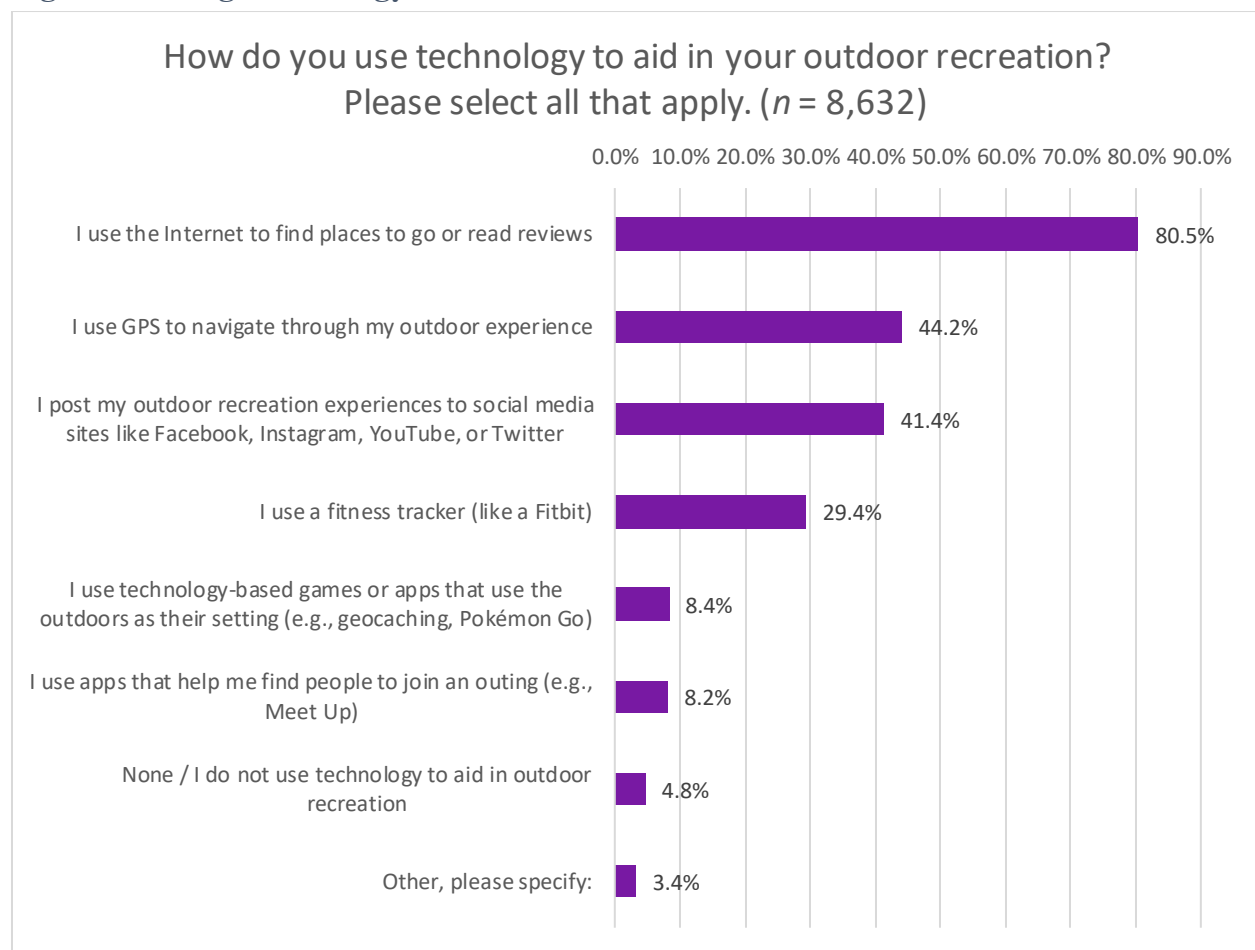
Figure 16. Seeking Information on Outdoor Recreation in PA



Technology Utilization

Next, respondents were asked to indicate all sources of technology they use to aid in their outdoor recreation. Just 4.8% ($n = 8,632$) indicated that they do not use technology to aid in outdoor recreation, while an overwhelming 80.5% said that they use the Internet to find places to go or to read reviews. About two-in-five said that they Use GPS to navigate through their outdoor experience (44.2%) or to Post outdoor recreation experiences to social media sites (41.4%). In addition, 29.4% said that they Use a fitness tracker (like a Fitbit). About one-in-12 said that they Use technology-based games or apps that use the outdoors as their setting (such as geocaching or Pokémon Go; 8.4%) and Use apps that help them find people to join an outing (such as Meet Up; 8.2%), as seen in the next figure.

Figure 17. Using Technology to Aid in Outdoor Recreation



In addition, 3.4% of respondents mentioned some technology other than those listed. The most common Other responses (mentioned by more than 0.1% of respondents) included an App or site designed to enhance a specific experience (such as plant/animal identification, hunting/fishing, etc.), a Trail app or site, a Fitness app or site (such as Strava), a Camera for recording or photos (such as a trail cam or GoPro), an App developed for their local area, or a Weather app. The following word

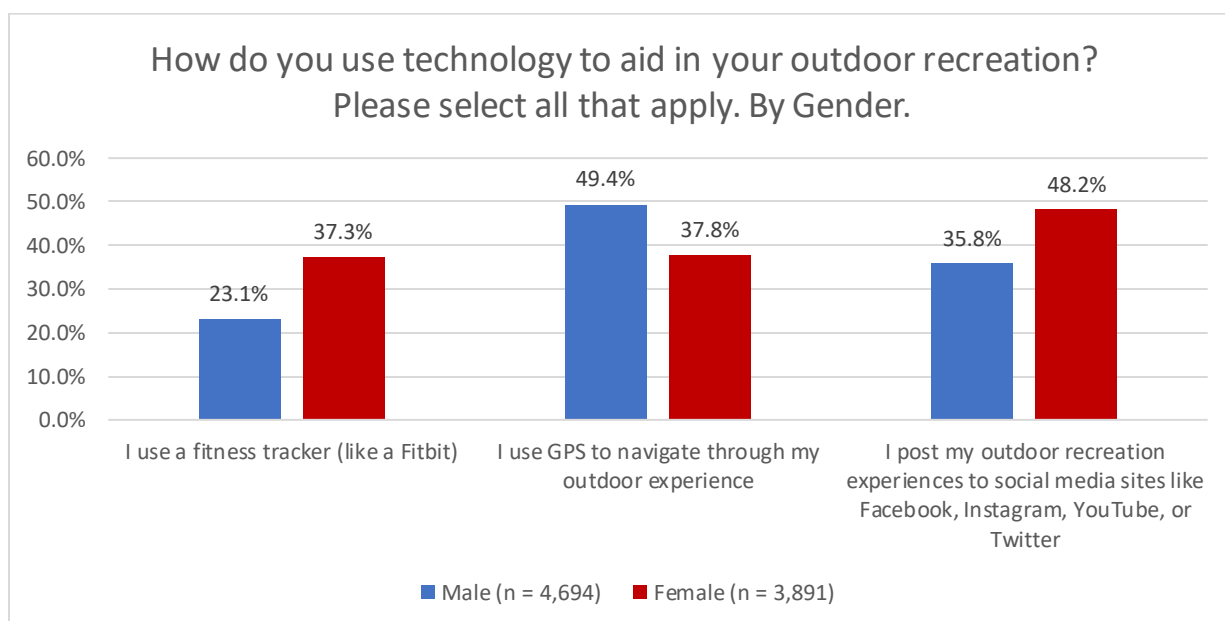
cloud provides a visual summary of common responses. The larger the word, the more common that it appeared in responses. See Appendix F for a complete list of Other responses provided.

Figure 18. Using Technology to Aid in Outdoor Recreation: Other, Please Specify



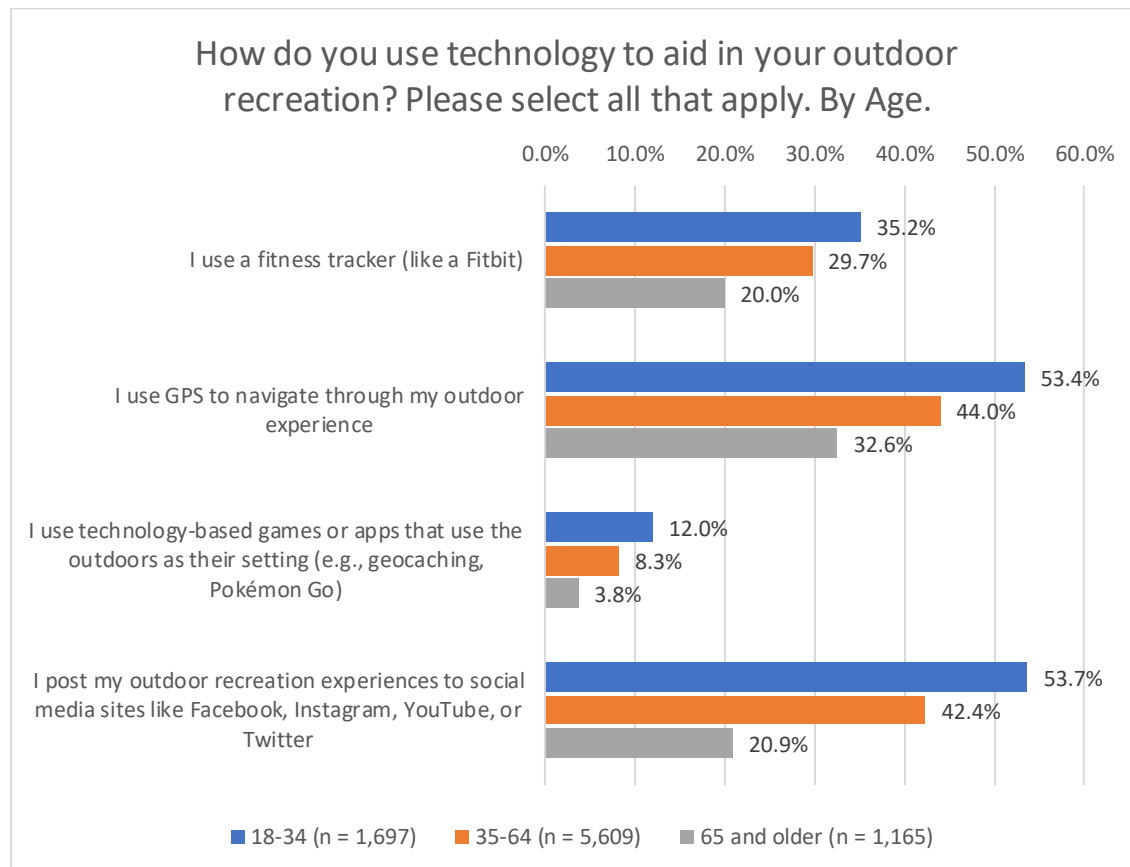
Technology use varied by gender and age. More men ($n = 4,694$) than women ($n = 3,891$) said that they Use GPS to navigate through their outdoor experience (49.4% versus 37.8%, respectively). In contrast, more women than men said that they Use a fitness tracker (37.3% versus 23.1%, respectively) and Post their outdoor recreation experiences to social media sites like Facebook, Instagram, YouTube, or Twitter (48.2% versus 35.8%) as seen in the next figure.

Figure 19. Using Technology to Aid in Outdoor Recreation, by Gender



Unsurprisingly, more respondents between the ages of 18 to 34 ($n = 1,697$) than those 65 or older ($n = 1,165$) said that they Use a fitness tracker (35.2% versus 20.0%, respectively), Use GPS to navigate through their outdoor experience (53.4% versus 32.6%), Use technology-based games or apps that use the outdoors as their setting, such as geocaching or Pokémon Go (12.0% versus 3.8%), and Post their outdoor recreation experiences to social media sites like Facebook, Instagram, YouTube, or Twitter (53.7% versus 20.9%), as seen in the next figure.

Figure 20. Using Technology to Aid in Outdoor Recreation, by Age

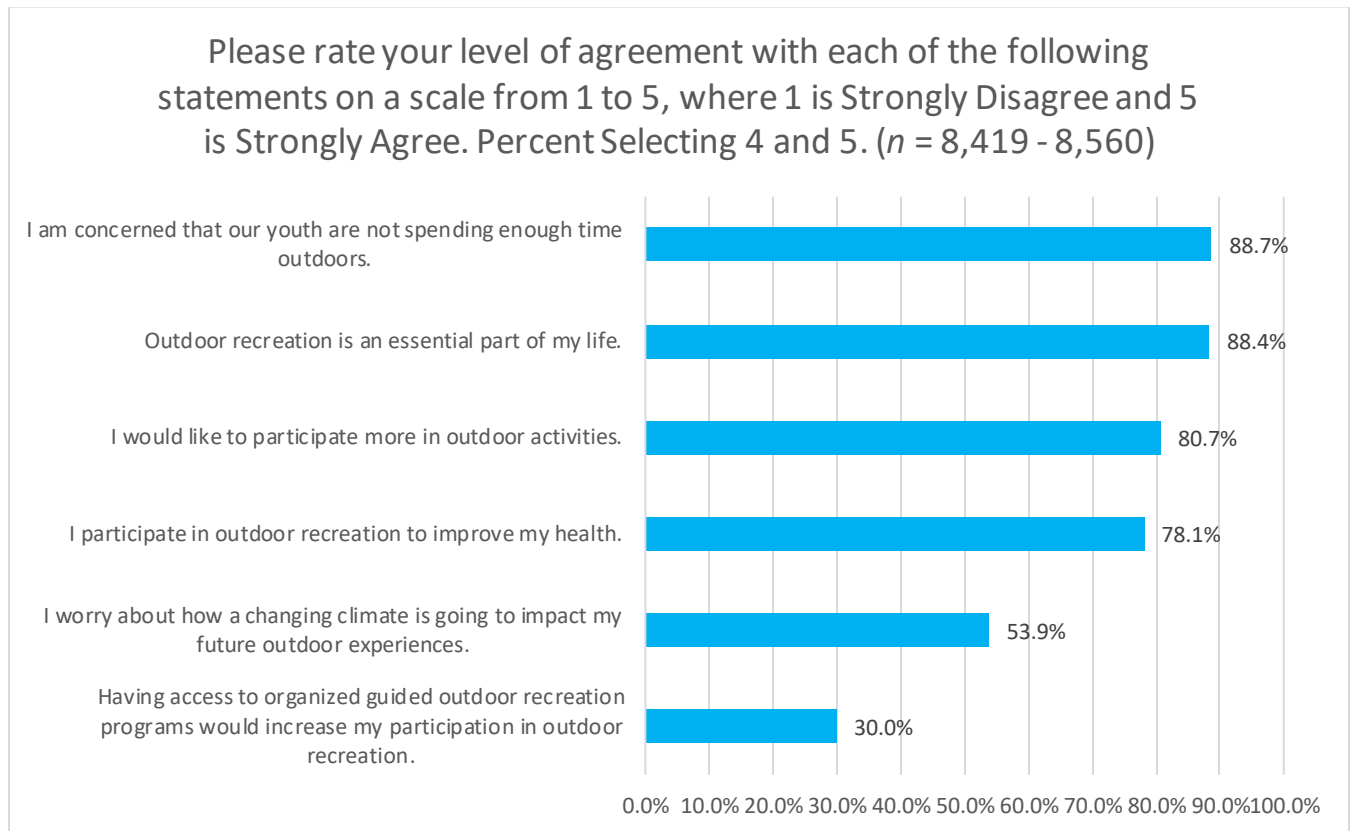


Attitudes Toward Outdoor Recreation

Respondents were then asked to indicate their level of agreement with a series of statements about outdoor recreation on a scale from 1 through 5, where 1 represented Strongly Disagree and 5 represented Strongly Agree. Scores of 4 and 5 were coded to indicate strong agreement with each statement. Nearly nine out of 10 respondents ($n = 8,419 - 8,560$) selected 4 or 5 for “I am concerned that our youth are not spending enough time outdoors” (88.7%) and “Outdoor recreation is an essential part of my life” (88.4%). About four out of five gave strong ratings to “I would like to participate more in outdoor activities” (80.7%) and “I participate in outdoor recreation to improve my health” (78.1%). In contrast, just half (53.9%) indicated strong agreement with “I worry about how a changing climate is going to impact my future outdoor experiences” and less than one-third (30.0%) did so with “Having access to organized guided outdoor recreation programs

would increase my participation in outdoor recreation,” as seen in the next figure. The items were also given mean scores out of 5, but these scores provided no additional information than what was seen in the above analysis.

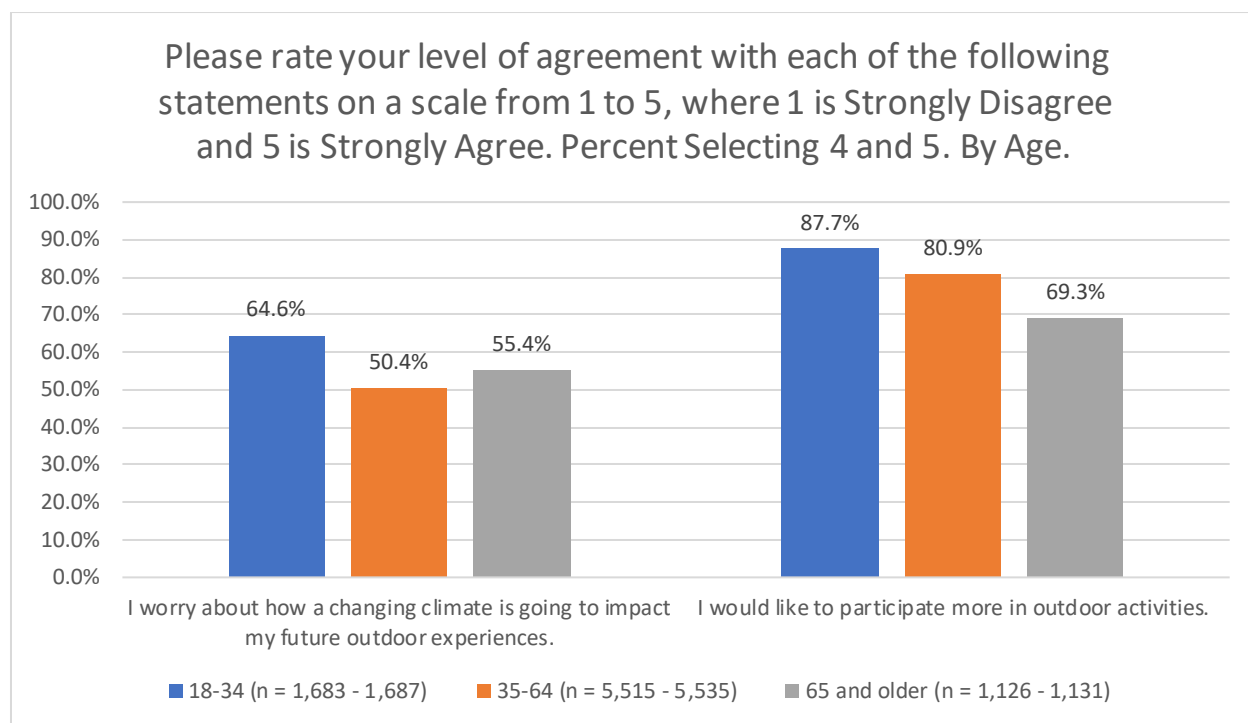
Figure 21. Attitudes Toward Outdoor Recreation



There were notable differences in attitudes toward outdoor recreation by gender, county density, and age. More women (65.0%; $n = 3,823$) than men (44.6%; $n = 4,614$), more respondents in urban counties (46.0%; $n = 4,548$) than rural counties (30.8%; $n = 3,944$), and more respondents between the ages of 18 and 34 (64.6%; $n = 1,683$) than those 35 to 64 (50.4%; $n = 5,515$) selected 4 or 5 for “I worry about how a changing climate is going to impact my future outdoor experiences. Interestingly, more respondents 65 or older selected 4 or 5 for this statement (55.4%) than between the ages of 36 and 64.

More respondents between the ages of 18 and 34 (87.7%; $n = 1,687$) than those 65 or older (69.3%; $n = 1,126$) answered 4 or 5 for “I would like to participate more in outdoor activities,” while those between the ages of 35 and 64 were somewhere in the middle (80.9%; $n = 5,535$), as seen in the next figure.

Figure 22. Attitudes Toward Outdoor Recreation, by Age



Help Participating in Outdoor Recreation in PA

Finally, respondents were given an open-ended question asking them to indicate the single most-important thing that parks and outdoor recreation agencies/organizations could do to help them participate in outdoor recreation in Pennsylvania. Altogether, 7,093 respondents answered the question. A random sample of 1,000 respondents was selected to use in analyzing results and identifying common topics. Common topics included maintenance needs, general and motorized trail use, technology, conservation, activities and programming, education, support of sportsmen and nature enthusiasts, access and affordability, communication, accessibility and ADA compliance, and safety. These topics are discussed in detail below. Overall, the most-common topics mentioned by respondents related to maintenance and trail needs. Topics are ordered with the most-common topics appearing first, and the least-common topics appearing last.

Maintenance Needs

- Many of the respondents' comments related to a desire to continue existing maintenance activities or to improve maintenance on facilities, parks, trails, and waterways. Some respondents indicated that these spaces were well-maintained, going as far as to say that Pennsylvania's parks are better managed than other states' parks, while many others felt that there was room for improvement.
- In addition to maintenance, cleanliness was discussed by some respondents, particularly regarding outdoor trash/litter, wildlife habitat improvement, and the cleanliness and upkeep of restroom facilities, especially in state parks. Respondents requested more trash and

recycling receptacles and better-stocked restrooms. Some respondents indicated that they attempt to learn about how well-maintained facilities are before they decide to visit them.

- Respondents offered a number of possible solutions and ideas to the maintenance issues they perceived. They included providing more funding and staffing for maintenance, finding more cost-effective collective maintenance solutions, developing more partnerships to get other groups and community members involved with maintenance, and creating more organized clean-up days.
- Some respondents were adamant that providers should avoid creating new infrastructure until current maintenance needs are met. A desire for more funding was a common request.

General Trail Use

- Trails were mentioned by a substantial proportion of respondents. Many respondents were interested in developing more trails that connect different areas. Respondents saw opportunity in using trails to connect communities, increase tourism, and promote economic development. Specifically, some respondents felt that connecting trails with small towns could increase local spending. Some also indicated that trails should have better integration with living spaces (e.g., river walks, canal sites, etc.).
- Many respondents want trails that tailor to their particular sport or interest. The major challenge here is finding a way to balance the variety of conflicting interests. Some respondents want trails for hiking only, others for biking only, some for horseback riding, and some for multi-use. Mountain bikers would like to have trails opened up to mountain bike use, while some want trails for bicycles, but not mountain bikes. In addition, many expressed an interest in finding ways to allow safe use by multiple contingencies. Despite interest in having trails for their own uses, many users still want ways to use trails that are less travelled, as overuse makes it difficult for people to relax and get away.
- There was a contrast between two conflicting priorities in terms of trail use. Some are vocal about wanting new trails developed, while others are adamant that new trails should not be developed until current trails can be properly maintained. Those who want new trails mentioned trails for hiking that had more variety in trail difficulty. There was also significant interest in expanding rails-to-trails initiatives, particularly for multi-use trails.
- In addition to the need for better trail maintenance and blazing, some respondents also indicated a need for better marking and signage. Some respondents cited poor signage as a reason why they might avoid trying a new trail. Others would like to have more information about trails online, including trail difficulty, lengths, access points, and elevation profiles. They would also like better maps with more detail.

Motorized Trail Use

- Many respondents discussed the need to expand access for motorized activities on trails. Some mentioned that they travel out of state to use trails. Others mentioned that there are opportunities for regional economic development and income generation. Many also stressed that Pennsylvania's investment is less than that of other states. As with general trail use, there was great interest in having trails that connect various communities and regions.
- Many groups are in competition for trail access, and most want trails for their own use. Licensed motorcycles would like to have access to ATV and snowmobile trails, and ATVs would like to have access to joint-use roads.
- Fairness was another common theme. Some motorized users were concerned that they pay money for licenses and have limited access, while others pay nothing and get more access. They sought better distribution of public resources.
- There was a vocal contingent of respondents interested in expanding ATV trail access, including dual sport bikes and trails dedicated to more than just ATVs to include side-by-sides and UTVs.
- Many respondents indicated that the enthusiasts of their respective sports would be willing to put in effort to bring these ideas to fruition. There was an emphasis that many are looking for a legal way to enjoy their respective sports, and many mentioned that they would be willing to pay an access fee.
- Lacking access to use of private land was another common theme, particularly among snowmobilers. They indicated that other states provide more support, both financially and through other means, such as through the support of statewide general liability policies, which can encourage private landowners to allow trails to pass through their properties.
- Some were adamant that they did not want motorized vehicles on their trails; they felt strongly that these activities should require permits and be restricted. Others went as far as to say that motorized vehicles should be banned from public land.

Technology

- Many respondents were interested in using technology to improve their recreational experiences. A common request was to find better ways to make fragmented information available online through a single, coordinated resource that includes information about facilities, parks, trails, etc. offered by various groups and levels of government. Some respondents acknowledged that this would be a monumental task, particularly given the work needed to coordinate and maintain the database. However, respondents indicated a desire to be able to find information about available resources in one place. Some respondents who did not grow up in Pennsylvania also indicated that it is difficult to know what is available; they rely on web-based resources to learn about what they can do.
- Specific suggestions for improving existing resources included having a searchable directory that is sortable by distance, making web sites more mobile-friendly, allowing users to leave

reviews, and improving address listings so that GPS apps provide better navigation to the sites.

- Some respondents also expressed concerns about the lack of detail provided on existing web sites. For example, recreationists would like to know more about hours of access, the availability of rental equipment, any associated costs, parking availability, handicap accessibility, level of difficulty for trails, etc. One respondent requested a maps app that could help them check trail and waterway conditions for planning their trips. Respondents indicated that having advanced information is particularly useful for people with children, as it is difficult to take advantage of available resources without adequate information.
- Respondents also talked about the ways in which mapping could improve their experiences. Some respondents wished that existing maps would be updated more frequently, noting that they are sometimes incorrect. Others indicated that PDFs of maps are not usually user-friendly. Other suggestions included working with local providers to improve maps or using drones to produce aerial footage of trails for planning purposes.
- Social media was another common theme cited by respondents. Respondents wanted to see a better social media presence, possibly in the form of regional Facebook groups. They were also interested in encouraging more active social media use and sharing to help others learn about recreational and educational opportunities through their networks.

Conservation

- Improving and maintaining conservation efforts was another theme shared by many respondents. Most commonly, respondents expressed a need to maintain open space and promote greenspace. Specific suggestions here included establishing partnerships to solidify mutual public space interests and finding ways to strategically prevent private development. Respondents also suggested acquiring more state forest land and state park land and expanding wild areas, which would allow application of federal rules.
- Many responses also related to pollution and protection of existing managed space, especially through protection of undeveloped areas, wildlife habitats, waterways, and air quality. Many respondents expressed concerns about pollution done by individuals, companies, and fracking; they would like to see stricter litter and pollution prevention laws and better enforcement of existing laws. Some respondents also expressed concerns that pollution is more common among more casual recreationists, and that better education is needed to prevent pollution done by those sharing the space.
- Some respondents also talked about the need for better management of wildlife and deer populations. Respondents mentioned that some areas were over-hunted, while other non-deer populations were under-hunted.
- Finally, respondents also discussed the effects of climate change on Pennsylvania's natural environment. Some indicated a need for programs and activities that challenge guests to conserve in their daily lives and teach them ways to mitigate the effects of climate change.

Activities and Programming

- Comments about activities and programming fell mostly into two categories: suggestions for types of activities and programming, and suggestions for how to improve participation.
- Suggestions for activities or programming respondents wanted to see more often included lessons for beginner recreationalists, historical and nature programs, water activities, community events, yoga in the park, winter recreation opportunities, organized hikes, habitat improvement projects, pickleball courts, disc golf courses, and dog-friendly spaces or activities.
- Some respondents would like to see more events in general. They mentioned low- or no-cost guided adventures and educational programs for adults. Many respondents were interested in participating in guided activities.
- Several comments related to youth sports and programs, particularly on the need to make these activities more accessible for low-income families. Additional suggestions in this area included partnering with youth programs, such as scouting, homeschool, or other school groups, possibly with reduced or eliminated fees.
- Suggestions for improving activities and programs included more variety in activities offered, more organized hikes, transportation in urban areas to help people get to recreational areas, events targeted to underserved populations (e.g., people of color and seniors), and more variability in the times offered. Several respondents mentioned that many activities and programs are offered during traditional working hours. They would like to see hours be made available in the evenings or weekends.
- Another suggestion offered was to create more social opportunities. Some would like to see events that bring people out who are not typically drawn to nature, like food truck festivals and outdoor concerts. Others mentioned hosting geocaching events or creating community gardens to connect people in urban areas.

Education

- Some respondents indicated that better educational efforts would benefit their overall experience. They would like to see more efforts to help others understand the value of conserved land and recreational facilities.
- Some indicated that more educational efforts are needed to improve youth appreciation of natural resources. Such efforts could also include information about how to keep nature clean and act as good stewards.
- Other respondents mentioned a lack of educational programs geared toward adults. Some respondents would like to have more programming to help them learn about wildlife, while others would like to see educational efforts aimed at improving fitness levels within their communities.

Support of Sportsmen and Nature Enthusiasts

- Sportsmen and nature enthusiasts reported wishing that their needs were better met, partially because they were such avid recreationalists. Some indicated that they are willing to step up to help clean up and preserve their spaces, while others are not.
- Hunters would like more areas for hunting, while anglers would like better stocking of fish. Many hunters complained that there was a proliferation of posted land, making it difficult for them to find spaces to hunt. Many hunters would also like the opportunity to hunt on Sundays; however, some respondents complained that Sunday hunting would be disadvantageous, as they rely on Sundays as a safe time to enjoy undeveloped space.
- Avid recreationalists also mentioned the need to stop the proliferation of trails, which they see as a form of developed space.
- Those who used camping sites regularly would like to see more restrictions preventing dogs from being on campsites. They expressed concerns that the noise prevents them from sleeping and makes relaxation difficult. On the other hand, some respondents indicated a desire to have more places to recreate with their pets.

Access and Affordability

- Some respondents were concerned about the costs associated with recreation, which they perceive as preventing people from enjoying the outdoors. Some would like to see a reduction in camping fees and the costs associated with visiting recreational areas, while others would like to see reduced fees for programming events. Others mentioned that they want to ensure that access to public land remains free, as too much land is becoming private.
- Another suggestion for reducing costs involved providing more access to rental equipment. Respondents noted the steep start-up equipment costs associated with some outdoor activities; having access to rental equipment would enable more people to try activities out before committing to equipment purchases.
- Physical access was also a concern from respondents, who noted that they would like to see improved parking access and better integration of public transportation with access points. Some also mentioned that they would like to have facilities and services that were closer to their homes.

Communication

- Better communication about events and available resources would help recreationalists plan and participate more often. They would like to see better promotion of existing resources, events, and facilities, both in terms of breadth of channel delivery and more advance notice.
- Respondents also mentioned wanting better communication of seasonal activities, such as when flowers are in-bloom and when specific animals will be migrating.
- Some respondents mentioned a need for recreation guides that better describe what is available. Some preferred that these guides would be online, while others preferred paper

versions. Campers requested resources that would describe local activities and restaurants available near campsites.

- Some would like to know how they can better participate in activities such as clean-up days and conservation events. Respondents mentioned that they believe that such events would have more participation if people were asked to participate.

Accessibility and ADA Compliance

- Respondents requested improved access for the increasing number of disabled and elderly recreationalists. Areas of improvement included access to programs, trails, hunting, and fishing.
- Some respondents specifically requested more boardwalk style trails, which could help improve wheelchair access.

Safety

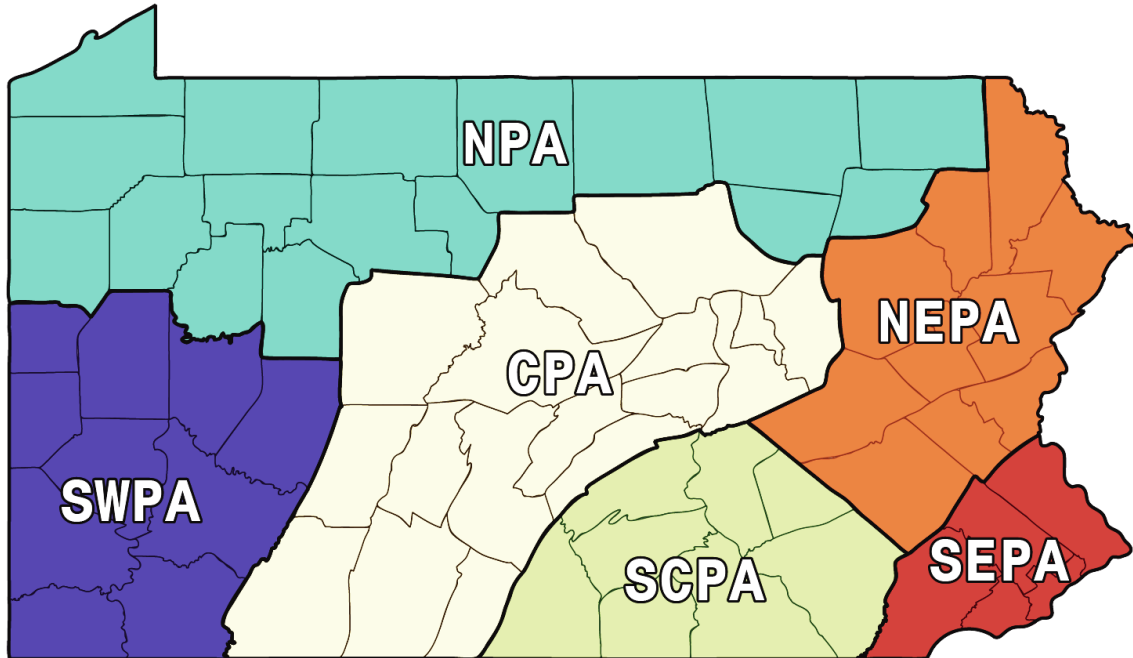
- Respondents discussed a number of ways in which improvements to safety could help them in their outdoor recreation. Women, in particular, were concerned about having safe spaces to walk, run, or hike. One possible solution was to have special events more often or targeted toward women so that they do not have to fear going alone.
- More generally, respondents would like to see more security patrols to protect people and to prevent vandalism. Some mentioned having more police or rangers and a need for better enforcement of rules and regulations.
- Other, more specific concerns were shared as well. They included stricter leash laws and better enforcement of pet control, safer playground equipment, and ways to prevent tick bites.
- Some respondents also desire better trail maintenance to promote safe use. Some also mentioned that they see danger in using multi-use trails and on-road bike lanes.

The next figure depicts a word cloud of responses, showing common words that appeared throughout respondents' answers. The larger the word, the more common that it appeared in the responses.

Figure 23. Help Participating in Outdoor Recreation in PA: Open-Ended Responses



APPENDIX A – MAP AND LIST OF SURVEY REGIONS



Northern			Central			Northeast			Southwest			South Central			Southeast		
Bradford			Bedford			Berks			Allegheny			Adams			Bucks		
Cameron			Blair			Carbon			Armstrong			Cumberland			Chester		
Clarion			Cambria			Lackawanna			Beaver			Dauphin			Delaware		
Crawford			Centre			Lehigh			Butler			Franklin			Montgomery		
Elk			Clearfield			Luzerne			Fayette			Lancaster			Philadelphia		
Erie			Clinton			Monroe			Greene			Lebanon					
Forest			Columbia			Northampton			Indiana			Perry					
Jefferson			Fulton			Pike			Lawrence			York					
McKean			Huntingdon			Schuylkill			Washington								
Mercer			Juniata			Wayne			Westmoreland								
Potter			Lycoming														
Sullivan			Mifflin														
Susquehanna			Montour														
Tioga			Northumberland														
Venango			Snyder														
Warren			Somerset														
Wyoming			Union														

APPENDIX B – SURVEY INSTRUMENT

2020-2024 PA Statewide Comprehensive Outdoor Recreation Plan: Public Survey

Intro. Do you enjoy spending time in Pennsylvania’s local and state parks and forests and on our trails and rivers? A few minutes of your time could really help us understand how and why you enjoy outdoor recreation.

Survey results will help the Pennsylvania Department of Conservation and Natural Resources (DCNR) and our partners determine outdoor recreation programs and funding priorities for Pennsylvania’s next five-year outdoor recreation plan.

This survey should take less **than 10 minutes**. DCNR is administering it in cooperation with the Center for Survey Research at Penn State Harrisburg. If you have questions about the survey, please contact Gretchen Leslie, DCNR senior advisor at gleslie@pa.gov.

Thank you for helping us understand your interest in outdoor recreation!

County. In what county do you live?

Programming note: Insert dropdown list of 67 PA Counties + Don't know and Do not live in PA. Respondents who do not live in PA will skip to the end of the survey.

Re-code to region

1. Which of the following outdoor activities did you participate in during the last year?
Please select all that apply.

Programming note: Rotate responses

- ☐ Walking/running
- ☐ Hiking
- ☐ Bicycling
- ☐ Hunting
- ☐ Fishing
- ☐ Wildlife Watching/Bird watching
- ☐ Motorized trail use (ATV/dirt bike riding, snowmobiling)
- ☐ Swimming
- ☐ Picnicking
- ☐ Motorized boating
- ☐ Kayaking/canoeing
- ☐ Scenic driving
- ☐ Visiting historic sites or nature centers
- ☐ Camping
- ☐ Lawn games (e.g., cornhole, bocce, horseshoes)
- ☐ Night sky viewing
- ☐ Team or organized sports (e.g. basketball, soccer, baseball, tennis)
- ☐ Playing at/Visiting playgrounds
- ☐ Other, please list _____
- ☐ None of these / I did not participate in any outdoor activities in the last year

2. What is one outdoor recreational activity that you don't currently do, but would like to try? _____

- Add a selectable option for None / There are no outdoor recreational activities I would like to try
- Don't know / Not sure

3. Please rate the level of priority your local community should place on investing in the following facilities/infrastructure over the next five years (1 = your lowest priority for investment to 5 = being your highest priority for investment).

Programming note: Rotate items

1- Lowest priority, 2, 3, 4, 5- Highest priority, Don't know, Not applicable

- Playgrounds
- Neighborhood parks
- Community or regional parks
- Sports fields (e.g., soccer, baseball, lacrosse)
- Sports courts (e.g., basketball, tennis, pickleball)
- Community or regional trail systems
- Outdoor environmental educational/nature facilities
- Community gardens
- Swimming pools/water play parks
- Opportunities for/access to water-based recreation (e.g., boating, kayaking)
- Opportunities for hunting and/or fishing
- Off-leash dog parks
- Mountain bike trails
- Action sports parks (e.g., skate parks, pump tracks)
- Trails/parks for motorized activities
- Inclusive programs/facilities for persons with disabilities (ADA Access)
- Pavilions, amphitheaters, or other outdoor public space like plazas

4. From the following list, which one do you consider the highest priority for funding outdoor recreation and conservation efforts in Pennsylvania? (pick one)

Programming note: Rotate responses

- ___ Acquire and protect open space (as undeveloped, conserved land)
- ___ Acquire additional land and water areas for developed recreation
- ___ Maintain existing park and recreation areas
- ___ Provide environmental and conservation programs
- ___ Provide recreation programs at parks and recreation areas
- ___ Protect wildlife fish and habitat
- ___ Build more greenways and trails
- ___ Restore damaged rivers and streams
- ___ Build walking paths and bicycle lanes and trails between places of work, parks, schools, and shopping areas
- ___ Don't know / Not sure

5. When seeking information on outdoor recreation in Pennsylvania, which do you use the MOST? (pick one)

Programming note: Rotate responses

- ☐ Visitor or welcome centers
- ☐ Newspaper/magazine articles
- ☐ Friends/relatives/word of mouth
- ☐ Travel guides/tour books
- ☐ Maps/brochures
- ☐ Emails/text messages
- ☐ Television/radio
- ☐ Internet (e.g., search engines/Google or specific web sites)
- ☐ Social media (e.g., Facebook/Twitter/Instagram/YouTube)
- ☐ Community newsletters
- ☐ Mobile/smart phone apps
- ☐ Don't know / Not sure
- ☐ None/ I do not seek information on outdoor recreation

6. How do you use technology to aid in your outdoor recreation? Please select all that apply.

Programming note: Rotate responses

- ☐ I use a fitness tracker (like a Fitbit)
- ☐ I use GPS to navigate through my outdoor experience
- ☐ I use technology-based games or apps that use the outdoors as their setting (e.g., geocaching, Pokémon Go)
- ☐ I post my outdoor recreation experiences to social media sites like Facebook, Instagram, YouTube, or Twitter
- ☐ I use the Internet to find places to go or read reviews
- ☐ I use apps that help me find people to join an outing (e.g., Meet Up)
- Other, please specify _____
- ☐ None/ I do not use technology to aid in outdoor recreation

7. Please rate your level of agreement with each of the following statements on a scale from 1 to 5, where 1 is Strongly Disagree and 5 is Strongly Agree.

Programming note: Rotate questions

- Having access to organized guided outdoor recreation programs would increase my participation in outdoor recreation.
- I worry about how a changing climate is going to impact my future outdoor experiences.
- I am concerned that our youth are not spending enough time outdoors.
- I participate in outdoor recreation to improve my health.
- I would like to participate more in outdoor activities.
- Outdoor recreation is an essential part of my life.

8. What is the single most important thing that parks and outdoor recreation agencies/organizations could do to help you participate in outdoor recreation in Pennsylvania?
-

Demographic questions

Gender. Which of the following best describes your gender?

- Male
- Female
- Something else

AGE. What is your age? [Text box]

What is your age? Recode – Broad

- 18-34 years
- 35-64 years
- 65 years and older

Ethnicity. Do you consider yourself to be Hispanic or Latino?

- Yes
- No
- Don't know/Not sure

Race. Which of the following best describes your race? You can select all that apply.

- White
- Black or African American
- American Indian or Alaska Native
- Asian
- Native Hawaiian or Pacific Islander
- Something else: _____
- Don't know/not sure

Which of the following best describes your race? Recode

- White alone
- Black or African American alone
- Something else

Zip. What is your zip code? _____

APPENDIX C – PARTICIPATION IN OUTDOOR ACTIVITIES: OTHER, PLEASE SPECIFY RESPONSES

Response	Number	% of All Respondents
Horseback riding	226	2.6
Disc golf	86	1.0
Skiing	72	0.8
Climbing	68	0.8
Photography	35	0.4
Geocaching	27	0.3
Target shooting	23	0.3
Foraging	19	0.2
Pet recreation	18	0.2
Paddleboarding	16	0.2
Dualsporting	12	0.1
Golf	12	0.1
Gardening	11	0.1
Sailing	11	0.1
Mushing	10	0.1
Snowmobiling	9	0.1
Trapping	9	0.1
Plant viewing/identification	8	0.1
Water tubing	7	0.1
Orienteering	6	0.1
Trail maintenance	6	0.1
Yoga/meditation	6	0.1
Kite flying	4	0.0
Climbing, skiing	3	0.0
Dogsledding	3	0.0
Snowshoeing	3	0.0
Training dogs	3	0.0
Ziplining	3	0.0
Botanizing	2	0.0
Climbing, caving	2	0.0
Disc golf, geocaching	2	0.0
Education for children	2	0.0
Firewood procurement	2	0.0
Grilling	2	0.0
Metal detecting	2	0.0
Orienteering, geocaching	2	0.0
Pickleball	2	0.0
Rollerblading	2	0.0
Search and rescue	2	0.0
Shed hunting	2	0.0

Skateboarding	2	0.0
Surfing	2	0.0
Visiting gardens	2	0.0
Whitewater rafting	2	0.0
Attend educational activities offered (example, hike led by Park Ranger to ID spring epnohemeraks)	1	0.0
Attending Groundhog Day	1	0.0
Attending informational classes	1	0.0
Beach	1	0.0
Beautifying public spaces	1	0.0
Beekeeping, disc golf	1	0.0
Blacksmith workshops	1	0.0
Botanizing, birding, photography	1	0.0
Bushcrafting	1	0.0
Caving	1	0.0
Chess instruction	1	0.0
Classes at local county park	1	0.0
Clean up state forest trails	1	0.0
Clean up streams and trails	1	0.0
Climbing, disc golf	1	0.0
Climbing, photography	1	0.0
Climbing, SCUBA diving	1	0.0
Climbing, skateboarding, skiing	1	0.0
Climbing, skateboarding, skiing, snowboarding, rafting, ziplining	1	0.0
Climbing, skiing, Frisbee golf	1	0.0
Climbing, skiing, Pet recreation	1	0.0
Climbing, whitewater rafting, skiing, cross country skiing	1	0.0
Collecting trash at local and state parks	1	0.0
Craft shows, festivals	1	0.0
Drag racing	1	0.0
Drawing, painting, photography, plant study	1	0.0
Drone flying	1	0.0
Educational classes	1	0.0
Farmers markets	1	0.0
Farming	1	0.0
Festivals, farmers markets	1	0.0
Field trials - bird dogs	1	0.0
Fireworks	1	0.0
Float planes and backcountry flying.	1	0.0
Foraging, dog sledding.	1	0.0
Foraging, forest bathing	1	0.0
Foraging, Frisbee golf	1	0.0
Foraging, photography	1	0.0
Forest husbandry: removing invasive plants and renewing woodland.	1	0.0
Forest management and trail cleaning	1	0.0
Free Forest School	1	0.0

Game preserve	1	0.0
Gardening, hammocking, slacklining, climbing, river floating, snowboarding, crosscountry skiing, snowshoeing	1	0.0
Gardening, photography, horseback riding	1	0.0
Gardening, propagating native species and removing invasive species. Educational programs, dyeing with natural dyes from plants. Art making: sketching, plein air painting, printmaking with leaves, using natural materials (twigs, grasses, etc.) in art.	1	0.0
Gardening, clean-up day	1	0.0
Geocaching, climbing	1	0.0
Girl Scouts	1	0.0
Golf, disc golf	1	0.0
Golf; sailing	1	0.0
Great place to find peace and relaxation	1	0.0
Hammocking	1	0.0
Handicapped facilities	1	0.0
Hiking trail maintenance	1	0.0
Horseback riding, sailing	1	0.0
Horseback riding, Skiing, snowshoeing	1	0.0
Horseback riding, snowboarding, skiing, yoga	1	0.0
Hunting dog training	1	0.0
I am in an electric wheelchair. I use the accessible trails at Wildwood	1	0.0
Ice fishing	1	0.0
Ice skating	1	0.0
Interpretive programs	1	0.0
Just being outside and enjoying nature	1	0.0
Kite flying, Frisbee, slacklining	1	0.0
Kite flying, sailing	1	0.0
Laying out by the lake relaxing/reading/enjoying weather	1	0.0
Learning about native non-invasive plants at a preserve	1	0.0
Mushroom and antler sheds and arrowhead hunting	1	0.0
Nature programs/events	1	0.0
Nature study/environmental change	1	0.0
Organized community volunteer cleanups in waterways & public lands.	1	0.0
Organized group activities	1	0.0
Organizing and participation in volunteer maintenance and cleanup	1	0.0
Organizing wilderness-based races and events	1	0.0
Orienteering, disc golf	1	0.0
Outdoor cultural events, including concerts and festivals; open air/farmers markets	1	0.0
Outdoor how-to events	1	0.0
Outdoor live music/outdoor movie night	1	0.0
Outdoor roller skating	1	0.0
Overlanding	1	0.0
Paddle boarding, horseback riding	1	0.0

Paddleboarding, pet recreation	1	0.0
Paddleboarding, skiing	1	0.0
Painted rock hunting	1	0.0
Pet recreation, foraging	1	0.0
Photography, graduate level environmental studies, foraging, plant viewing/identification	1	0.0
Photography, snorkeling	1	0.0
Picnics	1	0.0
Plant viewing/identification, horseback riding, frog/toad catch/release	1	0.0
Plant viewing/identification, photography	1	0.0
Planting trees in public places	1	0.0
Plein air painting	1	0.0
Plogging	1	0.0
Range	1	0.0
Reading by a lake or body of water, nature landscape photography	1	0.0
Recording sound in nature	1	0.0
Recreational aircraft use	1	0.0
Recreational seaplane ops	1	0.0
Reenactment	1	0.0
Research and education in ecology and horticulture; sailing	1	0.0
Rock hunting	1	0.0
Rock/ice climbing, snowboarding	1	0.0
Sailing, backpacking	1	0.0
SCUBA diving	1	0.0
Search and rescue training	1	0.0
Seasonal events	1	0.0
Skateboarding, snowboarding	1	0.0
skating	1	0.0
Skiing, climbing, caving, SCUBA, snowshoeing	1	0.0
Skiing, conservation activities	1	0.0
Skiing, rock climbing, outdoor concerts	1	0.0
Skiing, Snowboarding	1	0.0
Skiing, snowboarding, and mountain biking	1	0.0
Skiing, snowboarding, rock climbing	1	0.0
Skiing, snowshoeing	1	0.0
Skiing, surfing	1	0.0
Skiing, target shooting	1	0.0
Skipping rocks	1	0.0
Snorkeling	1	0.0
Snow sports	1	0.0
Snowboarding, photography	1	0.0
Snowshoeing, climbing	1	0.0
Snowshoeing, cross country skiing, disc golf, ice skating, backpacking	1	0.0
Snowsports, cross country skiing, golf, Frisbee golf	1	0.0
Social gatherings	1	0.0

State park beaches! Just beaching	1	0.0
Summits on the Air (SOTA)	1	0.0
Target shooting, climbing	1	0.0
Trail cams	1	0.0
Trapping, foraging	1	0.0
Trapping, trail building, firefighting, rock climbing	1	0.0
Tree planting	1	0.0
Tree planting, methane research	1	0.0
Viewing the old growth of trees.	1	0.0
Vista viewing	1	0.0
Volunteer at mountain bike racing events	1	0.0
Volunteer cleanups and tree planting	1	0.0
Volunteer search and rescue training	1	0.0
Volunteer trail maintenance	1	0.0
Volunteering for the Lancaster Conservancy	1	0.0
Volunteering PISP	1	0.0
Water rescue training, Search and Rescue training, wildland fire training, Jeep Club Rides, snowshoeing, skiing, rollerblading, ice skating, paddleboard, aviation	1	0.0
Waterskiing, wakeboarding, water tubing	1	0.0
Wheelchair trails	1	0.0
Whitewater rafting, rock climbing/bouldering	1	0.0
Whitewater rafting, ziplining	1	0.0
Working on trails.	1	0.0
Ziplining, gardening, lawn care	1	0.0
Total	896	10.3

APPENDIX D – INTEREST IN OUTDOOR RECREATIONAL ACTIVITIES: OPEN-ENDED RESPONSES

What is one outdoor recreational activity that you don't currently do, but would like to try? Open-ended response					
First response		Frequency	Percent	Valid Percent	Cumulative Percent
	Archery	31	0.4	0.8	0.8
	Backpacking / trekking	98	1.1	2.6	3.4
	Bicycling	227	2.6	6.0	9.4
	Boating (unspecified)	79	0.9	2.1	11.5
	Camping	140	1.6	3.7	15.1
	Cross country skiing / snowshoeing	227	2.6	6.0	21.1
	Disc golf	63	0.7	1.7	22.8
	Fishing	187	2.2	4.9	27.7
	Foraging	5	0.1	0.1	27.8
	Gardening	3	0.0	0.1	27.9
	Geocaching	34	0.4	0.9	28.8
	Golfing	8	0.1	0.2	29.0
	Guided nature walks	8	0.1	0.2	29.2
	Hanggliding	42	0.5	1.1	30.3
	Hiking	96	1.1	2.5	32.9
	Horseback riding	49	0.6	1.3	34.1
	Hunting	98	1.1	2.6	36.7
	Ice climbing	7	0.1	0.2	36.9
	Ice fishing	12	0.1	0.3	37.2
	Kayaking / canoeing	825	9.5	21.7	59.0
	Kiteboarding	11	0.1	0.3	59.2
	Lawn games	9	0.1	0.2	59.5
	Motorized boating	43	0.5	1.1	60.6
	Motorized trail use	261	3.0	6.9	67.5
	Night sky viewing / stargazing	51	0.6	1.3	68.8
	Orienteering	35	0.4	0.9	69.7
	Other	73	0.8	1.9	71.7
	Paddleboating	5	0.1	0.1	71.8

Paragliding	13	0.1	0.3	72.1
Parasailing	7	0.1	0.2	72.3
Park events	3	0.0	0.1	72.4
Pet recreation	4	0.0	0.1	72.5
Pickleball	12	0.1	0.3	72.8
Plant viewing / identification	12	0.1	0.3	73.1
Playing at / visiting playgrounds	2	0.0	0.1	73.2
Rock climbing	288	3.3	7.6	80.8
Ropes course	1	0.0	0.0	80.8
Sailing	42	0.5	1.1	81.9
Skateboarding / Roller blading	5	0.1	0.1	82.0
Skiing / snowboarding	42	0.5	1.1	83.1
Skydiving	36	0.4	0.9	84.1
Snorkeling / SCUBA	25	0.3	0.7	84.8
Spelunking	11	0.1	0.3	85.0
Stand-up paddleboarding	225	2.6	5.9	91.0
Surfing	8	0.1	0.2	91.2
Survival skills	4	0.0	0.1	91.3
Swimming	18	0.2	0.5	91.8
Target shooting	8	0.1	0.2	92.0
Team or organized sports	16	0.2	0.4	92.4
Trapping	9	0.1	0.2	92.6
Visiting historic sites or nature centers	4	0.0	0.1	92.7
Walking / running	27	0.3	0.7	93.4
Water tubing	25	0.3	0.7	94.1
Waterskiing / wakeboarding	17	0.2	0.4	94.5
Watersports	6	0.1	0.2	94.7
Whitewater rafting	40	0.5	1.1	95.8
Wildlife photography	7	0.1	0.2	95.9
Wildlife watching / bird watching	31	0.4	0.8	96.8
Windsurfing	8	0.1	0.2	97.0
Yoga / meditation	5	0.1	0.1	97.1
Ziplining	110	1.3	2.9	100.0
Total	3798	43.8	100.0	

	No response	4878	56.2		
Total		8676	100.0		
Second response		Frequency	Percent	Valid Percent	Cumulative Percent
	Archery	2	0.0	1.0	1.0
	Backpacking / trekking	4	0.0	2.0	3.0
	Bicycling	6	0.1	3.0	6.1
	Camping	20	0.2	10.2	16.2
	Cross country skiing / snowshoeing	9	0.1	4.6	20.8
	Disc golf	2	0.0	1.0	21.8
	Fishing	11	0.1	5.6	27.4
	Foraging	10	0.1	5.1	32.5
	Geocaching	2	0.0	1.0	33.5
	Golfing	1	0.0	0.5	34.0
	Guided nature walks	1	0.0	0.5	34.5
	Hanggliding	4	0.0	2.0	36.5
	Hiking	7	0.1	3.6	40.1
	Horseback riding	3	0.0	1.5	41.6
	Hunting	7	0.1	3.6	45.2
	Kayaking / canoeing	7	0.1	3.6	48.7
	Motorized boating	6	0.1	3.0	51.8
	Motorized trail use (ATV / dirt bike riding / snowmobiling)	7	0.1	3.6	55.3
	Night sky viewing / stargazing	4	0.0	2.0	57.4
	Orienteering	1	0.0	0.5	57.9
	Other	6	0.1	3.0	60.9
	Parasailing	1	0.0	0.5	61.4
	Pet recreation	1	0.0	0.5	61.9
	Pickleball	1	0.0	0.5	62.4
	Plant viewing / identification	5	0.1	2.5	65.0
	Playing at / visiting playgrounds	1	0.0	0.5	65.5
	Rock climbing	13	0.1	6.6	72.1
	Ropes course	5	0.1	2.5	74.6
	Skiing / snowboarding	1	0.0	0.5	75.1

	Skydiving	3	0.0	1.5	76.6
	Snorkeling / SCUBA	3	0.0	1.5	78.2
	Spelunking	1	0.0	0.5	78.7
	Stand-up paddleboarding	14	0.2	7.1	85.8
	Surfing	1	0.0	0.5	86.3
	Swimming	3	0.0	1.5	87.8
	Target shooting	1	0.0	0.5	88.3
	Team or organized sports	3	0.0	1.5	89.8
	Walking / running	3	0.0	1.5	91.4
	Water tubing	3	0.0	1.5	92.9
	Watersports	1	0.0	0.5	93.4
	Whitewater rafting	2	0.0	1.0	94.4
	Wildlife watching / bird watching	4	0.0	2.0	96.4
	Yoga / meditation	3	0.0	1.5	98.0
	Ziplining	4	0.0	2.0	100.0
	Total	197	2.3	100.0	
	No response	8479	97.7		
Total		8676	100.0		
Third response		Frequency	Percent	Valid Percent	Cumulative Percent
	Archery	2	0.0	7.4	7.4
	Backpacking / trekking	2	0.0	7.4	14.8
	Bicycling	1	0.0	3.7	18.5
	Fishing	2	0.0	7.4	25.9
	Foraging	1	0.0	3.7	29.6
	Geocaching	1	0.0	3.7	33.3
	Hiking	2	0.0	7.4	40.7
	Horseback riding	1	0.0	3.7	44.4
	Ice skating	1	0.0	3.7	48.1
	Kayaking / canoeing	1	0.0	3.7	51.9
	Motorized trail use (ATV / dirt bike riding / snowmobiling)	1	0.0	3.7	55.6
	Other	3	0.0	11.1	66.7
	Rock climbing	2	0.0	7.4	74.1

	Stand-up paddleboarding	1	0.0	3.7	77.8
	Team or organized sports	1	0.0	3.7	81.5
	Walking / running	1	0.0	3.7	85.2
	Watersports	1	0.0	3.7	88.9
	Whitewater rafting	1	0.0	3.7	92.6
	Wildlife watching / bird watching	1	0.0	3.7	96.3
	Ziplining	1	0.0	3.7	100.0
	Total	27	0.3	100.0	
	No response	8649	99.7		
Total		8676	100.0		
Fourth response		Frequency	Percent	Valid Percent	Cumulative Percent
	Camping	1	0.0	25.0	25.0
	Cutting timber	1	0.0	25.0	50.0
	Rock climbing	1	0.0	25.0	75.0
	Wildlife watching / bird watching	1	0.0	25.0	100.0
	Total	4	0.0	100.0	
	No response	8672	100.0		
Total		8676	100.0		

APPENDIX E – COMMUNITY FACILITY INVESTMENT REFERENCES IN NEXT FIVE YEARS, BY SURVEY YEAR

Please rate the level of priority your local community should place on investing in each of the following facilities / infrastructure over the next five years:

		2019			2014		
		#	%	Mean	#	%	Mean
Playgrounds	1- Lowest priority for investment	870	10.7%	3.22	616	9.4%	3.19
	2	1324	16.2%		1068	16.3%	
	3	2443	29.9%		2196	33.6%	
	4	2146	26.3%		1759	26.9%	
	5- Highest priority for investment	1385	17.0%		901	13.8%	
	Total	8168	100.0%		6540	100.0%	
Neighborhood parks	1- Lowest priority for investment	606	7.3%	3.55	428	6.5%	3.45
	2	1003	12.2%		838	12.7%	
	3	2112	25.6%		1950	29.6%	
	4	2283	27.7%		2069	31.5%	
	5- Highest priority for investment	2245	27.2%		1292	19.6%	
	Total	8249	100.0%		6577	100.0%	
Community or regional parks	1- Lowest priority for investment	395	4.8%	3.76	320	4.9%	3.64
	2	727	8.8%		652	9.9%	
	3	1944	23.6%		1697	25.9%	
	4	2509	30.5%		2303	35.1%	
	5- Highest priority for investment	2660	32.3%		1585	24.2%	
	Total	8235	100.0%		6557	100.0%	
Sports fields (e.g., soccer, baseball, lacrosse)	1- Lowest priority for investment	1985	24.3%	2.58	-	-	-
	2	1943	23.8%		-	-	
	3	2347	28.8%		-	-	
	4	1303	16.0%		-	-	
	5- Highest priority for investment	584	7.2%		-	-	
	Total	8162	100.0%		-	-	

Sports courts (e.g., basketball, tennis, pickleball)	1- Lowest priority for investment	1980	24.3%	2.54	-	-	-
	2	2048	25.2%		-	-	
	3	2343	28.8%		-	-	
	4	1271	15.6%		-	-	
	5- Highest priority for investment	499	6.1%		-	-	
	Total	8141	100.0%		-	-	
Community or regional trail systems	1- Lowest priority for investment	201	2.4%	4.23	253	3.8%	4.00
	2	364	4.4%		383	5.8%	
	3	1166	14.0%		1171	17.7%	
	4	2223	26.6%		2096	31.6%	
	5- Highest priority for investment	4391	52.6%		2723	41.1%	
	Total	8345	100.0%		6626	100.0%	
Outdoor environmental educational/nature facilities	1- Lowest priority for investment	392	4.7%	3.76	529	8.0%	3.32
	2	817	9.8%		1017	15.4%	
	3	1908	23.0%		2031	30.8%	
	4	2445	29.5%		1836	27.9%	
	5- Highest priority for investment	2733	32.9%		1173	17.8%	
	Total	8295	100.0%		6586	100.0%	
Community gardens	1- Lowest priority for investment	1360	16.6%	3.04	1147	17.5%	2.90
	2	1518	18.5%		1388	21.2%	
	3	2133	26.0%		1796	27.5%	
	4	1783	21.8%		1359	20.8%	
	5- Highest priority for investment	1398	17.1%		847	13.0%	
	Total	8192	100.0%		6537	100.0%	
Swimming pools/water play parks	1- Lowest priority for investment	1359	16.5%	2.96	1340	20.5%	2.70
	2	1596	19.4%		1587	24.2%	
	3	2433	29.6%		1916	29.2%	
	4	1707	20.7%		1137	17.4%	
	5- Highest priority for investment	1136	13.8%		572	8.7%	
	Total	8231	100.0%		6552	100.0%	

Opportunities for/access to water-based recreation (e.g., boating, kayaking)	1- Lowest priority for investment	324	3.9%	3.72	365	5.5%	3.69
	2	771	9.4%		678	10.2%	
	3	2146	26.0%		1556	23.4%	
	4	2607	31.6%		2098	31.5%	
	5- Highest priority for investment	2395	29.1%		1955	29.4%	
	Total	8243	100.0%		6652	100.0%	
Opportunities for hunting and/or fishing	1- Lowest priority for investment	1296	15.8%	3.29	723	10.9%	3.66
	2	1250	15.2%		808	12.1%	
	3	1811	22.1%		1187	17.8%	
	4	1476	18.0%		1230	18.5%	
	5- Highest priority for investment	2364	28.8%		2703	40.6%	
	Total	8197	100.0%		6651	100.0%	
Off-leash dog parks	1- Lowest priority for investment	2430	30.0%	2.53	2146	32.8%	2.42
	2	1735	21.4%		1491	22.8%	
	3	1949	24.0%		1488	22.7%	
	4	1178	14.5%		848	13.0%	
	5- Highest priority for investment	820	10.1%		570	8.7%	
	Total	8112	100.0%		6543	100.0%	
Mountain bike trails	1- Lowest priority for investment	1102	13.5%	3.05	947	14.4%	3.06
	2	1586	19.5%		1292	19.6%	
	3	2455	30.2%		1822	27.7%	
	4	1744	21.4%		1450	22.0%	
	5- Highest priority for investment	1246	15.3%		1066	16.2%	
	Total	8133	100.0%		6577	100.0%	
Action sports parks (e.g., skate parks, pump tracks)	1- Lowest priority for investment	2561	31.7%	2.37	1793	27.4%	2.58
	2	2022	25.1%		1527	23.4%	
	3	1940	24.0%		1522	23.3%	
	4	995	12.3%		997	15.3%	
	5- Highest priority for investment	551	6.8%		697	10.7%	
	Total	8069	100.0%		6536	100.0%	

Trails/parks for motorized activities	1- Lowest priority for investment	2677	32.5%	2.72	2460	37.4%	2.53
	2	1519	18.5%		1243	18.9%	
	3	1328	16.1%		980	14.9%	
	4	824	10.0%		712	10.8%	
	5- Highest priority for investment	1884	22.9%		1181	18.0%	
	Total	8232	100.0%		6576	100.0%	
Inclusive programs/facilities for persons with disabilities (ADA Access)	1- Lowest priority for investment	463	5.7%	3.59	-	-	-
	2	879	10.9%		-	-	
	3	2267	28.1%		-	-	
	4	2368	29.3%		-	-	
	5- Highest priority for investment	2093	25.9%		-	-	
	Total	8070	100.0%		-	-	
Pavilions, amphitheaters, or other outdoor public space like plazas	1- Lowest priority for investment	1159	14.0%	2.98	-	-	-
	2	1706	20.7%		-	-	
	3	2573	31.2%		-	-	
	4	1745	21.1%		-	-	
	5- Highest priority for investment	1072	13.0%		-	-	
	Total	8255	100.0%		-	-	

APPENDIX F – USING TECHNOLOGY TO AID IN OUTDOOR RECREATION: RE-CODED OPEN-ENDED RESPONSES

How do you use technology to aid in your outdoor recreation? Other, please specify: Re-coded Responses					
		Frequency	Percent	Valid Percent	Cumulative Percent
	App developed for my local area (e.g., county or Pennsylvania)	12	0.1	4.2	4.2
	App or site designed to enhance a specific experience (e.g., plant/animal identification, hunting/fishing, etc.)	101	1.2	35.3	39.5
	Camera for recording or photos (e.g., trail cam or GoPro)	20	0.2	7.0	46.5
	Cell phone for help or emergencies	3	0.0	1.0	47.6
	Cyclocomputer	5	0.1	1.7	49.3
	Fitness app / site (e.g., Strava)	27	0.3	9.4	58.7
	Ham radio	1	0.0	0.3	59.1
	Heart monitor	1	0.0	0.3	59.4
	I use email to collaborate events - I have used forum based in the past as well.	1	0.0	0.3	59.8
	Laser range finder	1	0.0	0.3	60.1
	Listen to music or podcasts	3	0.0	1.0	61.2
	Odometer	1	0.0	0.3	61.5
	Personal locator beacon	2	0.0	0.7	62.2
	Rangefinders	1	0.0	0.3	62.6
	Roll chart	1	0.0	0.3	62.9
	Satellite scouting	1	0.0	0.3	63.3
	Sonar/fish finder	1	0.0	0.3	63.6
	SpotGen tracking device for emergencies	1	0.0	0.3	64.0
	Trail app or site	78	0.9	27.3	91.3
	UDisc	10	0.1	3.5	94.8
	Use internet for buying hunting licenses	1	0.0	0.3	95.1
	Wearable tech (e.g., smart watch)	2	0.0	0.7	95.8
	Weather app	12	0.1	4.2	100.0
	Total	286	3.3	100.0	
	No response	8390	96.7		
	Total	8676	100.0		